

CLEMONS POND WATER QUALITY REPORT

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.

Spring 2024 addendum

Total Phosphorus from 8/31/23: 7 ug/ml (ppb) This value is around our average and reassuring given events of last summer and concerns re. possible nutrient additions (due to erosion from heavy rains and backflow of the Ten Mile into

the outlet Cove). High water levels from last summer may have also played a positive role in diluting nutrients and increasing flushing of the pond water volume.

Water clarity: 9/22/23: 4.85 meters

5/26/24: 6.22 meters excellent for the start of the season!!!

Dissolved oxygen readings, also obtained on 5/26/24 were excellent for this time of year.

Bottom line...pond water quality has rebounded in the way we had hoped it would from conditions we experienced last summer.

Victor Lerish