



Huron River Report

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1100 North Main Street, Ann Arbor, MI 48104

Winter 2008

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Fun in the Watershed pg 7
Model Governance pg 10

Eradicating Deadly Diseases

A local wetland's role

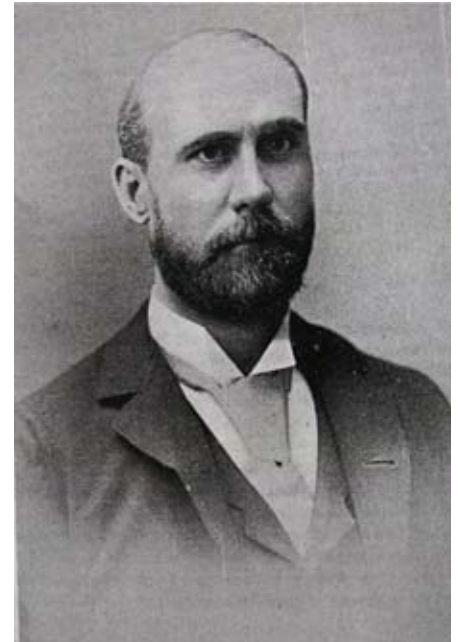
This story begins in an immense area of swamp labeled "tamarack swamp" on the early maps (1835-1840 Houghton-Douglas and Bela Hubbard) of Washtenaw County. This land, the location of the present-day Ann Arbor Airport in Pittsfield Township, included an area known as "Steere's Swamp" near the farm owned by Professor Joseph Beale Steere, a faculty member in zoology at the University of Michigan.

EARLY EXPERIMENTS INVOLVE DRAMA

In the mid-1880s, another University of Michigan faculty member, Professor Henry Sewall, was about to perform one of the pioneering experiments in the field of immunology. The science of immunology grew from the common knowledge that many individuals who survived certain infectious diseases rarely got that disease again, apparently because they were protected by anti-toxins their bodies had produced in response to the toxin that caused the infection. Professor Sewall wanted to

test whether pigeons could be immunized against rattlesnake venom by injecting them with non-fatal doses of the venom. For this study he needed rattlesnakes, and he obtained them from Professor Steere, who captured them in "Steere's Swamp". As noted by Professor Sewall, "By good fortune there was a blessed man in charge of zoology on the campus, Professor J.B. Steere, who had broad experience in South America, I believe. He promised to catch me rattlesnakes in Tamarack Swamp. One day [spring 1887] he came to my laboratory-shack under part of the seats of the upper medical lecture room in the Old Medical Building. Steere brought a gunny-sack from which he emptied on the floor a half dozen massasaugas--little rattlesnakes a couple of feet long."

Frederick Novy, a colleague assisting Sewall, was in the cramped lab space when Steere dumped the snakes on the floor. Novy recalled that one of the snakes "got



Professor Henry Sewall 1887
photo: Johns Hopkins Press 1946

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Crunching the Numbers for the Huron

What our data tells us about the condition of the River and its streams



Honey Creek at Wagner Road has seen significant improvement in stream health since 2002.

photo: D. Chase

Volunteer-collected data is an integral part of HRWC's watershed planning, science, and education programs. Through this data, we are able to determine biological and physical stream health, detect trends over time, and monitor the nutrient condition of our lakes and rivers. In this article, we take a look at this data and what it can tell us of the current condition of the Huron River watershed.

MACROINVERTEBRATE DATA REVIEW

The Adopt-A-Stream program has been active since 1992. Since then, the pro-

gram has grown from monitoring 6 sites with 20 people to monitoring over 70 sites with 110-180 people during each monitoring event. Through the Adopt-A-Stream program, HRWC keeps a finger on the pulse of the stream as volunteers collect aquatic macroinvertebrates and information on the physical habitat of the Huron River and its tributaries.

Collecting macroinvertebrates (loosely referred to as bugs) is important for understanding the health of the stream

