

## Water Testing at Ames Lake



Water sampling begins each year in mid-April and goes through October. Samples are taken every other week. There are two levels of sampling: Most samples are taken one meter down at the deepest part of the lake. These samples are tested for total phosphorous and nitrogen, chlorophyll and dissolved oxygen. The volunteers also measure the turbidity of the lake with a Secchi disc. (A Secchi disc is an 8-inch disk with alternating black and white quadrants. It is lowered into the water of a lake until it can no longer be seen by the observer. This depth of disappearance, called the Secchi depth, is a measure of the transparency of the water) Twice a year, water samples are also collected at 5 meters down, and near the bottom, for a more complete profile picture. We also have a daily monitoring program which measures lake temperature and depth.

Dissolved oxygen is all about how well fish can breathe. Total phosphorous and total nitrogen are more about the productivity of the lake. Ames Lake is mesotrophic, verging on oligotrophic, meaning we have fairly low productivity. The limiting factor is generally phosphorous, which is consistently low in the lake. This all adds up to a lake with clearer water and fewer nutrients to feed algae blooms.

Our arrangement with King County is that if anything shows up needing attention, they will let us know. Otherwise, they compile the data for an annual report. Our arrangement with them also includes free testing of algae samples whenever we need them. Those results usually come back within one or two days. All of the testing is done at the King County Environmental Lab, a multi-million-dollar setup.

<https://kingcounty.gov/depts/dnrp/wlr/sections-programs/environmental-lab.aspx>

We post the annual water reports on this website when they become available. You can see reports for the past three years at the bottom of this page:

<https://green2.kingcounty.gov/SmallLakes/LakePage.aspx?SiteID=3>

Overall, the water quality in Ames Lake is considered very good. We are lucky to be able to participate in King County's comprehensive program of water-quality monitoring at no cost to us other than the time of our volunteers.