Huron River Report

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Winter 2010

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Bioreserve Quiz pg 7

Rain, Rain, Don't Go Away

HRWC wraps up a successful project on Millers Creek

Millers Creek ripples down an unusually steep channel in northeast Ann Arbor, rests in the ponds of Geddes Lake and slowly meanders in a large wetland prior to flowing into the Huron River. It is small but powerful, includes several small lakes and flows through beautiful forest fragments and wetlands. However, parts of the land draining to the creek are heavily urbanized. Whenever a substantial amount of rain falls or snow melts, the small stream rapidly becomes a torrent. The storm pulse of water scours the stream banks, moves large rocks in the stream bed, and in general disturbs the stream habitat and makes it difficult for fish and insects to live in the creek.

CHALLENGES FOR MILLERS CREEK

There are three main causes of problems on Millers Creek. First, the creek naturally has a very steep gradient, which means

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Third grade students at Thurston Elementary School in Ann Arbor help plant a rain garden on school grounds. photo: HRWC

Underneath the Huron

Oil and gas pipelines run under the watershed

Several recent disasters — the massive oil rupture in the Gulf of Mexico, the 800,000 gallon spill into the Kalamazoo River in Marshall, Michigan, the natural-gas pipeline explosion in a residential area in San Bruno, California, and other accidents have raised questions for many Huron residents about the environmental impacts of oil and gas drilling and pipelines.

Were the incidents in Marshall and San Bruno once-in-a-lifetime flukes or just the largest of a series of incidents? Are there pipelines in our watershed? If so, how old are they and how likely is a similar disaster to occur here?

WHERE ARE OIL AND GAS PIPELINES?

Over 2 million miles of pipeline traverse the United States, with 67,000 miles in Michigan. Some pipelines carry hazardous liquids, such as gasoline, diesel, oil (the Enbridge-owned pipeline in Marshall), or natural gas (San Bruno). They can be transmission pipelines that move gas and liquids all around the country; or distribution lines that move gas within communities and to homes. A look at the online map at the Pipeline and Hazardous Material Safety Administration's (PHMSA) website (www.npms.phmsa.dot.gov/) shows a web of these pipelines flowing through Michigan and the Huron River watershed area. Due to security concerns, PHMSA does not give

Canada Geese covered in oil walk along the banks of the Kalamazoo River on July 27, 2010, after a pipeline ruptured in Marshall Township.
photo: A. J. Jackson, Detroit Free Press

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The content of this newsletter is prepared by HRWC staff and does not necessarily reflect the opinions of HRWC board members.

Events

Thursday, December 16, 5:30 PM
Executive Committee Meeting
NEW Center, Ann Arbor
Contact: lrubin@hrwc.org

Thursday, January 27, 5:30 PM
Board Meeting
NEW Center, Ann Arbor
Contact: lrubin@hrwc.org

Saturday, January 29
10:15 AM - 3:30 PM or 11:45 AM - 5 PM
Stonefly Search
Entire Watershed
Deadline: Register by January 12
Contact: jmartin@hrwc.org

Sunday, February 13, 1-4 PM
Cross-country Ski & Snowshoe Event
Hudson Mills Metropark
All ages and skill levels
Metroparks, REI and HRWC
Register: msmith@hrwc.org

Follow us on Facebook and Twitter!
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www.twitter.com/hrwc

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

Rain, Rain, Don't Go Away

continued from cover

the water can flow with a very high force. Second, the creek's path was shortened (and thus the gradient increased further) when the City of Ann Arbor constructed Huron Parkway. Third, the watershed is covered by extensive impervious surface, which results in excess runoff during storms. Part of this impervious surface is from the Orchard Hills-Maplewood area, a large residential community constructed in the headwaters area. The headwaters were moved underground into a series of storm sewers, which route stormwater quickly to the creek.

The banks of Millers Creek before stabilization work was done by the City of Ann Arbor. photo: D. Wilson

The banks of Millers Creek after stabilization work was completed by the City of Ann Arbor. photo: J. Smith

A PROJECT TO HELP THE CREEK

HRWC initiated the Millers Creek Rainwater Project in 2006 with the purpose of reducing the flow of Millers Creek and decreasing bank erosion and, as a result, improving the biotic community. HRWC's method to accomplish this goal was to keep rainwater on the land where it fell, so as to prevent the rain from being routed into the storm sewers and released into the creek as a tidal wave. HRWC focused its efforts in the residential neighborhood built over the creek's headwaters, mentioned above. With project partners, HRWC built two community rain gardens, areas designed to collect rainwater and allow it to slowly infiltrate into the ground. HRWC retrofitted a detention pond to hold more rainwater, helped four property owners design and build private rain gardens with the Washtenaw County Water Resources Commissioner, and distributed 75 rain barrels throughout the project neighborhood. In addition, HRWC shared all of these efforts with the neighborhood residents, kept them involved in construction projects and maintenance activities, and encouraged them to take the initiative in using their own property to reduce impacts on Millers Creek. (Read "We Did It Together" on page 4 for the neighborhood perspective on this project.)

