



You can **become a Member in 2019**. The Sand Lake Association, Inc. is a 501c3 charitable organization. You can deduct a part of your \$20 (or any greater amount) donation from your 2019 taxes. You can bring your donation to any of the meetings, or go to: <http://www.sandlakewi.com/>, or mail a check to: Al Lechleitner, 5560 Wild Rose Lane, Eau Claire, WI 54701. Make checks payable to Sand Lake Association, Inc.

**Sand Lake Association Inc.'s Mission Statement:** To keep Sand Lake and its surrounding areas clean, invasive species free and safe for all residents and visitors.

### **News from the Sand Lake Water Quality Committee**

For the third consecutive year, Sand Lake Association, Inc. has been awarded a Clean Boats Clean Waters (CBCW) grant from the DNR for summer 2019. So, we will have a student checking boats for invasive species on weekends this summer, starting Memorial Day weekend until mid-August. Stop by the boat landing and say "hi". We will let you know when we have the name for our new intern who is paid by Beaver Creek Reserve's Citizen Science Center to administer our CBCW program. Costs are reimbursed by the grant and in-kind services are used as the required match for the grant.

### **Results of the Water Mapping Study Conducted Last Summer**

Through contributions from Sand Lake Association members, Garrett Miller (our CBCW intern last summer) in partnership with UWEC, did a study of the lake that mapped the depth, composition and vegetation locations of Sand Lake. This information was entered into a database called Biobase that stores the information and creates the ability for it to be mapped. Dr. Lonzarich from UWEC is conducting a similar study at Pine Lake (an area lake with similar characteristics, but less public access) looking at the mosses growing at the bottom of both lakes. Three maps generated from these efforts are shown below. Professor Lonzarich's comments regarding Sand Lake:

*"The first map is a bathymetric map of the lake – should be useful to your lake owners.*

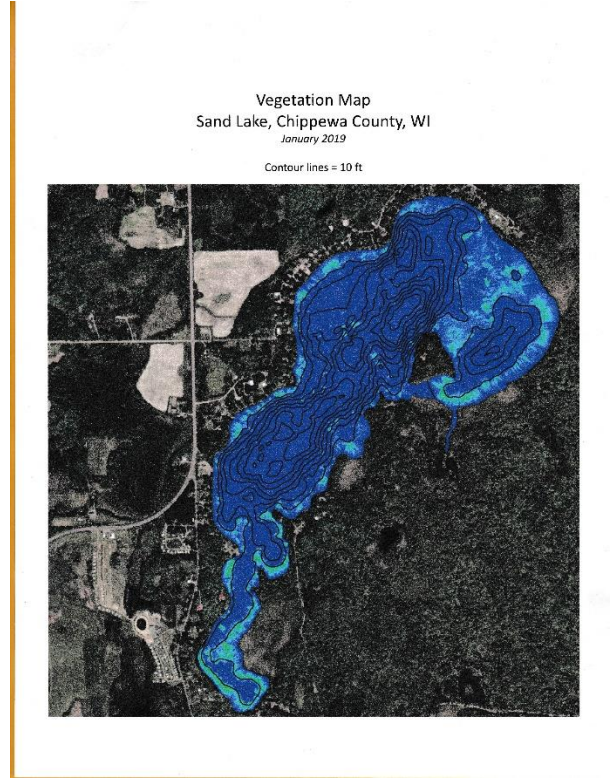
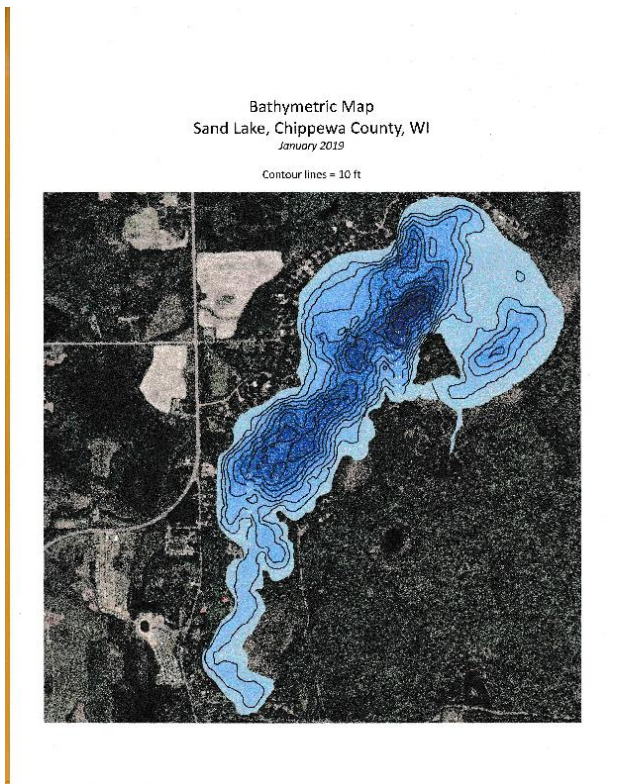
*The second map is the most biologically useful one. It shows where the vegetation is found in the lake. When you look at it (a copy is shown below), please notice two things: 1) that nearly all of the vegetation is confined to depths of less than 10 feet and 2) some green patches of vegetation are found between 30-40 feet. On the first point, you now have a baseline for where and at what depths the angiosperms (flowering plants) are located around Sand Lake. Most angiosperms are concentration along the southwestern and northeastern shorelines. The*

