

## Lake Size

1,071 acres

## Dates of Application

April 2014 and

April 2016

## Project Sponsor

Rice Creek

Watershed District

## Project References

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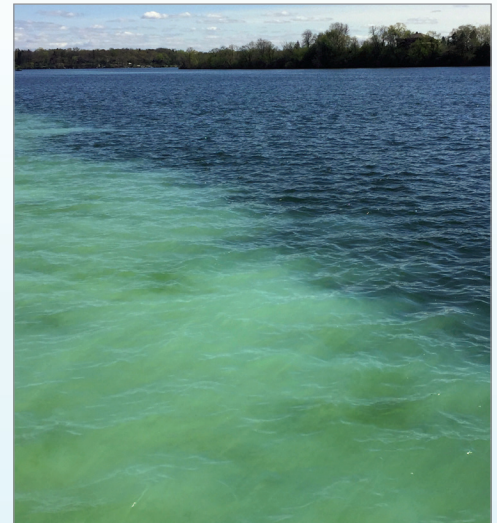
## Bald Eagle Lake, MN

**Bald Eagle Lake** is 1,071 acres in size and is located just north of the Twin Cities near the town of White Bear Lake, MN. The Rice Creek Watershed District partnered with Wenck Associates to complete a Total Maximum Daily Load (TMDL) study and determined Bald Eagle Lake was impaired/threatened by an excess of phosphorus. The watershed district contracted with HAB Aquatic Solutions to conduct

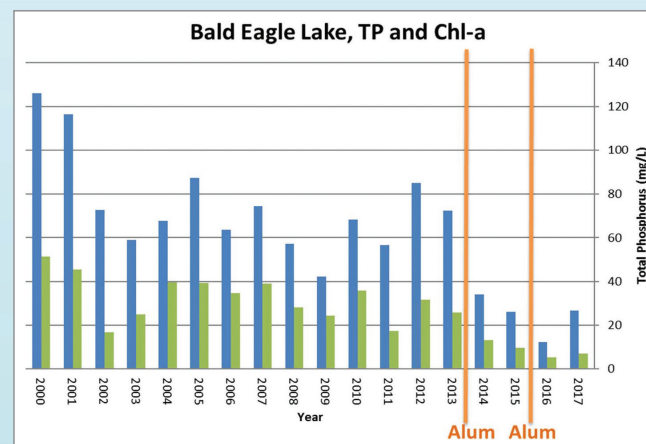
two liquid alum applications. In April 2014, half of the required dose was applied (248,000 gallons) in 8 days. The remaining dose (an additional 248,000 gallons) was applied in April 2016.

Prior to HAB's aluminum sulfate application, the 30-year water clarity summer average was 3.9 feet at Bald Eagle Lake. Post alum lake treatment, water quality has been averaging 8.0 feet. The current quality of Bald Eagle Lake is the best it has been in the 30-year sampling record and is now greatly exceeding the project goals for total phosphorus, chlorophyll

(a measure of the amount of algae in the lake) and water clarity (Secchi disk depth). The graph to the left shows the changes in total phosphorus and chlorophyll and how the most recent conditions relate to the project goals.



*Subsurface Formation of Floc*



More information regarding this project is available in a 2018 LAKELINE article:

[www.wenck.com/wp-content/uploads/2018/02/Restoring-Water-Quality-in-Bald-Eagle-Lake-Minnesota.pdf](http://www.wenck.com/wp-content/uploads/2018/02/Restoring-Water-Quality-in-Bald-Eagle-Lake-Minnesota.pdf)