



Friends of Lake Wingra



Promoting a healthy Lake Wingra
through an active watershed community

Wingra Watershed News

Spring/Summer 2010 volume 7, number 1

Vilas Beach Cleanup Effort Underway

- Jim Lorman

A new initiative to clean-up Lake Wingra's Vilas Beach received a boost with a \$21,500 grant from the Madison Community Foundation (MCF) to the City of Madison and the Friends of Lake Wingra.

Madison's most heavily used beach, Vilas is one of six which were declared in 2007 as "impaired" (303d listed under the U.S. Environmental Protection Agency's Clean Water Act) for swimming because of excessive bacteria. As part of Yahara Lakes Legacy Partnership (YLLP) involving Dane County, City of Madison, Department of Natural Resources, and Department of Agriculture, Trade, Consumer Protection, Vilas is one of two of these beaches chosen as a pilot to explore the effectiveness of different strategies for reducing bacteria.

The MCF grant will fund stormwater management, erosion control, establishment of native vegetation, and limited goose control on Vilas Beach. A product called "Prairie Sod" will be installed in June to eliminate the severe erosion on the west side of the beach area. The native plants used in this product will be specifically selected to prevent further erosion at this site, and will help discourage geese from using the area.

In addition, roof gutters will be installed on the beach house and their downspouts directed to a nearby rain garden. Presently, rain water from the beach house roof carries goose feces and other contaminants directly to the lake.

These MCF funds are in addition to a previous \$3,000 Wisconsin DNR grant to support the development of a goose management plan for Vilas Park. The large population of geese in the park contributes to the excessive levels of nutrients and bacteria in the lake.

City Parks and Engineering staff will work with the Friends of Lake Wingra and the public to determine how to implement and fund the recommendations that come from the goose management plan. In the meantime, temporary fencing will

be installed to prevent geese from entering the beach area during the swim season when lifeguards are not present. The Friends of Lake Wingra have pledged at least \$2,000 to support goose management and other beach clean-up efforts, primarily through public outreach.

In another related project, Friends of Lake Wingra is also collaborating with the UW-Madison Engineers Without Borders student group, the Madison Area Permaculture Guild, Town and Country Resource Conservation & Development, Inc. and others in developing a proposal for an innovative beach clean-up "eco-machine" that filters water using wetland plants and fungi (mycofiltration).

Please contact us for more information or to become involved in any of these efforts!



Over the last 10 years, Lake Wingra has averaged seven beach closings per year due to high bacteria readings.



Friends of Lake Wingra, Inc.

Mission

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

FOLW Board

Jim Lorman, Chair
Steve Arnold, Vice-chair
Paul Dearlove, Treasurer
Matt Diebel, Secretary
Bob Armstrong
Eric Jacobsen
Jamie Saul

Advisors to the Board

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Become a Friend

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.

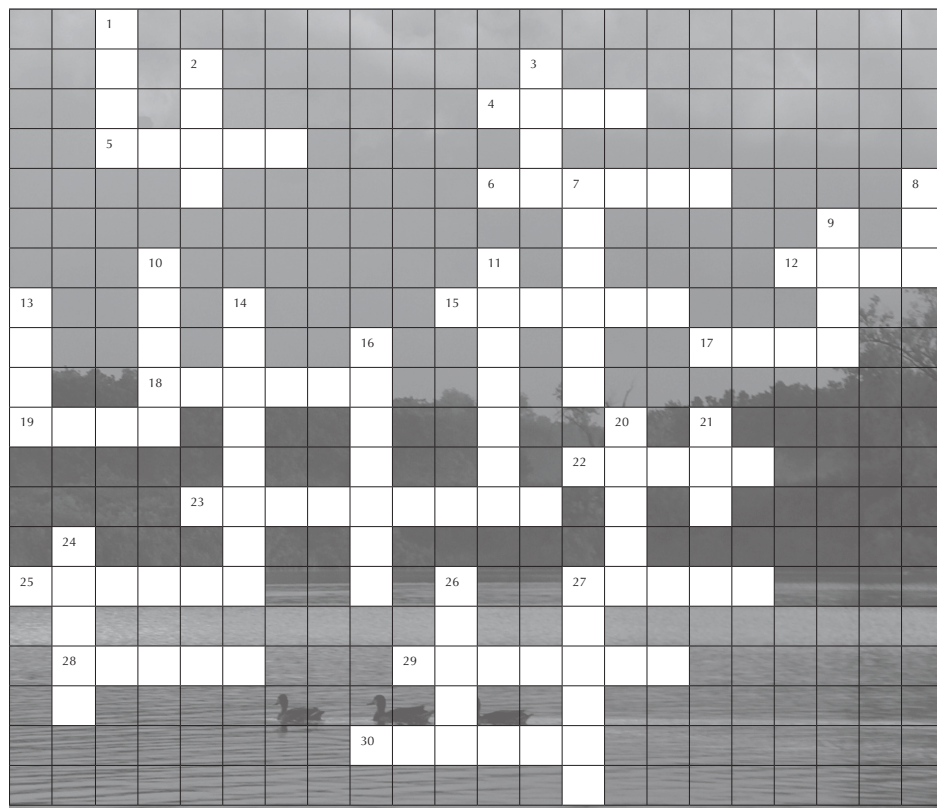
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Wingra Watershed News

