



Worcester Cyanobacteria Monitoring Collaborative

WCMC Results September 29, 2024

Lake and Overall Risk	Phycocyanin Concentration (ug/l)	Particle Concentration (#/ml)	Cyanobacteria Density	Cyanobacteria Observed
Burncoat Pond	356	9278	high	Aphanizomenon, Microcystis, Woronichinia
Cooks Pond	ND	45	none	
East Lake Waushacum	10	22	none	
Ecotarium Pond	69	9651	none	
Elm Park Pond	631	0	high	Microcystis, Aphanocapsa
Farm Pond	ND	32	low	Aphanocapsa
Flint Pond	17	259	some	Dolichospermum, Microcystis, Woronichinia
Green Hill Park Pond	150	2497	high	Dolichospermum, Microcystis, Woronichinia
Indian Lake	17	253	some	Microcystis, Woronichinia
Jordan Pond	54	799	high	Aphanizomenon, Dolichospermum
Kiver Pond	13	124	none	
Lake Ellie	69	700	none	
Lake Quinsigamond Lake Park	Not Taken	101	some	Aphanizomenon, Dolichospermum, Microcystis
Lake Quinsigamond King's Point	Not Taken	112	some	Dolichospermum, Aphanizomenon, Microcystis, Woronichinia
Little Indian Lake	20	882	none	
Manchaug Pond	9	10	low	Dolichospermum
Newton Pond	ND	399	none	
Patch Pond	23	516	low	Dolichospermum, Oscillatoria
Patch Reservoir	89	2337	high	Dolichospermum, Woronichinia
Salisbury Pond	27	2190	none	
Stevens Pond	ND	1	none	
Crystal Pond	12	1239	none	
Lake Lashaway	42	689	high	Dolichospermum, Woronichinia

Previous Results for Lakes Not Tested this Period

Bell Pond	ND	9	none	Last sampled 8/24/2024
Coes Reservoir	94	1144	high	Last Sampled 9/3/2024

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

See reverse side for details

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](http://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.

We encourage people to use their best judgement, and “If in doubt, stay out!”

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.