A GROUP EFFORT

The City of Ann Arbor contributed significantly by implementing a stream bank stabilization project near the intersection of the creek, Huron Parkway, and Glazier Way. Also, the City and Ann Arbor Public Schools redirected the rainwater from several streets into Thurston Pond, where the rain is stored and slowly released to the creek. Thurston Nature Center also planted an acre of Oak Savanna habitat.

HRWC's staff and numerous volunteers helped monitor the creek to measure the changes that occurred following these activities. They collected stream flow, macroinvertebrate, habitat, and channel shape data prior to and after project implementation.

THE RESULTS

While the data is preliminary, the initial results are very promising. The data shows that the macroinvertebrate community has come back to levels not observed since 2002. Also, the stream flow data provided some very promising results. Comparing 2010 storms to very similar storms in 2002-2006 reveals that, after storms, the stream takes longer to reach the highest flow level and the highest flow is significantly reduced. In some cases the stream flow is 40% less intense now than it was after a very similar storm. *These results indicate that more water is being stored on land instead of going into the creek, and it takes longer for the water to reach the creek.*

Millers Creek is not "cured," but significant strides were made in reducing erosion, regulating the water flow, and creating a better environment for the fish and insects living in the creek. Individual actions, such as rain barrels, rain gardens, native plants, and homeowner practices are making a difference in protecting water quality and quantity. To see continued improvements in Millers Creek, and in all of our other urban creeks, it is important that watershed residents continue to hold rainwater on their property. Rain, rain, don't go away!

— Paul Steen

We Did It Together

How the Millers Creek Rainwater Project affected watershed residents

HRWC wrapped up the Millers Creek Rainwater Project this summer. In addition to analyzing our monitoring data (see cover article "Rain, Rain, Don't Go Away"), we took a moment to evaluate the effectiveness of our work from a public education standpoint. In July, with help from the Orchard Hills Maplewood Homeowners Association (OHMHA), we conducted an electronic survey that went out to 225 residents and follow-up phone interviews of four key neighbors who

"I had never really heard of Millers Creek before the Huron River Watershed Council did some presentations . . . I think that they did a very good job of making it known that this was an issue."

had participated in project activities. We measured: awareness of Millers Creek, its problems, and possible solutions; environmental attitudes, willingness and ability to engage in practices that protect the creek; constraints against creek protection; and whether or not our public education activities made a difference.

We had a high response rate from this group, with approximately forty-nine percent of the contacts participating. Eighty-one percent of those reported that they felt Millers Creek was an important resource to them personally and to the community.

Overall the survey and interviews demonstrated that residents increased their awareness of the creek and issues related to its care and protection. Ninety percent were familiar with the creek and eight percent knew about the Rainwater Project. Seventy-six percent indicated that their awareness of the creek's problems had changed and eighty-four percent said their awareness of how to protect the creek had increased as a result of the project.

Many residents reported taking actions promoted by the Rainwater Project such as avoiding using lawn fertilizer with phosphorus, keeping fall leaves out of storm drains, properly disposing of home toxics, and using a rain barrel. Significantly, many respondants indicated that they may undertake actions in the future such as using a rain barrel (thirty-four percent) and landscaping with native plants (thirty percent).

HRWC public education activities that had the biggest impact on resident awareness were the summer 2009 project area rain barrel sale, brochures and information mailed home, and the installation of two large community rain gardens at Thurston Elementary School and Prairie Briarcliff.

Fundamentally, our public education work in the Millers Creek Rainwater Project met our project goals of raising awareness and changing behavior. But we recognize that we started with a very engaged group of

"I do think that unless the Huron River Watershed Council and the County had made a really pretty big effort to educate people and get them involved that nothing would have happened. It really does take a lot of effort to get people to do something like this. I never would have dug a rain garden in my yard if they hadn't made me aware of it and then helped me with it."

residents. From the very first meeting in April 2008, HRWC staff found participants to be concerned about their neighborhood's natural environment and the health of the Huron River watershed in general. Neighbors and community groups such as the Thurston Nature Center, OHMHA, the Millers Creek Action Team, the Thurston Elementary School PTO, and the Good Shepherd Lutheran Church were generous in their support and served as key points of contact for communication and outreach to residents.

