

WPA Update 7-10-2023

Summary: We currently have 2 types of algae blooms in Webber.

1. The globs of light green filamentous algae that does not create toxins has been in the lake since early June, primarily on the west and north sides and near the Seaward Streams inlet (see photo that shows pond areas).
2. Hot weather, sun, and increased phosphorus have caused growth of small dots of green algae that can be seen in the water column, concentrated towards the surface. When the lake is still, a layer may form on top of the water. For areas that have been downwind, this layer is likely to be heavier. On 7/6, photos posted to the Facebook site (see sample photo) were sent by the WPA to the Dept of Environmental Protection, who did not think that it showed toxins. The scums reported that morning dissipated the same afternoon. Algae and cyanobacteria (blue-green algae) are always present in the lake and are an important part of the food chain - they do not create health hazards unless there are high levels of toxins formed only by certain types of cyanobacteria.

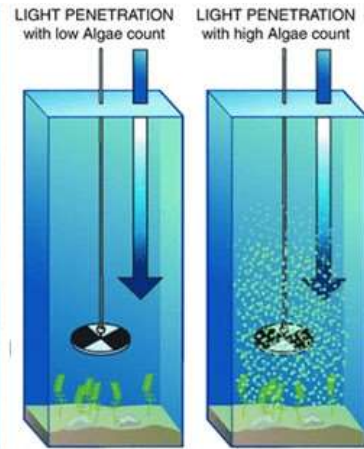
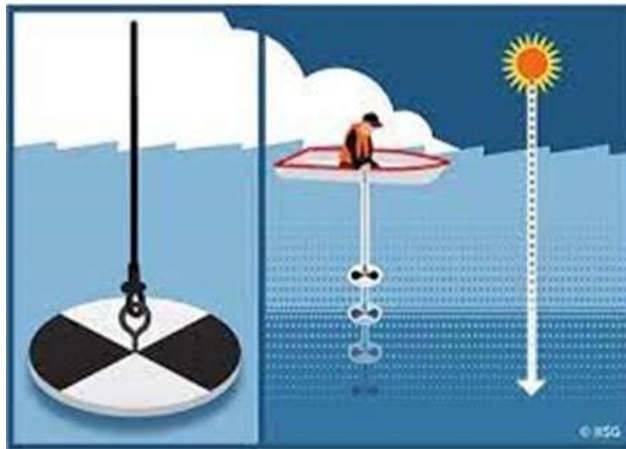
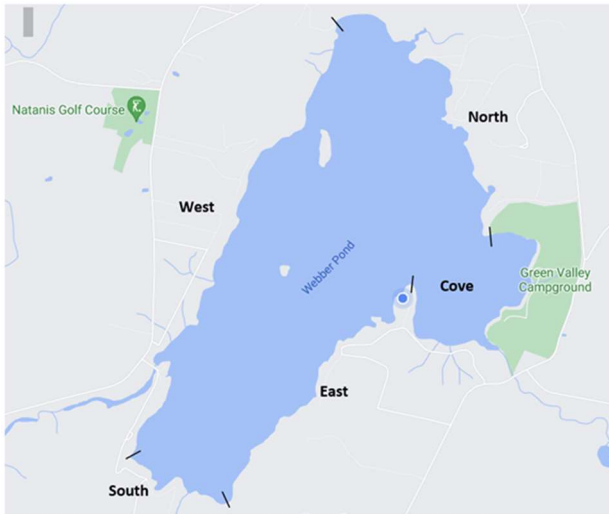
Data: Secchi water clarity readings (see photo of the process, which requires sun) went from 4.1 m/13.5' on 6/15 to 2.14 m/7' on 7/5, just above the 2 m threshold for a severe algae bloom. Phosphorus increased from .025 on 6/25 to .030 on 7/6, but declined to <.025 on 7/9 after the mini flush. Water temperatures increased 5 degrees each of the past 2 weeks and are now at 80 degrees. (See attached 2022 - 2023 data chart.)

WPA Actions: The WPA obtained funding of \$5,000 from the Town of Vassalboro for water quality monitoring and dam security. We have been using new phosphorus measuring equipment to get timely estimates of phosphorus levels and pH levels. We have ordered equipment that will measure oxygen and temperature levels at various depths in the pond, which also impact water quality. After speaking with DEP on 7/6, John Reuthe obtained approval from the Town to use some of the funds for rapid toxin test kits that will be ordered so that the WPA can test for toxins. Two 6" boards were removed from the dam on 7/6 to do a mini flush of phosphorus and algae from the pond. These were replaced on 7/9 when the water was level with the spillway since water quality had improved and to conserve water levels for future flushes if needed. The WPA has also been removing filamentous algae near the dam and Town landing. We will continue to monitor water levels and water quality, do mini flushes as needed, and investigate other options for improving water quality.

