

2016 ALUM TREATMENT



Water goes from green to blue after the alum treatment

The 2016 Green Lake alum treatment was successfully conducted by HAB Aquatic Solutions over a 6-day period from April 5 – 10. As planned, a total of 81,744 gallons of aluminum sulfate (alum) and 40,905 gallons of sodium aluminate (buffer) were applied evenly over the entire lake. The treatment was monitored on a full-time basis in accordance with the water quality monitoring plan and permit requirements. The treatment increased water transparency (Secchi depth) from 9 to 19 feet and changed the color from green to blue, and had no effect on the lake pH or dissolved oxygen concentrations.



The treatment boat spread alum and buffer evenly over the entire lake 12 hours a day for 6 days.

Alum and buffer were trucked to the lake from as far away as Edmonton, Alberta, and stored in separate tanks contained in a parking lot near the Small Craft Center. Each chemical was pumped through hoses from the storage tank to tanks on the treatment boat in the lake. A ramp was constructed over the hoses to allow use of the foot path throughout the entire treatment period.



A tanker truck filled storage tanks on the shore.

Alum and buffer were injected into the water surface through paired hoses from tanks on the treatment boat. The injected chemicals formed small particles that settled to the lake bottom, removing phosphorus and algae from the water column as they settled. The settled aluminum binds to phosphorus in the bottom sediments to reduce the internal release of phosphorus from the sediments to the water, and limit the growth of algae and toxic cyanobacteria in the lake during the summer. The treatment goal is to prevent future closures of the lake to recreational uses due to toxic cyanobacteria for up to 10 years.

The 2016 treatment plan and more information can be found on the project website, including:

- [Phytoplankton Study Report](#)
- [Phosphorus Management Plan](#)
- [Treatment Presentation](#)
- [Treatment Report](#)
- [Treatment Process and Underwater Video](#)



Algal scum on the lake, before the treatment.

If you have additional questions about the project please contact Chris Mueller, Seattle Parks and Recreation project manager at chris.mueller@seattle.gov or 206-684-0998.



Previous lake-wide alum applications in 1991 and 2004 effectively limited algae blooms and improved water quality. Friends of Green Lake led the successful campaign for the [2004 Alum Treatment](#).