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Friends of Lake Wingra Crossword

– Matt Diebel



Down

1. backstroke, for example
2. Pisces
3. invasive fish
7. not infiltrated
8. for skating
9. sodium chloride
10. bacterial source
11. feline plant
13. wind-powered
14. E. coli, for example
16. Eurasian weed
20. birch bark, for example
21. calcareous wetland
24. Henry _____ Zoo
26. not murky
27. Wingra lumberjack

Across

4. Wingra, Vilas, for example
5. Esox
6. Artesian, for example
12. wind created
15. skating in winter
17. floats on the lake
18. disk for clarity
19. limnos (greek)
22. H₂O
23. Odonata
25. duck (Ho-Chunk)
27. place to lay out
28. makes lakes green
29. not quite land, not quite water
30. snapper

Answer key at:

<http://tinyurl.com/2v5qxtj>



Shoreline plantings in Vilas Park.

Shoreline Plantings Need Your Help

– Eric Jacobsen

Every spring, the sun's warm rays lure me to a few natural areas where I search for the first spring blooms of the pasque flower.

The fact that these plants can turn the sun's energy into a floral display so early in the spring has always amazed me. An equally amazing floral display is available close to home thanks to countless FOLW volunteers and the support of donors and partners.

The Vilas Park lagoon shoreline plantings showcase a great diversity of plant types. Native sedges, grasses and wildflowers provide a variety of leaf textures and flower types, all while helping keep Lake Wingra's waters clean, partly by deterring Canada geese (and their plentiful droppings) from the sports fields.

Thankfully, these plants are tough. They practically thrive on neglect so once established, maintenance needs are minimal. Unfortunately, some invasive species like reed canary grass and sweet clovers are starting to encroach on the shoreline plantings.

Help is needed from time to time to keep these intruders from overtaking the native plants. If you are interested in volunteering and learning more about native plants and their care, please check the calendar of events at www.lakewingra.org.

Carp Up-In-Arms Over New Wingra Dam

– David S. Liebl

Word has reached us that Common Carp (*Cyprinus carpio*) from Lake Monona are organizing a mass protest at the new Wingra Dam. Evidently, muskies have been having limited success in passing upstream over the dam into Lake Wingra this spring, and now the carp are worried that they won't be able to attend their annual June mating festival in Vilas Lagoon.

Completed in the fall of 2009, the new dam replaced a century-old structure with a contemporary half-circle spillway. Gone is the V-notch weir that allowed easy passage of invasive fish species into Lake Wingra. In its place a vertical barrier prevents fish passage, except when Wingra Creek is in flood stage following a major rainstorm.

The new design resulted from a consensus among DNR, FOLW, UW-Arboretum and other stakeholders on preventing the passage of invasive species of fish into Lake Wingra. The removal of a large proportion of Wingra's carp in 2008 and 2009 contributed to an improvement in water quality. We hope the new dam will help sustain these improvements.



The new Wingra dam.

A Giant Goose Connection

- Paul Dearlove

The ubiquitous Canada goose (*Branta canadensis*) is a popular game bird found in every contiguous U.S. state and Canadian province at one time of the year or another. There are at least several recognized subspecies in North America. Once thought to be in danger of becoming extinct during the early 20th century, "giant" Canada geese, the largest of the subspecies, have made a dramatic recovery following extensive management and reintroduction efforts. They have expanded from an estimated population of 55,000 in 1965, to several million today.

