Huron River Report

Published quarterly by the Huron River Watershed Council
1100 North Main Street, Ann Arbor, MI 48104

Fall 2011 Special Issue
SAVE WATER!
Tips and info inside...

It's a Good Idea

Save water, money and energy while protecting the Huron River for the future

This special issue of the Huron River Report explores the relationship between water and energy and presents water efficiency and conservation as strategies for reducing energy use, saving money, cutting carbon emissions and minimizing and adapting to the effects of climate change on our water supplies.

This 58" kiddie pool holds 90 gallons of water, when full. The average American uses 100 gallons per day. photo: K. Motawi

While our water supply might seem abundant, the facts tell a different story. Between 1950 and 2000, the U.S. population nearly doubled, while our use of water through public supplies more than tripled. According to the United States Environmental Protection Agency, at least 36 states anticipate some degree of water shortage by 2013. Even Great Lakes communities like Chicago are concerned about future supplies of fresh water.

Here in the Huron River watershed we get our drinking water from a variety of sources. The Huron River provides 85% of the water for residents of the City of Ann Arbor. Other communities get their water from underground aquifers or surface waters such as the Clinton, Detroit, Rouge, and Ecorse Rivers. *See HRWC's new map "Where Does Your Drinking Water Come From?"* at **www.hrwc.org/the-watershed/maps.**

In our region, climate change is likely to be a leading factor that impacts water supplies. We can expect longer, hotter summers, changing precipitation patterns, longer droughts, bigger storms, more widely varying stream flows, altered stream channels, changing floodplains, earlier snow melt, and more invasive species. HRWC considered these impacts of climate change on the watershed from a variety of local perspectives in the *Huron River Report, Climate Change Edition, Winter 2009.*

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The Drops in Your Watts

Water impacts of electricity production

Our ability to turn on the lights in America depends on our rivers, lakes and aquifers. On average, between 20 and 60 gallons of water is withdrawn from its source for every kilowatt hour of electricity produced (the energy equivalent of running a 100 watt light bulb for ten hours). In many parts of the country, water shortages and elevated stream temperatures have already impacted the ability of many of our electrical plants to produce power.

Electric power generation is the largest water-using sector in the United States, withdrawing approximately 201 billion gallons of freshwater *each day* and accounting for approximately 49% of the nation's total water use in 2005 according to a 2009 USGS report. The impacts of energy production on water resources can be measured in three primary ways: withdrawal, consumption, and pollution. In some cases, water is withdrawn or diverted from its source, used for cooling or cleaning purposes and returned to the environment in an altered state. In other cases, water is consumed, evaporated or embedded into a product making it unavailable for other uses. Virtually every gallon of water that is used for some process of electricity generation and then returned to the environment, is polluted or altered in some way. Variables such as electricity source and process in which the water is used impact the degree to which the water is impaired.

River Network research indicates that the electricity sources with the largest impact on water resources include:
(1) coal-fired power -withdrawing approximately 13,960 gallons of water and

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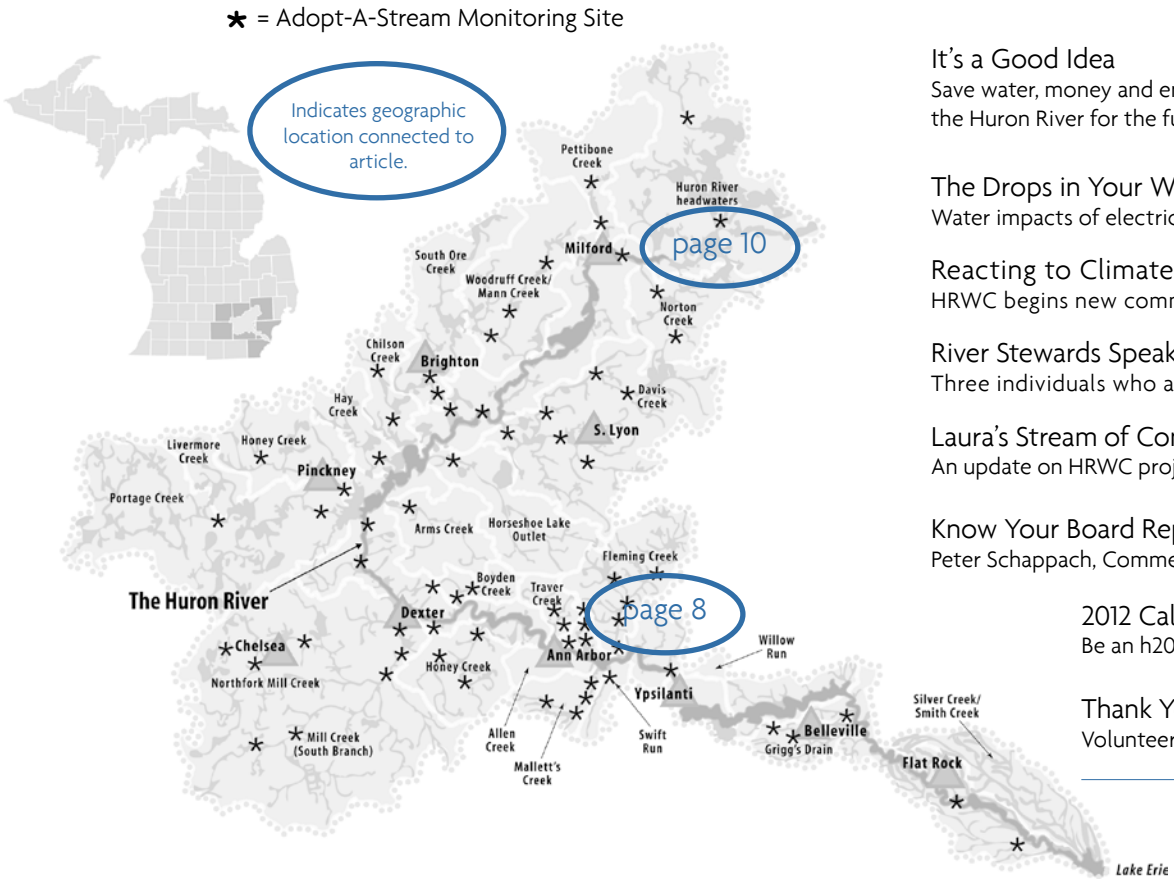
Featured Articles



