P.O. Box 93
Star Prairie, WI 54026
cedarlake-wi.org

PROTECT OUR LAKE

Become a Cedar Lake Aquatic Invasive Species Volunter Monitor!

Volunteers use rakes to monitor plants in the lake.

Why We Care:

- Invasives can take over and alter an ecosystem
- Negative impacts to
  - Property values
  - Fishing
  - Recreational use

Volunteer Monitoring Will:

- Detect invasives early to make timely decisions that limit spread
- Be cheaper and more frequent than professional monitoring

Volunteers Will:

- Be trained and provided with tools
- Monitor 3 times per summer for 2 hours each time

HELP WANTED!

The Volunteer Monitoring Team seeks volunteers to monitor shoreline stretches for Eurasian water milfoil and other aquatic invasive species. Training provided.

For more information:
Contact Denny Peterson
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ALUM UPDATE

The Cedar Lake Protection and Rehabilitation District completed an alum treatment from June 12-26, 2017.

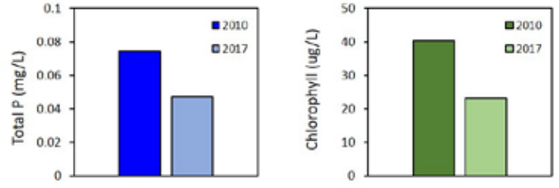
ALUM TREATMENT HIGHLIGHTS:

- Our contractor, HAB Aquatic Solutions, applied a total of 287,465 gallons of alum during the treatment period.
- Treatment followed specified alum treatment rates of 20 g Al/m2 at depths between 20 and 25 feet and 26 g Al/m2 at depths greater than 25 feet. This is 20 percent of the full recommended dose.
- Measured in-lake pH was not less than 7.0 during the treatment period.
- Winds speeds were carefully monitored at the lake during treatment. In only one case did they exceed 10 mph. Winds measured on the lake averaged 6 mph lower than at the New Richmond Airport.
- The alum treatment was paid for with a combination of grant funds ($365,000) and special assessment and Lake District funds ($139,671).

ALUM TREATMENT MONITORING RESULTS

If you spent time on Cedar Lake this year, you know there was noticeably clearer water than in previous years. We hired scientists from UW-Stout to monitor the lake to assess treatment results and provide advice for future planned treatments. Monitoring costs are supported by WDNR grants from 2017-19. Initial in-lake results are promising. Phosphorus released near lake sediments (the hypolimnion) in 2017 decreased considerably when compared with 2010. There was a 33 percent decrease in sediment P release after only 20 percent of the total prescribed alum dose was applied (data from 26 points at depths >20 feet). Decreases in phosphorus release were highest in the deepest portions of the lake. Closer to the lake surface, total phosphorus declined even more with mean summer phosphorus decreasing from 74 ug/L in 2010 to 47 ug/L in 2017. In-lake chlorophyll measurements (an indication of algae growth) decreased from 40 ug/L in 2010 to 23 ug/L in 2017.

Future treatments will be guided by monitoring results which show there is still considerable phosphorus available in bottom sediments. Therefore, as anticipated, additional alum is needed to ensure on-going water quality in Cedar Lake. A total dose of 100 g Al/m2 is planned for depths between 20 and 25 feet, and a total dose of 130 g Al/m2 is planned for depths greater than 25 feet. Alum treatments are funded through a special assessment on Lake District parcels and WDNR grants. The Lake District is in the process of applying for a grant for the second alum treatment. The treatment schedule will depend upon grant success and final alum monitoring results and recommendations.



Mean summer (July to early October) comparison before and after alum treatment. Phosphorus is the nutrient that fuels algae growth, and chlorophyll is a measure of algae.

NEW FOR CEDAR LAKE: HEALTHY LAKES NATIVE PLANTINGS

Native plantings encourage a healthy lake by providing important habitat for birds, butterflies, and other creatures next to the water. They also reduce runoff of nutrients and sediment that enter the lake. Reducing nutrients and sediment from waterfront property will extend the life of the alum treatment and demonstrate to the Wisconsin Department of Natural Resources that Cedar Lake homeowners are doing their part to help keep Cedar Lake clean!
Demonstration of homeowner commitment through completing native plantings can only help as we seek significant state funding for a second alum treatment.

Cedar Lake property owners can demonstrate their commitment to a healthier lake by signing up to install a healthy lake native planting in 2018 with the attached postcard. Participation in 2018 will be limited to the first 25 people who sign up.

Our consultant, Cheryl Clemens, has provided assistance to property owners on nearby Polk County lakes including Balsam Lake and Bone Lake. She will visit your property to help you choose appropriate plants for your site and interests and explain grant program requirements. Templates are available for plantings with various soils and light conditions. Grant funds provide 75% of planting costs up to $1,000. Your cost is likely to be about $300 if you hire a landscaper– less if you plant yourself.

A newly planted healthy lakes native planting on Bone Lake.

WDNR GRANT APPLICATIONS UNDERWAY

- $200,000 for Next Alum Treatment (due 2/01/18)
- $25,000 (?) for Healthy Lakes Native Plantings (due 2/01/18)
- $4,000 for Clean Boats, Clean Waters Invasive Species Prevention (due 12/10/17)

WEB/EMAIL NOTICES

To receive this newsletter and other lake notices electronically, subscribe to our email list!

Go to http://cedarlake-wi.org and join our list in the upper right corner of the home page.

EURASIAN WATER MILFOIL (EWM) MANAGEMENT

After unsuccessful herbicide treatments in 2016 and 2017, the Lake District employed a new control measure: Diver Assisted Suction Harvesting or DASH. DASH employs a suction line to transport plants that SCUBA divers pull from the lake-bed. DASH removed 5000 pounds of EWM in July followed by hand removal of 200 pounds of EWM by snorkelers.

WDNR Rapid Response grants totaling $40,000 will pay for 75% of the costs of control measures and monitoring from 2015 through 2019. With standard pre and post monitoring protocols, we have a reliable and statistically valid measure of effectiveness. After DASH and handpulling, EWM within the control area declined from a 51.4% to 24.3% frequency of occurrence (at pre-determined sample points).

Ongoing monitoring is critical to target control measures and to know if EWM (and other invasive species) have spread beyond the initial control area. Our monitoring consultant will conduct an annual grid survey with rake samples taken at each point on the grid encompassing all areas where EWM has been found. He also conducts a meandering survey of the entire lake each year.

Professional monitoring will be backed up by crews of volunteer monitors who will survey the lake by taking rake samples at various locations throughout the lake at least three times per year. Equipment and training is provided for volunteer monitors.

Northern Water Milfoil (native)
5-10 leaflet pairs per leaf

Eurasian Water Milfoil (non-native)
12-21 leaflet pairs per leaf

DASH boat on Cedar Lake in July 2017

DASH uses a suction hose to remove EWM from the lake

EURASIAN WATER MILFOIL MANAGEMENT

Good News

- Eurasian water milfoil is contained to the area of initial discovery.
- Volunteer monitoring will help us keep on tabs on where it grows.
- Grant funds are available for monitoring and control efforts.
- DASH (Diver Assisted Suction Harvesting) provides a new control measure.

Not-so-good News

- Eurasian water milfoil control remains a challenge.
- Herbicide control has not been effective in the past two years.