

Lake Size

600 acres

Dates of Application

October 2013
and May 2018

Project Sponsor

Prior Lake Spring Lake
Watershed District

Project References

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Spring Lake, MN

Spring Lake is 600 acres in size, located in central Minnesota near the town of Prior Lake. In 2011 the Prior Lake-Spring Lake Watershed District completed a Total Maximum Daily Load (TMDL) study and determined Spring Lake was impaired/threatened by an excess of phosphorus. With support from Barr Engineering, the watershed district contracted with HAB Aquatic Solutions to apply the first of dose of 292,000 gallons of liquid aluminum sulfate in 11 days in the fall of 2013.

Prior to the aluminum sulfate treatment Barr recorded 220 $\mu\text{g/L}$ phosphorus and 45 $\mu\text{g/L}$ chlorophyll *a* (algae density). Following the alum treatment Barr Engineering measured 59 $\mu\text{g/L}$ phosphorus and 4 $\mu\text{g/L}$ chlorophyll *a*.

In May of 2018, HAB applied the second of three planned doses to Spring Lake. This second dose of 146,189 gallons of alum (25% of the total planned dose) was completed in 6 days and studies to document improved water quality are currently ongoing.



Spring Lake before (left) and after (right) the 2013 application.