

- HALFMOON LAKE is in good shape but needs our vigilance.
- The clarity of the lake has decreased in June 2023. The water appears “brownier”. This is influenced by the mixing of the water layers, organic debris entering the lake, the rise in the water temperature, septic systems, chemicals and salinization.
- The temperature of the lake has been increasing (see chart).
- Conductivity of lake has increased over last 3 years. This is due to water runoff, salt use on roadways and driveways, lawn chemicals, etc..
- Summary of 2022 results show a stable phosphorus level overall, but still fluctuate above the threshold level.
- Phosphorus levels at the bottom of the deep spot of the lake (29.9 feet) were elevated indicating an internal load of phosphorus. This phosphorus is then readily available when the water is churned up from storms or heavy boat traffic. Cyanobacteria was found at the deepest part of the lake at the end of last summer.

COMMENTS: Please be vigilant. Look for water runoff. Do not use phosphorus fertilizer or detergents. Have your septic system INSPECTED not just emptied. BECOME A CERTIFIED LAKESMART property owner through NH LAKES programs.

HALFMOON LAKE WATER TESTING RESULTS 2023												
	Annual 2018 Halfmoon Lake Avg. Value	Annual 2019 Halfmoon Lake Avg. Value	Annual 2020 Halfmoon Lake Avg. Value	Annual 2021 Halfmoon Lake Avg. Value	Annual 2022 Halfmoon Lake Avg. Value	June 2022 Halfmoon Lake Avg. Value	June 2023 Halfmoon Lake Avg. Value	July 2023 Halfmoon Lake Avg. Value	Aug 2023 Halfmoon Lake Avg. Value	NH Desired Quality	NH Median Value	
Color	53	43	30	40	30	40	40			<80		
Chloride	12	14	14	16	17	18.2	14.5			<230	5	
Chlorophyll	2.95	3.82	3.64	4.18	2.51	3.42	5.9			<5	4.39	
e-coli		11	NA	NA	NA	NA	NA			<88		
Alk. Neutrality Capacity	5.4	5.6	5.2	5.2	5.7	5.3	5.1			>10.1	4.5	
PH	6.83	6.4	7.06	6.44	6.43	6.43	7.07			6.5-8.0	6.6	
Total Phosphorus	9	13	8	10	10	13.5	?			<20	11	
Secco (NVS)	4.08	3.5	4.38	3.79	4.38	4.5	3.25			n/a	3.3	
Conductivity	71.4	66.6	57.5	64.4	81.8	73.7	84			n/a	42	
Turbidity	0.74	1.1	0.48	0.68	0.61	0.56	1.42			<10		
Comment:	Phosphorous results for June 2023 are not in yet (as of 7/8/23). Chlorophyll is up, as is PH. Maybe due to stirring up sediment at the lake's bottom. Also noted that phosphorous levels elevated last year in the bottom layer of the lake, including the deepest spot. This has allowed cyanobacteria to exist even at this depth. "This highlights the importance of minimizing storm water runoff and sediment erosion." (DES quote) Clarity of water is also down as noted in the secchi dish reading.											

Halfmoon Lake Water Update June 2023

Temperature, Conductivity and Phosphorous Data

