



Rock River Reflections

A publication of the Rock River Coalition in cooperation with the Rock River Stormwater Group, Town and Country Resource, Conservation & Development and the University of Wisconsin-Extension

Fall 2010 Volume 13, Number 4

Beautiful Fall Leaves Cause Trouble in Local Rivers & Lakes

by Rebecca Dill, Rock River Stormwater Group

How homeowners handle fallen leaves this autumn can save money, help gardens grow and prevent water pollution and algae blooms in local rivers, lakes and streams. This may sound like a tall order from the simple, little brown leaf that falls on your lawn, but leaves have the potential to be a great resource and a large problem for water quality. Learning the proper way to dispose of leaves, and spreading the word to your neighbors, can make your street the cleanest in the area.

Leaves are both good for gardens and bad for rivers because they naturally contain phosphorous and nitrogen, which are released when leaves break down into organic matter.

Leaves left on streets and sidewalks can wash into storm drains that dump directly into local waters. As leaves break down, they use up the oxygen in the water, depriving fish and other species of the oxygen they need to breathe. The natural nutrients from leaves can contribute to algae blooms and add to local water pollution levels.

While clean water is important to everyone, leaves can also cause problems closer to home. Leaves raked into streets can clog storm drains, which can lead to local flooding and extra expense to the community to clean out the drains.

The good news is that all these problems can be

prevented, with additional bonuses for gardeners. Be aware and keep fallen leaves out of the street or gutter. Use a blower or sweep leaves back on to your lawn. While most municipalities have specific collection times, you can lower municipal costs and stop worrying about the exact timing of your collection period by re-using leaves on your property. This can be done in several ways:

Mulch. Prevent weeds and save money on mulch. Place chopped up leaves on vegetable and flower gardens. Chopped or whole leaves can be placed under shrubs or around trees.

Mow. For smaller amounts of leaves, shred with your lawn mower right on your lawn.

The small pieces quickly break down, releasing nutrients for a green, well-fed lawn.

Compost. For more advanced gardeners, chopped leaves make a great compost addition. Place composted leaves in your vegetable and flower beds. Compost is a free way to create rich soil!

If the above options are not possible, follow your municipality's guidelines for leaf collection. Contact them for more information or visit www.cleanwaterbrightfuture.org/leaf for leaf collection policies. Proper leaf collection can make a big impact on our waters and in the community—one leaf pile at a time.



1. Keep your leaves out of the street.
2. Read the helpful tips on this flyer.
3. Post the sign on the opposite side to show your love for our lakes.

- SPRING**
- If you don't already have one, set up a compost bin.
 - Install a rain barrel or two.
 - Only apply fertilizer if a soil test shows you need it and only after Memorial Day.
 - If you use pre-emergent weed control, use one without fertilizer.
 - Use finished leaf compost on your gardens and flower beds.



Along with the educational effort of the Rock River Stormwater Group to reduce the impact of leaves on our waterways. Other groups are involved with their own efforts as well.

- SUMMER**
- Appreciate that keeping leaves out of the street last fall helps keep your lakes and streams healthy this summer. Nice work!
 - Keep grass clippings out of the street gutter.
 - Avoid pesticides and get a workout by removing weeds by hand.



The Madison Area Municipal Storm Water Partnership (MAMSWaP) has developed this colorful insert for local newspapers for year round actions homeowners can take to protect water quality.

- FALL**
- Skip municipal leaf pick-up and compost leaves for next year.
 - If you opt for municipal collection, be sure to keep your leaves out of the street.
 - Consider leaves an asset and not waste—chop them up when you mow and leave them as fertilizer on your turf or put them around trees & shrubs.
 - Put leaves from your roof gutters in your compost bin.
 - If a soil test shows you need fertilizer, this is the best time to apply it.

- WINTER**
- Limit use of de-icers. These chemicals are hard on your lawns, concrete, and lakes.
 - Start planning your gardens and the steps you'll take to protect the lakes.
 - Visit the myfairlakes booth at Garden Expo for more ideas and tips.



Learn about additional educational efforts by these and other groups on page 5.

Go to myfairlakes.com for more ideas to help the lakes and order a full-size *Love Your Lakes Don't Leaf Them* yard sign!