*second point, about the mosses, might be a very interesting pattern to pay attention to. Deep-water mosses of Sand Lake might have died back when lake water quality was less favorable. As the years pass, the amount of moss in deep-waters of Sand Lake is likely to increase. By comparison, deep-water mosses cover much of the bottom of Pine Lake between 30-50 ft. Thus far, the role played by mosses in lake ecosystem function is unclear, but what is clear is that “healthy,” soft-water lakes are likely to have very high densities of this vegetation type in deeper-layers. My working hypothesis is that the chemistry and metabolism of such lakes may be strongly determined by this vegetation.*

*The third map shows the bottom composition in different parts of the lake. “*

The water quality committee is very grateful to Garrett Miller and Professor Lonzarich for their work on this study. We now have a baseline for our lake and know where we need to watch for changes. As we move forward, if we choose to do further studies, we will be able compare to what our lake looked like in summer 2018.

Copies of these maps will be available at the first meeting of the year in May and at the picnic. Laminated 8x10 copies will be available for \$10 each. Larger 18”x24” laminated copies can be ordered for \$35 each. Please let Dave Cook ([corncook@citizens-tel.net](mailto:corncook@citizens-tel.net)) know if you would like to order one or more of the bigger maps.



## Looking Ahead to Summer 2019

Bottom Composition Map  
Sand Lake, Chippewa County, WI  
January 2019

Contour lines = 10 ft



As we eagerly look forward to warmer and sunnier days on Sand Lake, what can we do to help our beautiful lake continue to be the safe haven for all of us?

The next step for the Water Quality Committee will be to try to identify the vegetation that we have on our lake. The only invasive species that we are aware of is curly-leaf pondweed. Committee members will be attempting to identify where this is located and try to track it in the hopes that it does not spread. The CBCW project is instrumental to keeping other invasive species from entering the lake. If you would like to join the committee, please email Dave Cook at [corncook@citizens-tel.net](mailto:corncook@citizens-tel.net).

Another good thing for our lake that we can all do, is analyze the **buffer zone** that we have at our lake frontage.

A **buffer zone** is a strip of native vegetation along lake property frontage. The buffer zone should extend 3-5 feet from the lake edge, cover at least 75% of the frontage and be about waist high. The benefits of the buffer zone are multiple.

