

CLEMONS POND WATER QUALITY REPORT

May 28, 2023

For the water quality 2022 testing season we had eight sets of water clarity and dissolved oxygen/temperature profile data for the period May 8 thru October 16. Our average water clarity (SECCHI depth) for the testing season was 5.87 meters, with a range of 4.80 to 6.80 meters. Water clarity was significantly above our historical average of 5.6 meters as a result of the dry conditions and lack of rainfall that we experienced. Oxygen levels in the pond followed their usual pattern over the course of the season with late summer desaturation noted which was typical. Maximum surface temperature in the pond of 83 degrees F occurred in early August.

Phosphorus testing was not completed as we were unable to obtain a test kit from Maine DEP.

Nancy Serrell and I were able to complete our first testing of the season on May 6th, revealing a very low water clarity of 3.50 meters, likely due to the significant rainfall over the previous week. We hope to get out on the pond for our next testing today or tomorrow and expect better results.

Victor Lerish

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9/3/2023

In past years I've always been able to start my report with the line "It's been an uneventful summer for water quality testing on the pond". Well, I certainly can't say that for this summer. We started off the season in a fairly predictable way with water clarity rising from 3.50 meters in early May to 5.07 meters by July 1. That's only 0.5 meters below our historic average. Beginning the second week in July we began to see a precipitous decline in water clarity following a series of severe rain events that caused backflow up the Ten Mile River into the pond and also causing a change in pond water color. Water clarity dropped to 2.82 meters on July 18 and then slowly began to recover to the 5.10 meter reading we obtained on August 31. Dissolved oxygen concentrations in August also fell more precipitously than we have ever recorded in the past. The cause of this is unclear, but likely due to increased oxygen by organisms including zooplankton. Testing for total phosphorus was obtained on August 31...results will likely not be available for another month.

The recovery of water clarity is reassuring, but it will likely take until next summer for the pond to fully recover from this summer's insult. Clemons Pond flushes itself 2.55 times a year meaning that by next summer the total volume of water in the pond will have been replaced more than twice, That and a long winter ice cover (hopefully) should restore some balance and get us back to a more average year.

I have discussed our situation with the head of the lake assessment division at Maine DEP whose recommendation was continued monitoring and vigilance.

Victor Lerish