Look Inside

RRC President's Message Time to Renew 1% for the Planet TMDL Update	Page 2
Town and Country RCD Water Council Presentation UW-W Water Council Student Chapter	Page 3
Rosy-Lane Holsteins	Page 4
A Great Harvest of Leaf Messages Friends of Cam-Rock Celebrate 10 Years of Monitoring	Page 5
Monitors find Numerous Clam Species River Alliance Photo Contest Water Star Workshop Rock River Reflections	Page 6
Crave Brothers New Pollution Control Process RRC Membership Form	Page 7

CLEAN Future for Yahara Lakes Value of Water Symposium NSF Research Project Mussel Monitoring The Sport of Geocaching	Page 8
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Time to Renew RRC Memberships

It's that time of year again, as a non-profit we depend on donations and memberships to do good work in the Rock River Basin. The RRC membership runs the calendar year, renewal letters will be going out in November, help us save time and money by renewing today.

Great things are in store for our basin, help us take a leadership role through your membership and a generous end of the year donation.

You can become a member by using the membership form on page 7, or by going on-line to www.rockrivercoalition.org and paying via PayPal.

Your contribution makes it possible for the RRC to promote and protect the Rock River for generations to come. You have supported the planning, program management and implementation work required for our volunteer monitoring, rain garden, land use and basin-wide community education efforts. You have also underwritten educational programs for children and the public at large. Furthermore, you have helped us lead crucial public awareness initiatives such as the importance of maintaining quality and adequate groundwater in our Rock River region.

Your membership and sponsor support are essential to the RRC's continued success in preserving and improving our shared resources.

As a member of the Rock River Coalition you receive many benefits including:

Advanced notice of events and activities such as the annual Send Your Legislator Down the River (SYLDR) educational event.

Discounts on seminars and educational programs.

Quarterly newsletters with informative articles.

Voting privileges at our annual meeting.

The pride in helping improve our local environment, recreation and economy.

Donations over \$100 will receive one free pass to Send Your Legislator Down the River.

Business, Corporate or Affiliate Membership Benefits at \$100 and above:

Will be recognized on our RRC web page with an advertisement or logo (business card sized: 2" x 3.5"), a link to your webpage plus the one free pass to SYLDR.

Members/donors at the \$500 level:

Will also receive a business card sized ad in the Rock River Reflections newsletter for one year, and four free passes to Send Your Legislator Down the River.

Members/donors at the \$1,000 level:

Will receive the above website recognition and the advertisement in the Rock River Reflections newsletter, eight free passes to SYLDR and a personal briefing by the RRC President.

Members/donors at the \$5,000 level:

Can elect to receive up to a quarter page ad in the Rock River Reflections newsletter for one year and eight free passes to Send Your Legislator Down the River. They will also be invited to a luncheon meeting with the RRC President to discuss the RRC initiatives and future directions.

For all of you who have supported us over the years, I want to sincerely thank you for your past and continued support!

Scott Taylor, RRC President



Mission

"To educate and bring together people of diverse interests to protect and improve the economic, environmental, cultural, and recreational resources of the Rock River Basin in Wisconsin"

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Next deadline is Jan. 7, 2011. A letter-sized color version of this newsletter is available at www.rockrivercoalition.org.

Photo credits: Beth Gehred, Dick Lathrop, Maureen McBroom, Lisa Oppeneer, Janice Redford, Rosy Lane Holsteins, Suzanne Wade, UW-Whitewater,

RRC is a 501(c)(3) not-for-profit organization, providing equal opportunity in employment & programming.

TTY: 711 for Wisconsin Relay

If you need special accommodation for programs please contact the RRC at least two weeks in advance.

Rock River TMDL Update

The Rock River TMDL Report will be released once internal review is completed.

Notice of the report release and an accompanying public informational meeting will be sent out in a press release.

To receive a notice of the report release send an email to suzanne.wade@ces.uwex.edu with the request in the subject line.

A notice will also be included in the Rock River Basin Update, an electronic notice sent out monthly, which contains a calendar of events, grants, employment opportunities, publications, K-12 offerings and websites.

Subscribe to the Rock River Basin update at:
<https://lists.uwex.edu/mailman/listinfo/rock-river-basin-update>

Save Paper and \$\$\$\$

You could save the Rock River Coalition and their partnership organizations the cost of printing, mailing and the time to process by receiving this newsletter electronically.

It's simple, just email Marie at marier@jeffersoncountywi.gov asking to be put on the electronic newsletter distribution list.

1% For the Planet – Keep Earth in Business

Rock River Coalition is a new nonprofit member of *1% For the Planet*– which means we are eligible for donations from the growing list of businesses, worldwide, who choose to donate 1% of their profits to environmental groups.