Events

September 1
Brew for the River
Arbor Brewing Company

September 8
Brew for the River
Blue Tractor

September 10, 6 - 11 PM
Ann Arbor Homegrown Festival
www.homegrownfestival.org

September 13, 1 - 4 PM
Middle Huron Partners and Stormwater Advisory Group
Eastern Michigan University (room TBD)
Contact: rlawson@hrwc.org

September 15, 6 PM - 9 PM
Suds on the River
Annual fundraiser featuring microbrews of the watershed
Contact: msmith@hrwc.org

September 17
Flat Rock River Fest
Contact: plabadie@hrwc.org

September 17
HRWC Paddle, Lower Huron to Oakwoods
Contact: mring@hrwc.org

September 18, 12 PM - 5 PM
River RoundUp Leadership Training
in Ann Arbor
Contact: jfrenzel@hrwc.org

September 22, 5:30 PM
HRWC Executive Committee Meeting
NEW Center, 1100 N. Main St, Ann Arbor
Contact: lrubin@hrwc.org

September 23, 8:30 AM - 4:00 PM
What Color is Your Infrastructure? Conference ($)
Using Green Practices to Improve Water Quality and Save Money
Lawrence Technological University
Contact: eriggs@hrwc.org (registration required)

October 8, 9 AM -3 PM OR 10:30 AM - 5 PM
River RoundUp
Must register by Sept. 23
Contact: jfrenzel@hrwc.org

October 16, Noon - 3 PM or 2 PM - 5 PM
ID Day
Identify the bugs collected on Oct. 8
NEW Center, 1100 N. Main, Ann Arbor
Must pre-register with jfrenzel@hrwc.org

October 20, 4:15 PM
New Board Member Orientation; and 5:30 PM, **HRWC Board Meeting**
NEW Center, 1100 N. Main St, Ann Arbor
Contact: lrubin@hrwc.org

October 24, starts at Noon, and continues October 25, 8 AM - 4:30 PM
Seventh Annual MiCorps Conference ($)
RAM Center, Higgins Lake, MI
Register: www.micorps.net/conference.html or contact Laura Kaminski, laurak@glc.org

HRWC offices are located at the NEW Center
1100 N. Main Street in Ann Arbor
Call (734) 769-5123 or visit www.hrwc.org for directions

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It's a Good Idea

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There is another good reason to conserve water. Most people do not realize that the energy used to pump, heat, deliver and treat the water we use every day accounts for more than 13% of our total electrical energy.

Water also has its own carbon footprint. Water-related energy consumption accounts for about 5% of U.S. carbon dioxide emissions annually, or 290 million metric tons. This is the equivalent of the annual greenhouse gas emissions of 53 million passenger vehicles or the annual electricity use of over 40 million homes.

THE GOOD NEWS

By using a little "water sense" we can all use water and energy more efficiently and preserve our nation's energy and water supplies for future generations. The key to saving our water is thinking about our habits. Each American uses an average of 100 gallons of water a day. We can cut that by as much as 30 %, through a few simple steps that don't feel like sacrifices.

WATERSENSE

HRWC is a new promotional partner of WaterSense®, a U.S. Environmental Protection Agency (EPA) program that helps protect and preserve the nation's water supply by promoting efficiency. WaterSense (www.epa.gov/watersense) offers a simple way to make product choices that use less water—just look for the WaterSense label.

