

Friends of Lake Kegonsa Society, Inc. P.O. Box 173 Stoughton, WI 53589-0173 **April 2019** 

## **President's Message ~ Peter Foy**

I think you'll find our first newsletter of 2019 full of interesting information:

- John Bottorff is working on a new **FOLKS** initiative, a barge vegetation and debris pick-up program that will be in effect this summer. You will find the details in his article.
- Once the ice came off the lake the fishermen were on the lake. You will see that they have had
  really positive results so far. Donations from the Bryant Foundation, the Stoughton Conservation
  Club and Clean Lakes Alliance, along with our members allow us to offer an incentive for all
  pounds of carp removed over the 100,000 pounds.
- Pat Guiney did a recap on the Lake Kegonsa Fish Survey that you will find interesting. He was waiting for the final version from the WDNR to finish it up.

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## **President's Message ~ Peter Foy (Continued From Page 2)**

- We have included a summary of the Dane County Lake Level Task Force's activities. There has already been action on some of the recommendations. After last year's problems everyone will be closely watching the water level on all the Yahara Lakes this year. Unfortunately, all of the lakes are already 4.5 inches, or more, over summer maximum.
- If you haven't renewed you **FOLKS** membership, please do so. We are currently at 382 member households, which is 94% of our all- time high of last year's 406. We are hoping to exceed last year's number. We also want to thank everyone that made a donation over and above the \$20 membership amount. We have received almost as much in donations as we have in membership payments. This generosity has allowed us to add services like the debris pick-up program you will read about later in the newsletter.
- The Board members hope to see you at our annual meeting on Saturday, June 8th.

## **New for 2019 - Aquatic Debris Collection Program**

Have you ever heard comments like these from lake and river residents, "What can I do with those ugly, annoying, stinky aquatic plants that build-up on my shoreline?" "How can I dispose of logs or sticks that may be floating on the lake or lodged in my rip-rap?" "What do I do with the dead fish that washed ashore?"

**FOLKS** is excited to announce a new initiative that will begin in May 2019 that will help residents who live on Lake Kegonsa and the Yahara River inlet to solve those problems.

Through **FOLKS** surveys and at various meetings, many **FOLKS** members and others have commented about the problems that occur when aquatic plants and other debris accumulate in the lake and river. This especially occurs during the aquatic plant cutting season. After the aquatic plant cutters finish their work, cut plants float on the surface of the water and eventually accumulate on shorelines. In addition, other debris such as logs, sticks, and dead fish may wash ashore. Residents are then faced with the challenge of how and where to remove and dispose of that material.

To respond to this challenge, the **FOLKS** Board has worked out a regularly scheduled Aquatic Debris Collection Program with the Dane County Land & Water Resources Department. Once a month during the season, a Dane County lake barge crew will make a complete round of Lake Kegonsa and the near north Yahara River inlet to pick-up and remove debris from the water that residents place on the end of their pier.

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## **New for 2019 - Aquatic Debris Collection Program (Continued From Page 2)**

This schedule will also be posted on the Dane County Lakes website https://wred-lwrd.countyofdane.com/Aquatic-Plant-Management. **FOLKS** will send update e-mails if the schedule changes.

## How can Lake Kegonsa and Yahara River residents utilize the collection program?

Please have all debris on your pier by 7 a.m. Monday so you don't miss the collection. The barge crew will start work on Monday of the scheduled week and will make **ONE** complete pass around the lake and river (working through Friday if necessary). It may be a few days until the barge gets to your pier. Assure that the debris is placed in a location at the end of your pier so that the barge can safely and easily access it. If the water adjacent to your pier is too shallow to allow barge access from the water, the crew will not be able to pick up debris from your pier. Maybe you can use your neighbor's pier with their permission, of course. If you don't currently reside at your waterfront property, please make sure that those who live there are aware of this shoreline debris collection.

A complete pass around the lake and river may require less than a full week. The number of days required for a full lake service will be influenced by the amount of vegetation put out by lake residents as well as the weather. It is also possible that urgent County work requirements may take priority over vegetation collection and would require diverting the crew during a given week.

### What type of material is ALLOWED for collection?

- Aquatic vegetation (lake plants, vegetation, algae) and debris washed up on shore (trash, logs, sticks, dead fish, etc.)
- Only debris that comes from the waterway is allowed.

#### What material is NOT ALLOWED for collection?

- Yard waste or brush (grass clippings, leaves, tree limbs) and household waste (garbage, pet waste, etc.).
- In other words, the intention of this program is to help residents remove debris that comes from the lake.

## What are the benefits of this program?

- Scheduled pick-ups on which you can plan.
- Improves the cleanliness of our lake, river, and shorelines.
- Removes debris from the water that is ugly and annoying and that can cause boating hazards and additional problems as it floats downstream.
- Enhances the beauty of our waterways and our enjoyment when boating, canoeing, kayaking, or participating in other fun activities on the water.
- With a little effort, it's easy!

#### What is the schedule for 2019?

The barge pick-up schedule will be as follows:

May 28 through 31 (May 27 is the Memorial Day holiday so pick-up starts Tuesday) June 24 through 28 July 29 through August 2 August 26 through 30 September 23 through 27

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## **New for 2019 - Aquatic Debris Collection Program (Continued From Page 3)**

We ask for your participation and support to make this new initiative successful. We will only know how well the program works once the barge crew begins debris collection. So, thanks and please send us your feedback.



