



Friends of Lake Wingra



Promoting a healthy Lake Wingra
through an active watershed community

Wingra Watershed News

Fall 2014 volume 11, number 2

Fall in the Watershed

—Ben Yahr, Chair

Fall is an exciting time in the Lake Wingra watershed. As the air becomes crisp and the days become shorter, our thoughts shift from canoeing and kayaking on the lake to ice skating, snowshoeing or ski trips out onto the ice.

Fall is also a great time to think about the role each of us can play in the health of the lake.

The term “watershed” is important on many levels. Physically, it defines a geographical area. In the field of hydrology, it can be used to describe volumes and flows of water.

Historically, watersheds have been tied to regional or political boundaries. According to the EPA, the continental United States is made up of 2,110 watersheds. Watersheds are also important on a human scale.

Much like Aldo Leopold’s land ethic expands the boundaries of a community, watersheds may be seen as unique communities. Residents within the watershed are bound together by physical and hydraulic conditions, but we are also members of a community. Each household within a watershed can have a direct effect on the quality and quantity of surface water running off a property. Our actions can help or harm the health of the lake, and have consequences for the watersheds downstream.



Lake Wingra in fall

David Thompson

Fall is also an exciting time for Friends of Lake Wingra. The Wingra Watershed Plan has identified a pilot project for leaf management (See article on page 2).

We are also working with the University of Wisconsin Landscape Architecture Department, the Edgewood College Sustainable Leadership program, and the City of Madison on improving Wingra Creek and Monroe Street; participating with the Dane County Watershed Network to enhance “watershed literacy” (www.danewaters.com); and providing grant

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opportunities to area schools, churches and community centers. Please consider your role within the Lake Wingra watershed community this fall!



Friends of Lake Wingra, Inc.

Mission

We promote a healthy Lake Wingra through an active watershed community.

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To become a Friend of Lake Wingra, send your tax-deductible contribution to Friends of Lake Wingra, Inc. c/o Office of Advancement, Edgewood College, 1000 Edgewood College Drive, Madison, WI 53711-1977. Please make checks to: "Edgewood College - FOLW."

Friends of Lake Wingra, Inc.

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Leaf-It Out of the Street

—Roger Bannerman

As part of the Lake Wingra watershed planning effort (see article on page 4), a leaf collection pilot project will target the 600 blocks of three streets in the Midvale Heights Neighborhood, Piper Dr., Orchard Dr., and Charles Lane.

The 84 homes on these blocks will work with the city of Madison to use specific leaf management techniques with special emphasis on raking leaves out of the street onto the terrace. The "Leaf-It Out of the Street" pilot will occur during fall 2014 and 2015.

Street signs installed in the pilot area will let neighbors know which streets are scheduled next for leaf pickup. Friends of Lake Wingra will attempt to install the signs at least four days before the pickup date.

Residents should include leaves from the street as they create neat piles on the terraces. The advance notice of leaf pickup will hopefully make the process more efficient and cause minimal damage to the terrace grass from long-standing leaf piles. The city is also recommending other management techniques including mulching and composting the leaves. During the fall of 2015, the city will revise its collection methods and ask citizens in the project homes to bag leaves using free bags provided by the city.

The city mailed letters to the homeowners during the week of September 8 explaining the purpose of the project and inviting them to an informational meeting at Odana Hills Golf Course club house on September 18. Two neighbors from each block also went door-to-door handing out educational material and inviting everyone to the public meeting. The canvassers also distributed a survey on leaf collection and winter salting practices to be mailed in by each homeowner.

At the public meeting, a representative from Strand Associates, hired as a consultant by the city, presented about the role leaves and leaf runoff play in the amount of phosphorus going to the lakes and outlined the two-year project plan.

Residents attending the meeting had questions about the timing of the leaf pick-up. Some expressed concerns about bagging leaves in fall 2015, a more difficult process than just raking them to the terrace.

Friends of Lake Wingra installed the first signs on October 16. The day before the city picked up the leaves, a total of 35 homes had neat piles of leaves on the terrace and most had a minimal amount of leaves in the gutter. A successful pilot program will likely lead to expansion to other parts of the watershed or other city streets.



Midvale Heights neighbors learn about the leaf pilot project.

David Thompson

Roger Bannerman

Monroe Street Reconstruction

—Ben Yahr

Friends of Lake Wingra is carefully monitoring the planned reconstruction of Monroe Street. As one of several stakeholder groups identified by the city, we are excited about what's possible. From our perspective, the reconstruction has the potential to be a model for sustainable design and construction going far beyond simple pavement replacement.