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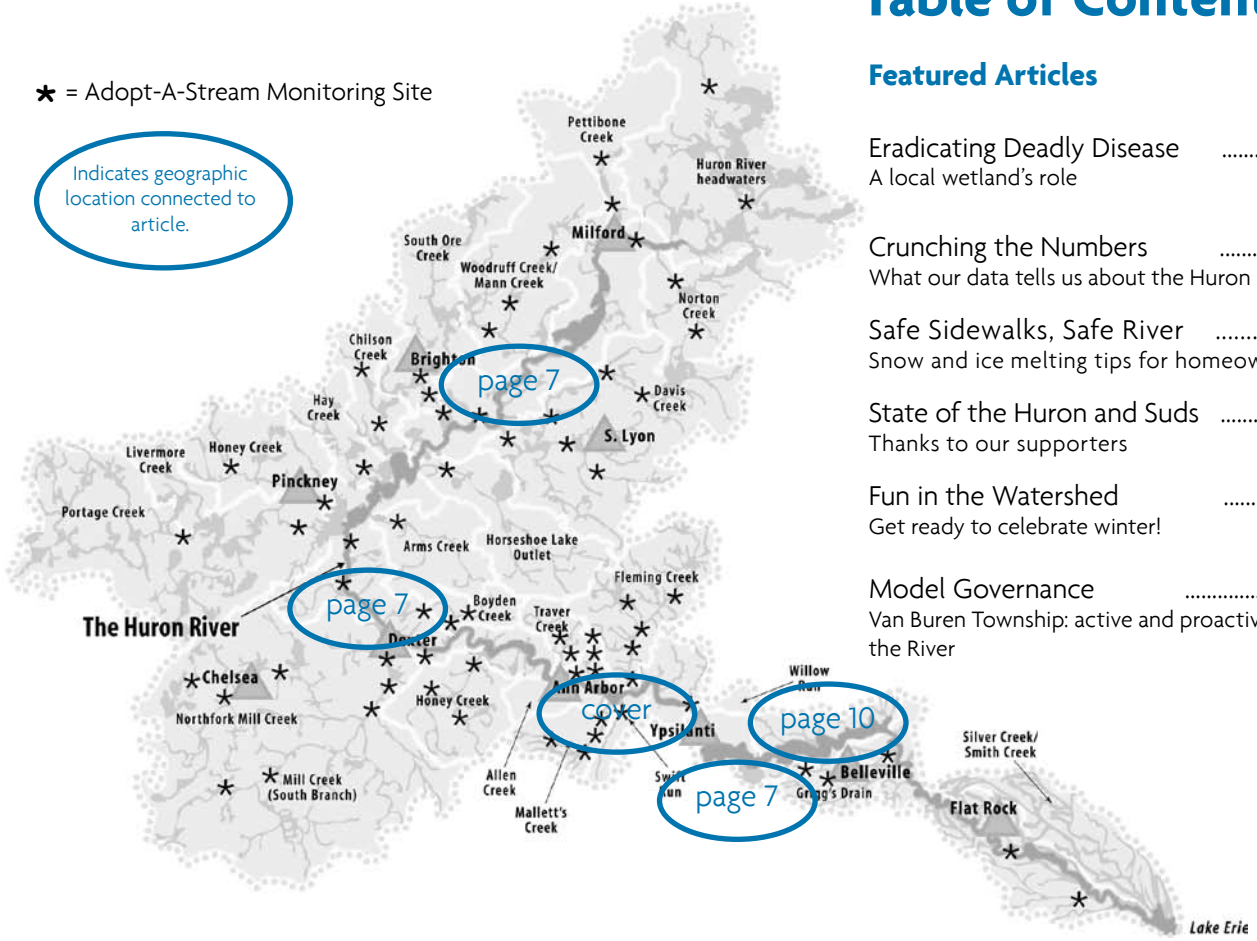
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★ = Adopt-A-Stream Monitoring Site

Indicates geographic location connected to article.



Events

- | | |
|--|---|
| <p>Thursday, December 11, 5:30 P.M.
HRWC Executive Committee
NEW Center
Laura: lrubin@hrwc.org</p> | <p>Saturday, January 31
10:30 A.M - 3:00 P.M. OR
2:00 P.M. - 5:00 P.M.
Stonefly Search
Must pre-register by Jan. 20
Joan: jmartin@hrwc.org</p> |
| <p>Monday, December 22, 5:00 P.M.
Millers Creek Film Festival
Entries DUE
NEW Center
Joan: jmartin@hrwc.org</p> | <p>Friday, March 13, 4:30 P.M.
Millers Creek Film Festival
Michigan Theater
603 E. Liberty in Ann Arbor
Admission is free-of-charge
Joan: jmartin@hrwc.org</p> |
| <p>Thursday, January 22, 5:30 P.M.
HRWC Board Meeting
NEW Center
Laura: lrubin@hrwc.org</p> | <p>Saturday, April 4, 2:00 - 5:00 P.M.
Bug Collector Training
NEW Center
Joan: jmartin@hrwc.org</p> |
| <p>Thursday, January 22, 4:30 P.M.
Portage Creek Public Meeting
Dexter Township Hall
6880 Dexter-Pinckney Road
Elizabeth: eriggs@hrwc.org</p> | |

More events and updates on the web at: www.hrwc.org
HRWC offices are located at the NEW Center
1100 N. Main Street in Ann Arbor
Call (734) 769-5123 or visit the HRWC website for directions

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Preparation now keeps your barrel from freezing and breaking

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Eradicating Deadly Diseases

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loose. I think we broke all records in reflex action. Then, from our perches, we deliberated how to recapture the snake.”

The success of Professor Sewall’s experiments in 1887 sparked a successful effort by the French physician and bacteriologist, Leon Charles Albert Calmette, and his colleagues at the Pasteur Institute to develop an anti-toxin for diphtheria. Diphtheria, a highly contagious disease characterized by swelling in the throat and neck that obstructs the breathing pathway, was a major killer of children at that time.

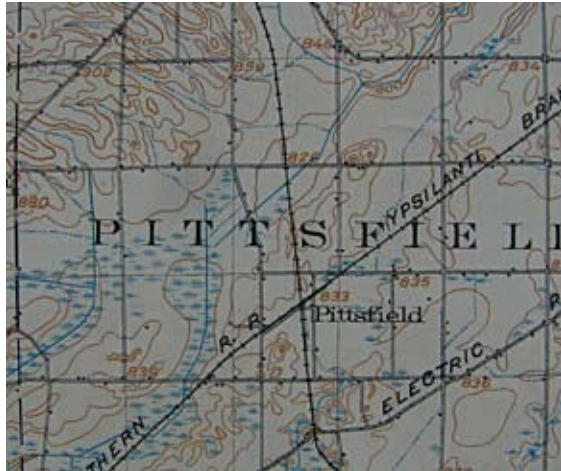
THE FRENCH VISIT ANN ARBOR

Dr. Calmette so appreciated Sewall’s work that he visited his lab in Ann Arbor. As recounted in 1908 by Professor Victor Vaughan, a colleague of Sewall’s in the Michigan Medical School, “...I received a call from a delegation of learned Frenchmen who introduced themselves by saying that they had journeyed to Ann Arbor to see the place where Henry Sewall had demonstrated that pigeons could be immunized to the venom of the rattlesnake, because they said that work had pointed out the way to the discovery of diphtheria anti-toxin.” Calmette also produced an anti-cobra serum in 1895 for therapeutic use that would revolutionize the treatment of snakebite worldwide.