While native to our continent, many of the geese we see around Lake Wingra today may be considered invasive newcomers. This is due to their remarkable ability to thrive in city environments, causing a growing population to take up year-round residency rather than migrate south to traditional wintering grounds. Unfortunately, one of the consequences of this adaptability is increased nutrient and bacterial contamination to Lake Wingra, which, in turn, contributes to beach closings and increased algae growth.

Habitat and diet

Canada geese can thrive in a variety of habitats near water, grassy areas, and grain fields. They are particularly drawn to our lawns and lakeshore parks. Lawn grass is easy to digest, and the short-cropped grass allows birds to keep a watchful eye on any approaching predators. Natural predators include foxes, owls, raccoons and even snapping turtles. In spring and summer, the herbivorous (plant-eating) geese concentrate their feeding on grasses and sedges. During fall and winter, they rely more on berries and seeds, including agricultural grains.

A major attractant is people who feed geese, thus providing an artificial food supply that concentrates the geese in unnatural numbers. Well-meaning but misguided people typically feed bread,

which does not provide geese with the proper nutrients they require. This artificial feeding may cause the birds to inflict greater damage to vegetation and ornamental plants. When large numbers of geese congregate due to artificial feeding, diseases such as avian botulism or avian cholera can develop and could potentially affect the entire local goose population.

Mating and nesting

Canada geese pair up and mate in open water from February to March. Most do not breed until they reach three to four years of age. The nesting period then lasts through April or early May, with an average clutch size of 4-6 eggs. Nests are constructed on the ground near water. Preferred nest sites are slightly elevated spots from which the birds can maintain a fairly unobstructed view in many directions, especially on islands. The male guards the nest while the female incubates the eggs over a 25-30-day period. Geese mate for life, and return to the same nesting areas year after year.

Migratory behavior

Because of changes in weather, human settlement patterns, hunting pressure, and farming practices, many Canada geese have begun to alter their migrations. Typically, the birds summered in northern North America and flew south to the southern U.S. and Mexico when cold weather arrived. While this cycle endures, some northern populations are not traveling as far south to traditional wintering grounds. Other Canada geese have become permanent, year-round residents of parks, golf courses, and other urbanized locations across much of North America.

For migrating birds, individuals tend to return to the same migratory stopover and wintering areas year after year. Tracking these migrations can be difficult due to the comingling of resident and migrating birds, and also due to

movements between nighttime resting and daytime feeding areas. The bulk of spring migratory movements tend to move north behind the retreating snow line, where the temperature is averaging 35 degrees. When the birds do migrate, flocks will form V-formations in the air, perhaps for reasons of improved aerodynamics and in-flight communication. Flocks can cover 1,500 miles in just 24 hours with a favorable wind, but typically travel at a much more leisurely rate. These noisy groups honk their way along established paths that include designated "rest stops." They are social birds that remain in flocks year-round, except while nesting when they become territorial.

The link to lake health

Canada geese have been known to number in the hundreds and thousands on lakes that are similar in size to Lake Wingra. Counts made since 1991 show that 200-700 geese are regularly present in Vilas Park during the spring migrating season, with about 100 "summer residents" sticking around each year. This can be a problem when you consider that one goose can consume up to four pounds of grass per day, and leaves behind about three pounds of fecal matter. Just 50 geese can produce two and a half tons of excrement in a single year. In fact, lawn areas of Vilas Park that are heavily populated by geese averaged about 600 pounds per acre of feces (wet weight, as collected) in fall, with some areas receiving more than three times this amount. Geese droppings not only pose a nuisance to park and beach users, but can contribute to nutrient contamination that fuels algae blooms.

In addition to the unsightly aspects of accumulating fecal matter, it can also cause increased levels of fecal coliform bacteria in the water, causing the closure of public swimming areas. Other problems include crop damage, attacks on humans and pets by aggressive

birds, displacement of other wildlife, and damage to beaches, lawns and golf courses that can lead to soil erosion. Geese are also known carriers of the parasite that causes Swimmer's Itch, and can potentially transmit diseases to other animals. All these problems are most common with concentrated geese populations, which are largely a symptom of the habitat alterations and suburbanized lakeshores that we humans have created.

What can be done?

Recently, some communities have had to begin considering Canada geese as nuisances (for fouling lawns and polluting waterways) or even hazards (around airports).

Surveys indicate that people do not generally consider Canada geese populations of less than 20-25 individuals to be a nuisance in a particular park. A population this small is also not likely to inflict serious landscape damage or contribute significantly to health or water quality problems. This is also a long-term goal identified in our recent publication titled *Lake Wingra: A Vision for the Future*. The question is how to achieve this goal in a responsible, legal and humane manner.