## Third Year of Carp Removal from Lake Kegonsa is in Progress

Commercial carp fishermen have been fishing on Lake Kegonsa these first two weeks of April. Based on our conversations with them, it has been a very good catch. We're estimating 130,000 to 140,000 lbs. removed so far this spring and they expect to continue to fish next week.

The fishermen began netting and penning fish on Lake Kegonsa on Wednesday, April 3<sup>rd</sup> (4 days after the ice was officially called "off" the lake). As of Friday, April 12<sup>th</sup> when our newsletter went to press, 6 trucks of live carp were loaded for the New York City markets. The fishermen have been working in sunshine, snow, heavy rains and gusty winds.

This year they penned fish in two locations:

- Near the west end of Sunnyside St., trucks loaded at the Fish Camp County Park boat launch.
- On the east end of the lake near the shore by LaFollette County Park, trucks loaded at the Pleasant Springs boat launch on Williams Point Drive.

It's interesting to watch. About 30 of our **FOLKS** members saw the truck loaded on Saturday morning, April  $6^{th}$ .

This is the third year of the carp removal project. The commercial fishermen agree to remove 100,000 lbs. of carp or fish for a certain number of days on Lake Kegonsa in their annual contract with the DNR. For 2019, **FOLKS** agreed to pay an additional \$.20/lb. for every lb. over 100,000 lbs. (up to a maximum of \$55,000). This is an incentive so the fishermen will continue to fish on Lake Kegonsa and remove as many carp as possible. Grants from the Bryant Foundation, the Clean Lakes Alliance and the Stoughton Conservation Club and member donations are providing funding for this project.

## Third Year of Carp Removal from Lake Kegonsa is in Progress (Continued From Page 4)

Our overall goal was to remove 1 million lbs. of carp from the lake over a 5-year period. In 2017, 111,084 lbs. were removed and in 2018, only 94,380 lbs. were removed. We hope to remove many more carp in 2019. As we mentioned, we're estimating 130,000 to 140,000 lbs. removed so far but we'll continue to keep you updated as we know more about the 2019 spring catch.

To remind you how the commercial operation works we've included a few pictures.

1. Fishermen spread the nets out around the lake.



2. As the nets are pulled in with hydraulic motors, fish are herded into a penned area.





3. A large basket is used to lift the fish from the pen onto a boat where they are sorted. Game fish go back into the water and carp are moved into bins on the boat.







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## Third Year of Carp Removal from Lake Kegonsa is in Progress (Continued From Page 5)

4. Carp are brought to shore where they're loaded from the bins into trucks for transport.







5. This year the fishermen are competing with pelicans for the catch!!





## **Fish Camp Park**

FOLKS contributed 172 hours as Friends of Fish Camp Park. We improved the grounds at the park by maintaining the shoreline garden, creating a new garden at the entrance sign, and mulching the trees. A bench in honor of Ray Potempa was donated to the park. The historical signage at the park was improved at our request and an informative new sign displaying the Door Creek watershed was added. FOLKS created both a sign and brochures explaining the shoreline garden's importance and a "little house" was added to house environmental brochures for the taking.

The County repaired the roofs on both historical buildings with our expressed interest and help preserving them. To further the progress on repairing those buildings, FOLKS provided the materials and contractors to repair areas of deterioration to the buildings. Both buildings are now ready for painting which the County plans to bid out this summer.

The Lower Yahara River Trail will pass through the park increasing the usage of the park, adding both new patrons and new options at the park. FOLKS will offer our support to those changes.

## SAVE THE DATE SUMMER FLING and ANNUAL MEETING — SATURDAY, JUNE 8

Our Summer Fling Party, which includes our Annual Meeting will be held Saturday, June 8 AT 6 PM. What better way to start the summer than learning about FOLKS activities and meeting and renewing friendships with our lake and river friends.

Stoughton Country Club has graciously agreed to host our event again. More information will follow in early May. We hope you can make it!

### **Lake Ice Off Contest**

Saturday, March 30, the lake was completely ice free. This is the same day the lake completely opened last year. The difference is last year we had a huge ice float that kept the lake from being completely open for at least 5 days.

There were three members who guessed March 30 but the first one to submit his guess for this date is Ken Lepine. He wins a \$50 gift certificate to Springers. Congratulations Ken!

117 members entered the contest, the most ever. 25 guessed it would be open before March 30. The earliest date was March 17 (hoping for a little luck of the green) and the latest date was May 9<sup>th</sup>! There were times this year when I thought it may be that late! The most popular date was April Fool's Day with 12 people choosing this day.

We thank Springers for their continued donation of certificates as well as providing space for our monthly FOLKS meetings.

Now it's time to see who gets the first pier in! Maybe we need another contest!

## What You Can Do to Help Our Lake & How FOLKS Can Help You

Storm water runoff from roofs, driveways and streets carries phosphorous and other nutrients into our lakes, rivers and other waterways. As we know, the excess nutrients can fuel algae blooms throughout the summer.