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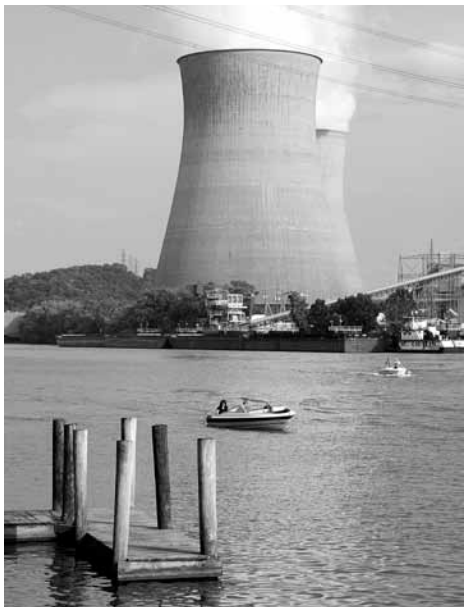
The average lawn sprinkler sprays roughly five gallons per minute at a medium flow rate or ten gallons per minute at a high flow rate.
photo: K. Motawi

The Drops in Your Watts

continued from cover

consuming approximately 660 gallons per megawatt hour of electricity produced; (2) nuclear power - withdrawing approximately 14,840 gallons and consuming approximately 610 gallons per megawatt hour produced; and (3) natural gas (through hydraulic fracturing or 'fracking') - withdrawing approximately 15,425 gallons and consuming approximately 290 gallons per megawatt hour produced.

The electricity sources with the least impact on water resources are photovoltaic solar with a water withdrawal of approximately 230 gallons and consumption of approximately 2 gallons per megawatt hour of electricity produced, and wind power with a water withdrawal of approximately 60 gallons and a consumption of approximately 1 gallon per megawatt hour produced. The vast majority of the water used by these renewable technologies is in the equipment manufacturing process; with the exception of cleaning equipment, water is not required in the actual power generation processes.



John E. Amos Coal Power Plant in West Virginia.
photo: image used under Flickr Creative Commons from Wigwam Jones

Despite the massive burden that electricity production has already placed on our nation's freshwater resources, it is not too late to make the necessary changes that can help preserve what is left. Several actions can be taken to reduce the water impacts of both current and future energy production. By employing a national 25% renewable energy standard that spurs the rapid deployment of renewable, water-efficient electricity sources such as photovoltaic solar and wind, the potential exists to eliminate the use of approximately 50 billion gallons of water per day. By replacing all once-through cooling systems at thermoelectric power plants with dry or hybrid cooling technologies, water withdrawal could be reduced by as much as 75 billion gallons per day. Additionally, by integrating water and energy management, through such mechanisms as increasing federal investment in water and energy conservation and efficiency programs, and strengthening water quality and impact standards for existing and proposed electricity production operations, we can greatly reduce unnecessary water consumption and pollution.

— Travis Leipzig

Travis Leipzig is Program Assistant to the Water, Energy and Partnership programs at River Network. River Network leads a national watershed protection movement that includes nearly 2,000 state, regional and local grassroots organizations, including HRWC, whose primary mission is to protect rivers and watersheds.

Reacting to Climate "Weirdness"

HRWC begins new community-based program

HRWC is developing new programming to help create climate-resilient communities. The program will give citizens and leaders the tools to take on climate change at the local level. HRWC is coming up with ways Michigan communities can mitigate the damage caused by climate change. People will be enabled to do more than just worry about climate change — they can take action.

Intense rainfall with localized flooding is expected to become commonplace under climate models for Michigan. photo: A. Cesere, AnnArbor.com

- Explore communities' abilities to address climate change;
- Share best practices for addressing impacts from climate change and identify potential projects or initiatives that would be effective and feasible at preparing communities for climate change;
- Identify what communities need (resources, barriers removed, policies changed) to successfully implement these best practices, projects, and initiatives; and
- Create a training opportunity for peer organizations in Michigan to lead parallel efforts in their watersheds.

HISTORY OF THE PROCESS

Two years ago, HRWC presented a special climate change issue of the *Huron River Report* (Winter 2009) to increase awareness among readers of the potential impacts to the watershed from changing climate trends. The issue also highlighted the programs and projects at HRWC that serve to mitigate and adapt to those impacts.

Many fruitful discussions with local and national partners about what climate change may mean for watersheds sprung from that issue. Surprisingly, it also placed HRWC among the leaders working to understand this topic and adopt solutions that provide resiliency to the river and watershed communities.

NEW PROGRAM ON COMMUNITY-BASED CLIMATE RESILIENCY

With rare exception, the public response to HRWC's initial work has been very positive. Many of you are speaking up about what you need and what HRWC can do to help. Water resource professionals, natural areas managers, village trustees, city planning staff, and others are spurred by the anomalous heavy rains, early snowmelts, and warmer air temperatures to respond to this "climate weirding." Here are but a few examples of what we are hearing:

"We may all have different perspectives on the 'controversial' items out there, but we all should be good environmental stewards in our own area. Our community is interested in reducing the impacts of flooding and drought related to extreme climate events."

