HAB AquaticSolutions

PROJECT DESCRIPTION

Lake Size
1,118 acres

Dates of Application
June 2017 & June 2019

Project Sponsor
Cedar Lake Protection & Rehabilitation District

Project References

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Cedar Lake, WI


Sunrise at Cedar Lake

Cedar Lake is an 1,118-acre recreational lake near Star Prairie, WI with a maximum depth of 34 feet. Cedar Lake has been on the Wisconsin list of impaired waters since 1998 because of high total phosphorus levels. The lake is eutrophic to hypereutrophic with summer algae blooms that result in odors and unsightly build-up of algae along the shorelines. The lake is phosphorus (P) limited: it is the concentration of P which controls the level of algae growth. Impairment of recreation uses was added to the list of water quality concerns for Cedar Lake because of excess algae growth in 2012. Cedar Lake algae blooms have been documented since the 1930s. Copper sulfate was used on the lake since the 1940s to provide short term relief of nuisance blooms. Lake samples confirmed P was very high in the sediments and available to be released into the overlying water column.

HAB Aquatic Solutions conducted the first two (out of five planned alum applications) in June 2017 and June 2019. Thus far, 42% of the total dose has been applied to the 680-ac application zone (285,000 gal in 2017 & 316,000 gal in 2019). Results to date include an average of **26% less phosphorus** in the lake water during the summers of 2017 and 2018. This lowered the chlorophyll a concentration (a measure of the amount of algae in the lake) by **54%**. Having less algae has **improved the water clarity by 26%** during the two summers following the 2017 application. The 2017 dose was only 20% of the total dose and additional improvement will continue after the 2019 and subsequent doses.