Dedicated to "Keeping Earth in Business", *1% for the Planet* recognizes that industry and ecology are inherently connected. *1% for the Planet* is enabling businesses to take a lead role in being environmental stewards and to set an example for the rest of the business community. These companies embrace the notion that the sustainability of the natural environment is fundamental to the sustainability of business.

Since 2002, *1% for the Planet* has inspired members of the business community to contribute 1% of sales to environmental groups around the world. In return, this growing alliance of companies is given the opportunity not only to see their self-worth rise, but their net worth climb as well.

We hope your business would consider joining this group as a business partner, and support our good work by choosing to dedicate your 1% to the Rock River Coalition.

To join, or to learn more, go to: www.onepercentfortheplanet.org



Milwaukee Water Council "Water as Industry & Water as Resource"

Claus Dunkelberg, Business Development Director for the Milwaukee Water Council, gave a presentation to students and the general public about the opportunities and challenges that Milwaukee's Water Council faces as it builds southeastern Wisconsin's reputation as a World Water Hub.

Claus's speech was entitled, "Water as Industry. . . Water as Resource." In response to a request from the Town and Country RC&D Water Issues Team, Dunkelberg crafted his talk on the economic development opportunities that water management offers.

According to a report put out by McKinsey & Company in 2010, the current competitive demands for water predict that there will be an estimated 40% supply shortfall by 2030.

It is imperative, therefore, that bright new minds dedicate themselves to innovating new ways to conserve water, recycle water, decrease stormwater runoff and the water pollution it can cause, and key into desalination and other efforts to more closely balance supply with demand.

Careers that integrate business, science, and solving pressing world problems are often the most fulfilling, Claus suggested.

Students at the UW-Whitewater campus have embraced the suggestion, and have formed a campus chapter of the Water Council. Learn more about this effort in the adjacent story.

Claus delivered his lecture on Wednesday, October 7th, in Science Hall, part of UW-Madison's Nelson Institute.

To request Claus to speak at your event, contact him at the Water Council at cdunkelberg@thewatercouncil.com or 414-587-6796.

More information about the Milwaukee Water Council, a 501 (c) (3) organization, can be found at: <http://www.milwaukee7-watercouncil.org/>

If you'd like to speak at a Town and Country Water Issue Team event, contact Beth at 920-541-3208, bethgehred@townandcountryrcd.org.

Town & Country RCD Water Issue Team In Action



Town and Country RC&D's Water Issue Team is diving into key issues affecting southeastern Wisconsin's watersheds. The Team is led by

two dynamic women, Kate Heiber-Cobb of Monona, and Lisa Conley of Oconomowoc. They are fountains of information about water policy and actions taking place around the region, and invite you to be a part of the team of volunteers. There are opportunities for hands-on work, policy work, event and speaker planning, and more.

An example of a Water Issue Team project is Water Star Wisconsin, a new on-line application program that guides, inspires and recognizes municipalities for exemplary efforts in surface water, ground water, and water-related recreation. The Water Issue Team conceived of the idea, partnered with the Rock River Coalition, Department of Natural Resources and the University of

Wisconsin-Extension to develop and launch the program. More than 200 professionals helped conceive and develop Water Star.

TCRCD continues to spread the word to community groups about how this free program incentivizes improved water management practices. If you would like to learn more about turning your community into a Water Star community, go to www.waterstarwisconsin.org

Another project that incubated in a Water Issue Team meeting is a lake



TCRCD Vision Team member, Lisa Conley and Water Star Coordinator, Suzanne Wade at the joint TCRCD and Water Star booth at the Water and Energy Efficiency Expo in Waukesha last May.

Photo by Beth Gehred

clean up effort concentrating on one of the City of Madison's most popular beaches – Vilas Beach on Lake Wingra. The Clean Vilas Beach Coalition, made up of Engineers Without Borders – UW Domestic Chapter, Friends of Lake Wingra, Madison Area Permaculture Guild, Yahara Lakes Legacy Partnership, Yahara CLEAN and Town and Country RC&D, is collaborating to develop a strategic plan for addressing the impaired water status of the lake. Clean Vilas Beach Coalition is developing three potential strategies to keep Vilas Beach swimming water clean and clear including:

- 1) a floating wetland buffer,
- 2) a mycoremediation border,
- 3) a mycoremediation display garden.

People wanting to learn more about these state of the art filtering strategies should contact Beth at 920-541-3208 or bethgehred@townandcountryrcd.org to find out when the group next meets.