"[HRWC needs to] facilitate a watershed-wide discussion about changes in climate, especially precipitation patterns, and how to respond to those changes with stormwater rules that take the new reality into account instead of relying on outdated assumptions."

"We need to talk and work with land and water managers about best practices for the protection of native species and habitat as they revise the Floristic Quality Index and begin using climate indices."

PIONEERING WATERSHED APPROACH

In response to these concerns, and the recognition that the water regime is the most crucial aspect of climate change within the Great Lakes basin, HRWC will develop and facilitate a series of workshops and meetings. The goal is to bring together decision makers on the topics of water/energy efficiency, stream flow regime and natural infrastructure. These peer groups will work to accomplish the following:

- Compile and review the most up-to-date predictions of how climate trends will impact the watershed;

TAILORING CLIMATE MODELS TO THE HURON

The project will result in localized strategies that build in resiliency to climate change, tailored to the Huron River watershed. To prepare for this work, HRWC formed a partnership with researchers at Michigan universities to "downscale" current global and regional climate models to local climate conditions. ("Downscaling" or translation across scales, is a term used to describe a set of techniques that relate local- and regional-scale climate variables to the larger scale atmospheric processes. The downscaling approach was developed specifically to address needs for more detailed information from Global Climate Models (GCMs).) Downscaled models will allow decision makers to see the range of impacts, identify a range of costs, and make informed decisions on best practices, policies, and strategies for action.

More information about this new program will be available at www.hrwc.org, in future editions of the Huron River Report, or by contacting Elizabeth Riggs or Laura Rubin.

— **Elizabeth Riggs**

Project made possible with funding from the Porter Family Foundation and the Washtenaw County Water Resources Commissioner. Other funding still pending.

It's a Good Idea

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Toilets, faucets and showerheads that meet EPA specifications are independently tested to perform as well as or better than conventional models with no sacrifice to quality or product performance.

Using WaterSense labeled products will help save water and money while preserving limited water resources for the future. For example, if every home in the United States installed WaterSense labeled faucets or faucet aerators in the bathrooms, it would save 60 billion gallons of water annually—saving households more than $350 million in water bills and about $600 million in energy costs to heat their water.

YOU, TOO, ARE AN H2O HERO

HRWC's Saving Water Saves Energy program seeks to educate homeowners about water-efficient plumbing products, water saving habits and practices, and show how saving water at home translates into saving money and energy, and reducing greenhouse gas emissions.

So put on your cape and save water and energy with these tips:

Replace showerheads that have a flow rate greater than 2.5 gallons per minute. You can save even 20% more by installing a WaterSense labeled showerhead. Those that earn the EPA WaterSense program label must demonstrate that they use no more than 2.0 gpm. The WaterSense label also ensures that these products provide a satisfactory shower that is equal to or better than conventional showerheads on the market.

Take shorter showers. Reducing your 10-minute shower to 5 minutes saves 12.5 gallons of water if the showerhead has a flow rate of 2.5 gallons per minute (even more if your showerhead has a higher flow).

Replace toilets installed before 1994 with high-efficiency toilets. Replacing a toilet that uses 2.5 gallons per flush (gpf) with an HET that uses 1.28 gpf will save 2.22 gpf. Some older toilets use as much as 7 gpf. WaterSense labeled HET's use no more than 1.28 gpf and are certified by independent laboratory testing to meet rigorous criteria for both performance and efficiency.

Install efficient faucet aerators and faucets that use a maximum of 1.5 gallons per minute. EPA's WaterSense program labels efficient bathroom sink faucets and aerators that use a maximum of 1.5 gpm.

Turn off the water when soaping hands, shaving, or brushing teeth. Turning off the tap while you brush your teeth can alone save 8 gallons—that's the same amount as the average person drinks in 16 days. By turning off the tap, you'll use just half a gallon.

Choose a high efficiency clothes washer with a low water factor when it's time to replace your machine. Washing laundry is a large water user in the average home; accounting for 15% to 40% of the overall water consumption inside the typical household of four persons. A standard washer will use approximately 40 to 45 gallons of water per load. New High Efficiency Washers (HEWs) can use as little as 15 gallons per load.

Install an efficient dishwasher. ENERGY STAR qualified dishwashers are required to use 5.8 gallons of water per cycle or less. Older dishwashers use much more water than newer models. A dishwasher purchased before 1994 uses more than 10 additional gallons of water in each cycle compared to a new ENERGY STAR qualified model.

Always wash a full load. Maximize the water and energy efficiency of both your clothes washer and your dishwasher.

Check for and fix leaks. An American home can waste, on average, more than 10,000 gallons of water every year due to running toilets, dripping faucets, and other household leaks. Pay attention to your water bill; it will often be abnormally high if there is a leak.