### **Things You Can Do**

- 1. Increase storm water infiltration and keep as much runoff out of the lake as possible
  - Rain Gardens Even a small rain garden will hold an appreciable amount of water during a storm that will then be able to soak in gradually and not run directly to the waterways
  - **Rain Barrels** Capturing storm water in a barrel and using it to water lawns and gardens is an effective way of reducing runoff
  - **Downspouts** Directing downspouts to gardens and grassy areas instead of impervious surfaces like driveways, sidewalks and patios allows the storm water time to infiltrate
  - **Shoreline Buffer Gardens** Planting native plants with deep roots along the shoreline keeps the water from running directly into the lake or river
- 2. Keep storm water that goes into the lake and waterways as clean as possible
  - Keep leaves, grass clippings, soil and other debris out of the storm sewers. Use the Towns' leaf collection and compost sites, mulch leaves onto your lawn or start your own compost pile.
  - Try not to use chemicals or fertilizers in your yard and gardens
  - Dispose of oil or other chemicals properly and don't let them drain into the storm sewers
  - Monitor construction sites near you and notify Dane County Water Resource Engineering if you think there's a problem.
  - Work with farmers and other individuals to identify properties for buffer strip plantings, retention ponds and other clean water techniques.
- 3. Actively support work on lake quality issues by Dane County and other organizations such as **FOLKS**, Clean Lakes Alliance, Dane County Land & Water Resources and Ripple-Effects.

## What FOLKS Is Planning To Do To Help You

## To effectively help our members use techniques to clean our lake, FOLKS is planning a number of projects for 2019.

- 1. Rain Garden Tour We'd like to sponsor a tour of Lake Kegonsa rain gardens so that members can see some of the beautiful rain gardens already in place and gain inspiration for their own yards.
- 2. Rain Garden Workshop We'd like to sponsor a rain garden workshop to help members learn how to create a rain garden and how to customize that knowledge on their specific property. This will include how to size a rain garden, areas that would be good for planting, and which native plants might be effective in your yard.

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## What You Can Do to Help Our Lake & How FOLKS Can Help You (Continued from Page 8)

- 3. Shoreline Buffer Workshop Again, we'd like to help members with ideas and techniques by sponsoring a shoreline buffer garden workshop to apply knowledge to their shoreline.
- 4. Native Plants We'd like to help establish these infiltration practices by working with the "Plant Dane" program and possibly subsidizing the purchase of native plants for members' rain and shoreline gardens.
- 5. Rain Barrels We may consider subsidizing the purchase of rain barrels by our **FOLKS** members.
- 6. Identify run-off problem areas and suggest solutions.
- 7. Storm Drains **FOLKS** will work with Dane Co. to increase awareness of stormwater pollution by marking storm drains "No Dumping, Drains to the Lake" on all storm sewers around Lake Kegonsa.

Every tiny bit we do helps our lake. We hope that working together we can make a significant difference. Let us know if you're interested in any of these 2019 projects. Signup sheets will also be available at the annual meeting to help us determine the level of interest in these projects.

### Yahara Chain of Lakes - Lake Level Task Force

As **FOLKS** has been reporting in our member updates, the Dane County Board adopted a resolution in 2018 which creates a technical work group to provide a technical report to suggest ways to address flooding on the Yahara Lakes and a task force to make policy recommendations. The 13-member task force included representatives specific to Lake Kegonsa: Patrick Miles, Dane Co Supervisor for District #34 (Dunn), David Pfeiffer, Chair of the Pleasant Springs Town Board and Eric Vieth, **FOLKS** and YLA member. The task force will make policy recommendations to the full Dane County Board of Supervisors.

The Dane Co website https://lwrd.countyofdane.com/Yahara-Chain-of-Lakes-Lake-Levels-Task-Force includes:

- · Recordings of all task force meetings,
- The 'Technical Work Group' report ,
- Yahara Chain of Lakes Lake Level Task Force Final Recommendations
- Public comments

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## **Yahara Chain of Lakes – Lake Level Task Force (Continued From Page 9)**

Besides committing to public engagement and communication, the task force centered the recommendations on seven areas as copied from their summary below:

#### 1. DREDGING

- In collaboration with the DNR and other units of government, Dane County should determine which locations are of highest priority and work to obtain permitting to dredge the Yahara River as needed from Lake Mendota to the Stoughton Dam, seeking to increase flow, maintain seasonal minimums and improve the health of the river whenever feasible.
- Develop a dredging plan that occurs in phases over several years based on multiple factors including impact on flow, permitting, and dredging logistics. The Yahara River is an important and valued resource that provides important spawning, migratory, and nursery habitat for a variety of fish and is home to a number of fish and other species on a more permanent basis and any dredging should recognize that dredging is an opportunity to improve the resource and not just a means of draining the lakes and that habitat improvements should be incorporated into plans. Downstream dredging will be prioritized where possible and within project control.
- Planning and implementation should focus on cooperation with the DNR regulators, fish biologists, and other staff to first identifying and dredging those segments of the river in which dredging would be most helpful in managing flow and would be the most beneficial or least harmful to the river itself.
- DNR and Dane County should facilitate discussions with the Ho-Chunk Nation and Wisconsin Historical Society regarding the fish weir and corduroy bridge near Dyreson Road on the Yahara River in order to inform dredging that may take place near culturally sensitive features.
- Long-term: establish and fund an ongoing maintenance dredging schedule as necessary to maintain flow capacity in collaboration with the DNR and other units of government.