Briarcliff rain garden before construction. photo: R. Ginter, JF New

Briarcliff rain garden after construction. photo: HRWC

In short, the Millers Creek Rainwater Project was a success not only because of our work in the project neighborhood, but also because of the people in the project neighborhood - WE DID IT TOGETHER!

— Pam Labadie

Underneath the Huron

continued from cover

specific information about exact location, size, number, or volume of materials transported through these pipelines. In Michigan, the Detroit Free Press conducted an investigation and pieced together information and an interactive statewide map, which can be located online at www.freep.com/article/20100926/NEWS06/9260501. The Free Press also found that pipelines actually cross under the Huron, Raisin, Manistee and Muskegon rivers. HRWC was able to find 17 different pipeline companies that run oil or gas products through counties within the Huron River watershed (44 different companies operate in Michigan altogether).

Recent pipeline failures in the Huron River watershed

Pipeline type	Community	Company	Date	Cause
Natural gas	Whitmore Lake	Consumers Power	1998	Damage by outside forces
Natural gas	Whitmore Lake	Consumers Power	1999	Damage by outside forces
Natural gas	Green Oak	Consumers Power	2004	Incorrect operation
Natural gas	Milford	MichCon	2006	Unknown
Natural gas	Milford	MichCon	2009	Third party excavation
Natural gas	South Lyon	DTE	2004	Third party excavation

WHAT IS BEHIND FAILING PIPELINES?

News reports and congressional hearings held since the Enbridge spill have pointed out a series of problems with pipelines and a lack of follow-up by federal and state regulators. Enbridge itself has had 610 spills between 1999 and 2008 according to federal and company data, which adds up to about 132,000 barrels, or 5.5 million gallons of oil. The Enbridge-owned pipeline that spilled over 800,000 gallons of oil into the Kalamazoo River was built in 1969 and has received a dozen federal citations and warnings for safety violations since 2002. Michigan as a state ranks ninth in the number of serious oil or gas pipeline spills and failures, with 61 incidents, 5 fatalities, and 26 injuries.

Aging infrastructure is also a problem. Most oil and gas pipelines were built before 1970, according to the Pipeline Safety Trust (www.pstrust.org/index.htm), a nonprofit advocacy group in Bellingham, Washington. Common causes of pipeline failure are excavation, equipment failure, and corrosion. Federal regulators only end up inspecting about 40% of liquid and 7% of natural gas pipelines in the country, as they only inspect those in "high consequence" (i.e. densely populated) areas.

WHAT DOES THE FUTURE HOLD?

As long as natural gas, oil and other fuels are our major source of energy, we will need a safe infrastructure to transport them. Underground pipelines are undoubtedly an efficient way to do this; however, much can be done to ensure maximum safety. Two legislative proposals, H.R. 6008, The Corporate Liability and Emergency Notification Act (CLEAN), sponsored by Rep. Mark Schauer of Michigan, and the reauthorization the Pipeline Safety and Enforcement Act of 2010 would address some (but not all) of these issues. CLEAN would require reporting of spills to federal regulators and emergency response personnel within one hour of their discovery (preliminary investigations show that the Enbridge leak may not have been reported for up to 24 hours after the spill occurred). CLEAN also would raise the cap on penalties for spills and create a database of all spills and incidents. The Pipeline Safety Trust is urging Congress to add long-recommended enhanced leak detection requirements. The reauthorization legislation would increase funding and staffing for PHMSA, along with some other improvements, but does not increase the number of pipelines that must undergo inspections.

It is important to insure that our state and federal agencies improve their oversight of this pipeline system to reduce the risk of these incidents. But, the best way to reduce the risk of gas and oil well and pipeline spills and explosions is to reduce our reliance on fossil fuels and convert to safer, less explosive or toxic alternatives such as solar and wind energy.