What You Can Do: **Reduce phosphorus in the lake by removing filamentous algae, grasses and dead fish floating on the surface around your property**, using nets, scoops, or vacuums. **Dispose of them away from the pond** to ensure that runoff doesn't bring the phosphorus back. Ways to reduce phosphorus runoff from your property **include creating a buffer of natural vegetation** (not grass) next to the lake, **eliminating fertilizers and pesticides** from lawn maintenance, **cleaning up after pets to avoid bacteria as well as phosphorus from entering the pond**, and **maintaining septic systems and holding tanks on a regular basis**. You can receive specific recommendations for your property by contacting Jennifer Lacombe or Erika Bennett for a voluntary LakeSmart consultation - there are funds available to help with suggestions that you choose to implement.

You can also help by joining the WPA, attending meetings, and volunteering to help with dam management, buoy installation/removal, research, and testing. We all care about Webber Pond and can do more with additional volunteers.

Photos/charts are on the next page. Please let us know if you see potentially toxic scums or have any questions.



	2022									2023								
	Wk Avg Secchi	Total Phos	Wk Tot Rain	Water Level	Water Temp	Wk Avg Hi Temp	Hist Avg Hi Temp	Diff Hi Temp	Wk Avg Secchi	Total Phos	Wk Tot Rain	Water Level	Water Temp	Wk Avg Hi Temp	Hist Avg Hi Temp	Diff Hi Temp		
May W1			0.5	+6"		61	62	-1				6.0	+16"		61	62	-1	
May W2			0.0	+5.5"		77	64	13				0.0	+10"		68	64	4	
May W3			0.4	+3.5"		66	66	0				2.2	+4"		65	66	-1	
May W4	5.1	0.015	0.8	+2"		74	67	7	4.5			0.3	+4.5"	65	71	67	4	
Jun W1	5.2		0.8	+0.5"		69	72	-3				1.7	+5.5"	66	65	72	-7	
Jun W2	4.9	0.014	1.8	Even		73	74	-1	4.4			0.3	+6"	68	69	74	-5	
Jun W3	4.7		0.1	-1.5"		69	76	-7	4.1			2.1	+6"	70	69	76	-7	
Jun W4	4.5		1.0	-1.5"		79	78	1		0.025		1.7	+3.5"	75	77	78	-1	
Jul W1	3.3	0.014	1.0	-1"	78	79	79	0	2.1	0.030		1.5	+2"	80	81	79	2	
Jul W2	2.4		1.1	-2"	80	80	80	0									80	
Jul W3	1.6	0.031	1.9	-1"	82	86	80	6									80	
Jul W4	1.4		0.9	-2"	84	85	80	5									80	
Aug W1			1.0	-2"	86	87	80	7									80	
Aug W2	1.5	0.031	0.2	-3"	80	75	80	-5									80	
Aug W3	1.3		1.5	-3"	79	80	79	1									79	
Aug W4	1.0	0.054	2.1	-3"	78	79	77	2									77	
Sep W1	1.0		2.2	-1.5"	74	70	75	-5									75	
Sep W2	1.0	0.022	0.3	-3"	73	79	73	6									73	
Sep W3	1.1		2.6	-11"	70	63	70	-7									70	
Sep W4	0.9	0.034	3.0	-24"	66	62	67	-5									67	
Oct W1	1.2		0.1	-29.5"	62	65	63	2									63	
Oct W2	1.6		3.5	-31"	59	60	60	0									60	
Oct W3		0.037	2.4	-21"	57	60	57	3									57	
Oct W4			2.2	-12"	55	62	54	8									54	
Nov W1	2.1	0.035	0.0	-8"	55	68	51	17									51	
Nov W2			2.2	-6"	55	55	48	7									48	
Nov W3		0.024	0.2			37	44	-7									44	
Nov W4			2.3	-2"		42	41	1									41	
Min	0.9	0.014	0.0					-7	2.1	0.025	0.0						-7	
Max	5.2	0.054	3.5					17	4.5	0.030	6.0						4	
Avg	2.4	0.028	1.3					2	3.8		1.8						-1	
			2022	Rain	Hist Avg	Diff					2023	Rain	Hist Avg	Diff	Temp	Hist Avg	Diff	
			May	1.7	3.7	-2.0					May	8.5	3.7	4.8	66	65	2	
			June	3.7	3.8	-0.1					June	5.8	3.8	2.0	70	75	-5	
			July	4.8	3.5	1.3					July	1.5						
			Aug	4.8	3.4	1.4					Aug	0.0						
			Sep	8.1	3.8	4.3					Sep	0.0						
				23.1	18.1	5.0	27%					15.8	7.5	6.8				