As a bit of background, the city was planning to complete a partial reconstruction consisting of pavement and utilities replacement on Monroe Street from Gregory Street to Leonard Street in 2015, and a full reconstruction of Monroe Street from Leonard Street to Regent Street in 2016.

Due in part to comments received during the first public information meeting, held April 10, 2014, the project has been delayed until 2017.

According to the city, "The project will include design consideration for many items including pavement, curb and gutter, sidewalk, storm sewer, sanitary sewer, water main, streetscape items, lighting, signals and 'green street'/water resource considerations etc."

Friends of Lake Wingra is most interested in the latter considerations—and believes the delayed construction provides time to engage the public and design experts to make the project a multifaceted success. One suggestion is to implement "green streets" pilot projects throughout Monroe Street. The concept of "green streets" addresses ecological concerns such as stormwater quality and quantity, economic benefits to the city and local businesses, and significant placemaking benefits to local residents.

One element of a "green street" is stormwater curb extensions, which calm traffic, improve pedestrian crossing safety, invite bike or multimodal transportation, enhance greenspace, and improve stormwater capture, filtration, and infiltration. Look for future newsletter articles and website posts



David Thompson

about "green infrastructure," and how it can be applied to our watershed.

The city has engaged the public through two public information meetings about the reconstruction process. The first provided an introduction to the project history, and the concept of placemaking, to stakeholders including Friends of Lake Wingra, neighborhood associations (Dudgeon Monroe, Vilas, and Regent), the Monroe Street Merchants Association, Edgewood High School and College, Wingra School, UW-Arboretum, property and business owners, and others.

The meeting highlighted previous planning efforts including the 1989 Brittingham-Vilas Neighborhood Plan, the 2007 Monroe Street Commercial District Plan, the Friends' "Lake Wingra—A Vision for the Future," and the ongoing Lake Wingra Watershed Plan. Stormwater management techniques incorporated into the Monroe Street reconstruction could address rising chloride levels in the lake, reduce phosphorus inputs, and increase infiltration.

The second public information meeting, held July 9, 2014, gathered public input on streetscape amenities (lights, etc.), pedestrian crossings, and the Crazy Legs triangle area. It is unclear when additional public input meetings will be held, and how stakeholders will be involved in the design process now that the project has been delayed. Alder Lucas Dailey is continuing to investigate options for improving pedestrian crossings and safety before the 2017 reconstruction commences.

Friends of Lake Wingra will continue to work with Alder Lucas Dailey, City Engineering, and other design experts such as the UW-Landscape Architecture program, the UW departments of Urban and Regional Planning and Engineering, and the Edgewood Sustainable Leadership program to ensure the design is well planned, forward thinking and high quality.

See additional information and updates at www.cityofmadison.com/engineering/monroe/

Lake Wingra Watershed Plan: An Update

—Jim Baumann

A draft of the Lake Wingra Watershed Plan is nearing completion and will be presented at public meetings this winter. The Friends of Lake Wingra sought city funding for the plan and over the last two years has worked closely with the City of Madison and consultants hired by the city to develop a plan the address three of the goals identified in the Friends' "Lake Wingra — A Vision for the Future":

- ♦ Reduce phosphorus entering the lake to reduce algae and undesirable aquatic weed growth;
- ♦ Reduce chlorides from de-icers, such as road salt, to curb the increasing concentrations in the lake; and
- ♦ Increase infiltration of storm water to the groundwater to restore flow from springs to the lake.

Phosphorus

Leaves in the street were confirmed as the largest source of phosphorus in the watershed. Modeling by Strand Associates and monitoring results clearly point to the fall leaf period as the most critical period for phosphorus entering the lake. Although the watershed has a number of storm water basins and a few additional storm water basins could help control

phosphorus in certain locations, the widespread nature of the problem points to the need to improve the city's collection of leaves with assistance from residents throughout the watershed. (See article on page 2).