—Kris Olsson

References: Series of Detroit Free Press Articles. Link to this article, which includes links to other articles: www.freep.com/article/20100927/NEWS05/9270374/Many-live-next-to-dangerous-pipelines-in-Michigan

The National Wildlife Federation's report, Assault on America: A Decade of Petroleum Company Disaster, Pollution, and Profit *www.nwf.org/News-and-Magazines/Media-Center/Reports/Archive/2010/Oil-Disasters-Report.aspx*

Pipeline Safety Trust has a plethora of resources on this issue, including detailed testimony on the proposed bills: http://www.pstrust.org/

Call Miss Dig

Anyone doing any excavating in Michigan must under law call MISS DIG, which will notify the more than 900 participating members to stake their underground utility lines (including gas and oil pipelines). Call **MISS DIG** at **800-482-7171** or **811** 24 hours a day, seven days a week.

Pipeline companies with operations in the Huron River watershed

Amoco Oil, ANR Pipeline, Buckeye Partners, Consumers Energy, Dome, Enbridge Pipelines, Enbridge Energy, Gas Recovery Systems, Kinder Morgan Cochin, Marathon Pipeline, MichCon, Michigan Gas Utilities, Mid-Valley Pipeline, Panhandle Eastern Pipeline, Praxair, Sunoco Vector, and Wolverine Pipeline

More Zero Heroes for the Huron!

Progress on phosphorus-free fertilizer regulation

Overabundance of nutrients, especially phosphorus, is one of the main pollutants to the Huron River system. Aquatic plants (like algae) feed on phosphorus, and too much can lead to blooms of algae that can cover the water. Such blooms use up the dissolved oxygen and create noxious odors when they decay. Sources of phosphorus include eroded soils, sediments in streams and lakes, crop, lawn and garden fertilizers, and human and animal waste.

Spurred by a desire to protect water quality and recreational value, and encouraged by recent monitoring results that have shown a decrease in phosphorus in areas with phosphorus reduction ordinances, several communities in the watershed have passed or are considering ordinances to regulate the use of lawn fertilizers that contain phosphorus. Local and regional studies have shown that Southeast Michigan soils are naturally high in phosphorus. Eliminating the phosphorus content in lawn fertilizers should reduce the phosphorus content in the water that runs off our yards and streets when it rains. The City of Ann Arbor predicted that its ordinance, enacted in 2007, could reduce phosphorus concentrations by 25%.

WHO HAS PASSED ORDINANCES?

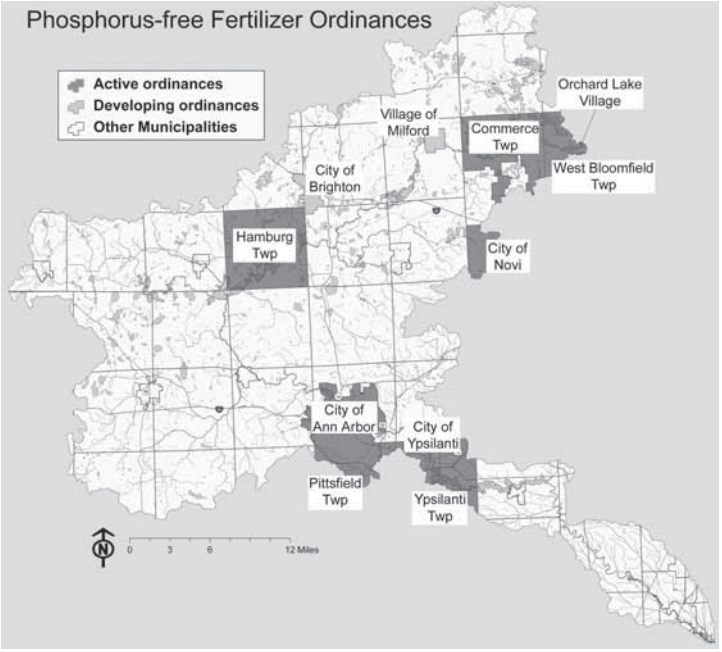
At the time this newsletter went to print, nine municipalities in the watershed passed local fertilizer ordinances (see map). The City of Ypsilanti and Ypsilanti Township most recently enacted ordinances, and the City of Brighton and Village of Milford are considering proposals. HRWC commends them for their efforts.

TIMING IS EVERYTHING

Local ordinances vary in approach and extent. The most effective ordinances include a strong education component for residents, property owners and commercial applicators to improve compliance and maximize water quality gains. Registering applicators and allowing for random testing of fertilizers can yield additional improvements in compliance. Retailers should also be given time to adjust their product mix to anticipate consumer demand for low- or no-phosphorus mixes. Now is a good time to implement a fertilizer ordinance because phosphorus prices are high and suppliers have plenty of zero phosphorus fertilizer mixes.