We often hear of the benefits of biodiversity to medicine, and we tend to think of these resources existing in the tropics



“Emily” is a fine example of the Eastern Massasauga. photo: T. Beauvais



The Steere property lies between the two Ts in the large Pittsfield lettering for the township name. Whitmore’s Creek (now known as Swift Run) starts just south of Packard; the swampy area on the north side of Packard would be in the current Pittsfield Village apartment complex. What is now Washtenaw Avenue is at the top right corner of the map.

credit: Ann Arbor Folio, U.S.G.S. 1915 (surveyed 1901-1902)

primarily or some other equally exotic locale. In this case, it was a southeastern Michigan wetland, a small Midwestern rattlesnake (plus a few pigeons) and a pioneering University of Michigan physiologist that are recognized widely for their roles in one of the seminal studies in the field of immunology. Professor Sewall is memorialized in a plaque placed in the Medical School in 1933. It is currently in the Med Sci II Building on the 7th floor.

SNAKES AND WETLANDS

The reptilian hero of this story is not as common as it was back in the days of Professors Steere and Sewall. Eastern Massasaugas depend upon wetlands for their homes, especially for places to hibernate from October until April. For their hibernacula (locations for hibernating), they commonly occupy crayfish burrows

that go down deep enough to be below the frost line and also contain water. In the absence of crayfish burrows they can burrow into sphagnum mounds in bogs and swamps and also in the roots of trees growing in such wetlands.

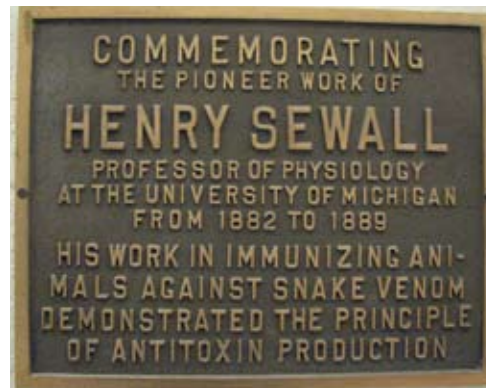
In pioneer days, permeable surface was widespread and acted like a sponge holding a great deal of water. Heavier forest cover also retarded evaporation, and water tables were possibly as much as six feet higher than they are today. However, as the water table was drawn down in southeastern Michigan, suitable habitat for hibernacula was reduced drastically.

Nowadays, massasaugas can still be found in our area, but not in the large numbers common in the 19th and early part of the 20th century. You might read of one being seen (and almost invariably killed) near

the edge of a golf course, but you won’t hear about a farmer killing 50 in a single season of haying. The headwaters of the Huron River constitute a wetland habitat that still contains massasaugas. There is a tamarack swamp, good massasauga habitat, on the north side of White Lake Road where the head-

waters stream crosses beneath the road, near the Indian Springs Metropark.

— Tom Beauvais



In 1933 a plaque was placed on the wall of the Medical School. It is now in the Med Sci II building on the 7th floor. photo: T. Beauvais

Tom Beauvais is a geographer who has been doing natural history research for over 20 years. He is currently working on a manuscript about the historic geography of the Eastern Massasauga.

Crunching the Numbers for the Huron

continued from cover

system. Typically, the more families of macroinvertebrates found, the healthier the stream. The absence of bugs may indicate a problem that requires closer inspection. Measuring habitat is useful in two ways. First, it informs HRWC's interpretation of the insect data, helping to explain the insect diversity. Second, it also can reveal problems, such as unstable banks, that need addressing.

Dr. Mike Wiley, professor of aquatic ecology from the University of Michigan, has developed a modeling method that enables HRWC to classify stream sites as excellent, good, fair, and poor in terms of their overall insect diversity and physical habitat health. This method reveals changes in the streams over time.

The results of this modeling procedure are listed in the box inset. There is not room in this article to talk about every stream, but the ratings offer general information regarding the health of various monitoring sites. Not all streams monitored by HRWC are listed because some are so new that there is not enough data on them to draw conclusions.

Three sites in the watershed deserve special attention. The mainstem of the Huron River near White Lake Road is in Oakland County, toward the most upstream headwaters of the watershed. Due to the excellent habitat and diverse insect community, this site is hands-down the best place in the watershed that HRWC monitors and is one to be treasured and protected. Honey Creek at Wagner Road in Washtenaw County is a special site because its health has increased dramatically in the past six years. In 2002, this

Biological and Physical Ratings of the Adopt-A-Stream Monitoring Locations

Excellent

- Chilson Creek: Chilson Road
- Fleming Creek: Warren Road
- Hay Creek: M-36
- Huron River: Near Mouth
- Huron River: White Lake Road
- Mann Creek: VanAmberg Rd.
- S Br. Huron River: Silver Lake

Good

- Boyden Creek: Delhi
- Honey Creek: Darwin Rd.
- Honey Creek: Wagner
- Hummocky Lick: M-36
- Huron River: Zeeb Rd.
- Mill Creek: Manchester Rd.
- Pettibone Creek: Livingston Rd.
- Portage Creek: Dexter-Townhall
- South Ore Creek: Bauer Rd.
- South Ore Creek: Hamburg Rd.
- Traver Creek: Dhu Varren Rd.
- Woodruff Creek: Buno Rd.
- Woods Creek: Near mouth

Fair

- Arms Creek: Walsh Road
- Boyden Creek: Golf Course
- Boyden Creek: Huron River Drive
- Chilson Creek: Brighton Rd.
- Davis Creek: Doane Road
- Davis Creek: Pontiac Trail
- Fleming Creek: Bot Gardens
- Fleming Creek: Geddes Rd

Fair (continued).