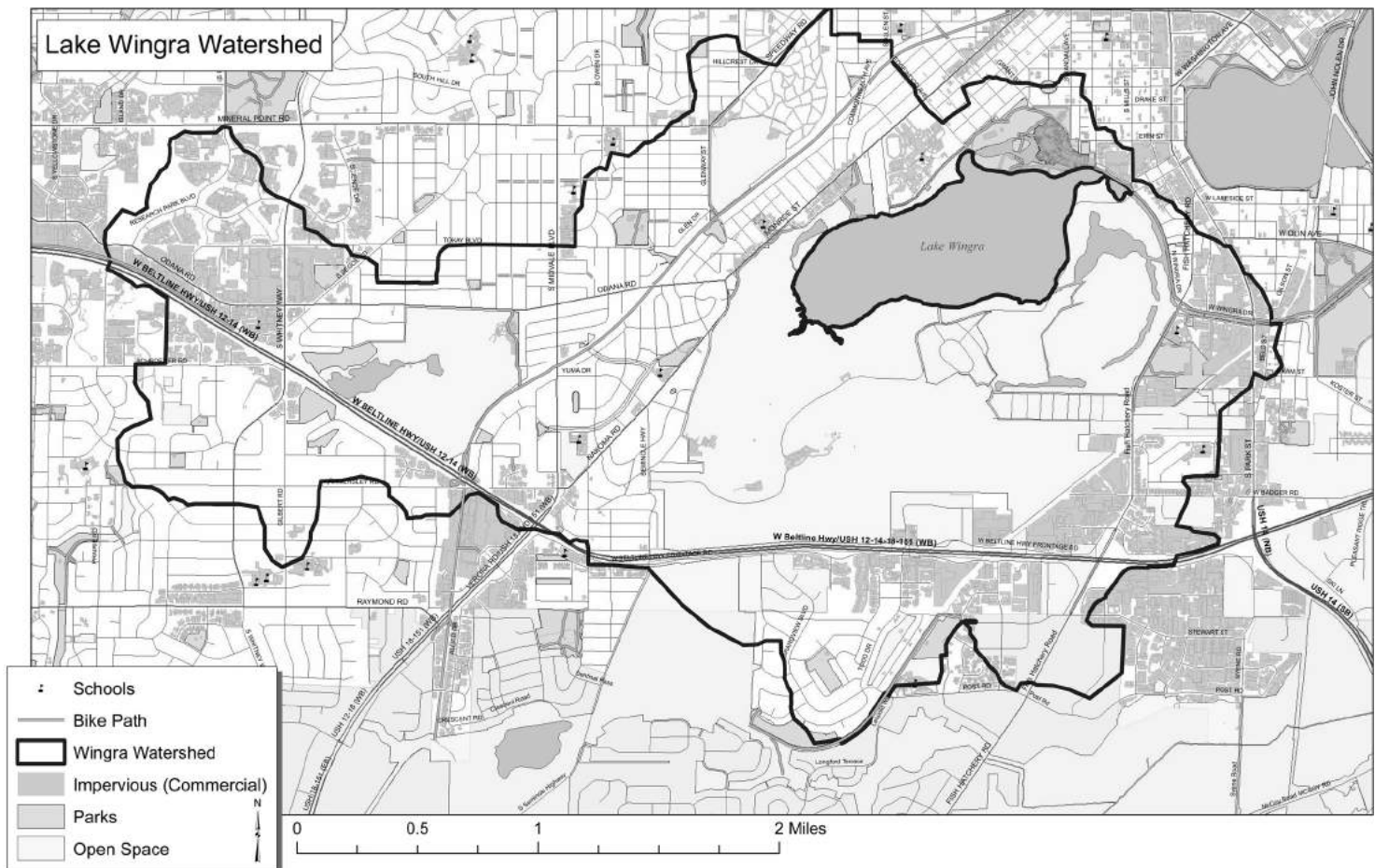
Chlorides

The vast majority of chlorides come from road salt and other de-icers applied to three general locations in the watershed: commercial parking lots; the Beltline Highway and city streets designated for salt use. The focus of the draft plan is to **eliminate excessive amounts** of salt and to use more effective methods for application. Salt on many commercial parking lots in the watershed is applied at far greater rates than necessary. The city is considering different methods of application and reducing the number of applications for city streets. Reducing application rates will not only reduce the amount of chlorides in Lake Wingra, but should save money for taxpayers and business owners.

Infiltration

Effectively managing storm water runoff on residential lots would restore infiltration volumes in the watershed. Rain gardens, rain barrels, downspout redirection and terrace rain

Continued on page 5



Watershed Update cont.

gardens are just some of the practices needed. As included in the draft, as streets are reconstructed and where suitable, the city will install terrace rain gardens to capture street runoff. A number of terrace rain gardens have already been installed in the Orchard Ridge and Vilas neighborhoods. Yard rain gardens are common in the watershed, but many more are needed. Many roof gutter downspouts can be redirected from driveways to lawns. Most of these practices not only enhance infiltration, but control phosphorus runoff.