#### 2. DAM MANAGEMENT

- Operations should continue to be coordinated between DNR, Dane County (owner of the Tenney, Babcock and LaFollette dams), and the City of Stoughton (owner of the Stoughton Dam).
- Collaborate with the City of Stoughton as they assess sediment accumulation near their structure and as they explore options for modifying or removing the dam to accommodate increased recreational access to the river.
- Ensure the integrity of Tenney Dam and embankment through improvements that make it capable of holding water to the 100-year water level (1% annual chance of flooding) on Lake Mendota.
- Implement of water level/flow monitoring at the Lafollette Dam.

## **Yahara Chain of Lakes – Lake Level Task Force (Continued From Page 10)**

#### 3. PUMPING

- Proceed with a feasibility study to evaluate the hydraulic and environmental impacts of pumping water from Lake Waubesa.
  - Reject routes that would negatively impact the Waubesa Wetlands, fish habitats and environmentally and economically significant conservation easements.
  - Reject planning that would significantly increase flooding problems experienced by residents and agricultural producers in the Badfish Creek watershed.
  - o Examine whether it is feasible to share existing infrastructure.

### 4. AQUATIC PLANT HARVESTING

- Dane County should continue early, vigilant and ecologically-sound mechanical aquatic plant harvesting in compliance with DNR permits to ensure that water flows through the Yahara Chain of Lakes.
- Incorporate aquatic plan harvesting south of the LaFollette Dam into the aquatic plant management plan and DNR permit, rather than relying on an emergency permit.
- Long-term. Continue with mechanical aquatic plant harvesting as needed.

#### **5. LAKE LEVELS**

 Dane County will continue to implement any tools that may be available to lower lake levels to DNR designated seasonal minimum levels as soon as possible and work to maintain lakes at that level. This directive will be implemented where possible and to the extent that managing any given lake will not create flooding on other lakes or other unintended consequences. Land Conservation Committee, Environment, Agriculture & Natural Resources Committee and the Lakes & Watershed Commission shall review this directive on an annual basis and make a recommendation to the County Board.

#### • Long-term

- o Re-evaluate lake levels after new data is available from mitigation actions.
- After new data is available from mitigation actions, if warranted, request DNR review 1979 lake levels in the context of climate change and greater rain events.
- Continue to evaluate lake levels and modeling of watershed hydraulics to measure results of mitigation actions and to identify future improvements if necessary.

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## **Yahara Chain of Lakes – Lake Level Task Force (Continued From Page 11)**

#### 6. LAKE LEVEL MANAGEMENT GUIDE

- Update the Lake Level Management Guide for the Yahara Chain of Lakes.
  - o Address reinforcement of the Tenney Dam, which allows for management at higher water levels.
  - o Incorporate the recommendations for the 7/12/12 peer review as applicable.
  - o Eliminate any confusion in the guide that flood protection may not take priority over other factors.

#### 7. STORMWATER AND INFILTRATION

The Task Force encourages policy makers to strengthen stormwater and infiltration practices including but not limited to the following:

- Move quickly to implement the recommendations in the Stormwater Technical Advisory Committee (TAC) Report.
- In 2019, fund a consultant to work with the CARPC and Lakes & Watershed Commission stormwater work group to implement the recommendation of the TAC Report to develop a detailed framework for a stormwater credit trading system.
- Work with County Board designee or County Lobbyist and WCA to provide flooding at-risk municipalities an exemption to current law that restricts implementation of stormwater retention practices in excess of State standards.
- Dane County and municipalities should prioritize wetland and land purchases to improve storm water infiltration.
  - o Promote programs for landowners to protect property and install practices (e.g. wetland reserve program).
  - o Evaluate the feasibility of implementing stormwater practices on acquired properties.
  - o Work with the Nature Conservancy to use Wetlands by Design, an online tool to help decision-makers identify wetland sites for protection or restoration.
- Implementation of stringent policy regarding land use planning and future development to prevent increased runoff rate and runoff volume in the watershed.
- Model and evaluate infiltration practices (wetlands, permeable pavement, rain barrels, rain gardens, etc.) to reduce runoff in the watershed.
- Develop a watershed-wide approach with purchase and restoration of new and historic wetlands; protection of agricultural lands and buffer strips along creeks and rivers; increased infiltration in urban areas with rain gardens, green rooftops, grassy swales; purchase in fee or easement areas suited for underground infiltration basins.

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## Yahara Chain of Lakes – Lake Level Task Force (Continued From Page 12)

- Pursue the restoration of wetlands throughout the Yahara River sub-watersheds but especially in the Upper Mendota watershed.
- Continue to study and implement practices designed to restore historic wetlands in Cherokee Marsh.
- Explore purchase and strategic use of Water Inflatable Property Protection devices. Review the Town of Westport's use of Water Inflatable Property Protection devices during the 2018 flood.
- Long-term. Evaluate funding mechanisms to share the responsibility and costs as a community.
  - o Possibly special assessments are needed to provide additional funding for dredging and other flood mitigation projects.
  - o Possibly a fee on property sales.

The **FOLKS** board will keep you updated as work progresses throughout the summer. Also make your thoughts known to your county supervisors: Melissa Ratcliff, District #36 and Patrick Miles, District #34.