- Fleming Creek: Radrick Farms
- Horseshoe Creek
- Huron River: Bell Rd.
- Huron River: Commerce Rd.
- Huron River: Proud Lake Rec. Area
- Mill Creek: Fletcher Rd.
- Mill Creek: Letts Cr. At M-52
- Mill Creek: Jackson Road
- Pettibone Creek: Commerce Rd.
- South Ore Creek: Lake Ridge Rd.
- Woodruff Creek: Maxfield Road.

Poor

- Greenoak Creek: Rushton Rd.
- Honey Creek: Pratt Rd.
- Huron River: Cross Street
- Huron River: Flat Rock
- Mallets Creek: Chalmers
- Mallets Creek: I-94
- Mallets Creek: Main Street
- Mallets Creek: Scheffler
- Mill Creek: Klinger Rd.
- Miller's Creek: Glazier Way
- Millers Creek: Baxter Rd.
- Millers Creek: Hubbard Rd.
- Millers Creek: Plymouth Rd.
- Norton Creek: Loon Lake Outlet
- Norton Creek: West Maple Rd.
- Port Creek: Armstrong Rd.
- Portage Creek: Unadilla
- Swift Run
- Traver Creek: Broadway

site had a rating of "poor". In 2008, the health of this stream has increased to the "good" range. A tributary of Millers Creek near Baxter Road in Washtenaw County has the unfortunate distinction of being labeled as the worst site in the watershed. This location has a very poor insect community and terrible habitat conditions, including poor water flow and highly eroded stream banks.

A different model was used to examine how the habitat of a stream affects the insect community. The effect of impervious surface on insect diversity is particularly interesting. This analysis shows that for every 10% increase of impervious surface in a stream's watershed, three insect families, including one sensitive family and one family from the mayflies, stone-

flies, or caddisflies, will be lost. Millers Creek at Baxter Road has 51% of its watershed as impervious surface, which helps to explain why the site has such a poor insect community.

MIDDLE HURON WATER QUALITY TRENDS

HRWC staff and volunteers have also collected nutrient and flow data for tributaries in the middle Huron since 2002. This data, along with a number of other water quality parameters, are collected for the Middle Huron Partnership Initiative to track progress toward reduction of phosphorus in Ford and Belleville Lakes. The lakes are currently listed as impaired and regulated by a Total Maximum Daily Load (TMDL).

In addition to the tributary data, several other data sets were collected that provide

additional insight into water quality trends in the middle watershed. The MDEQ collected water quality data from sites on the main river and in both lakes from 1994 through 2006. Additionally, Dr. John Lehman, professor of limnology at the University of Michigan, and his team have collected detailed nutrient data from a number of river and lake sites for a study of nutrient dynamics in Ford Lake. He also has collected new data at the request of the City of Ann Arbor this year to help assess recent changes following implementation of the Phosphorus Fertilizer Ordinance.

These projects yielded several key findings. First, phosphorus concentrations (the amount of phosphorus in the water at a

continued on next page

Safe Sidewalks, Safe River

Think of the Huron River: snow and ice melting tips for homeowners

Because everything we throw down on our sidewalks, steps and driveways this winter impacts our surface waters, soil, and groundwater, keep these tips in mind . . .

SHOVEL EARLY AND OFTEN

Limit your use of sand, salt and deicing chemicals. Snow and ice removal is best done with a shovel or snow plow. Sand, salt and chemical deicers wash into our waterways directly or through the nearest storm drain.

CONSIDER A DEICER

Deicers can be environmentally better than salt (sodium chloride) for keeping heavy traffic areas safe. Magnesium chloride is a good choice as it is much less toxic to plant life and less corrosive to concrete and steel (and other iron alloys) than sodium chloride. Be sure it does not contain rust inhibitors with phosphorus.

CHECK THE LABEL

Choose a deicer that fits your location and the weather conditions. Each kind works best at certain temperatures. Also consider the deicer's impact on nearby

plant life, concrete, vehicles, shoes, pets, carpets and any associated health hazards. For example, calcium magnesium acetate works in warmer temperatures and is subject to dilution and re-freezing, while calcium chloride is corrosive to metal and can leave residues that harm carpet, tile and shoes. Potassium acetate lowers oxygen levels in bodies of water and urea-based products contain large amounts of nitrogen, are expensive, and perform poorly below 20 degrees Fahrenheit. Both are best avoided altogether from a water quality standpoint.

BUY EARLY, BEFORE THE SNOW FALLS

Purchasing your deicer in advance means you will have more river-friendly choices available at your local yard and garden or hardware store.

APPLY EARLY AND SPARINGLY

Use as little as needed to get the job done. Consider applying a liquid deicer before a storm hits to prevent ice from forming in the first place rather than using granules after to melt ice that has hardened. Watch the weather reports for storm predictions

and time your application to minimize the possibility that the liquid deicer will wash off in the rain.

TAKE CARE

Promptly remove slush and residual salt, sand or deicer from concrete surfaces to minimize polluted runoff and damage to concrete.