### ***Buffer zones solve many problems for home owners***

- *Emergent vegetation, like bulrushes and cattails, reduce shoreline erosion caused by wind and boat traffic.*
- *The natural vegetation serves as a filter strip that helps prevent lawn fertilizer and pesticide runoff from reaching the lake.*
- *Aquatic vegetation helps purify lake water by removing contaminants and by calming water, which allows suspended soil particles to settle to the lake bottom.*
- *Buffer zones reduce the amount of fertilizer and herbicide needed on a lakeshore property because the resulting lawn is smaller, and native plants in the buffer zone do not need fertilizer or herbicides.*
- *Buffer zones reduce the acreage of lawn and the amount of time needed for mowing and lawn maintenance.*
- *Unmowed wildflowers, grasses, and sedges along the shore create a biological barrier that will deter Canada geese from loitering on the lawn.*

[https://littlerocklake.org/native\\_buffer\\_program](https://littlerocklake.org/native_buffer_program)





Buffers should include a mix of *beneficial vegetation species* including native aquatic grasses, upland plants, buttonbush, sedges, rushes and other flowering species. Popular beneficial plants include pickerelweed, blue flag iris, cardinal flower, lizard's tail and swamp milkweed.

<https://www.solitudelakemanagement.com/benefits-of-native-plant-buffers-lake-and-pond-management>.

There are many resources available online for more information on how to create buffer zones on your property. In addition to those already cited, you can find information at:

- ✓ <http://www.ruskcounty.org/wp-content/uploads/2018/03/Buffer-Planting-Guide.pdf>
- ✓ <https://freshwater.org/wp-content/uploads/joomla/PDFs/publications/lakes-guidetoprotection-2.pdf>
- ✓ <https://minnesotawaters.org/lakevolney/how-you-can-help/>

Preserving the water quality of our lake can be done in many ways. Here are suggestions to help prevent sedimentation and contamination of our lake:

1. Reduce areas of impervious surfaces, especially close to the lake.
2. Avoid disturbing the soil near the shoreline.
3. Avoid use of lawn fertilizer in areas where run off may carry it into the lake.
4. Keep grass clippings, leaves and compost piles away from the lake. \*

\*Grass clippings and leaves contain nitrogen and phosphorus. When picked up by storm water runoff, they can be carried directly to our lake. There, they promote unsightly algae blooms/scum. Too much algae is harmful, blocking sunlight and preventing plant growth. When the algae dies and decays, it also takes much needed oxygen away from fish.

Additional information to help keep our lake clean can be found at: <https://dnr.wi.gov/lakes/>.

### **Fish Crib Rehab Project Huge Success**

On Saturday, Feb. 9<sup>th</sup>, in below zero weather, at least 25 Sand Lake Association members, helpers from Fireside Lake and workers for the Rusk County Wildlife Restoration Association (WRA) gathered to work on restoration of 4 existing fish cribs. The process involved using ice augers to dig numerous holes in the ice above the cribs and dumping rocks into the holes.



Special thanks go to Steve Johnson for coordinating the project and his persistence in getting the permit, Bob Devoe for his expertise, Dave Cook for mapping the fish cribs and plowing, Joanne Walker, Leslie Johnson and numerous others for providing food and coffee. The Sand Lake Association would also like to thank the WRA for their support in providing rock, trucks, plows and workers for the project. The permit is good for 7 more years, so plans are to repeat the project to rehab more fish cribs. Consensus was that this was a fun winter activity that brought together people from around the lake to socialize and make positive improvements to Sand Lake. Watch for information in winter 2020 to help next year.

### **Announcements and Upcoming Events:**

Dave Stanton will be looking for volunteers for the spring Hwy 40 clean-up.

We need volunteer hosts for 2019 for **Coffee on the Dock**. Use the [contact us](#) form on our website ([www.sandlakewi.com](http://www.sandlakewi.com)) or [info@sandlakewi.com](mailto:info@sandlakewi.com) if interested.



**Our first meeting is coming up on Sat. May 25<sup>th</sup> at 9:00 at the Big Bend Town Hall. Come and find out what is planned and share your ideas for another wonderful summer on Sand Lake.**