Change the way you use water outside your home. 30 % of household water is used outdoors, typically for irrigation. Drought tolerant native plants, rain barrels for capturing rooftop runoff, and reusing water when and where it is needed are ways to conserve. If you must irrigate, look for sprinklers that produce droplets, not mist, make sure your system is well maintained and that water is evenly distributed. Set timers properly, and install rain shut-off devices and moisture sensors to reduce excess watering and run-off.

Pledge to save at www.hrwc.org/savewaterpledge. Join your friends, family and neighbors in showing that you conserve our most precious resource. Pledge to take one action you haven't. Tell others what you are doing and why.

If you look at the numbers they certainly add up. Saving water is a smart, cost-effective, good idea!

— Pam Labadie

The Saving Water Saves Energy *program is funded by the Masco Corporation Foundation.*

WATER YOU DOING? Making the right choices to reduce your water footprint.

= 1 GALLON

DIRECT USE: THE WATER THAT YOU ACTUALLY USE.

= 1 GALLON

VIRTUAL USE: THE WATER THAT HELPED MAKE THE THINGS YOU USE.

Rise & Shine

TOILET
6 gallons/flush

LOW-FLOW TOILET
1.3 gallons/flush

SHOWER 10 MINUTES
3.8 gallons/minute

LOW-FLOW SHOWER 10 MINUTES
2.3 gallons/minute

FAUCET 1 MINUTE
5 gallons/minute

LOW-FLOW FAUCET 1 MINUTE
1.5 gallons/minute

TOTAL: 49 GALLONS

TOTAL: 25.8 GALLONS

AMOUNT SAVED: 23.2 GALLONS

Breakfast

COFFEE
37 gallons

TEA
9 gallons

EGGS TWO OF THEM
36 gallons/egg

CEREAL WITH MILK
22 gallons

APPLE
18 gallons

ORANGE
13 gallons

TOTAL: 127 GALLONS

TOTAL: 44 GALLONS

AMOUNT SAVED: 83 GALLONS

Lunch

SODA 16 OZ. BOTTLE
33 gallons

WATER 16 OZ. GLA
.125 gallons

HAMBURGER
634 gallons

SALAD 1/2 lb 1/2 lb 1/4 lb
31 gallons

TOTAL: 667 GALLONS

TOTAL: 31.125 GAL

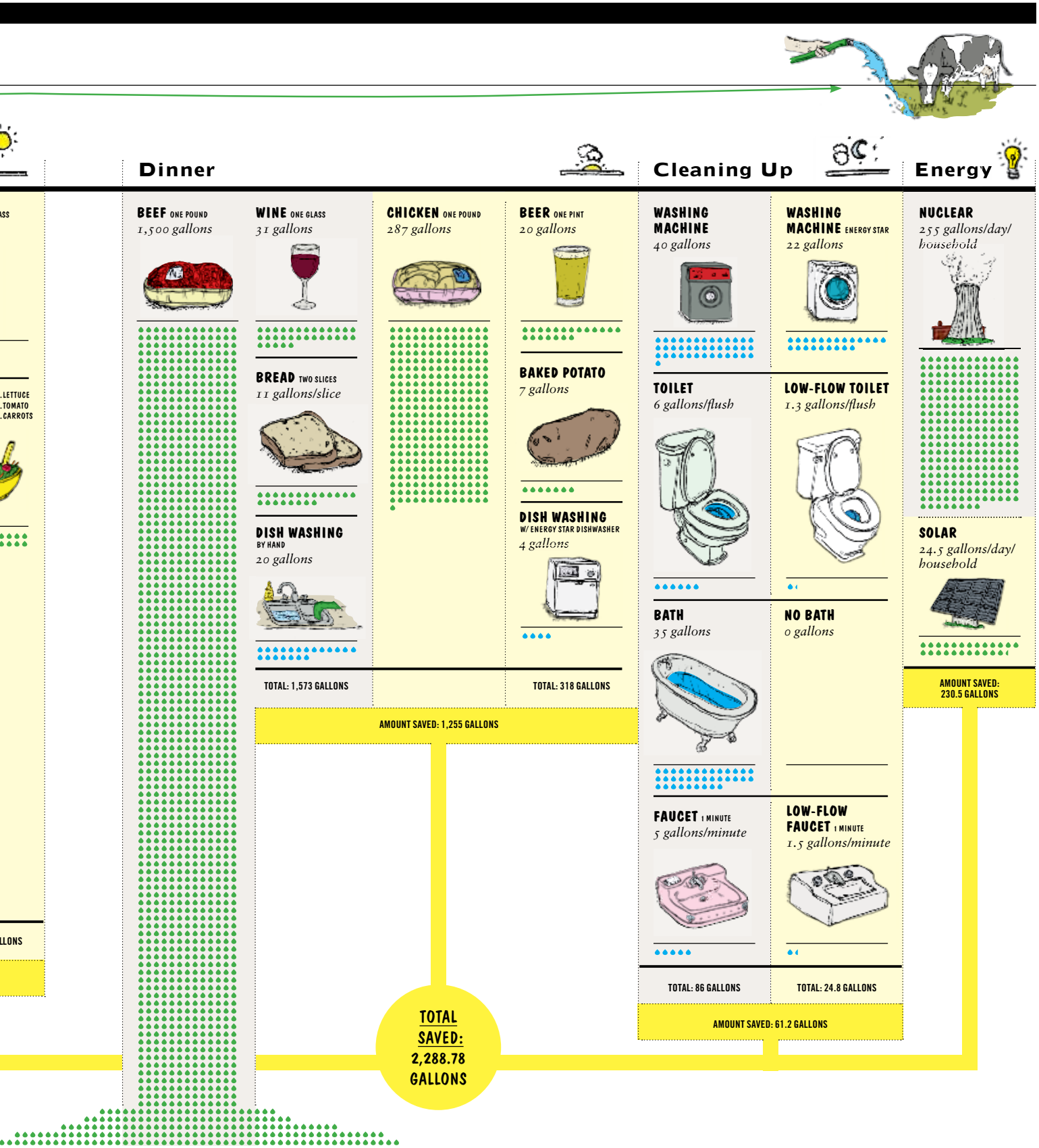
AMOUNT SAVED: 635.875 GALLONS

Your Water Footprint

As we become more aware of the benefits of saving water, the idea of "water footprints" - the amount of water an individual uses - is becoming more common. Like "carbon footprints," a water footprint is a way to give people an easy method for determining their impact on water resources. Water footprints can be hard to calculate, depending on how far up the chain of production you go, since some water is used to produce everything you eat and buy. This Transparency from Good Magazine gives some examples of how much water is used in some daily activities. Use it as a guide to reduce your daily water footprint. Or go to the Tools & Calculators page at **www.hrwc.org/save-water-save-energy,** for a link to an online calculator from National Geographic.

TRANSPARENCY Graphical explorations of the data that surrounds us.
A collaboration between GOOD and **FOGELSON-LUBLINER**

GOOD A version of this piece appeared on www.good.is on March 17, 2009.



SOURCES Department of Energy; H2OConserve; *IEEE Spectrum*; The Water Footprint Network

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www.good.is/goodguide

River Stewards Speak Up

Three individuals who are making a difference in the watershed

photo: M. Naud

Matthew Naud
Environmental Coordinator/Assistant Emergency Manager
City of Ann Arbor