Remember: applying a deicer to your sidewalks and driveways involves balancing between a need for safety, potential environmental impacts, costs and convenience.

— Pam Labadie

Resources: Mother Earth News, December/January 2003, "Safer De-icing Chemicals"; Lindsey Hodel; Center for Watershed Protection, "Snow Road Salt, and the Chesapeake Bay"; Tom Schueler; and Studies of Environmental Effects of Magnesium Chloride Deicer in Colorado, Prof. William M. Lewis, November 1999.



Shoveling can be fun!
photo: HRWC

Crunching the Numbers for the Huron

continued from previous page

point in time) have decreased in tributaries and the Huron River. Recent concentrations were considerably lower (by 25-30%) than 2003-04 levels. Still, phosphorus concentrations in the lakes have not changed and remain above the TMDL. Phosphorus loading (the total amount of phosphorus moving through the system) has not changed much either. Finally, Dr. Lehman's studies show that the impoundments act as phosphorus sinks and store the nutrient in sediments. Phosphorus is being released in large concentrations when the lakes stratify by temperature in the summer. Keeping the lake mixed and the bottom oxygenated can reduce this effect considerably.

STATE OF THE HURON

The analysis of the insect and habitat data shows two important things. First, almost

all of the sites have had stable health over the past decade. Only a few sites are getting better or worse. Remarkably, despite the pressures of development and impervious surface increase, the Huron River has maintained its quality over time. Second, Adopt-A-Stream data shows that the majority of streams in the watershed are classified as "fair" or "poor", which indicates a degraded condition. So while the sites are stable, they are still less healthy than is desirable.

For the middle Huron, local efforts to reduce phosphorus concentrations in the river appear to be successful. While this is very encouraging, these reductions have yet to result in reductions in phosphorus concentrations in Ford Lake. There may be methods to address phosphorus concentrations in the Lake directly, such as the

release of water from the bottom of the dam to keep the Lake mixed and oxygenated. Further work is needed to draw site-specific conclusions and to determine if these results can be applied across the watershed in other areas where over-nutrication is a concern.

HRWC will continue to place an emphasis on collecting quality data. This ongoing effort depends on the activism of HRWC Adopt-A-Stream volunteers. The data collected allows for an in-depth understanding of what is happening throughout the watershed and helps HRWC prioritize protection and restoration efforts.

Special thanks go to all of those who helped over the years! We would not have this knowledge without you.

— Paul Steen and Ric Lawson

The great success of this year's **SUDS ON THE RIVER** and **2008 STATE OF THE HURON CONFERENCE** was made possible by the following supporters, committed to clean water and HRWC. We thank them for their support and commitment to our community.



2008 Suds on the River Sponsors

Anthony's Gourmet Pizza	Pacific Rim
Arbor Brewing Company	People's Food Cooperative
Bennigan's	Prickly Pear
Café Habana	Tios
Grizzly Peak Brewing Company	Tom Thompson Flowers
Jerusalem Garden	Tuptim Thai Cuisine
Jolly Pumpkin Artisan Ales	Whole Foods Market
KeyBank	Wolverine Beer
Morgan & York	Zanzibar's
No Thai!	

Volunteers who made our 2008 SUDS on the RIVER a great success include Lynette E. Cable at KeyBank, hosts Paul Courant and Marta Manildi, photographer Al Wooll, Ingrid Ault, Steve Bean, Chris Benedict, Eunice Burns, Pat and Paul Cousins, Jen Fike, Jennifer Gough, Julia Henshaw, Pam Labadie, Ric Lawson, Paul Steen, John Lloyd, Colleen Jenkins, Jill Money, Marlene Ross, Brigit McGowan, Rosalie Meiland, Mark Erskine, Cynthia Radcliffe, Nate Hill, Lynn Vaccaro, Blair Treglown, and Ron Sell.

2008 State of the Huron Conference

AAPAC	Oakland County Drain Commissioner
Appel Environmental Design	Plantwise, LLC
Carlisle Wortman Associates, Inc.	Scott E. Munzel PC
CDM Michigan Inc.	Toyota Technical Center, USA, Inc.
Conservation Design Forum	URS
City of Ann Arbor	Wade-Trim
DTE Energy	Washtenaw County Drain Commissioner
ECT Inc.	Washtenaw County Community College
Hobbs & Black Architects, Inc.	WaterScape, Inc.
JF New & Associates, Inc	Wayne County Drain Commissioner
JJR	
Kolossos Printing	
LimnoTech, Inc.	
Livingston County Drain Commissioner	
Magellan Properties LLC	
NTH Consultants, Ltd.	

Thanks to Jean Steppe and Steppe Solutions who ensured the conference ran smoothly, and to Al Wooll, Cynthia Radcliffe and Elsie Orb for their assistance.



Fun in the Watershed

Get ready to celebrate winter in the great outdoors!

Sledding, tobogganing, cross country skiing, ice fishing, ice skating and ice hockey. What about snowshoeing, winter geocaching or taking a polar bear plunge? And don't forget winter canoeing, downhill skiing, snowboarding, snowball fights and snow fort building. Remember what it was like to anticipate the first snow with child-like glee? Here are few things to do in the watershed as the snow flies . . .

