



Worcester Cyanobacteria Monitoring Collaborative

WCMC Results July 10, 2023

Lake and Overall Risk	Phycocyanin Concentration (ug/l)	Particle Concentration (#/ml)	Cyanobacteria Density	Cyanobacteria Observed
Bell Pond	ND	60	none	
Burncoat Pond	188	284	high	<i>Dolichospermum, Microcystis</i>
Coes Reservoir	12	165	high	<i>Aphanizomenon, Dolichospermum</i>
Cooks Pond	ND	44	none	
East Lake Waushacum	ND	21	none	
Ecotarium Pond	8	N/A	none	
Farm Pond	ND	37	none	
Flint Pond	17	107	none	
Green Hill Park Pond	35	99	high	<i>Dolichospermum, Microcystis Debris</i>
Indian Lake	10	177	high	<i>Aphanizomenon, Dolichospermum, Woronichinia</i>
Jordan Pond	23	140	high	<i>Aphanizomenon, Dolichospermum</i>
Kiver Pond	16	1113	low	<i>Dolichospermum</i>
Lake Quinsigamond	10	166	some	<i>Aphanizomenon, Dolichospermum</i>
Little Indian Lake	23	106	none	
Manchaug Pond	ND	72	low	<i>Dolichospermum, Microcystis Debris</i>
Newton Pond	15	141	low	<i>Microcystis Debris</i>
Patch Pond	11	27	low	<i>Aphanizomenon</i>
Patch Reservoir	19	368	some	<i>Aphanizomenon, Dolichospermum</i>
Patch Reservoir (Breeze Dr)	66	272	some	<i>Dolichospermum, Oscillatoria</i>
Stevens Pond	ND	19	low	<i>Dolichospermum</i>
Crystal Pond	ND	32	none	
Lake Chauncy	13	195	high	<i>Dolichospermum, Microcystis, Microcystis Debris</i>
Lake Lashaway	ND	27	low	<i>Microcystis</i>

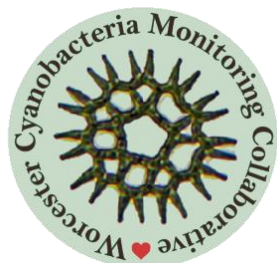
Previous Results for Lakes Not Tested this Period

Elm Park Pond	134	8881	some	Last sampled 6/12
Leeseville Pond	16	309	none	Last sampled 6/24
Salisbury Pond	24	1203	some	Last sampled 6/24

Results are based on methods that are not certified by the Commonwealth of MA but are presented as recommendations so that lake users can make informed choices about their contact. We encourage people to use their best judgement, and "If in doubt, stay out!"

If you or your pet has been exposed to water that may contain cyanotoxins, rinse the areas with tap water immediately. If your pet has ingested scums or water containing cyanobacteria, contact your veterinarian as soon as possible.

[Learn more at WorcesterMA.gov/WCMC](https://www.worcesterma.gov/WCMC)



Interpreting WCMC Results

If you or your pet has been exposed to water that may contain cyanotoxins, rinse with tap water immediately. Do not let animals lick their fur. If your pet has ingested scums or water containing cyanobacteria, contact your veterinarian as soon as possible and see these CDC guidelines:

[Cyanobacterial Blooms: Information for Veterinarians | Harmful Algal Blooms | CDC.](#)

The WCMC is a group of volunteer community scientists that is developing ways to assess risk to cyanotoxin exposure using fast and low cost methods. These results are based on methods that are not certified by the Commonwealth of MA but are presented as recommendations so that lake users can make informed choices about their contact.

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The WCMC does not measure cyanotoxins, instead the group uses four parameters to determine the **risk of cyanotoxin exposure**. These include **phycocyanin concentration**, **particle concentration**, **cyanobacteria density**, and the **cyanobacteria observed**. Each of the results are ranked and given a color to identify severity. The overall risk of exposure at each lake is determined by reviewing all four parameters together.

Risk of Exposure	Phycocyanin ug/l	Particles/ml	Comparative density of cyanobacteria
Almost none	0-15	0-1000	none
Low	15-20	1000-5000	low
Elevated	20-50	5000-10000	some
Blooming	>50	>10000	high

ND = Below detection limits

Risk of Exposure: Overall risk of exposure to cyanotoxins in the waterbody based on a holistic interpretation of the data collected.

Phycocyanin: Cyanobacteria-specific pigment concentration in the water. The more phycocyanin there is in the water, the more cyanobacteria are present. However, because different kinds of cyanobacteria produce different quantities of phycocyanin, the risk of toxin production is different for the same concentration of phycocyanin when there are different cyanobacteria present.

Particle Concentration: Particles include living and non-living materials and can be a proxy for overall turbidity of the water. High concentrations of particles in the water can be indicative of cyanobacteria blooms, but can also be the result of other factors such as non-living debris and sediment. The phycocyanin concentrations and cyanobacteria density help to interpret if particles are due to cyanobacteria or other sources.

Cyanobacteria Density: The ratio of cyanobacteria to other organisms in the sample. Higher densities can indicate elevated risk of exposure to cyanotoxins. Density results do not consider concentration, but in general, systems dominated by cyanobacteria are at higher risk for producing toxins.

Cyanobacteria Observed: Genera of cyanobacteria identified in the sample. Because different cyanobacteria have different levels of phycocyanin, observed cyanobacteria help determine the threshold of phycocyanin that is considered risky.