UW-Whitewater Students Become Part of Water Council



Students at the University of Wisconsin-Whitewater held the inaugural meeting of the Whitewater Water Council student group in early October. Universities throughout Southeastern Wisconsin had been called on by the Milwaukee Water Council to develop student chapters. UW-Whitewater was the first to respond to the call.

After the meeting, President Meghan Jensen said, "it looks like we have a group of creative people who will be able to work together and get things accomplished!"

Students came bursting with ideas on how the council can educate and create awareness about local and global water issues, assist in the development of the greater Milwaukee region as a World Water Hub, connect with other water-based organizations and develop and grow student water council chapters at universities across the state of Wisconsin.

On October 20, "International Campus Sustainability Day," members of the group conducted a water awareness

event on the UW-W campus using facts and visuals to raise awareness and inform people about water quantity, quality and accessibility concerns.

The Whitewater Water Council will sponsor "The Value of Water Symposium," on Nov. 29, 5:30 pm at Timmerman Auditorium in Hyland

Hall. This is one of a series of water lectures being held by the College of Business and Economics.

More information can be obtained by emailing water@uww.edu.



An electronic bulletin board in Whitewater announces the new focus on water for the UWW School of Business. (top right)

Students had intense discussions about their ideas for the Whitewater Water Council (bottom photo).

Rosy-Lane Holsteins: Sustainable system kind to cows, environment

by Daphne Holterman

Rosy-Lane Holsteins is located on Ebenezer Drive just south of Watertown (Jefferson County) where we care for 750 milking cows and

raise all of our heifers and calves. My husband Lloyd and I own and operate the farm, along with our younger partner, Tim Strobel. We love cows and Tim's specialty is crops and machinery so we make a

great team! We have two teenage daughters. Tim and his wife Jana have a daughter who just turned one.

We strive to care for the land, air, water and animals so that future generations can take this enterprise to the "next level" when the time is right. This is what our parents did, and our grandparents before that. We live and work here every day. Because of our current herd size, we have a Wisconsin Department of Natural Resources (DNR) Confined Animal Feeding Operation (CAFO) permit, issued in 2002. One stipulation of the CAFO permit is following a nutrient management plan (NMP), which we already had in place for about 20 years. The NMP helps us fine-tune our cropping to maximize feed yields with minimal inputs, saving us money.

We are sustainable in the truest

sense of the word. Our farm follows environmental standards set by the DNR that exceed federal Environmental Protection Agency (EPA) standards. All manure is collected and used as fertilizer and cannot enter any body of water. Our NMP designates where we can and can't spread manure to protect the water. For instance, we

don't spread manure in February or March when there is more risk of run-off. We also maintain buffers next to streams. This is more stringent than city wastewater treatment plant regulations.

By July of 2010, we planned what crops will be planted in each field in 2011. We regularly test the nutrients in both the manure and the soil on the 1,100 acres we farm. This helps us decide how much manure to apply, where and if we need to apply additional fertilizer because each crop has different nutrient needs. We only apply nutrients the growing crop needs and no more. All fertilizer and manure applications are tracked in Wisconsin's NMP software, Snap-Plus. We send quarterly and annual reports to the DNR.

Manure increases the soil's organic matter. Earthworms feed on the dead

and decomposing organic matter so it is "available" to the growing crop. Worms improve the soil structure. We also rotate crops, plant in contour strips to prevent erosion, practice integrated pest management, and select plant varieties best suited to our soil and growing season.

For instance, we grow 600 acres of alfalfa, which is harvested 3 times each year and lasts for 3 years before we till it under and rotate to corn for just one year. Alfalfa is good for the soil because:

- We plant it only every 3 to 4 years, so there is less opportunity for soil erosion, compared to crops like corn and soybeans, which are planted every year.
- Alfalfa's roots are up to 3 feet deep, which helps hold soil in place and improves soil structure.
- The alfalfa plant "fixes" nitrogen and adds this nutrient to the soil.

- Some varieties are bred to be insect resistant, so we minimize or eliminate the need to spray chemicals.

Our family farm utilizes many technologies with crops, cows and calves to produce the safest and most nutritious dairy foods in the world. Each cow here produces an average of 12 gallons of milk each day, compared to the state average of 6 gallons. If you pamper the cows, they produce more milk and that generates profit for our operation, which allows it to be a sustainable business over the long-term. This "circle of life" benefits people and the Earth.

If you have other questions about our farm or agriculture, contact me. We offer farm tours by appointment. Call 920-262-0797 before 8:30 p.m. or email at rosylane@gdinet.com.