DO ORDINANCES WORK?

Communities that have implemented ordinances effectively have seen product with low- or zero phosphorus fertilizer increase on retail shelves, including national chains. Most compelling, though, is the corresponding improvement in water quality (a 20-30% decrease in phosphorus concentrations, as reported in previous newsletters). While these positive results cannot be credited solely to the new policies, there is strong evidence to suggest that the ordinances help.



The above municipalities have all passed phosphorus ordinances. Adoption by even more communities would increase regional momentum and improve water quality in the Huron River, streams and lakes. map: HRWC

PROGRESS ON STATEWIDE LEGISLATION

This fall, the Michigan House of Representatives passed HB 5368, which restricts phosphorus in lawn fertilizer. Exceptions to the Michigan phosphorus restrictions are included in the bill for agriculture, newly established lawns, lawns that have tested low for phosphorus, golf courses and other special circumstances. It also encourages 10-foot buffer strips of vegetation around lakes and streams to protect them from phosphorus runoff and other pollutants.

Statewide legislation in Michigan is eight years in the making. HRWC staff began these efforts in 2002 with a handful of partners – MSU, the Washtenaw County Water Resources Commissioner, and the City of Ann Arbor. This core group evolved into a representative work group that includes agriculture, industry and state agencies that met regularly in Lansing to craft science-based policy that addressed the diverse interests of work group members.

If passed by the Senate, Michigan would join other Great Lakes states including Minnesota, Wisconsin, New York and Illinois in restricting phosphorus fertilizer in some applications. Local policies in effect at the time of passage of the state legislation will be grandfathered. However, a community looking to implement local restrictions above and beyond the state legislation will be required to demonstrate need.

HRWC CAN HELP

If you are interested in proposing a fertilizer ordinance in your community, HRWC can help. Staff can provide sample ordinance language, speak to your board or council, and provide data and information to help make the case. HRWC also has educational materials that can be adapted for use in your community once an ordinance has passed. For more information on what you can do, go to www.hrwc.org/small-actions/ or contact Ric Lawson or Elizabeth Riggs.

— Ric Lawson and **Elizabeth Riggs**

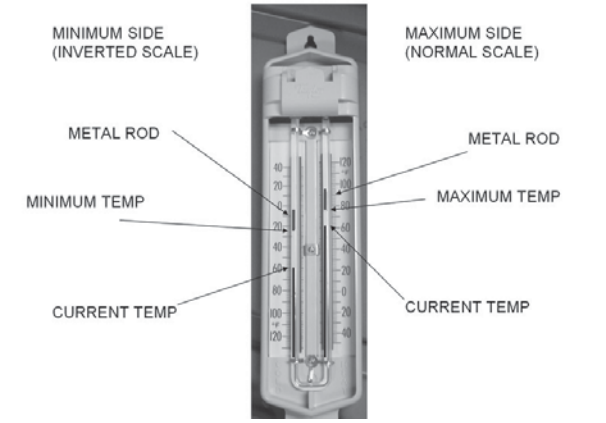
Is Your Creek A "Hottie"?

Underwater creatures prefer it cool and level-headed

Third article in a series about how HRWC collects data in the field.

Temperatures normally vary year-round from stream to stream. These temperature variations are largely due to the environment surrounding each stream: some streams receive more groundwater (which is always a nice, cool 50°F) while others receive more runoff or have more shade.

Many fish and aquatic insects can't live in warm streams because warmer water holds less oxygen and their metabolism requires cooler temperatures. Part of HRWC's river monitoring work includes summer stream temperatures which, combined with other monitoring data, is used in a mathematic model that predicts overall insect diversity and habitat quality. The model evaluates the current conditions by comparing what could live at the stream to what is actually found at the stream. For example, a stream that holds as much aquatic life as a healthy stream of a similar size and with a similar temperature regime would be characterized as healthy. A stream with a low amount of aquatic life compared to a healthy stream of a similar size and with a similar temperature regime would be characterized as degraded.



Volunteers use thermometers like the one shown here to measure creek temperatures. image: HRWC

HRWC has measured the temperature at each of the 75 Adopt-A-Stream study sites at least once every five years since 2000. Monitoring temperature is a simple study, requiring only a special thermometer and some care in placing it. Volunteers place a "max/min" thermometer in a protective steel case and secure it to something sturdy - such as a tree root - under deep enough water to keep the thermometer submerged for two months, July and August. Volunteers take great care to secure the thermometers tightly and hide them as best as they can to guard against damage caused by high water flows and vandals.