ICE FISHING

Department of Natural Resources **Free Fishing Weekend** is February 14-15. Enjoy one of Michigan's premiere outdoor activities, fishing, for FREE! All fishing license fees will be waived for two days. All fishing regulations will still apply. Go to www.michigan.gov/dnr, and click on "Fishing" then "Free Fishing Weekends" for details. Take advantage of the Free Fishing Weekend at Washtenaw County's **Fifth Annual Independence Lake Ice Fishing Derby** February 14. Registration begins at 7am, and the competition ends at 5pm. Winners get Gift Cards from local sponsors. Entry fee (TBD) includes hot dog, chips and soft drink for lunch. www.ewashtenaw.org/government/departments/parks_recreation.

POND HOCKEY

Michigan Pond Hockey Classic 2009 on Whitmore Lake, February 6-8. Players come from across the US and Canada to participate. The inaugural 2008 tournament delivered what all hockey fans love about the game: fast paced, wide-open, non-stop action! A hospitality tent with a

live band and an hourly raffle of hockey-related prizes also provided spectators with entertainment. Organizers expect the 2009 event to be equally fun. www.michiganpondhockey.com.

POLAR PLUNGE

Go for an icy swim at Belleville Lake, February 14. 'Bear' the elements at the Belleville Moose Lodge in an event open to all courageous and community-minded individuals willing to plunge into the cold water and raise critical funds for Special Olympics Michigan. www.somi.org/events.php.

SLEDDING, TOBOGGANING, CROSS COUNTRY SKIING, ICE FISHING, ICE SKATING AND HOCKEY

Oakland County Parks -- www.oakgov.com/parksrec. Click on "Activities" for a comprehensive schedule of wintertime activities including ice fishing, snowshoe and ski schools and other special events. Just outside the shed, Oakland County's **Waterford Oaks County Park** is home to "The Fridge," Michigan's only refrigerated toboggan run. It boasts a 55-foot drop along 950 feet allowing for speeds up to 30 miles per hour. Lookout Lodge, complete with fireplace, concessions and viewing areas provides a place to warm up.

Washtenaw County Parks -- www.ewashtenaw.org/government/departments/parks_recreation lists links to specific parks or activities. Notably featured is **Rolling Hills County Park** in Ypsilanti. With more than 150 acres of rolling terrain

Rolling Hills offer spectacular natural trails to tube, toboggan and sled. Tubes and toboggans are available for rental. A lodge features a cozy fireplace for warming up.

Wayne County Parks -- www.waynecounty.com/parks/ winter activities featured on the website include the **Wayne County LightFest 2008**,



Sled in the 'shed. photo: HRWC

identified as the Midwest's largest holiday light show along Hines Drive, November 20 - January 1; outdoor ice skating at Elizabeth Park in Trenton; and sledding at the Cass Benton Area of Hines Park, along Hines Drive near Inkster Road, and at Middlebelt Hill.

Hudson Mills, Huron Meadows, Indian Springs, Kensington, Lake Erie, Lower Huron, Willow . . . almost every **Huron-Clinton Metropark** in the watershed offers a variety of winter recreation opportunities. Activities and facilities vary by park, but generally include cross country skiing trails and rentals, ice fishing, rinks for ice skating and ice hockey, sledding and tobogganing. Check the Huron-Clinton Metropark website at www.metroparks.com for specifics. There you can choose listings by park or select an activity to identify the parks where that activity is offered.

State Recreation Areas -- Pontiac Lake, Highland, Proud Lake, Island Lake, Brighton, Gregory, Pinckney and Waterloo and **State Parks** - Lakelands Trail and Maybury - all offer cross country skiing and fishing. Go to the Department of Natural Resources website www.michigan.gov/dnr and click on "Recreation, Camping & Boating" to get to the page with the Michigan park and trail map and to find listings of seasonal recreation opportunities and information.

— Pam Labadie

Special thanks to Larissa Herrera who helped with the research on this article.



With the right gear, winter paddling can be beautiful and enjoyable. photo: HRWC files

Know Your Board Representative

Gene Farber, West Bloomfield Township

In reading his HRWC newsletter, Gene Farber noticed that West Bloomfield Township did not have a representative. Because of his belief that it was important that his township be represented, and because of his interest in environmental issues, he asked to be appointed to the HRWC Board. He has been a member since 2006 and serves on the Finance Committee.

Gene attended the University of Michigan and earned BA and JD degrees. He clerked for the Michigan Supreme Court for two years and has been in private practice since 1975. His wife, Susan, is principal at Rawsonville Elementary in the Van Buren Public Schools. He has three daughters: Beth, a psychologist; Jennifer, an elementary teacher; and Emily who graduates in

December from the University of Michigan with a MSW specializing in gerontology.

Gene is the chair of the West Bloomfield Planning Commission and finds that environmental concerns are always at the top of the agenda with water quality of increasing concern throughout the township. West Bloomfield Township has more lakes than any other township in the state and is third in the nation for the number of lakes in a township.

If you have questions, concerns, or suggestions regarding watershed issues or you wish to become involved in stewardship for the Huron River, call Gene at (248) 851-1999 or call HRWC at (734) 769-5123.



Gene Farber has served on the Board for two years. photo source: G. Farber

— Eunice Burns

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Laura's "Stream" of Consciousness

An update on HRWC projects and activities

STATE OF INSPIRATION

I was inspired by our recent State of the Huron Conference and the visit of Herbert Dreiseitl. Nearly 200 people attended the conference on September 24th. Herbert Dreiseitl, the keynote speaker, inspired us with his creative examples combining stormwater, art, and urban revitalization. The buzz after his talk was electric, and attendees felt excited and invigorated to try Dreiseitl's examples in our watershed.