Rosy-Lane Holstein owners and partners: Lloyd W. Holterman, Daphne Holterman, Tim Strobel.



We have about 100 baby calves on the farm and I love taking care of them – they are the foundation of our herd. They needs lots of TLC.



Liquid manure from our concrete storage lagoon is stirred with a giant mixer, then pumped out twice a year and injected under the soil surface to minimize odor and put nutrients directly in the root zone.

The metamorphosis of Wisconsin into the leading dairy state started in the 1870s. W. D. Hoard of Fort Atkinson and W. W. Daniells at UW promoted dairying as an alternative to wheat. Wheat was the crop of choice among pioneers from 1848 to 1860s but repeated crops of wheat quickly and intensely depleted the soil. The Germans and Scandinavians who settled in Wisconsin shifted to a dairy and livestock agriculture... and America's Dairyland was born. Hoard's Dairyman magazine was founded in 1885 by Hoard and he worked closely with dairy scientists in the U.S. to publish research results with practical application. By 1900 dairy cows were found on more than 90% of the state's farms. Hoard also served as chair of the UW Board of Regents and as Governor of Wisconsin (1889-91).

October 10 was W.D. Hoard Day. Visit www.dairydoingmore.org to find out more about his vision for Wisconsin to revitalize depleted solids and produce the best milk and cheese.

Sources: Rosy-Lane Holsteins LLC Nutrient Management Plan 2009-10 and History of the Dairy Science Dept. at University of Wisconsin-Madison by L. H. "Bud" Schultz.

A Great Fall Harvest of Leaf Messages

Four different educational campaigns are currently underway to encourage people to use their leaves on their own property as nutrients for grass, flowers, trees and vegetables instead of raking leaves for city collection. Leaves left in the street or on the terrace can lead to water quality problems.

Our front page features an article with the Rock River Stormwater Group's message on fall leaves and a copy of the Madison Area Municipal Storm Water Partnership newspaper insert with year round suggestions.

City of Madison Launches: Leave the Leaf Campaign

Drop that Rake is the headline in the October 13 Wisconsin State Journal that kicked off the city's message of mulch or compost those leaves. Their key message is similar to the other programs: "Leaves can provide valuable nutrients to lawns or gardens." More on the program and an article on alternatives to raking can be found at <http://www.cityofmadison.com/streets/LeaveTheLeaf/>



Turn Over a New Leaf

Waukesha County's Recycling Program has a new campaign encouraging residents to use their leaves as well. In addition to the poster shown here, their new video can be found at <http://waukeshaCounty.gov/recycling/>

Some municipalities are even using digital street signs to remind people to keep their leaves out of the streets.



Photos by Maureen McBroom.

Love Your Lakes, Don't Leaf Them

Madison Area Municipal Storm Water Partnership is a group of 20+ municipalities, UW-Madison with others who produce educational materials in the Dane County area. In 2009, the campaign used beverage coasters distributed to restaurants and pubs on the water in the Dane County area featuring 4 leafisms. (A front and back from one of the coasters is shown here.)

This year, in addition to the newspaper insert on the front page, they are focusing efforts on print advertising and web advertisements on madison.com and wtdy.com.

A great brochure on fall leaves can be found at: http://danedocs.countyofdane.com/webdocs/pdf/myfairlakes/leaf_brochure.

If you live in the MAMSWaP area, you can find out where to pick up a *Love Your Lakes Don't Leaf Them* sign at http://www.myfairlakes.com/fall_campaign.aspx

If you live elsewhere in the basin you can pick up a Love Your Lakes window sign at the Jefferson County UWEX Office.

**Love Your Lakes,
Don't Leaf Them.**

Leafism #2

Composting your leaves
saves you time and money.

myfairlakes.com

Leafacts:

Composted leaves make a great fertilizer
and are a valuable mulch in gardens and
around trees.

Flower beds under trees reduces yard
maintenance during the growing season
and provides a natural place for fallen
leaves.

Mulching leaves on your lawn can replace
one fertilizer application each year.

[Learn more at myfairlakes.com](http://www.myfairlakes.com)

Friends of Cam-Rock Celebrate 10 years of Monitoring



The team of Becky Schettler-Peterson, Janice Redford (left photo), Don Nettum and Shirley Ellis (right photo) have been taking samples of Koshkonong Creek for ten years, they were the first of the Rock River Coalition monitoring teams.