The weekly maximum and minimum temperatures are sufficient to characterize the conditions of the stream site, as the extreme temperatures are what set limits on the life in the water. A "max/min" thermometer uses small metal bars to display these extreme temperatures until the bars are reset with a magnet to the current temperature. The volunteer researcher records the extreme temperatures and then resets the thermometer once each week. Many volunteers tell us that the best part of the study is lingering at the site, observing what is happening in and around the stream each week. The temperature study is one of HRWC's best ways to truly "adopt" a stream, as the volunteers return week after week and develop a sense of ownership and concern for their piece of running water.

— Joan Martin and **Paul Steen**

Test Your Bioreserve Knowledge

Volunteer data helps put together fun quiz!

With our third season of assessments wrapping up, our dedicated volunteers have completed over 150 field assessments (58 this year) in 37 different local governments throughout the watershed. In addition to making available important information to decision-makers about our watershed's remaining natural areas, the hard work of volunteers has also paid off by providing HRWC with access to a large and rapidly growing database of information documenting several important characteristics of our watershed. We are grateful for the dedication and help of our bioreserve volunteers!

Go to page 11 and test your knowledge of our natural areas! You'll find some fun facts gleaned from our database about what volunteers found on their field adventures. As you peruse the questions, feel free to refresh your plant knowledge using our new plant photostream at www.flickr.com/photos/bioreserve.

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Volunteer assessors Mary Bajcz and Gwynne Fisher pose in front of a huge tree during an assessment of Southeast Michigan Land Conservancy's Lyon's Point nature preserve. photo: HRWC

Know Your Board Representative

Scott Munzel, Washtenaw County

Scott Munzel joined Janis Bobrin as one of Washtenaw County's two representatives to the board of the Huron River Watershed Council in 2006.

Scott's early years were spent in a Greek Revival farmhouse overlooking a large wetland. The wetland contained a creek which flowed into Sandy Bottom Lake, then on to Davis Creek and the Huron River. This background, combined with the example of a father who was Green Oak Township's representative to HRWC for many years, has given Scott an ingrained love for the Huron and a deep desire to protect it.

Scott earned his BA and JD degrees from the University of Michigan. He spent two years in the Peace Corps in Ecuador and three years in Washington, DC. Except for those five years, he has always been a resident of the Huron River watershed. His law practice is concentrated in real estate, land use and local government law. His interest in land use has made him very sensitive to how it affects the health of the river. He knows that urbanization and the way land is used are issues that must be addressed if we are to understand how to make the river healthier.

Running and basketball are hobbies. He also likes to read, especially history. Time for his family is an important part of his life. He is married to Lori Ward and has a son at the University of Michigan and two daughters at Pioneer High School.

If you have comments, suggestions or questions regarding Scott's work with HRWC, please call him at (734) 930-0583. Or call the Huron River Watershed Council at (734) 769-5123 to ask questions or to volunteer for one of our many activities.

— Eunice Burns

photo: S. Munzel

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Laura's Stream of Consciousness

An update on HRWC projects and activities

I spent time this fall talking to our colleagues in the river protection field, scientific experts, and communities across the county about climate change. This hot topic is very timely, given the intensity of spring storms coupled with the dry fall this year. I participated in many discussions about how communities are adapting to climate change, how climate change adaptation can be integrated into current programs, federal and state grants, and planning, and how HRWC can help our stakeholders prepare for and respond to climate change. In the Huron, the issues are storm drain systems that are filled to maximum (spilling out in to streets, basements, backyards, and blowing manhole covers off); loss of species and biodiversity (due to warmer water and air temperatures); drinking water and groundwater vulnerability due to droughts; and increased algae blooms that mar recreational opportunities and cause potential public health threats. Key infrastructure improvements need to be identified and implemented and new development needs to be low impact — not adding a greater burden on stormwater systems and the energy grid.

HRWC wants to work with stakeholders in the watershed to build future scenarios of climate change, develop practices that anticipate and minimize the impact of these changes, and help implement and advocate for these changes. There is some uncertainty about future impacts, but we can take action now that will make our communities and the ecosystem more resilient to future changes.

