



Worcester Cyanobacteria Monitoring Collaborative

WCMC Results October 26, 2024

Lake and Overall Risk	Phycocyanin Concentration (ug/l)	Particle Concentration (#/ml)	Cyanobacteria Density	Cyanobacteria Observed
Bell Pond	8	12	none	
Burncoat Pond	88	1221	some	Microcystis, Woronichinia, Planktolyngbya
Cooks Pond	ND	41	none	
East Lake Waushacum	15	13	none	
Ecotarium Pond	15	409018	none	
Elm Park Pond	Not Taken	365931	Low	Microcystis
Farm Pond	9	4	low	Dolichospermum
Flint Pond	16	109	some	Aphanizomenon, Dolichospermum, Microcystis, Woronichinia, Aphanocapsa
Green Hill Park Pond	30	336	high	Woronichinia, Dolichospermum, Microcystis
Indian Lake	ND	41	low	Dolichospermum, Microcystis, Woronichinia
Jordan Pond	12	188	low	Aphanizomenon, Dolichospermum
Kiver Pond	ND	416	none	
Little Indian Lake	44	1559	low	Planktolyngbya
Manchaug Pond	16	2	low	Dolichospermum
Newton Pond	9	14	none	
Salisbury Pond	15	1461	low	Microcystis
Stevens Pond	9	12	none	
Crystal Pond	15	504	none	
Lake Lashaway	ND	112	some	Dolichospermum, Coelophaeerium

Previous Results for Lakes Not Tested this Period

Coes Reservoir	10	206	some	Last Sampled 10/7/2024
Lake Ellie	69	700	none	Last sampled 9/29/2024
Lake Quinsigamond	10	47	some	Last Sampled 10/7/2024
Patch Pond	23	516	low	Last sampled 9/29/2024
Patch Reservoir	89	2337	high	Last sampled 9/29/2024

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](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.

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.