In addition to their monthly monitoring efforts, they have also been involved in special efforts to test coliform bacteria monitoring techniques and monitored for the exotic rusty crayfish at their site. The Rock River Coalition thanks them for their ten years. As Janice says "It was truly a difficult monitoring year due to high water and the photos I have show that our creek looked like some kind of wild-ocean." The whole team is hoping to monitor for another ten years.

Monitors find Numerous Clam Species

Over the year, hundreds of people will canoe and float down the rivers and streams in the Rock River Basin, never realizing the amazing life their shadows pass over on the stream floor. One participant of a mussel monitoring training workshop said as he climbed out of the Bark River, "I've canoed this stretch dozens of times and I've seen clams before, but I never knew there were so many different kinds, this is amazing".

On September 1, while dusk was falling, fifteen newly trained mussel monitors discovered twelve species of freshwater mussels or clams in the Bark River downstream from Rome including several new species for the river. This was an incredible diversity considering the area searched was very small only about 200 feet in length downstream from the old Slabtown dam site and the search

was conducted in the early evening with only a half hour of sunlight. Other species found include the giant floater, fat mucket, ellipse, fluted shell, plain pocketbook, three ridge, Wabash pigtoe, round pigtoe, elktoe, black sandshell, creeper and the paper pondshell. The round pigtoe and elktoe are both species of special concern and the ellipse is on the state threatened species list.

Clams and mussels are important as filters of the water and when they die, their shells become home to many stream critters. One clam shell found during this excursion was completely filled with a fresh water sponge, another uncommon and secretive inhabitant of the basin.

These newly trained monitors will now go and look for clam shells and will photograph live mussels

in Koshkonong Creek, Turtle Creek, Bark River, Pheasant Branch Creek, Whitewater Creek and other small streams in the area.

The Rock River Coalition, UW-Extension and the Department of Natural Resources sponsored the training to get help from volunteers as very little data is known about the types of clams found in the Rock River Basin. Most of these records come from collecting done in the 1970's and haven't been updated since.

Anyone can become a mussel monitor. More information is available on the web at www.wiatri.net/inventory/mussels.

For more information on the work of the Rock River Coalition, including their stream and wetland monitoring programs, go to <http://www.rockrivercoalition.org>.

Snap! River Alliance Hosts Fourth Annual Photo Contest

Calling all shutterbugs and photogs! It's time for the annual River Alliance photography contest. Winning images will be published in the spring issue of Flow, the River Alliance of Wisconsin's printed quarterly newsletter. In addition, Wisconsin Natural Resources will publish the grand prize winning photograph in the Letters section of the April 2011 issue.

The contest is open to all US residents and entries are due on November 15, 2010.

Images will be judged by photographer Bill Pielsticker (www.pielstickerphotos.com) and Toni Sikes, founder and artistic advisor of The Guild (www.artfulhome.com). One Grand Prize Winner will receive an 11x14 print of their photograph, matted and framed. All of the winning images will be posted on the River Alliance website and printed in Flow with the grand-prize winner's image featured on the cover.

Please visit www.wisconsinrivers.org to review the full rules before entering to learn more about specifications.

Rock River Reflections Newsletter

The Rock River Reflections newsletter strives to include stories of events, groups, businesses, municipalities and individuals that pertain to the missions of our four partners: Rock River Coalition, University of Wisconsin-Extension, Town and Country RC&D and the Rock River Stormwater Group.

These four entities are jointly helping to write articles and to fund the cost of printing and mailing.

In this issue we have included articles on monitoring, large farms who are working to protect our environment, student involvement in water issues and stormwater educational efforts.

If you have a story you would like highlighted in this newsletter, you can either send your idea directly to the editor, Suzanne Wade, wade@ces.uwex.edu or contact one of the partner groups. Photos are appreciated as well, specifications can be emailed to you.

You might have noticed the slight changes in size and layout. Our printer changed their press, so we are experimenting with a different size and inserting it in an envelope to fit mailing requirements for letters. **6**

Wisconsin Water Star Workshop

Thursday, November 11, 2010, 12:30 - 3:30 pm

Monona Public Library, Community Room

1000 Nichols Rd, Monona

Who should attend?

Staff from municipalities who are demonstrating a strong initiative to strengthen stormwater controls, ensure water quality, protect habitats, encourage residents to conserve water and implement other actions protecting surface water and groundwater. Your consultants should also be encouraged to attend.

Agenda

12:30 - 1:00 Overview of Water Star, explanation of the municipal profile, application and website.

1:00 - 3:30 Participating staff will use this time to complete the online Water Star application with the help of the Water Star coordinator.