Canada geese, their nests, and their eggs are all protected under the Migratory Bird Treaty Act. This federal law prohibits the capturing or killing of Canada geese outside of legal hunting seasons. Presently, the U.S. Fish & Wildlife Service allows the Wisconsin DNR to issue permits to property owners to help control nuisance geese. Most permits are issued to oil or addle eggs, which prevents them from developing into viable embryos. In some cases, qualifying communities are issued permits for goose roundups in which the meat is processed and donated to food pantries.

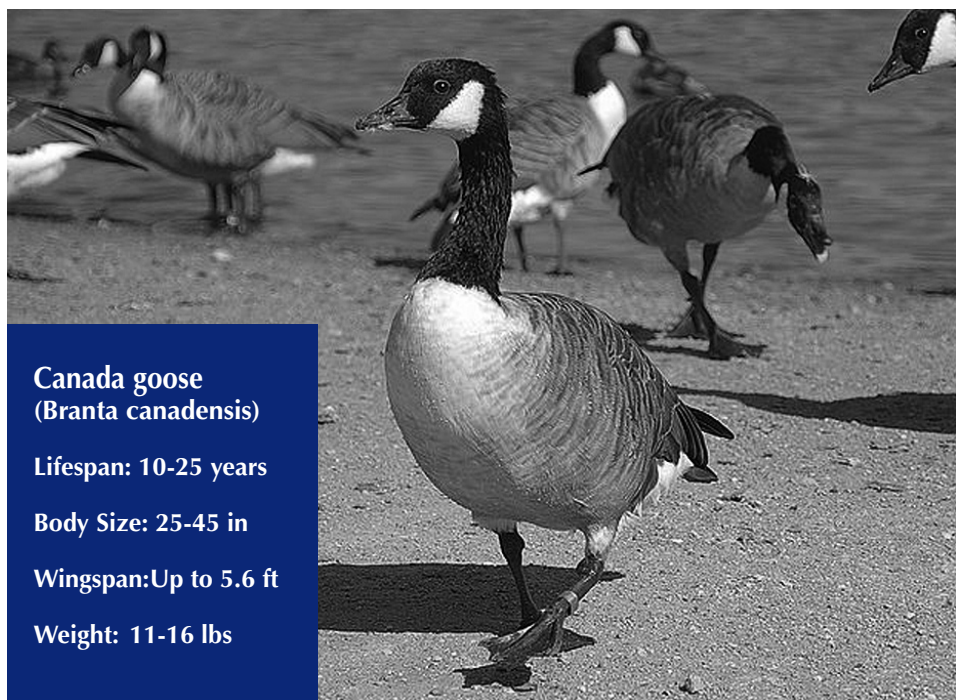
For many locations, however, one of the most effective strategies is to eliminate the lakeshore lawns and artificial habitats that attract large concentrations of birds in the first place.

Geese management on Lake Wingra

The Madison City Council created an Ad-Hoc Committee on Integrated Waterfowl Management in 2002. Recommendations included:

- ◆ Develop and implement a scientific protocol for the documentation of bird counts, feces quantity, locations, numbers of nesting pairs, and survival rates of hatchlings.
- ◆ Work with adjoining communities to discuss strategies for urban waterfowl management (i.e., discouraging artificial feeding, or limiting access to frequented foraging and nesting grounds).
- ◆ Explore reproductive control techniques, such as oiling or addling eggs within concentrated nesting areas. (This is considered a humane way of destroying the viability of a developing egg. When performed on a consistent basis, geese will usually leave in search of other more productive nesting areas.)
- ◆ Consider modifications to local shoreline habitats. (For example, maintaining natural plantings along shorelines and reducing the amount of mowed grassy areas next to the water's edge has been shown to discourage geese from congregating in those areas.)
- ◆ Employ trained herding dogs in certain locations on a trial basis.

The City of Madison has received a grant from the Wisconsin DNR to develop a plan for managing geese on Lake Wingra. In addition, the Madison Community Foundation recently awarded the City of Madison and FOLW a grant to clean up Vilas Beach, which in part involves installing goose fencing and native plantings around the beach. These measures will help prevent geese from congregating in and contaminating the beach area and will contribute to our long term goal of improving water quality in Lake Wingra.