## **Monarch Waystation**

The **FOLKS** demonstration shoreline garden at Fish Camp County Park has been designated an official Monarch Waystation. The garden was designed to show how buffer plantings along shorelines can reduce the runoff of rainwater containing excess phosphorous and other nutrients into our waterways. The educational garden also provides color to the park and a desirable habitat for butterflies, bees and other pollinators.

Native plants were provided through the Plant Dane program and from contributions by **FOLKS**. You will see the new sign in the garden this spring. If you'd like to make your yard into a monarch waystation or would like more information on the program you can go to www.monarchwatch.org and be sure to check out the **FOLKS** demonstration garden with the pamphlets on shoreline gardens.





## Winter on Lake Kegonsa

Even in winter there are some pretty exciting things happening on our lake. Iceboating, windsailing, ice fishing, and the eagles hunting on the edge of the ice.











Photos courtesy of Bill Lamm and Connie Hagen

Now the migrating birds are back and the ice is gone... Happy Spring!!

## 2018 Water Monitoring Results for Lake Kegonsa

The Clean Lakes Alliance program to monitor the lakes had a very successful year in 2018 with 87 volunteers sampling at the end of their piers or off shore. On Lake Kegonsa we had 8 "end of pier" stations and one for the Deep Hole out in the middle of the lake. At the "end of pier" stations, data were collected for clarity, water temperature and air temperature. Observations were made for the presence of algae, wildlife, and swimmers. For the Deep Hole the Secchi depth (clarity) was measured as well as the dissolved oxygen level and temperature profile at 16 different depths in the water column.

Over the five months from May to September, average water clarity at our "end of pier" sites went from 110 cm down to 50 cm (3.6 ft to 1.6 ft) for an average of 78.6 cm (2.6 ft). This was the lowest clarity of the four lakes. The Monona average clarity was the best at 101.7 cm (3.3 ft).

Algal blooms were significant last year with cyanobacteria being the most important. Monitors reported more "strong" cyanobacteria blooms on lakes Mendota, Waubesa and Kegonsa in 2018 compared to 2017. Lake Kegonsa reported a cyanobacteria bloom in almost 28% of all the days when visual observations were reported. Mendota was next with 20% and Waubesa reported cyanobacteria blooms on 10% of reporting days.

#### Lake Kegonsa Deep Hole

A "Secchi disk" is an 8-inch (20 cm) disk with alternating black and white quadrants. It is lowered into the water of a lake until it can no longer be seen by the observer. This depth of disappearance, called the "Secchi" depth, is a measure of the transparency of the water.

The Deep Hole Secchi depth went from 15.75 ft. on May 15<sup>th</sup> down to 2.25 ft on August 10<sup>th</sup>. The table below shows the improved clarity in the water in early 2018 and the decreasing clarity throughout the summer.

Secchi Readings by Month Median Values in Feet

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	2016	2017	2018		
May			15.6		
June	3.3	3.1	10.2		
July	3.3	4.7	6.4		
August	3.1	2.9	2.8		
September	3.5	2.9	2.8		
October	2.0	3.0			

The average phosphorus level measured in 2018 was 0.097 mg/l. This is lower than last year's 0.117 mg/l average phosphorous, but still higher than the other lakes.

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## 2018 Water Monitoring Results for Lake Kegonsa (Continued From Page 15)

Door Creek

The Rock River Coalition provides funding for sample sites throughout the Door Creek Watershed. Door Creek enters Lake Kegonsa just east of Fish Camp County Park.

Door Creek was sampled seven times in 2018 at Hwy MN which is the closest sample site to Lake Kegonsa. The median values for the measurements taken in 2018 (transparency, % dissolved oxygen, and phosphorous) are shown below along with the results for the four previous years.

Year	Trans,cm	% DO	P mg/L	
2014	118	69.4	0.125	
2015	120	34.0	0.145	
2016	2016 83		0.100	
2017	47	73.1	0.160	
2018	112	54.8	0.140	

Thank you to all our volunteers who are doing "citizen science" to help us monitor water quality on Lake Kegonsa and build a meaningful database for future work.

#### **Volunteers and Boats Needed**

Fishing Has No Boundaries, Madison, is a nonprofit organization that holds an event once a year where local boaters take people with disabilities on Lake Mendota for a day of fishing. This organization is always looking for more boats and drivers to help make the day a success. They are looking for pontoon and V-hull boats. Any FOLKS members who might like to help, should visit their webpage at http://fhnbmadison.com/get-involved/boat-registration/. If you have specific questions contact board member Laurie Burckhardt: burckhardt67@gmail.com

## Wisconsin DNR Fishery Survey of Lake Kegonsa Brings Positive News

## **General Background**

FOLKS has reviewed a Final Report (November, 2018) from the Wisconsin Department of Natural Resources (WDNR) which summarizes the preliminary results of a comprehensive fish survey that they conducted on Lake Kegonsa in the Spring of 2016. The complete analysis of the detailed survey data was written by Dan Oele, fisheries biologist for Dane County. It provides an interesting peek at the encouraging health of Lake Kegonsa fish populations.

The full report can be accessed at: https://dnr.wi.gov/topic/fishing/reports/#dane

Fish communities are great indicators of a lake's overall biological health due to their continuous exposure to environmental conditions that exist in their surrounding water conditions, and because they display a variety of responses to environmental disturbances, such as habitat changes, organic enrichment, chemical toxicity, and thermal fluctuations. Therefore, they are an important part of any lake ecosystem bio-monitoring program.