We strongly recommend municipal staff from at least two departments, and with a detailed understanding of municipal policies, regulations and incentives, participate.

You can fill in the on-line application to become a Water Star Community without attending the workshop. However, people who attend the workshop find the additional help and assistance to be invaluable in completing the extensive application.

Participants will need a wireless capable laptop - let us know if you do not have one available when you register.

To register, or for more information, contact Water Star Coordinator Suzanne Wade at suzanne.wade@ces.uwex.edu or 920-674-8972.

Wisconsin Water Star

A new state program launched on April 22, 2010 to guide, inspire and recognize municipalities who are doing exemplary work in all areas of municipal life including stormwater management, public works, parks & public lands, wastewater treatment, public water supply, community education, business incentives and emergency management.

Fourteen municipalities are Water Stars, the most recent are pictured to the left. Learn more about Water Star at <http://www.waterstarwisconsin.org>



Water Star is a reason to celebrate for everyone who helps improve water quality. Here Water Star Coordinator, Suzanne Wade congratulates Whitewater staff, Rick Lien and Dean Fischer for receiving Bronze Water Star designation.



Beloit Public Works Director David Botts accepts their Silver Water Star sign.



Grafton is the most recent Gold Water Star here with Village President Jim Brunnuell, Public Works Director David Murphy and Director of Planning, Michael Rambousek accepting the sign and certificate. photo by Lisa Oppeneer

Crave Brothers Farm to Experiment with New Pollution Control Process

Algae will become a powerhouse pollutant buster in a new project being funded through a US Department of Agriculture (USDA) Conservation Innovation Grant to develop novel technology for phosphorus recovery from methane-digested dairy waste.



Pilot Project in Hopewell, Virginia focusing on the removal of nutrients in municipal wastewater through the cultivation of algae.

Great Lakes Ag Energy, LLC (GLAE), together with Resource Engineering Associates, Inc. (REA) both of Middleton, have been awarded a \$362,233 Conservation Innovation Grant (CIG), through the USDA Natural Resources Conservation Service (NRCS). The project will receive the 50% matching funds over the next 2 years to demonstrate an algae greenhouse & constructed wetland system to complement methane-digester processing in managing animal waste and runoff at the Crave Bros. Dairy & Farmstead Cheese plant outside of Waterloo, WI.

In addition to Crave Bros. farm (site of the 2009 Wisconsin Farm Technology Days) other project collaborators include Milwaukee digester company Clear Horizons (Pieper Power), UW-Madison - Dept. of Water Science & Engineering, and Madison Area Technical College.

Agriculture Secretary Tom Vilsack recently named the winning proposals submitted to the NRCS' Environmental Quality Incentives Program. The NRCS received 230 full proposals and awarded CIG grants to 61 projects representing 43 states and Pacific territories. The project is part of a broader effort to control nutrient release into the Mississippi River Basin, and reduce hypoxic 'dead zones' in U.S. waterways. The Crave Bros. project partners are putting up more than \$200,000 cash and in-kind matching contributions, but still need another \$160,000 commitment from dairy, energy-efficiency, or clean-water stakeholders before they can break ground early next year.

Project specifics: GLAE and REA will establish two types of aquaculture management systems at Crave Bros. Farm: 1) Algal-culture raceways within a greenhouse structure that permits year-around treatment of effluent 'filtrate' left from methane-digestion of dairy manure, and 2) a connected series of constructed wetlands to receive both algal-treated water and storm-water runoff from the dairy's operations yards. The two systems will be integrated, with the wetlands, storing and further processing the algal-treated manure liquid filtrate. Biomass from both the greenhouse-cultured algae and emergent vegetation grown in a portion of the wetland will be

harvested as sources of sequestered phosphorus and nitrogen. Potential uses for these plant biomasses include; renewable fertilizers, animal feed additives, and bioenergy feedstocks. Processing these biomasses on-farm will reduce the nutrient load and decrease the amount of phosphorus-rich manure currently being transported and land-spread off-site.

GLAE's CEO Tony Hartmann said, "This project brings together a diverse group of stakeholders in the pursuit of clean water, energy efficiency, rural economic development, and renewable energy. In proving nutrient recycling technology at Crave Bros. farm, we will demonstrate methods for integration of wastewater treatment, methane-digestion of dairy manure, and a year-around production greenhouse. We will utilize renewable energy and aquaculture to recycle phosphorus while providing opportunities for Wisconsin's ag' community to diversify crop production and on-farm processing."

