

Stream monitoring continues



The inlet stream crossing Hwy A will serve as our main monitoring site. Photo credit : J Scherer

Data collected will help us gauge the impact of large-scale watershed improvements on our inlet.

Data collected will include the following:

- ☼ Total Phosphorus concentration: bi-monthly samples collected May-September. Monthly samples collected October-April.

- ☼ Stream flow and water levels
- ☼ Turbidity
- ☼ Fish diversity
- ☼ Macroinvertebrate diversity (Hilsenhoff index)
- ☼ Temperature, dissolved oxygen, pH, and specific conductance

Last years data indicated a marked increase in water quality compared to the 1993-1994 assessment. We will continue to collect data for a complete year yielding a snapshot of current water quality conditions. Grant funding has also allowed us to expand on last years data to include analysis of total phosphorus concentration and to survey fish populations.

We look forward to a great year of stream monitoring. This data will add to other information gathered and offer a more complete picture of the health of the waters flowing into the lake, if adopted practices are working, or if more emphasis is needed on our best management practices.

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Vol. 21, No. 4

Spring 2014

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FROM THE HELM

It is with a great deal of regret, that I have to inform you, that Paul Dearlove has left his position as Lake Manager for the Lake Ripley Management District. Paul spent 15 very productive years with the Lake District. During that time, he grew personally and professionally. He decided to move on and accept a position with the Clean Lakes Alliance in Madison. His new position will allow him to take on new challenges and more importantly for his family, he will be working closer to home. It has been my personal pleasure to work with him, and he will be missed by the entire Lake Management District Board.



Lisa Griffin is acting as interim Lake Manager, and it is business as usual, while we search for a permanent replacement. I am happy to inform you that we had 21 applications for the position, and we are in the process of reviewing and evaluating the candidates.

This is a busy time for the Lake District. We are working on several shoreline projects, as well as, moving forward with the Ripley Rewards Program. Please read all about this new program in this newsletter, and join us at a special Lake Fair on July 5<sup>th</sup>. Feel free to call the office if you have questions, or stop by and meet Lisa.

*John Molinaro, Chair*

## Ripley Rewards is underway!

Ripley Rewards has been launched and is well underway. An informational booklet was sent to district landowners highlighting the program and the benefits of pledging an action. These actions have a positive impact on you and Lake Ripley. Many of these actions not only help to maintain a healthy lake, but could save you money, time, and add property value. A great list of program partners has been assembled to assist you in your pledged actions. Act fast and return your pledge card quickly. Don't forget, a limited number of prizes in each category will go to our early pledge signers.

Plans continue for the July 5th Lake Fair. This family-fun event is open to the public. We will give away prizes, honor our stewardship award recipients, and host informational booths. More information on the program and July 5th event is found on page 2.



Your home • Our lake • Your opportunity





Program highlights:

**Ripley Rewards** is a pilot program seeking to engage landowners in pledging an action to complete projects aimed to protect and enhance the water quality of Lake Ripley. The actions selected for this program are practices being adopted all over the country to help decrease storm water runoff, increase the natural infiltration of water, and improve natural habitat.

All actions go beyond the benefit to Lake Ripley. Many actions help to save **YOU** time, money, and may increase property value. If you haven't taken action yet, please review the options for pledging and consider how you will contribute to this effort.

Options for Pledging Action

Lake District & watershed landowners:

- ☐ Redirect roof downspouts to your lawn or garden.
- ☐ Install a rain barrel.
- ☐ Plant a native tree (1-inch trunk diameter).
- ☐ Create/expand a rain garden (50 sq. ft.).
- ☐ Replace water-impervious surfaces with water-permeable alternatives (50 sq. ft.).

Lakefront owners:

- ☐ Create/expand a lakeshore garden (100 sq. ft.).
- ☐ Partner with the Lake District to create a treefall habitat at the water's edge.

KEY DATES

June 2– Pledge cards due

July 5– Lake Fair

December 31– Pledge completion deadline

Join us for our July 5th Lake Fair

Bring the whole gang and join us for some family-friendly and educational events at our Lake Fair. Prizes will be given to our pledge winners and nominees honored for the Stewardship Award. We will host informational booths highlighting aquatic invasive species, water bugs, fish, monitoring opportunities, and more.