## Wisconsin DNR Fishery Survey of Lake Kegonsa Brings Positive News (Continued From Page 16)

Fish sampling by the WDNR on the Madison Chain typically follows approximately a 5-year rotation. Every year, one lake receives a comprehensive survey, and the other lakes often receive spring and fall index sampling. Comprehensive surveys combine intensive spring netting efforts and spring and/or fall electro-fishing runs to cover the entire lake shore. Comprehensive surveys typically target walleye, northern pike, bass and musky, but also attempt to estimate other fish species like panfish that are present. Fish species like common carp may also be incidentally collected but, because of the overall difficulty of recapturing these fish with typical electrofishing techniques, the WDNR does not attempt to determine population estimates for carp. These surveys provide insight on the adult component of those fisheries, and are used to determine population estimates. Estimates are derived from a mark period (fyke netting) and recapture period (spring electro-fishing). The last comprehensive survey conducted on Lake Kegonsa occurred in 2010. The purpose of these regular WDNR fish surveys is to describe the size and condition of major fish populations of recreational interest, assess regulation, and suggest any necessary management actions.





Fisheries biologist fyke neeting fish

Fisheries biologist electro-fishing

## **Basic Lake Kegonsa Natural Characteristics and Water Quality**

Lake Kegonsa is a 3200-acre lake located furthest downstream of all of the Yahara River lakes in Dane County. It has a maximum depth of 32 feet and is highly eutrophic. This means that the lake becomes readily enriched with dissolved nutrients (such as phosphates) that can stimulate the growth of aquatic plant life and also often lead to algal blooms in the summer. Such algal blooms ultimately can lead to depleted oxygen levels and generally poor water quality. Despite some improvements in water quality over the past 40 years, excess sediment, nutrient and chloride loads from upstream lakes, the Yahara River, Door Creek and surrounding agricultural land continue to negatively affect the Lake Kegonsa's water quality.

## **Summary of Preliminary Fish Survey Results (paraphrased from the Draft WDNR Report)**

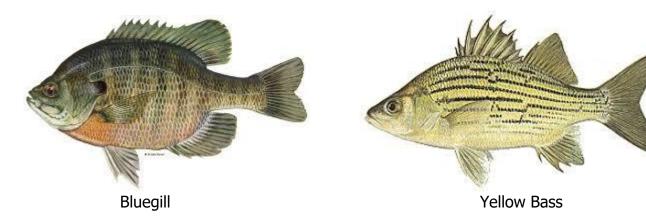
The 2016 fish survey used Fyke nets and began shortly after ice out on 3/13/2016 and ended 32 days later on 4/14/2016. This was followed by electrofishing efforts to estimate populations. Twenty-seven fish species were observed during the spring 2016 fyke net survey including: a variety of panfish, largemouth bass, smallmouth bass, northern pike, walleye, catfish and even a few muskellunge as well as a number of less represented fish species. Table No. 1 below illustrates the top 15 species collected.

# Wisconsin DNR Fishery Survey of Lake Kegonsa Brings Positive News (Continued From Page 17)

Table No. 1 Summary of top 15 fish species fyke netted from Lake Kegonsa in 2016

Fish Species	Number Collected	Minimun Length (inches)	Average Length (inches)	Maximum Length (inches)
Bluegill	1563	3.4	6.4	10.2
Yellow Bass	862	3.3	7	12.3
Walleye	509	7.4	15.9	28.3
Black Crappie	423	3.2	8.2	12.2
White Bass	414	4.6	13.1	15.7
Northern Pike	322	9.2	24	40.3
Yellow Bullhead	171	4.7	11.8	15
Largemouth Bass	60	5.1	12.3	19.7
Pumpkinseed	36	3.5	5.6	7.2
White Sucker	25	16.4	20.1	23.2
Golden Shiner	24	Not measured	Not measured	Not measured
Smallmouth Bass	21	7.8	12.6	15.3
Common Carp	19	5.2	9.4	23.6
Yellow Perch	15	5.7	8.4	11.5
Muskellunge	14	24.9	36.4	44.5

Bluegills were the most abundant species sampled (1563) with a mean size of 6.44" with the largest fish recorded at 10.2". Based on length frequencies it is apparent that angler preference for bluegills >6" and was indicated by a sharp decline in the number of fish larger than 6-6.5" and greater; although fish up to 10.5" do persist and offer fishing opportunities for larger fish. Other panfish populations including Yellow Bass (862), Black Crappies (423), White Bass (414) and Yellow Perch (15) appeared to be doing well. Gamefish included Walleye (509), Northern Pike (322), Largemouth Bass (60), Smallmouth Bass (21) and Muskellunge (14). Interestingly, Muskellunge are not actively stocked in Lake Kegonsa but they are present in low numbers through migration from upstream Yahara lakes.



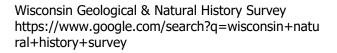
Continued on Page 19.