Next Steps

So far the draft watershed plan proposes “what” needs to be done to address the three identified goals. The next step is to identify “how” these management practices will be accomplished. For example, how can elimination of excess salt application on commercial parking lots best be accomplished? Or, how can hundreds of terrace rain gardens not only be installed, but maintained? This winter, when the draft watershed plan is presented, watershed residents may comment on both what needs to be done and help answer how the practices may be implemented throughout the watershed.

Leaves Have Chemistry

—Rex Merrill

As the days shorten at the end of summer, a cascade of chemistry begins in deciduous trees that results in leaves changing color and falling. When nights shorten to a critical length, the process is turned on. Many of the organic nutrients (carbohydrates, oils, and proteins) made as a result of photosynthesis during the summer are exported out of the leaves to roots and stems where they are put into storage until needed for the growth spurt of spring. Inorganic minerals are also shipped out of the leaves, but significant amounts of phosphates (the nutrient primarily responsible for algal blooms) remain.

The color of leaves is determined by the presence of various pigments, molecules that either absorb or reflect specific wavelengths of light. Green chlorophyll is the primary pigment involved in absorbing the light energy used in photosynthesis. As fall progresses, chlorophyll levels decrease as its production in leaves slows and then stops. Yellow and orange carotenoid pigments (found in carrots and similar in chemical structure to vitamin A) become more obvious as the green fades away. Some of the sugars that remain in the leaves are converted to anthocyanins, the pigments that make

grapes and wines reddish purple. Tannins that may be used in tanning hides give some oak leaves their brown shades.

Other environmental factors besides day length determine the intensity of fall coloration. Autumns with bright sunny days and cool nights result in the rapid loss of green chlorophyll. These conditions also stimulate the production of reddish anthocyanins and bright colors result. However, an early frost can shut down the production of anthocyanins yielding dull yellow and brown leaves. The best displays come after a growing season with ample moisture followed by a dry fall with mostly cool, sunny days and frost-free nights.

Before the chemical changes resulting in fall color are completed, structural changes occur in leaves that weaken their attachment to stems. At the point where the base of the leaf stalk joins to the stem, a layer of small, thin-walled cells forms. Release of certain enzymes can further weaken this layer. Beneath this separation layer, another layer of cells with walls containing the waxy material suberin forms a protective layer that prevents water loss from the scar formed on the stem once a leaf has fallen.

Maybe this is more than you wanted to know about falling leaves, but for me the scientific detail heightens the aesthetic appeal of a beautiful seasonal event.



David Thompson

Recycling Leaves for a Healthier Lawn

—David Thompson

In a natural ecosystem, old leaves, stems and branches are recycled. That's how nature maintains the fertility of the soil.

Recycling leaves into your lawn releases nutrients gradually as they are needed. But when you remove leaves from your lawn, you are interrupting renewal and depriving your lawn of nutrients. The more you scratch it clean with a rake, the more depleted it becomes. Here are some easy alternatives to removal...

Mulching

Many lawnmowers chop the leaves as they cut grass. Leaving the chopped leaves on the lawn lets the sunlight through, but some homeowners may still find the chopped leaves are too dense. One solution is to mow once more with the bag on, picking up some but not all of the chopped leaves. Leave the bag off for the last mowing of the season.

Mulched leaves on the lawn quickly begin to compact and break down. By springtime, they are nearly invisible.

Blowing

You can either vacuum leaves into a bag or blow them into a pile. After using the blower, you still need to rake the leaves into a compact pile. Many people blow them into a loose pile in the gutter, but that's a bad idea. Loose piles blow into your neighbor's yard, and when it rains, the runoff will wash leaves (or leaf tea) into the lakes.

When you convert the blower to a vacuum, it pulls leaves into a bag. The vacuum blade chops the leaves, so they rapidly form compost. However, chopped leaves are difficult for the city to pick up, unless bagged.

The leaf vacuum is wonderful for scattered leaves, but it's slow when used on a heavy layer of leaves. It's easy to dump the bag of leaves into your compost bin or paper bags for pickup. When you rake instead of blow, picking up the leaves is extra work.

Composting

Move leaves to your composter instead of to the street for city pickup. You will need a large, temporary storage bin or "corral" for the leaves while they compact. Hide the storage unit behind shrubs, or place it on a flower bed that's gone dormant. Several options for the "leaf corral"...

- A roll of chicken wire, formed into a circle. Roll it up when no longer needed.
- A 3- or 4-sided bin made of discarded lumber, landscaping timbers, or fence rails. You can drill holes near the ends, then place a metal rod (rebar) through holes in the stacked rails to temporarily hold the bin together.
- If your yard is fenced, one of the corners of the fence can form two sides of your leaf corral.