**JULY 5, 2014**

**Ripley Park**

**South Shelter**

**10:00 a.m. to 12:00 p.m.**





Photo credit: Cambridge CAP

Clean Boats-Clean Waters

The goal of Clean Boats-Clean Waters is to raise awareness about aquatic invasive species and the measures that boaters should take to prevent their spread. During the summer of 2013, nearly 300 hours were logged at the public boat landing as part of a boater-education and watercraft-inspection effort. With the help of a \$2,025 Wisconsin DNR grant and 100 hours of volunteer time, several hundred people completed surveys and received free demonstrations on how to identify, remove, and dispose of unwanted aquatic hitchhikers.



This summer we are fortunate to continue our 2013 efforts to stop the spread of aquatic invasive species. Additional funding of \$2,025 was provided through a grant from the Wisconsin DNR to continue this initiative throughout the summer of 2014. Volunteers are vital to the outreach efforts of this initiative and we are actively seeking volunteer support. Please let us know if you are willing to assist us, and the entire state of Wisconsin, in preventing the spread of aquatic invasive species.

Stream Monitoring Continues

Stream monitoring will continue into April of 2015 thanks to a \$3,000 grant from the Wisconsin DNR. In an effort to continue gathering data of our inlet stream, we have partnered with Dave Marshall of Underwater Habitat Investigations, LLC and Patricia Cicero from the Jefferson County Land and Water Conservation Department.

Dave will provide us with equipment and his technical expertise gained from his many years as a biologist with the Wisconsin DNR. Dave coordinated the original water resource appraisal in 1994 and we are anticipating that current results will reflect higher water quality due to the strides our landowner have taken to improve the watershed. Patricia and her partnership with the Rock River Coalition will provide any additional stream monitoring training and possible event sampling equipment.

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Continued from Fire

The prairie states of the Midwest are known as the bread basket of the world with the deep rich black soil created by thousands of years of prairie communities which has been maintained by fire. This deep black soil was created by the decaying roots of the native prairie plants.

Ok, so fire is fine for the plants which have adapted to fire for their advantage but what about the birds and animals. How does fire affect them?

Most prairie fires occur in early spring or fall when birds are not nesting and baby animals are not in the prairie. I have, on occasion, discovered a turkey nest which was burned and the eggs were lost; however, they frequently re-nest to raise a second brood. Consider the effects of not burning. Invasive species and brush would replace the flowers and native grasses; the grassland birds would lose their habitat entirely and be gone.

The insects that are attracted to the flowers would no longer be available for birds to feed their young. By eliminating fire, the entire community may collapse while an occasional prescribed burn could enhance and maintain the community.

So the next time you see the black ash and soot of a prairie fire you will know that it is not just the result of a bunch of pyromaniacs playing with fire; but a highly skilled crew of folks putting the natural forces of nature in motion to keep the prairies blooming, the birds singing and the water flowing clear into your well and lake. –RON MARTIN, Midwest Prairies LLC



Photo Credit: James Daly 2010

**"If not us, then who? If not now, then when?"**  
- John E. Lewis



Fire: Nature’s way of weeding and feeding

Spring is a time of change in our natural world. Mild temperatures, warm rains, birds returning to nesting grounds and fire sweeping across the prairies. All of these events took place in the upper Midwest for thousands of years which maintained the natural balance of plants, animals and insects until European settlement changed everything. After settlers built homes, barns and wooden fences; fire was cursed and even the mention of fire struck terror in the hearts of men.



Photo credit: Midwest Prairies LLC

Needless to say, this brought an end to burning and the beginning of plowing which drastically changed the landscape. Any land that was too rugged to plow was grazed and the cows replaced the fires by grazing on woody stems which kept the brush under control. Fire has a way of sorting out plant species into three basic groups; fire tolerant, fire intolerant and fire dependent.

The growing point for most native prairie plants is below ground while the growing point for most woody species is above ground. Wind swept fire quickly racing over the dormant prairie grass consumes the dry thatch exposing the dark soil. Soot and black ash draws the heat from the sun to warm the soil and quickly jump start the root crowns into green life. Without fire, the thatch builds up and reflects the sunlight and insulates the roots keeping them cold for weeks longer. The burning process also returns many important nutrients into the soil which is taken down to the roots with the spring rain. This is why you see the amazing green foliage and brilliant flowers in the years following a prairie burn which has been absent for a long time.