How do I conserve water? In a few significant ways and many small ways. For the most part, I just think about water a lot – I enjoy being on and by the river and live near one of Ann Arbor's two natural lakes. I grew up in Detroit and spent a lot of time on the Great Lakes sailing. And now, because of my job, I have a really good understanding of where our water comes from, the energy it takes to make water, distribute water, use water, and then treat water before it goes back into the Huron. Not to mention all the energy involved in replacing hundreds of miles of piping. At my house, there are five of us (including grandma and two teenagers) and we care for an additional person's laundry, so buying a set of energy star efficient washer and dryer was a high priority when we moved. Our house doesn't have a lawn so we only water some of the flower beds when they need it. I have become very adept at replacing the washers and springs (thank you Stadium Hardware) on our bathroom and kitchen faucets – they were all leaking when we bought our house. There are days when I want to post our water use on the white board in the kitchen . . . but I haven't gone that far yet.

Claudette Jocelyn Stern
Nautilus House, Ann Arbor

"It is not the strongest of the species that survives, nor the most intelligent. But the one most responsive to change."
- Charles Darwin

Water is a necessity. It is the odorless, colorless, tasteless liquid without which living creatures would cease to exist. I conserve water because there are others who will come after me. I conserve water because I am not alone. I conserve water because I was imprinted early on that nature is not just myself, my wants, my needs. I conserve water because I can live with my judiciousness and feel responsive to the change in our environment. I conserve in the hope that change and sensitivity will become us- and all living things. I save because, as Margaret Wheatley and Myron Kellner-Rogers wrote, "It is life's irresistible urge to *be* that is the prevailing story of the planet."

photo: C. Stern

Rainwater captured by the gutters at Nautilus House flows into the 600-gallon tank for use in an outdoor shower. HRWC reported on the water saving features of Nautilus House, Michigan's second LEED® Platinum residential remodel, in the Huron River Report, *Fall 2010.* photo: HRWC

photo: L. Feldt

Linda Diane Feldt
Holistic Health Practitioner, Ann Arbor

Conserving water is more than just another area of concern for the aware environmentalist. Sure, it saves energy. It also decreases strain on the infrastructure of sewers and waste water treatment plants. Water is truly the lifeblood of our planet. So being aware and concerned about the water we use each day is an essential part of being a steward of our valuable resources. I've done the simple things like installing low flow shower heads and low flush toilets. I've done fun things such as putting in a toilet sink that creates grey water for flushing, using an old cistern, and having an on-demand hot water heater. I don't take fresh clean water for granted. My vegetable gardens use mulch and raised beds to conserve water. I do a lot of hand watering, and no longer have a lawn at my house. I took out all the concrete around my home, and put in pavers and other porous materials to slow run off. I spend time swimming in the local lakes, canoeing the rivers, and enjoying the local ponds and creeks. We have an abundance of water for every use, and I try to never take it for granted. We need clean water to survive and be nourished. That requires constant vigilance and everyday conservation. It's just common sense to keep our resources safe.