Project partners are currently seeking investment by interested parties to meet the NRCS's requirement of a 25% cash project match.

More information: Tony Hartmann (608) 215-4446 or Bob Pofahl (608) 831-5522



USDA research of the cultivation of algae from surface drainage runoff within the Chesapeake Bay watershed.



GLAE scientists and REA engineers review the USDA research project, in Bridgetown, Maryland, focusing on the cultivation of algae from surface drainage runoff adjacent to farm field cultivation operations.

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Affiliates*	\$ 50
Corporate	\$ 200

*Includes small businesses, organizations, lake districts, and municipal departments

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Photo by Richard Lathrop

"A CLEAN Future for the Yahara Lakes" Report Completed

At the end of August, staff from Dane County, DNR, DATCP, and the City of Madison submitted a Yahara CLEAN report to the MOU signatories (County Executive Falk, Mayor Cieslewicz, DNR Secretary Frank, and DATCP Secretary Romanski). The report summarizes work done to date on this project (Yahara watershed-wide and field-specific modeling of nutrient and sediment runoff, impaired beaches assessment, in-lake response modeling, community visioning, and identification of practices to reduce nutrient and sediment runoff and beach bacteria levels). The report is available at www.yaharawatershed.org on the Resources page.

Several important implementation steps are already underway, including:

- Community manure digester construction in the Lake Mendota watershed
- Mississippi River Basin Initiative project led by Dane County staff to reduce agricultural phosphorus runoff being funded by NRCS, the Madison Community Foundation, and the Sand County Foundation
- Exploration of a successor organization to the Yahara Lakes Legacy Partnership, to involve many more stakeholders and address issues beyond nutrients, sediment and beach bacteria that have been the focus of the Yahara CLEAN MOU.

Staff will be working with the MOU signatories, the Dane County Lakes and Watershed Commission and many partners over the next few months to prioritize the next implementation steps.

Mussel Monitoring



Mussel monitoring training on the Bark River was an amazing success. Find out what we discovered in the story on page 6

Geocaching a Great Fall Sport

A recent fall day, as the sun shined and leaves crunched underfoot, the great outdoors was a calling. It was perfect weather to play the sport 'geocaching' and take advantage of the many geocaches around the basin.

According to the website geocaching.com: Geocaching is a high-tech treasure hunting game played

throughout the world by adventure seekers equipped with GPS devices. The basic idea is to locate hidden containers, called geocaches, outdoors and then share your experiences online.



Geocaches typically include at least a logbook, while larger caches include a variety of trade goods. Occasionally you will find a special 'travel bug' or 'geocoin'. These are started by a fellow geocacher, and are moved from place to place, picking up stories along the way. Their journey is recorded on the web. Travel bugs, aren't necessarily 'bugs' like the one shown here, but can be most anything, creativity is prized.

Geocaching is enjoyed by people from all age groups, with a strong sense of community and support for the environment.

It's a great way to view the special places in our basin, with more than 500 caches the biggest issue is where to start. There's even one at the UW-Extension office in Jefferson, highlighting the rain garden.



An Earth Cache is a unique geocache where you need to learn about something regarding geology or natural processes. A number of earth caches abound in the Southern Kettle Moraine, including one at this old spring house.

Photo by Suzanne Wade

The Value of Water Symposium

Monday, November 29, 2010

5:30 - 7:30 pm

University of Wisconsin- Whitewater
Hyland Hall, Timmerman Auditorium

Water is an essential element to our survival, but we continue to take it for granted. At the UWW Value of Water Symposium you have an opportunity to increase your understanding of the value of water from economic, ecological and anthropological perspectives, and to hear a debate on this pressing global issue.

Speakers include John Andres, CPA-Partner, Baker Tilly, Richard Meeusen - Chair, President & CEO of Badger Meter, Inc., Jeff Ripp, Water Conservation Coordinator at Wisconsin Public Service Commission and more.

This event is sponsored by the UW-W College of Business and Economics and the UW-Whitewater Water Council. For more information, contact Linda Reid, reidl@uww.edu. 262-472-1326

UW Research to Look at Climate Change with Focus on Yahara Watershed

On October 8, the National Science Foundation announced that the University of Wisconsin would receive a grant to support a five year project to examine how ecosystem services vary and how they can be sustained in regional watersheds as climate, land use and land cover, the built environment and human demands change.

Scenario planning will help assess changes in the watershed and its ecosystem services.

The project will officially start in April 2011.

For more information visit the project webpage <http://wsc.limnology.wisc.edu/>