# Wisconsin DNR Fishery Survey of Lake Kegonsa Brings Positive News (Continued From Page 18)

### Walleye Population in Lake Kegonsa (paraphrased from the Draft DNR Report)

WDNR marked 509 adult walleyes in the Fyke netting surveys, captured 143 during the electrofishing survey, of which, 9 had been previously marked. Therefore, the population estimate for adult walleyes in Lake Kegonsa is approximately 6,191 adult fish with an upper 95% confidence interval of 12,104 fish and lower 95% confidence interval of 3,423 fish; or approximately 1.93 fish per acre. This is typical of a southern WI, high-angling pressure lake. The wide margin of error is a result of the relatively small number of marked fish recaptured in the second WDNR capture effort. There is some evidence of natural reproduction in the system, but it is limited and not enough to sustain the harvest pressure from angling (fish in the  $\leq 6-7$ " range). Since the 2014 Wisconsin Walleye Initiative, Lake Kegonsa has been stocked with over 100,000 small fingerling walleye every other year, beginning in 2015, 2017, and scheduled for 2019. Lesser amounts of larger walleyes (6-8 inches) have been stocked by the Stoughton Conservation Club (SCC) in the even-year cycle (2014, 2016, 2018). FOLKS has supported these stocking efforts by the Stoughton Conservation Club. The fish that were stocked in 2013 and 2014 were fin clipped by DNR staff and SCC members at the time of stocking. This was intended to evaluate the contribution of those fish to the fishery. In the 2016 survey none of the fin clipped fish were observed. That may be because they did not survive, were mishandled when they were stocked or, they were not old enough to be caught in the fyke nets. For the 2018 stocked fish WDNR collected tissue samples at the time of stocking to evaluate their contribution in the future. While the influence of SCC/FOLKS walleye stocking is yet to be determined the stocking efforts by the WDNR was readily identified as a sharp increase in total, young of the year (YOY), stock, and quality size walleye beginning in 2014. Walleye in Lake Kegonsa appear to grow faster and reach longer sizes than their buddies from other lakes within the same lake class and females grow faster than males.







A harvestable Lake Kegonsa walleye

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# Wisconsin DNR Fishery Survey of Lake Kegonsa Brings Positive News (Continued From Page 19)

## **Northern Pike (paraphrased from the Draft Report)**

WDNR sampled a total of 322 Northern Pike during the 2016 spring netting survey, ranging in size from 9" to 41" with an average size of 24". Typical of high-angling pressure lakes, there is a sharp decline in the number of fish over the legal 26" limit, suggesting anglers are rapidly utilizing these fish. Lake Kegonsa northern pike ages were estimated and compared to 199 other lakes within same Lake Class (having similar bathymetry, littoral area, depth, etc.). Northern Pike in Lake Kegonsa have excellent growth trajectories since they grow faster and reach longer sizes than their cohorts within the same Lake Class. Northern Pike do not require stocking in Lake Kegonsa. The WDNR stock northern pike in Lake Kegonsa to lessen the potential impact of removing some of these pike eggs because of their hatchery and propagation practices. Lake Kegonsa has good habitat and many connected wetlands that provide good amounts of natural recruitment as reported previously in our FOLKS Newsletter of July, 2018. Every year the Wisconsin Dept. of Natural Resources (DNR) collects and fertilizes Northern Pike eggs from Lake Kegonsa and Lower Mud Lake. Northern Pike spawn as soon as the ice goes out and water temperatures are 38-44 degrees. In 2018, Northern pike were collected on Lake Kegonsa the last week of March.



WDNR Fisheries Technicians Paul Kruse and Nancy Hefty collect eggs from a Northern Pike from Lake Kegonsa (Photograph from the WI DNR - 2018)



Spawning Northern Pike. Copyright:© A. Hartl - www.agefotostock.com\_Information extracted from <u>IPTC</u> Photo Metadata

## Moving Forward.

Three factors are needed to sustain a viable fishery in any system:

- Habitat- water quality, cover, plants, depth, substrate
- Food- invertebrates, forage, plankton
- Reproduction- adult survival, recruitment of young fish to maturity, spawning habitat and/or successful stocking efforts

# Wisconsin DNR Fishery Survey of Lake Kegonsa Brings Positive News (Continued From Page 20)

### Summary of the Final Recommendations by the WDNR in Their Report (Paraphrased)

The WDNR developed management objectives for gamefish and rough fish to improve the fishery and water quality in Lake Kegonsa. For example, walleye young-of-the-year recruitment should average >10 per mile over a three-year period while maintaining or improving the adult population to 3 per acre. The northern pike population should be increased to 1.5 fish per acre and increase the number of fish above the legal limit. Panfish abundances are currently low and should be increased to values observed in other similar lakes. Largemouth bass abundances are low but stable and should be increased to 14.5 per mile of electrofishing and smallmouth bass size structure could be improved to include a higher percentage of 11-17" fish. An interesting broader management objective encompassing all gamefish species expressed by the WDNR was to assess the interest of anglers and stakeholders to modify existing size and bag limit regulations to improve size structure and density of the fishery. For example, this was done successfully with walleye populations in Lake Mendota through regulation changes (e.g. 18" length minimum, 3 daily bag limit) which created more of a quality walleye fishery on Mendota rather than a harvest-oriented type of fishery. The Final report also strongly encouraged and supported the common carp removal efforts being done by FOLKS to reduce the population to < 100lbs per acre. Finally, the WDNR would like to conduct a comprehensive angler creel survey on Lake Kegonsa to examine angler attitudes, preferences, effort, and parse angler exploitation versus natural mortality. This remains a high fishery management priority but would require additional funding not currently in the WDNR budget.