Laura's Stream of Consciousness

An update on HRWC projects and activities

Laura seining in the Huron. photo: S. Kinnard

WATER, WATER, EVERYWHERE...

With all the water in the Great Lakes, people ask me why they should care about saving water.

My first response is that we cannot assume we will always have such a bounty of fresh water. For one thing, it's increasingly clear that we can no longer take our waters for granted. Think of the intensity of storms we saw this spring in our watershed, the floods in the Mississippi, the tornadoes in the Midwest, and the droughts and wildfires in the West. We're seeing these extreme weather events more often. Our climate is changing, as it has always done, but at an accelerated pace. We are getting more rain when it rains (and in shorter period of time), more heat when it's hot, and longer periods without rain, leading to more droughts. Our region's supply of water is changing. Our region's "water regime"—the amount and behavior of its water—is changing.

What's more, with many regions of the U.S. suffering from historic droughts, pressure will only increase to divert water from the Great Lakes to those other regions.

Another reason is that just as our water supply is affected by climate, how we use water makes an impact on the climate in return. That's because using water requires a lot of energy, and energy production uses a lot of water.

SAVING FOR THE FUTURE

By conserving water, we can reduce our energy use and our carbon footprint. And by conserving energy, we protect our waters. When we talk about dealing with climate change, we usually talk about national legislation and international agreements, because the scope of the challenge is so large. But these changes are contentious and taking too long. Meanwhile, the global climate forecasts, and their solutions, are daunting and overwhelming. Yet on a local level, we can reduce energy and water use in our homes, in our yards, and in our communities. And this makes a difference.

Throughout this newsletter you've heard that simple actions taken at home through water conservation and efficiency can lead to considerable reductions in greenhouse gas emission through a reduction in energy use. Some of these actions, we're familiar with--turn off the water while you brush your teeth or wash your hands, replace leaking, old and inefficient plumbing products with new more efficient shower heads, faucets, toilets, washing machines and dishwashers. And some are more creative—replace grass in your yard with an edible garden, install a combined sink/toilet that uses recycled water from hand washing in a sink to flush the toilet bowl. Be creative! Participants in two focus groups we ran in June showed a wide variety of creative solutions and actions taken to reduce water use at home.

Thanks for all that you do on an individual level to reduce your "water footprint." Send us the ways you creatively, or not so creatively, save water and prevent waste. Email me at lrubing@hrwc.org, and we will share your ideas on our website.

— Laura Rubin

OUR KEY MESSAGE

Saving water saves energy!

Clean Energy Coalition

HRWC welcomes the Clean Energy Coalition (CEC) to the neighborhood. A nonprofit organization, CEC works in a variety of "energy areas" helping municipal governments, businesses and residents increase energy efficiency.

CEC offers advice, products, and services to the public at their Energy Demonstration Center and Clean Energy Outlet at 924 N. Main Street, Ann Arbor, open Monday through Friday. They sell individual water-saving fixtures and accessories or a Water EcoKit™ that includes a high-efficiency showerhead, Toilet Tank Bank™, kitchen and bathroom faucet aerators or leak detection tablets. Find out more at www.cec-mi.org.

Know Your Board Representative

Peter Schappach, Commerce Township

In September, 2010, Peter L. Schappach was appointed as the Commerce Township representative to the board of the Huron River Watershed Council. He joins forty-three other members from thirty-six governmental jurisdictions in the watershed.

Peter was born in the Flint River watershed and was raised on a farm in Goodrich where he spent much time exploring the Thread River and learning about nature. He graduated from the University of Michigan with a BS degree in Geological Sciences and has spent twenty-three years in the environmental consulting field. He currently is the Environmental Manager in support of Base Operations at the United States Army Garrison-Detroit Tank Arsenal in Warren. He is a member of the Michigan Association of Environmental Professionals.

Peter and Mindi will celebrate their eleventh anniversary in August. They live on the Huron River headwaters in Commerce Township, just downstream from Fox Lake. Mindi's children, Carly (20) and Chris (16), along with two dogs, Luna and Oreo, live with them.

Peter's hobbies include the waterfowling arts, fishing, canoeing, gardening, reading and playing guitar. He also considers himself to be a struggling orchardist, a competent cook and an enthusiastic gourmand. He likes to travel. He and his wife recently hiked in mountains in Arizona where pack goats hauled their gear.

