



Worcester Cyanobacteria Monitoring Collaborative

WCMC Results August 24, 2024

Lake and Overall Risk	Phycocyanin Concentration (ug/l)	Particle Concentration (#/ml)	Cyanobacteria Density	Cyanobacteria Observed
Bell Pond	6	9	none	
Burncoat Pond	559	28741	high	Dolichospermum, Planktolyngbya, Aphanizomenon, Microcystis, Woronichinia,
*Coes Reservoir	97	1779	high	Aphanizomenon, Dolichospermum, Woronichinia
Cooks Pond	5	210	low	Microcystis
East Lake Waushacum	8	62	none	
Ecotarium Pond	14	319	none	
Elm Park Pond	639	82972	high	Dolichospermum, Microcystis
Farm Pond	7	2	low	Dolichospermum
Flint Pond	22	378	some	Dolichospermum, Microcystis, Aphanizomenon, Woronichinia, Aphanocapsa
Green Hill Park Pond	26	629	some	Dolichospermum, Woronichinia
Indian Lake	46	898	high	Dolichospermum, Microcystis, Woronichinia
Kiver Pond	11	118	none	
Lake Quinsigamond Lake Park	14	226	some	Dolichospermum, Microcystis, Woronichinia, Aphanizomenon, Aphanocapsa
Lake Quinsigamond King's Point	8	169	some	Aphanizomenon, Dolichospermum, Microcystis, Woronichinia
Little Indian Lake	245	5575	high	Dolichospermum, Planktolyngbya
Manchaug Pond	7	6	none	
Newton Pond	3	54	low	Woronichinia
Salisbury Pond	13	8059	low	Dolichospermum
Stevens Pond	6	8	None	
Crystal Pond	13	213	none	
Lake Lashaway	54	1969	high	Dolichospermum

*Results of verified cell count testing at Coes Reservoir on 8/23 indicated cell count below recreational threshold. No health advisory is currently in place.

Previous Results for Lakes Not Tested this Period

Jordan Pond	15	260	high	Last sampled 8/5/2024
Lake Ellie	72	784	none	Last sampled 7/8/2024
Patch Pond	70	3259	Some	Last sampled 7/8/2024
Patch Reservoir	30	3702	Some	Last sampled 7/27/2024

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

Results are based on methods that are not certified by the Commonwealth of MA but are presented as recommendations so that lake uses 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.