Rain water wheel on school photo: Atelier Dreiseitl

The quality of the 20 breakout session presenters was excellent, and the sessions were well attended and interesting. Following a lunch of locally-sourced pasties and soup, Paul Steen, HRWC scientist, presented the findings from an analysis of HRWC's 10 years of monitoring (see lead story). Four breakout sessions followed and we wrapped up with cider and donuts. The audience was diverse; volunteers, locally elected officials, environmental and planning consultants, academics, landscape architects, government officials and staff, and HRWC members attended. Overall, lots of ideas were exchanged, success stories shared, new ideas sparked and a committed and diverse group of people was strengthened.

During Herbert Dreiseitl's four-day visit to the Huron River Watershed, he enchanted audiences with more examples of creative stormwater management combined with art, education, and urban centers. He showed pictures of revitalized urban plazas and downtowns, interactive and fun school designs capturing stormwater, beautiful artwork using stormwater and

grey water; and he elaborated on the incredible social, economic, and personal benefits of well-thought out and artistically designed public places. He visited future development sites and parks and provided ideas and drawings.

MORE ON DAM REMOVAL

A 1995 DNR Fisheries study that guides prioritization of dam removal lists the top three priorities for removal in the Huron River Watershed as the Dexter Dam at the Mill Pond, Argo Dam in Ann Arbor, and Peninsular Dam in Ypsilanti. With the successful removal of Dexter Dam, we are energized to remove the two other dams.

Neither of these dams provide hydro-power, nor do they serve as flood control dams. They are operated as run of the river, which means that what comes in goes out (like a big bathtub). Rather than help control or minimize flooding, these dams are greater safety hazards as they age. If they fail, they potentially could flood residents and businesses downstream.

The Dexter Dam at the Mill Pond is gone. Please visit the site. The stream is cutting a new channel and the upstream area is filling in as a beautiful floodplain and future park. The contractors struggled with the large amounts of sediment and some unexpected "disappearance of the stream and downstream bubbling up," but all in all it is returning to a more natural meandering channel connected to a floodplain.

The next dam downstream is Argo. The City of Ann Arbor is leading a public process to consider the management of the river, mainly Barton, Argo, Geddes, and Superior Ponds. With Argo Dam, the City of Ann Arbor is facing some large costs to repair the toe drain (the land area between the mill race and the river) and mounting operation and maintenance costs. To date, Ann Arbor water users pay the brunt of these costs. But the rowing community uses the impoundment regularly. We want to keep rowing in the City of Ann Arbor but find another impoundment for rowing.



Detail: rain water wheel on school photo: Atelier Dreiseitl

Balancing the needs of the rowing community with the ecological and economic benefits of removal is the tricky part in this drama.

Peninsular Dam lies further downstream in Ypsilanti. HRWC is just starting discussions with the City of Ypsilanti about removal options and teaming up with the City of Ann Arbor, Washtenaw County, and other partners to talk about conducting some feasibility studies on Argo and Peninsular Dams concurrently.

I realize when I talk about dam removal many people envision a stinky, muddy flat where the pond used to be. I picture beautiful wetlands and floodplains mixed with parks, paths, and benches along a free-flowing, fast, and cool river. A preliminary study of Argo Dam removal showed the City of Ann Arbor could reclaim an estimated 50 acres of potential parkland if the dam is removed. Whether it's a great stretch to canoe or kayak, a nice place to walk, sit, run or bike, dam removal will change the view of the river for us all. Restoring the river will add attractive amenities to our communities, improving the quality of the life in the area and the quality of the Huron River.

— Laura Rubin

Model Governance

Van Buren Township: active and proactive for the Huron River

Among the many member governments in the Huron River Watershed, Van Buren Township stands out as a model of proactive initiatives benefitting the Huron River and residents for generations to come. The Township is looking ahead, led by the Van Buren Township Environmental Commission, a seven-member citizen group that advises the Township Board on environmental matters. The Environmental Commission has created and proposed development guidelines for the Belleville Lake shoreline as well as fertilizer use guidelines for Township residents.

In addition, the Township is sampling Belleville Lake on a weekly basis for a comprehensive nutrient study of Ford and Belleville Lakes, directed by Dr. John T. Lehman, with the University of Michigan Department of Ecology and Evolutionary Biology. The Township has been a partner in this study for the past three years.

Van Buren Township's regulatory efforts on environmental matters include a Woodlands and Tree Preservation Ordinance and a Planned Residential Development (PRD) (aka "cluster housing") Ordinance. Through the PRD Ordinance, the Township requires 30% open space and encourages Best Management Practices such as native plant buffers along streams and drains, refore-

station areas, and meadow plantings in a way that preserves open space and stormwater treatment while keeping maintenance low. The Parks and Recreation Department recently completed a park development project at Riggs Heritage Park that incorporated storm water infiltration basins, native plantings and meadow restoration plantings; the pavilion and comfort station is completely powered by solar roof panels and solar water heater. Visit this innovative park at the intersection of W. Huron River Drive and Martinsville Road.

Van Buren Township has also been an active partner with other communities in the region. Township staff have contributed to development and implementation of



The Pavilion at Riggs Heritage Park features stormwater filtration practices and solar panels. In the same park, the infiltration basin is surrounded by meadow plantings. photo: Van Buren Township

watershed management plans upstream in the middle Huron and downstream in the lower Huron. Finally, the Township has encouraged public involvement with the Environmental Commission and by supporting local initiatives like the Woods Creek Friends. In all, Van Buren Township has made great strides to show that they value Huron River resources and are working to protect them.

