

Little Sunapee Protective Association
Annual Meeting
July 16, 2022
Water Quality Report

Little Sunapee Water Level

We started our second year as contributors to the lake water level study being conducted by the University of North Carolina (UNC). This is part of the Lake Observations by Citizen Scientists and Satellites organization (LOCSS).

In 2021 we provided 162 readings for our lake. So far in 2022 we have reported 40 readings.

LOCSS maintains a webpage dedicated to Little Sunapee:

<https://www.LOCSS.org/gauge/little-sunapee>

Conductivity Measurements

Monthly conductivity measurements have continued uninterrupted since 2017. In 2022 two additional sites were established. Unlike our three “never-freeze” locations, these two new sites do freeze over during the coldest months but are still available for testing most months of the year.

In response to concerns voiced by Association members, two streams were explored with our conductivity instrument. No unordinary issues were encountered.

Little Sunapee Water Analysis

Your water quality team gathered samples from the Little Sunapee east basin deep spot on June 30, 2022. This year we were accompanied by two biologists from New Hampshire Department of Environmental Services (NH DES). The analysis of the samples was completed by NH DES.

For the sampling process the team used a boat owned by Robin Albing, Don Castle and Roger Block with Roger as the captain. Joining our team this year was Mike Thomas.

Phosphorus

Phosphorus is the limiting factor for plant growth in our lake. This includes algae. For decades our phosphorus levels have been well within the ideal level and half the average for NH lakes. In some years phosphorus in the surface layer has been undetectable by either of the laboratories we use.

Chloride

Chloride levels in NH lakes are receiving increased attention from DES. In 2008 DES designated 19 water bodies in NH as impaired by chloride. By 2016 that list had increased to 46. Even in the unimpaired water bodies the state average chloride level is increasing.

Some sources of chloride are obvious such as road salt. Less obvious is the contribution from domestic water treatment systems. Salt used in home water treatment makes it ways through septic systems into the lake.

A decade ago Jack Sheehan took steps to combat the chloride level in Little Sunapee. Jack worked with New London, Springfield and the State to achieve reduced road salt designation for roads that drain into Little Sunapee.

Little Sunapee is not rated as impaired by chloride nor is Little Sunapee rated at risk of becoming impaired. But Little Sunapee's chloride level is over three times the average for NH lakes. Chloride is one of eleven parameters of Little Sunapee that are routinely monitored by the water quality team.

Respectfully submitted:

R. H. Scott