Canada goose
(*Branta canadensis*)

Lifespan: 10-25 years

Body Size: 25-45 in

Wingspan: Up to 5.6 ft

Weight: 11-16 lbs

Canada Geese are a major source of bacteria and nutrients to Lake Wingra.

Where to Learn More About Lake Wingra

— Judi Dilks and Rex Merrill

Thanks to the efforts of our newest volunteers, four Friends of Lake Wingra informational kiosks will soon have a facelift.

Look for the updated displays in the coming months along the Southwest Bike Path by Glenway Street, in Wingra Park, in Vilas Park near the playground, and at the Odana Golf Course beside the bike trail connector.

Each kiosk will focus on one of FOLW's four goals for a healthy lake: clean, clear water, abundant native plants and animals, restored spring flow, and stewardship and enjoyment.

You can learn more about each goal, why it was chosen, and how we will measure success.

Find out what a 19th century Italian priest, a large Canadian bird, and a small Eurasian aquatic plant have to do with the water quality in your lake.

Learn about lost springs, restored fens, and how we hope to say goodbye to the common carp and hello to increased numbers of pumpkinseed sunfish, fathead minnows, and big mouth buffalo.

Most importantly, see what the next steps are for Lake Wingra, and how all of us can act as stewards of our own homes and yards, our businesses and our public spaces in order to protect and manage our valued resource - a beautiful natural refuge in our urban environment.

Wingra Naturalist: Beaver (*Castor Canadensis*)

— Bob Armstrong

The beaver is the largest rodent in North America. An adult can grow to a length of four feet and weigh over 60 pounds. Its webbed hind feet are used for swimming, while its large, flat tail is used to maintain balance while cutting down trees. Long, sharp incisor teeth are used to cut woody vegetation and trees. These teeth keep growing throughout the life of the beaver.

While under water, the nose and ears are closed and a membrane covers its eyes. The beaver's fur is kept waterproof with an oily coating of castoreum that is secreted from scent glands. A thick layer of fat keeps the beaver warm.

Beavers are found throughout North America except for Mexico, the desert area of the southwest, Florida, and the far northern parts of Canada. They build shelters (lodges) out of sticks and mud and live close to rivers, streams, lakes, and wetlands. Dams built by beaver can be up to ten feet tall and are domed-shaped. The lodges may have one or two entry ways with one large central room, located just about water level and lined with wood-chips to help keep the area dry.

It was once thought that beaver ate large quantities of fish, which could possibly impact the fishery on Lake Wingra. It is now known that the diet mostly consists of tree bark or cambium, which is the soft tissue located just under the tree bark. The rest of the diet consists of roots, buds, and other water plants.

Beavers mate for life, beginning at about three years old. If one mate dies, the remaining mate will find a new partner. The mating season goes from January to March in the Madison area, with a gestation period of about three months. The young are born with open eyes and start swimming within 24 hours. Exploration outside the lodge starts within a few days. The young stay with the parents for about two years and can live to be 20 years old.

Beaver dams can have a negative impact on cold water stream fisheries since the slower water movement can raise water temperatures. Lake Wingra has a warm water fishery which is not negatively affected by beavers. Therefore, the be-

avers located in Lake Wingra should be enjoyed as part of a diverse ecosystem.

Beavers are native to Lake Wingra.



Innovating Stormwater Management

– Steve Arnold

The Friends of Lake Wingra has recently been investigating how Madison's current Stormwater Utility could be restructured to more effectively manage stormwater runoff.

There is ample evidence that suggests we are falling short when it comes to controlling stormwater runoff, the primary source of pollution impacting lake quality in the urban environment.

We see this evidence in the form of thick algae blooms, murky water clarity, and routine beach closings. Most experts agree that inadequately managed stormwater is one of the largest threats facing our lakes today.

It is also a problem for which proven solutions are available, should we choose to utilize them to their fullest extent.

The traditional approach to managing stormwater has been to flush it down storm drains and into the nearest lake or stream. This untreated runoff often contains salt, oil, grease, dirt, decaying leaves, and other contaminants that it picks up along the way.

The large volume of runoff and pollutants impair the quality of our surface

waters and strains Madison's infrastructure that must handle large flow volumes.

If we are serious about protecting and improving our lakes, streams, and wetlands, a broader range of strategies must be employed.

One strategy that we believe should be implemented more widely is the treatment and infiltration of runoff at its source, with practices such as rain gardens. However, because there is no one-size-fits-all approach to stormwater management, we are advocating for watershed-level comprehensive planning involving all relevant stakeholders and management agencies. We also believe that stormwater management planning should be conducted with greater transparency and public involvement.

