

Worcester Cyanobacteria Monitoring Collaborative

WCMC Results July 27, 2024

Lake and Overall Risk	Phycocyanin Concentration (ug/l)	Particle Concentration (#/ml)	Cyanobacteria Density	Cyanobacteria Observed
Bell Pond	ND	No Data	none	
Burncoat Pond	157.83	621	high	Dolichospermum, Microcystis Debris
Cooks Pond	ND	No Data	low	Dolichospermum
East Lake Waushacum	19.84	No Data	high	Dolichospermum
Ecotarium Pond	16.11	287	none	
Elm Park Pond	618.76	13668	high	Dolichospermum, Microcystis, Microcystis Debris
Farm Pond	ND	No Data	low	Microcystis Debris
Flint Pond	9.52	308	high	Aphanizomenon, Dolichospermum, Microcystis, Microcystis Debris, Woronichinia
Green Hill Park Pond	16.43	220	high	Dolichospermum, Woronichinia, Microcystis Debris
Indian Lake	41.10	1171	high	Dolichospermum, Microcystis, Woronichinia, Aphanizomenon, Microcystis Debris
Kiver Pond	22.75	66	none	
Lake Quinsigamond	18.06	618	high	Microcystis Debris, Dolichospermum, Aphanizomenon
Little Indian Lake	128.40	290	high	Dolichospermum, Microcystis Debris
Manchaug Pond	20.20	No Data	some	Dolichospermum, Microcystis
Newton Pond	11.45	87	low	
Patch Reservoir	30.28	3702	Some	Dolichospermum, Woronichinia
Salisbury Pond	32.26	271	low	Oscillatoria
Stevens Pond	9.51	No Data	Low	Woronichinia
Crystal Pond	ND	81	none	
Lake Lashaway	ND	148	low	Dolichospermum, Aphanizomenon,

Previous Results for Lake's Not Tested this Period

Coes Reservoir	54.05	690	high	Dolichospermum, Woronichinia
Jordan Pond	9.45	42	low	Dolichospermum
Lake Ellie	72.09	784	none	
Patch Pond	70.72	3259	some	Dolichospermum

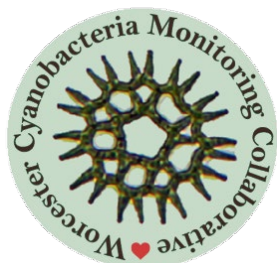
Risk of Exposure	Phycocyanin ug/l	Particles/ml	Comparative density of cyanobacteria
Almost none	0-15	0-1000	none
Low	15-20	1000-5000	low
Elevated	20-50	5000-10000	some
Blooming	>50	>10000	high

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 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.