To start some of this work both mitigating and adapting to climate change, the Masco Foundation and HRWC are launching a three-year project to develop and disseminate a home "Saving Water, Saving Energy" toolkit for distribution to households in Southeast Michigan and for use by HRWC business partners as well as watershed organizations across the country. We will document how saving water works as a strategy to mitigate climate change in the watershed. Anywhere from 10-20% of total energy use goes toward treating, moving, and heating water. HRWC will educate consumers about water-efficient plumbing products, water-saving habits and practices, and how saving water at home translates into energy savings, less greenhouse gas emissions, and doing something to combat climate change.

NEW IDEAS FOR FINDING AND FIXING FAILING SEPTIC SYSTEMS

We have a new project with a goal to reduce phosphorus and bacteria entering the middle Huron River, while developing a cost-effective approach for monitoring and rectifying problems with septic systems for county Health Departments. HRWC will focus on using innovative thermal mapping techniques to detect and correct failing septic systems in the rural, non-sewered areas of Mill and Honey creeksheds, part of the middle Huron River watershed in Washtenaw County.

The goals of the project are to:

- demonstrate the ability to detect failing systems using imagery and image analysis methods;
- optimize the use of resources for county governments in dealing with this issue;
- implement an education campaign for households in high probability failure areas to take actions to prevent failures;
- enforce existing regulations in locations where severe problems are identified; and
- reduce harmful bacteria and phosphorus levels by 10% in Mill and Honey Creeks.

If any of these goals spark an idea or question, please contact me at (734) 769-5123 x 606 or lrubin@hrwc.org.

— Laura Rubin

River-Friendly Resources

A quick reference guide to online resources.

Road salt and deicer use at home: **www.hrwc.org/use-less-salt**

Winterize your rain barrel: **www.hrwc.org/use-a-rain-barrel** Look for the link called HRWC's Rain Barrel Tips.

Prescription drugs and personal care products disposal: **www.dontflushdrugs.com**

Reporting illegal dumping into storm drains, ditches or waterways: **call 800-292-4706, MDNRE's Pollution Emergency Alert System**

Reporting hazardous or flammable spills: **call 9-1-1 immediately!**

Thank You for a Memorable Suds!

Photos by John Lloyd

2010 Suds on the River Restaurants

Afternoon Delight
Anthony's Gourmet Pizza
Back Alley Gourmet
Café Habana
Common Grill
Cupcake Station
Decadent Delight
Jerusalem Garden
Jolly Pumpkin Café & Brewery
Katherine's Catering
Mac's Acadian Seafood Shack
Morgan & York
No Thai!
Pacific Rim
People's Food Cooperative
Prickly Pear
Silvio's Organic Pizza
Terry B's
Tio's
Tracklements Smokery Kerrytown
Tuptim Thai Cuisine
Whole Foods Ann Arbor

The weather tried to throw a wrench into our plans, but we are water people and rain replenishes our beautiful river, so we had a great time in the tent under the lights thanks to A-1 Rental and McFarland's Tree Service. Thanks to their generosity and that of our hosts, Bill and Mary Kinley, this year's Suds on the River was our most memorable.

KeyBank Thank you to Timothy R. Gretkierewicz, President of KeyBank, for their lead sponsorship and to Janis Bobrin, Washtenaw Water Resources Commissioner, and Gerri Barr at Excelda Manufacturing for co-sponsoring. Thanks to Ann Arbor Trout Unlimited, Colton Bay Outfitters, Google, Hudson Mills MetroPark, Glacier Hills, Unadilla Boatworks, and Tom Thompson Flowers for participating and making sure everyone had a good time.

Volunteers: Ingrid Ault, Eric Bassey, Steve Bean, Jared Collins, Kim Lulu, Pat and Paul Cousins, Karen Duff, Katherine Gramann, Judith Heady, Beth and Bob Hospadaruk, Julia Henshaw, Laura and Gene LaPorte, John Lloyd, Beverly Manko, Brigit McGowen, Sarah Mequio, Deb Molitor, Craig and Jill Money, Sue Ransom, Tom Roach, Amy and Adam Samples, Kate and Nick Sochacki, Kathy Stocking, Elizabeth Straus, Blair Treglown, Barry White, and Sandy Wilson.

Bids on the River Auction Donors: The Ark, Mark Ackeman, Dea Armstrong, Ann Arbor Film Festival, City of Ann Arbor Canoe Liveries, Cathy Barry Artworks, Evan Chambers, Colton Bay Outfitters, Common Grill, eve Restaurant, George DeAngelis, Fox Hills, Pat Kelly, John Lloyd, Plantwise, Rainbarrels USA, Ed Rosch, Scrap Happy, Snedicor's Cleaners, Steep Fitness, Ted Nelson Photography, Unadilla Boatworks, University Musical Society, Vie Spa, Washtenaw Audubon Society, Steve Weaver/First Impressions Printing, Ari Weinzweig, West End Grill, Yoga Toes, and Zingerman's.

