2021 August Water Test and Background and Explanation

The chart below includes the results of 2021 water testing. As you know we test three general categories: Ecoli bacteria which comes from the geese, septic systems and water shed run off, Cyanobacteria which is present in every body of water but, only is a problem when it is in a bloom form and Chemical profile including phosphorus, chloride, acidity etc..

ECOLI is always tested at 4 different sites on the lake. It was a problem at Locke Lake and at Dalton and Crescent beach in 2020 and was attributed to the large geese population. THOSE SITES ARE TESTED REGULARLY BY LOCKE LAKE ASSOC. I can not comment on their results. Sites tested by us on Halfmoon were all within acceptable levels.

CYANOBACTERTIA were a problem in 2020 and resulted in an advisory on Halfmoon. When phosphorus levels are high and we have hot temperatures over a prolonged period, Blooms can occur resulting in a fluorescent green/yellow color in the water. This past August we were seeing some possible blooms. The water was checked and sampled by myself and a biologist from the DES. Levels were in an acceptable range and no advisories were placed.

CHEMICAL PARAMETERS were tested in June, July & August. The results are shown in the accompanied chart. The results show that our lake is in pretty good shape and has remained fairly consistent over time. One trend however, that requires a close watch are phosphorus levels. July and August showed a trend upwards. Major sources of phosphorus contamination are fertilizers and detergents. We must all be aware of using these substances around the lake shore.

	Annual 2018 Halfmoon Lake Avg, Value	Annual 2019 Halfmoon Lake Avg, Value	Annual 2020 Halfmoon Lake Avg. Value	June 2021 Halfmoon Lake Avg. Value	July 2021 Halfmoon Lake Avg. Value	Aug 2021 Halfmoon Lake Avg. Value	NH Desired Quality	NH Median Value
Color	53	43	30	40	40	40	<80	
Chloride	12	14	14	17.4	18	12.4	<230	5
Chlorophyll	2.95	3.82	3.64	4.5	4.84	3.72	<5	4.39
e-coli		11	NA	NA	NA	NA	<88	
Alt. Neutrality Capacity	5.4	5.6	5.2	5	5.3	5.4	>10.1	4.5
PH	6.83	6.4	7.06	6.67	6.1	6.56	6.5-8.0	6.6
Total Phosphorus	9	13	8	11.4	16.5	27.7	<20	11
Secco (NVS)	4.08	3.5	4.38	3.75	4	3.5	n/a	3.3
Conductivity	71.4	66.6	57.5	63.8	63.2	63.2	n/a	42
Turbidity	0.74	1.1	0.48	2.5	0.92	0.82	<10	
Comment:								