If you use the corral, leaves won't blow around like they often do when you place them on the terrace for city pickup.

By the time spring arrives, your leaves will have shrunk to a fraction of their former volume. You can now move them to your composter. Composting all your leaves is only a little more work—setting up the corral, and turning your compost.

If you gathered your leaves with a mowing or vacuum mulcher, your leaves should turn into compost by the following summer. Spread them on your garden or lawn, making room for next season's leaves.

Compost is the BEST fertilizer for your garden and lawn. Not only does it release nutrients slowly as needed, but compost or mulch keeps the lawn cool on hot days.

Advantages of mulching or composting all your leaves:

- Keeps nutrients out of our lakes.
- Reduces the carbon footprint from transporting leaves and fertilizer.
- Corralled or chopped leaves don't blow about.
- Reduced city expenditure on leaf collection.
- A mulching mower or vacuum picks up the leaves in one step.
- You can gather leaves on your schedule, not the city's.
- You save on fertilizer.
- The city won't drive on your terrace or scatter leaves on your street.



Gately Terrace leaves during spring thaw



Lake Wingra weeds

David Thompson

David Thompson

Lake Wingra Social Media

—Ben Yahr

Some of you may have noticed a new face for Friends of Lake Wingra on the web. We recently worked with Brent Krueger of Krueger Web Design to provide some visual updates to the site, as well as updating behind the scenes to make routine maintenance easier. The site is mobile friendly, and can be reached by scanning the QR code.



We use the website to announce upcoming events. We're updating the content of the website and will provide easier access to historic documents, meeting minutes, and reports.

As with all of our activities, we appreciate volunteer help to keep the website up-to-date. Let us know if this is something that interests you! Send questions and suggestions for the website to info@lakewingra.org.

Friends of Lake Wingra also has an active presence on Facebook. We hope our posts are interesting and fun, and help you appreciate the lake.

Please visit when you get a chance!

www.lakewingra.org

www.facebook.com/FriendsOfLakeWingra



Volunteer Coordinator Opportunity

Friends of Lake Wingra is seeking a part time Volunteer Coordinator. As a staff member, the Volunteer Coordinator will manage, organize, and execute a variety of tasks throughout the year.

Example tasks include:

- ◆ Updating and managing volunteer contact lists.
- ◆ Organizing and mobilizing volunteers for work days.
- ◆ Distributing and following up on Friends of Lake Wingra grant program materials.
- ◆ Coordinating newsletter creation, production, and distribution.
- ◆ Planning and facilitating events.
- ◆ Creating and editing posters and/or maps.
- ◆ Interacting with other groups in the region.

The ideal candidate will demonstrate a proficiency with Microsoft Office, ability to work independently, and a passion for the watershed.

Please submit resume, cover letter, and any questions electronically to info@lakewingra.org, with the subject line "Volunteer Coordinator."

Volunteer with Friends of Lake Wingra

Let us know if you want to help improve the health and quality of our beautiful Lake Wingra. We'll keep a list of names, contact information and interest areas and will get a hold of you when your help is needed. Volunteer opportunities include watershed management issues, education programs, working with schools, rain garden installation/planting/cleanup, graphic design, newsletter editing, web maintenance, planning events, marketing, and grant application review.

Contact David Thompson (Email: davidthompson20@aol.com Phone: 608-233-9589) or Karen Ecklund (Email: ecklund.karen@gmail.com Phone: 608-957-4251) if you want to get involved.

Upcoming Events

Our Future Watershed and Well-Being

November 9, 2014

wsc.limnology.wisc.edu/events

Pond Hockey Tournament

January 23–25, 2015, with a rain date of February 13–15

www.madcitypondhockey.com

Grill'n for Peace

February 1, 2015

www.grilln4peace.org

Wingra Park Cleanup

May 2015

Wingra Creek Cleanup

June 2015

Jazz in the Park

June 2015

Clean Lakes Festival

July 2015

Also, see our calendar at www.lakewingra.org for up-to-date details on these and other upcoming events.

FOLW Board Meetings

Board meetings are held on the first Thursday of each month and are open. Email Ben Yahr at bjyahr@gmail.com to confirm the time, location and meeting agenda.

Friends of Lake Wingra, Inc.

c/o Office of Advancement
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Grants Available

Friends of Lake Wingra is again offering grants of up to \$4,000 for schools, churches, and community centers to build rain gardens and other storm water improvements.

Deadline is January 5, 2015. See our website for details:

www.lakewingra.org



David Thompson

Volunteers with the Catholic Multi-Cultural Center build a rain garden.



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