

Blue Lake Alum Treatment



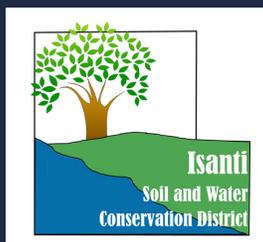
FOR THE HEALTH OF BLUE LAKE!

The Isanti Soil and Water Conservation District and the Blue Lake Improvement District (BLID) are working together to improve the health of Blue Lake! An alum treatment has been identified as the best action to protect the lake. The first treatment will be done in 2022, and a second treatment will be done in 2024.

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 Isanti Soil and Water Conservation District



The Issue

Diagnostics taken on Blue Lake indicate it is at risk of becoming an impaired water body. There is an excess of phosphorus in the lake, which fuels algae blooms. A study conducted on Blue Lake in 2019 found that internal loading (the recycling of phosphorus from the lake sediments) significantly contributes to the total phosphorus. Therefore, work must be done to reduce phosphorus from internal loading. The Isanti SWCD has already completed a significant amount of work to reduce phosphorus entering the lake from the upland areas. This has been accomplished through projects such as shoreline restorations, rain gardens, and settling basins. However, the work in upland areas will not be enough to protect Blue Lake. The Isanti SWCD has been working with the Blue Lake Improvement District to protect the lake for the future and keep it off the impaired waterbodies list.

The Solution

An alum treatment has been identified as the next most logical and cost-effective way to protect Blue Lake. A Blue Lake alum treatment feasibility study conducted in 2020 confirmed an alum treatment could effectively address the excess phosphorus in the lake. In order to keep Blue Lake healthy, the SWCD has set a phosphorus reduction goal of 360 pounds/year. The alum treatment will result in a 590-pound reduction of phosphorus, which is 164% of the reduction goal! Together with implemented upland practices, the projects will exceed the goal by 270 pounds! Thus, implementing this project will protect Blue Lake with a large safety margin.

Funding for the alum treatment is from a Clean Water Fund Grant with a 25% match from the Blue Lake Improvement District.



alum treatment on Como Lake