Prairies that haven’t been burned for several years are noticeably shorter and bloom later. Cool season grasses, weeds, invasive species and woody plants gain an advantage when prairies are not burned for

long periods. Late spring burns can negatively impact early blooming spring flowers like the Pasque Flowers so you want to have a diverse burn cycle which has a rotation of early spring, late spring and fall burns. You should also skip a few years if invasive brush isn’t an issue.



Pasque Flower Photo credit: wildflower.org

Streams that wind through native prairie grasses generally flow clear and have less sediment than streams which have become overgrown with trees and brush along their banks. The deep and fibrous root systems of the warm season prairie grasses does a much better job of holding the soil and preventing erosion. Roots of most trees and brush are coarse and shallow resulting in poor soil holding capacity which can be seen along many streams in southern Wisconsin.

Bur oak trees are one exception in the world of trees when it comes to fire. Bur oak seedlings develop a huge root system early in life which can store a large amount of energy capable of regeneration if a fire burns off the top. I have seen 18 inch bur oaks completely burned off in a prairie fire only to resprout again from the roots to a height of 30 inches by the end of summer, passing the original height. The root continues to gain mass and if the top is burned off again it will rebound to new heights until the thick corky bark insulates its vitals to the point where it can survive the fires unscathed. The value of bur oak trees in the natural community cannot be over emphasized as 90% of woodland and savanna wildlife depend on the sweet nutritious acorns for survival.

Consider the fact that warm season grasses have the ability to pull carbon from the air and deposit it in their roots which can go down as much as 10 feet. Through natural attrition, about one-third of these roots die and decompose each winter leaving an open channel in the soil for rainwater to find its way down and recharge our groundwater and keep our wells working and our streams flowing.

Continued >>

Invest in a rain barrel

Rain barrels are an easy and inexpensive way to help stop unnecessary stormwater runoff. Installing a rain barrel takes little effort and can be completed in an afternoon. Build your own and make it a great family project.



Photo credit: mwdoc.com

Benefits of installing a rain barrel include:

- ✧ Convenient and easy way to store water for plants and trees.
- ✧ Saves money on your water bill.
- ✧ Adds interest to your garden or landscaping.
- ✧ Reduces flooding and erosion in your yard by capturing water otherwise destined to become runoff.
- ✧ Are low to no maintenance.

This easy project provides you with a valuable resource that would normally drain away from your home while picking up pollutants on its way and drain into Lake Ripley.

Plant a native tree

“The best time to plant a tree was 20 years ago. The second best time is now.” -Chinese Proverb

Trees are an important part of our landscape. They intercept and slow several thousand gallons of rain fall per year. Their roots stabilize our shoreline and hold soils in place preventing erosion. They shade our homes in the summer, reducing our air conditioning costs. They also provide habitat for us to enjoy wildlife.

Native trees are more capable than non-native varieties to withstand summer heat and drought, reducing the need for watering once they are established. They require less maintenance and can add value to your property. Tree suppliers and garden stores carry a wide variety of native trees and can provide guidance on the best tree for your property.

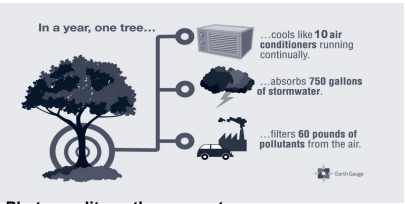


Photo credit: earthgauge.net

Create a rain garden

Rain gardens are growing in popularity as many municipalities face storm water issues. They are a great addition to other stormwater practices that help to increase natural infiltration of water.

Rain gardens help solve drainage issues in your yard by allowing a place for water to gather and filter down recharging groundwater aquifers. Native plants and grasses provide their extensive drainage system since many roots can reach beyond 5 feet long. This also is a benefit to homeowners because those established root systems support plants during both dry and wet weather, almost eliminating the need for watering and maintenance.