### What can FOLKS do to Help?

FOLKS spoke with WDNR Fish Team Supervisor David Rowe about how our organization can help the Lake Kegonsa fishery. David had two very clear messages for FOLKS:

1. Previous WDNR walleye stocking efforts have been reasonably successful as evidenced by several strong year classes present in Lake Kegonsa from these efforts. The WDNR stocking of small fingerlings has been very successful in increasing the population. The jury is still out in the SCC/FOLKS stocking of large fingerlings. The fish that were stocked in 2013 and 2014 did not show up in the 2016 survey. The genetic evaluation the WDNR is now planning will be a better assessment of that. David Rowe suggested that FOLKS should hold off on any efforts to spend money on more walleye stocking until that is complete, which should be by 2020 when that would be possible again.

					Number	Average
Year	Lake	Species	Strain	Age Class	Stocked	Length
2010	Lake Kegonsa	Northern Pike	Madison Chain of Lakes	Large Fingerling	2500	7.5
2011	Lake Kegonsa	Northern Pike	Madison Chain of Lakes	Small Fingerling	2500	2.65
2012	Lake Kegonsa	Northern Pike	Madison Chain of Lakes	Large Fingerling	2800	7.9
2013	Lake Kegonsa	Northern Pike	Madison Chain of Lakes	Large Fingerling	1973	7.5
2014	Lake Kegonsa	Northern Pike	Madison Chain of Lakes	Large Fingerling	2500	8.8
2015	Lake Kegonsa	Northern Pike	Madison Chain of Lakes	Large Fingerling	2077	8.3
2016	Lake Kegonsa	Northern Pike	Madison Chain of Lakes	Large Fingerling	2500	8
2016	Lake Kegonsa	Northern Pike	Madison Chain of Lakes	Small Fingerling	16000	1.94
2017	Lake Kegonsa	Northern Pike	Madison Chain of Lakes	Large Fingerling	2248	8.4
2010	Lake Kegonsa	Walleye	Rock-Fox	Small Fingerling	112315	1.48
2011	Lake Kegonsa	Walleye	Rock-Fox	Small Fingerling	56000	1.48
2012	Lake Kegonsa	Walleye	Rock-Fox	Small Fingerling	54243	2.5
2013	Lake Kegonsa	Walleye	Rock-Fox	Small Fingerling	56000	1.4
2014	Lake Kegonsa	Walleye	Rock-Fox	Small Fingerling	57797	1.5
2015	Lake Kegonsa	Walleye	Rock-Fox	Small Fingerling	112016	1.6
2017	Lake Kegonsa	Walleye	Rock-Fox	Small Fingerling	112101	1.27

## Wisconsin DNR Fishery Survey of Lake Kegonsa Brings Positive News (Continued From Page 21)

2. FOLKS in collaboration with the WDNR and Dane County have partnered in a goal to reduce the carp population to less than 100lbs per acre in biomass to improve water quality, the fishery, and ultimately, improve the lake ecosystem. This level of carp biomass has shown to be the critical point where carp no longer have serious detrimental impacts to the water quality of the lake and desirable gamefish and panfish help mitigate their negative impacts. To date, commercial fisherman removed 111,366 pounds in 2017 and 86,380 pounds in 2018, for total of 197,746 pounds. Our overall goal was to remove 1,000,000lbs so we are ~20% completed for the first 1.5 years of a 5-year plan. This carp removal project will therefore remain one of FOLKS top priority projects moving forward and FOLKS is once again subsidizing commercial carp fishing efforts this spring, 2019. Another related goal of this FOLKS project may be to focus some additional resources in 2019 on getting a better measurement of the actual number and pounds of carp in Lake Kegonsa. Estimates made thus far have been calculated by the WDNR.

As a reminder to the FOLKS membership, the anticipated outcome if carp populations continue to be successfully reduced will be an increase in aquatic plants. The carp not only root up and disturb the plants but, by suspending sediment through feeding and resuspending phosphorus into the water column they increase the algae and blue green algae blooms. So, if we are successful with carp removal, because of the large amount of nutrients in the lake, the response will be clearer water but also more aquatic plants.



FOLKS President Peter Foy wants to eliminate as many carp as possible from Lake Kegonsa



FOLKS sponsored carp removal in the spring of 2017

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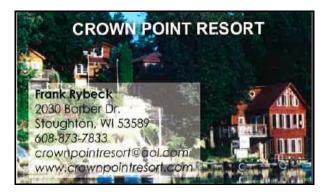


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FOLKS monthly board meetings are held on the second Wednesday of each month and the public are welcome to attend. Next Meeting is May 8, 2019, 5:30 - 7:00 PM. At Springers, 3097 Sunnyside St., Stoughton, WI 53589

## Send news of interest to FOLKS to:

P.O. Box 173 Stoughton, WI 53589 or dluellwitz@gmail.com

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This year's dues remain \$20.00 for households and \$30.00 for businesses.

If you have any questions regarding membership, please contact Connie Hagen at chagen001@gmail.com or Peter Foy at peterfoy49@gmail.com

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List lost and found items on the FOLKS Facebook page or contact Eric Olson at eolson@bunburyrealtors.com

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