— **Margaret Smith** and **Ric Lawson**

Enter the Millers Creek Film Festival

Films, fun and prizes highlight water resources

HRWC is seeking short films and public service announcements for its Third Annual Millers Creek Film Festival 2009.

A new contest format has been developed this year. Filmmakers can choose the traditional option of making a film showing the human connection to the Huron, or they can go with the new option of making a film that incorporates at least one of six HRWC messages for protecting the Huron River watershed somewhere in their film -- no restrictions on topic. Of course, for either the short film or PSAs any genre or style is welcome.

Maybe you have a hilarious idea for a romantic comedy short? A blind date who's obsessed with water pollution. Or an action short? Kidnappers who are impressed by their victim's use of rain barrels and rain gardens. The sky's the limit. "Whatever your short film is about, we think there's a place in it for one of our messages. Think of it as a form of environmentally conscious product placement," says Joan Martin, festival organizer.

The three categories are: Short Films (under 5 minutes), Short Films School-Age, and 30-second public service announcements. Filmmakers may enter as an individual or a group, all ages and experi-

ence levels are welcome. Winners of each category will receive \$500 and their films will be shown at a gala public screening at the Michigan Theatre in Ann Arbor on March 13, 2009. HRWC will also use the films and PSAs in its public education and outreach efforts.

Entries are due to HRWC by December 22, 2008. For the six HRWC messages and other details go to www.hrwc.org/film festival or contact Joan Martin at jmartin@hrwc.org.

— **Pam Labadie**

Winterize Your Rainbarrel

Preparation now keeps your barrel from freezing and breaking

THANK YOU to everyone who purchased a rain barrel (or two, or three) through our Fall 2007 and Spring 2008 distribution program. You have provided homes for 1,200 rain barrels, which allows for the potential storage of 72,000 gallons of water each time it rains. When you use this water for your garden you save money and help the Huron River.

- Remember, your rain barrel prefers to be kept warm and dry to hibernate during the winter months. To prevent it from buckling or cracking due to cold weather contraction, empty your rain barrel of all excess water and store it in your shed, garage or basement. Don't forget to store garden and soaker hoses, too.
- If inside storage is not available, remove your barrel from under the downspout and turn it upside-down

to keep it clean and dry. Prevent water from pooling in the upside-down spigot by taping over or securing a plastic bag around the spigot opening. Weigh down the rain barrel to prevent it from blowing over.

- Reattach your downspout and downspout elbow to direct water away from your foundation during the winter months. Use those pieces of the downspout you removed when installing your rain barrel.

When freezing weather is safely behind us, bring out and re-install your rain barrel. More rain barrel care and feeding tips and resources can be found at www.hrwc.org/



Time to drain your barrel in anticipation of winter.
photo: HRWC



Photo: Jeff Oleksinski

Fulfilling Goals

Leave a legacy by including the Huron River Watershed Council in your will and estate plans. Please remember HRWC and our important watershed protection and restoration programs with a generous bequest in your will or trust. Help us meet the challenges of keeping our river running clean. If you have already included HRWC in your will, please let us know so we can thank you. With your support the watershed will be enjoyed for many generations to come.

Please contact us to discuss planned giving options.
Margaret Smith, Development Director.
(734) 769-5123 x 19, msmith@hrwc.org

*Every individual has a role to play.
Every individual makes a difference.*

Your membership supports HRWC programs. Send us this membership form with your check made out to "HRWC" or join on-line at www.hrwc.org and click on Join Now! Your contribution is tax-deductible.

MEMBER LEVELS

- \$35 **Mayfly**
- \$50 **Crayfish**
- \$100 **Dragonfly**
- \$250 **Soft Shell Turtle**
- \$500 **Salamander**
- \$1,000 **Smallmouth Bass**
- \$2,500 **Great Blue Heron**
- \$5,000 **Mink**

thank you!

Name _____

Address _____

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



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Thanks to Our Volunteers!

Protecting the Huron 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:**

Jenny Kerber, Ann Arbor high school senior, who spent her summer with us doing data entry, and working with many HRWC staff members on various projects.

Carol Kerber who made a most delicious walnut torte for the Geocache Picnic.

Dave and Sharon Brooks, Edward and Marilyn Couture, Don Rottiers, Esther Rubin, Jana Smith, Mike Steele and Norma Wade for their efficient work in setting up the gear and putting it away again for both the RoundUp and the ID Day.

Beverly Black, Roberta Carr, Rosalie Meiland, Kathy White and Susan Wooley for so competently staffing the Fall RoundUp.

Jenny Miller, Lee Burton, Roberta Shaw-Reeves, Patty Cosgrove, Patti McCall, Jesse Gordon, Alison Rauss, Michele Eickholt, Lee Green, John Stanavich, Foster Lawson and Althea Lawson for collecting water and flow samples at sites throughout the Middle Huron.

43 volunteers who trained and then studied the stream habitat at 16 stream sites.

One hundred and ten volunteers who conducted the Fall RoundUp at 40 stream sites with the expert help of aquatic entomologists **Jo Latimore** and **Theresa Scherwitz**.

Dick Knopf, Bob Nester, Don Rottiers, and **Gary Hochgraf** for measuring stream flow in Portage Creek.

Bob Allen, Keith Tianen, Andrea Kline, Paul Evanoff, Ron Sell, Kurt Roy-Borland, Fran Laird, and Kim Breeding for wading, canoeing and kayaking Portage Creek this spring and summer as they performed stream assessments on the creek.

Suds on the River and **State of the Huron** were both a great success! Please see page 6 for more detail about the supporters and volunteers who generously donated their resources and time.