Peter and his wife are active members of their church and he devotes much of his non-career time to volunteer work. He is a true "think globally; act locally" citizen. He is aware of many of our global conditions but his actions are here where he believes

photo: P. Schappach

he can help create change in his local community.

As Commerce Township's representative, Peter would welcome your calls at (248) 363-8853 if you have questions or concerns. Call the office at (734) 769-5123 to find out more about how you can be part of the important work of HRWC.

— **Eunice Burns**

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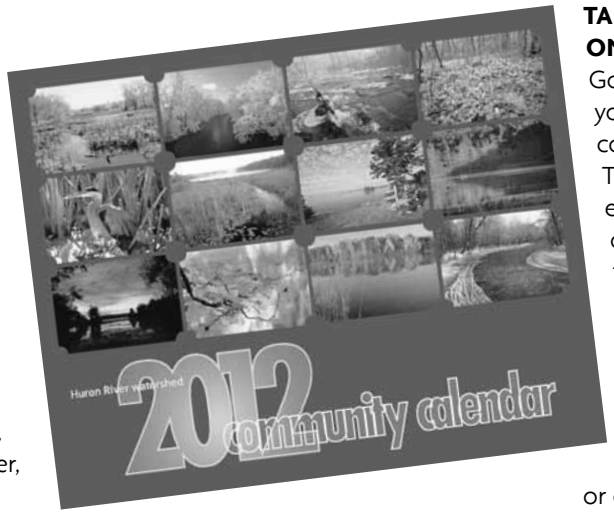
2012 Calendar Available; Take Our Online Survey, Please!

Be an h2o hero! Get the newest watershed calendar, and help evaluate HRWC marketing efforts

2012 WATERSHED COMMUNITY CALENDAR

Featuring stunning watershed photography from local photographers Marc Akemann, Keith Matz and Ted Nelson and tips for protecting the Huron River. The calendar is available for FREE at the HRWC offices in NEW Center. Or pick one up from the following communities: Barton Hills Village, Brighton Township, City of Ann Arbor*, City of Brighton*, City of Ypsilanti, Eastern Michigan University, Livingston County Drain Commissioner, Livingston County Road Commission, Marion Township, Pittsfield Township, Village of Dexter, Village of Pinckney, Washtenaw County Road Commission, Washtenaw County Water Resources Commissioner, or Ypsilanti Township.

**Direct mailing calendars to their residents.*



If you are unable to pick up your calendar FOR FREE, HRWC can send it to you for a $5 charge. Submit your request by mail with a check payable to HRWC.

TAKE THE WATERSHED COMMUNITY ONLINE SURVEY

Go to www.hrwc.org/survey and do your part to help HRWC and your community protect the Huron River! The survey evaluates our past education efforts and will set the direction for our future outreach programming throughout the watershed. We hope to learn what watershed residents know about preventing water pollution.

YOUR PARTICIPATION IS VERY IMPORTANT TO US! Whether OR NOT you've seen our ads, tip cards or calendar; we need as many people as possible to take the survey.

For questions, contact Pam Labadie, Marketing Director, plabadie@hrwc.org, (734) 769-5123 x 602.

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

Phil Roos for moderating our *Save Water Save Energy* focus groups, plus everyone who took our save water survey, and especially those who participated in our save water discussions back in June.

Amy Samples for joining us to talk about the Huron River Water Trail at the Mayor's Green Fair.

Gillian and **Mike Heslinga** for installing educational signs at the two streambank stabilization projects on Mill Creek.

The Greenway Collaborative, Inc. for developing and updating the Huron River Water Trail map.

Mark Gawronski for help with desktop analysis for Brighton and Strawberry Lake TMDL plans.

Jen Mironas for her work on Bids on the River, our on-line fundraising auction.

Kim Gaisor for help recruiting volunteers and collecting storm samples in Livingston County.

Eric Bassey, George Hammond, Victor Legg, John Lloyd, Lisa Marchlewicz, Lisa Perschke, and **Al Wooll** for taking photos of our spring and summer events.

Barry Lonik and **Ron Sell**, expert paddle guides, on our river trips this past summer, and **Dea Armstrong** for joining us and educating us on the birds populating the Huron River.

Linda Diane Feldt for leading our Wildcrafting walk through Gallup Park and to **Mike Mouradian** and the folks at Ann Arbor Trout Unlimited for leading all the fly fishing classes.

Graham Lewis, Jo Latimore, and **Catherine Riseng** for their expert ID eyes on RoundUp ID Day.

Big City Small World Bakery and **People's Food Coop** for food donations at our volunteer events.

Key Bank employees for their work cleaning up the rain gardens in the Georgetown/ Thurston neighborhood.

University of Michigan LS&A employees for their work weeding and repairing the Ford Lake Shoreline Demonstration and releasing beetles to attack the purple loosestrife.

For the new educational creekshed maps, we wish to thank **Scott Wade**, cartographer, **Graham Battersby**, **Circle Graphics** and **WAP John** for their creative and print services.