One way this might be achieved is through the creation of a special advisory or decision-making body, called a "stormwater utility board." The board could include representatives from watershed organizations, local business associations, lake user groups and neighborhood associations, and could

bring specialized expertise to the table in areas of ecology, engineering, public outreach, city planning and law.

Our goal in this initiative is to improve the way that stormwater is managed in order to improve the health of our lakes, streams, and wetlands. While we believe a stormwater utility board is likely the best means to this end, we are open to alternative approaches that can achieve the same objectives.

Adoption of any major initiative to improve stormwater management, including the creation of a stormwater utility board, will require approval by the Madison City Council. Before we can ask for that approval, we need to develop a more detailed proposal, which will include delegation of responsibilities and an accountability structure.

We also need support among citizens, local businesses, friends groups, and neighborhood associations.

For more details on this initiative, see www.lakewingra.org. We welcome your thoughts and comments – contact the Friends of Lake Wingra at info@lakewingra.org or call 608-663-2838.

Responsibilities of a stormwater utility board

- Implement coordinated watershed-level management involving all relevant stakeholders and management agencies
- Install and maintain innovative stormwater treatment practices on a large scale
- Provide financial and other incentives for businesses and the general public to manage their properties in ways that protect water quality and reduce flooding
- Collect and maintain the data necessary to monitor water and wetland quality
- Increase public participation in watershed protection and improvement activities
- Ensure compliance with the city stormwater management regulations
- Enforce codes dealing with illegal discharge of polluting substances to surface water and groundwater.
- Promote diffuse infiltration practices such as rain gardens
- Protect and restore wetlands
- Support active public awareness, assistance and education programs to help residents reduce pollutant loading



According to the 2009 Madison Resident Satisfaction Survey, Madison residents are largely satisfied with the quality of city services. However, the ONE exception that really stood out in the survey was lake quality. While our lakes were widely viewed as being very important in terms of quality of life, most respondents were dissatisfied with their condition and the level of city attention they were receiving. For more details, see <https://www.cityofmadison.com/mayor/>

Friends of Lake Wingra, Inc.

c/o Office of Advancement
Edgewood College
1000 Edgewood College Dr.
Madison, WI 53711-1977



Upcoming Events

See our online calendar at www.lakewingra.org for more details on these and other upcoming events.

May 23

Weed Feed Festival

9:30 am - 2:30 pm

A community event held every year in Glenwood Children's Park near the corner of Glenway and Monroe streets, on Madison's west side. It begins with volunteers pulling garlic mustard in the park to the strains of strolling musicians, followed by a potluck feast of dishes including wild plant ingredients. See <http://www.dmna.org/> for details.

June 3, 17, July 1, 15, August 5, 19

Pontoon Boat Tours of Lake Wingra

The free boat tours are back by popular demand! FOLW will once again be partnering with Wingra Boats to host the early-evening, summer boat tours. A pontoon boat will leave from Wingra Park on the first and third Thursday of June, July and August. The family-friendly tours run from 5:30-6:00 and 6:15-6:45. The tours are operated like floating classrooms where participants have a chance to learn about Lake Wingra's history, ecology and management. If there's sufficient interest, additional tours may be added that would leave from Vilas Park on the alternating Thursday dates.

To register and ensure your spot on the boat, contact Wingra Boats at 233-5332 or wingraboats@gmail.com. Wingra Boats is open on weekends in May, and then seven days a week from 9:00 a.m. to 8:00 p.m. starting Memorial Day. You can also visit

them online at www.wingraboats.com for more information. Small donations to help fund the tours are gratefully accepted, but certainly not expected.

June 19

Lake Clean-Up and Jazz in the Park

9:30 am - noon

Wingra Park boat landing. Trash bags will be provided. Wingra Boats will provide free use of canoes for the clean-up. Stay on into the afternoon for Jazz in the Park, sponsored by Dudgeon-Monroe Neighborhood Association.

June 26

Capital Lakes Dragonfest

1-4 pm

Canoe races in giant 20-person boats from Vilas Park beach. See www.capitallakesdragonfest.com for details.

August 28

Clean Lakes Festival

Olin Park. For details, see <http://www.takeastakeinthelakes.com/>

FOLW Board Meetings are held on the first Thursday of each month and are open to the public. Check the calendar at www.lakewingra.org to confirm the time, location, and meeting agenda.