Test Your Bioreserve Knowledge

continued from page 7

1. Most commonly found invasive in the forests assessed:
a) Garlic mustard
b) Common buckthorn
c) Autumn olive
d) Bedbugs

2. Most commonly found invasive in the wetlands assessed:
a) Purple loosestrife
b) Reed canary grass
c) Phragmites
d) Ogres

3. Most commonly found invasive in the grasslands assessed:
a) Queen Anne's lace
b) Autumn olive
c) Multiflora rose
d) Lawn gnomes

4. Most commonly found plant in the forests assessed:
a) Red oak
b) Black cherry
c) Red maple
d) Poison ivy

5. Most commonly found plant in the wetlands assessed:
a) Sedges
b) Cattails
c) Giant reed (phragmites)
d) Will-o-wisps

6. Most commonly found plant in the grasslands assessed:
a) Big bluestem
b) Autumn olive
c) Queen Anne's lace
d) Joshua trees

7. Township with the most properties assessed to-date for the bioreserve project?

8. Volunteer teams found which of the following rare, threatened or endangered plants during their assessments:
a) Dwarf hackberry
b) White lady's slipper
c) Wahoo
d) Goldenseal

Find the answers in the box at right.

Bioreserve Quiz Answers

1. Autumn olive and garlic mustard (tied at 59%)
2. Reed canary grass (47%)
3. Autumn olive (79%)
4. Black cherry (73%)
5. Various sedges (67%). Sadly the invasive reed canary grass was 2nd at 47%
6. Invasive autumn olive was the most frequent (80%), and another invasive, Queen Anne's lace, came in 2nd at 64%
7. Scio Township came in first with 20, and Freedom Township was second with 11
8. All of the above! Volunteers also found rough or pale avens, Kentucky coffeetree, yellow fringed orchid, hairy rueilia, cup plant, and ladies' tresses.

If you enjoyed the quiz and would like to join us in the field, contact Kris at kolsson@hrwc.org or x 607.

Support the Huron River Watershed Council

Ways You Can Help

1. Make a Donation
2. Host an Event
3. Read HRWC.org Blog
4. Volunteer
5. Donate CDs, DVDs & Books

Our strength is in our numbers

The success of our river protection work is guided by science, and relies on the support of individuals like you.

Please contact Margaret Smith if you have a question, (734) 769-5123 x 605 or msmith@hrwc.org.

Donate: Make a Difference

I would like to make a donation to HRWC in the amount of

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

Name _____

Address _____

City _____ State _____ Zip _____

Email _____

Phone _____

Please make your check payable to HRWC and mail it with this form to 1100 N. Main Street, Ann Arbor, MI 48104.
Online donations may be made through our secure website at www.hrwc.org. Thank you!

Huron River Watershed Council

Protecting the river since 1965

1100 N. Main Street Suite 210
Ann Arbor, MI 48104
(734) 769-5123
www.hrwc.org

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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, talent, and resources from our dedicated volunteers. **We extend Special Thanks to:**

Dave and **Sharon Brooks, Jim Carbone, Peter Grella, George Hammond, Don Rottiers,** and **Mike Steele** for their efficient work in setting up the gear and putting it away again for River RoundUp and ID Day.

Beverly Black, Sabra Briere, Roberta Carr, Dick Chase, and **Rosalie Meiland** for so competently staffing the River RoundUp.

Dave Wilson for teaching us about stream chemistry and organizing field trips for school children.

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130 volunteers who conducted the Fall RoundUp at 48 stream sites with the expert help of aquatic entomologists Graham Lewis and Catherine Riseng.

79 volunteers who studied the stream habitat study at 21 stream sites.

Mark Irish, Jana Smith, Tom Jameson, and **Noemi Barabas** for demonstrating stream monitoring; **Jen Mironas, Mike Prevedel,** and **Gayle Thomas** for running our kids fish print activity; and **Anne Kohl, Kristine, Olivia,** and **Gabi Oudsema** for helping at our info table at the Ypsilanti Heritage Festival in August.

Maeva Silviera for inputting Bioreserve field assessment data and researching ordinances and community assessments in the watershed.

marsh wren by J. Wolf

Mary Bruhnsen for helping us research and develop a watershed community survey and other outreach materials.