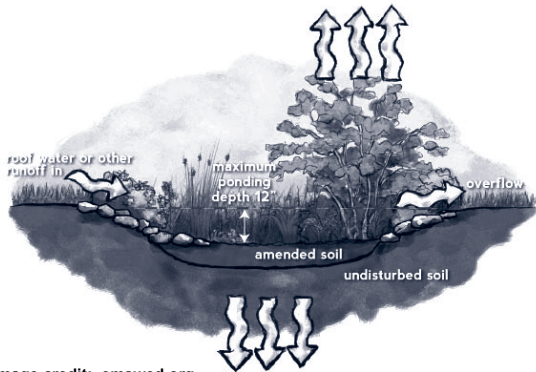


Image credit: emswed.org

Rain gardens can be a do-it-yourself job or you can call in the pros. Consider a rain garden in your landscaping plans!

Redirect a downspout



Image credit: blue-waterbaltimore

Downspouts are necessary to move water away from our homes. Where we direct the water can have a huge impact on Lake Ripley.

A one inch rainstorm on a 1,000-sq-ft roof produces 623 gallons of runoff each event. From May-September our area averages 6 rain events with rainfall totals over an inch. One roof produces over 3,738 gallons of runoff. Five homes contribute 18,690 gallons. By strategically placing where our roof runoff drains, we can protect our property, improve ground water recharge, and lower the amount of contaminants entering Lake Ripley. So aim the drain to your lawn or rain garden. Better yet, harvest some of that water for use during dry times.

Continued >>



✓ **Plant a lakeshore garden**

Shoreline buffers or lakeshore gardens are an excellent way to naturalize your lakeshore while maintaining your view and emphasizing other landscaping features. Maintaining turf down to the lake edge can lead to shore erosion, geese invasions, and the disappearance of interesting wildlife. Instead, consider replacing part of that lawn with some native sedges and prairie flowers. By doing so, you improve your shoreline's natural beauty, help guard against runoff and lakeshore erosion, and create a refuge for all those frogs and turtles we enjoy seeing.



Photo credit: msue.anr.msu.edu

Lakeshore gardens are easy to maintain eliminating the need to mow, buy fertilizers, and water plants. The long root systems of native grasses help anchor your shore and establish themselves quickly.

✓ **Convert hard surfaces to water-permeable alternatives**

Impervious surfaces have changed how water naturally runs off the landscape. Every additional square foot of roof, driveway, parking lot, patio, or storage shed creates another impenetrable surface that sheds rainwater instead of allowing it to filter into the ground. More storm runoff, more flooding, more soil erosion, less groundwater recharge, and, ultimately, sicker lakes and streams are the result.



Products like permeable pavers and porous concrete give water a chance to soak through.  
Photo credit: vdogreen.org

Cost-effective and more permeable alternatives are becoming

popular with home builders and remodelers. Consider ways to reduce your existing or planned hard-scaping footprint. If these areas are due for repair or replacement, consider installing permeable pavers placed on top of a crushed-gravel base. Products are available and many contractors are switching to these environmentally friendly alternatives. Check out our partner list for contractors and start planning today!

✓ **Share your shore with a treefall habitat**

Treefalls or "fish sticks" are an important component of a healthy lake ecosystem. Tree lined shorelines and treefalls function as important fish and wildlife habitat, supporting entire food webs. Aquatic insects feast on decaying trees. Frogs and small fish come to feed and find refuge from predators. Turtles used them as loafing structures so they could bask in the sun while maintaining a quick escape route. Larger fish gather in search of food.



Photo credit: WDNR

Over the years our Lake has become more developed, less wooded, yielding tidier beachfronts, and, of course, fewer treefalls. So what does this mean for our fish and shore-dependent wildlife? Research has shown that the impacts can be significant, and efforts are underway to re-naturalize shorelines to recover these lost habitat features. Those who have preserved natural treefalls, or even installed their own, commonly point to better fishing and more turtle and frog sightings as a result.

If you own waterfront, reserving space for a treefall will help return an important type of habitat that is becoming increasingly scarce. A tree that may need to come down due to disease or death makes good candidates, or it can be brought in from an off-site location. While certain permit standards need to be followed, Lake District staff is available to guide you through every step of the process. ♦

***"Knowing is not enough, we must apply. Willing is not enough, we must do"***  
**- Johann Wolfgang von Goethe**

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