Worcester Cyanobacteria Monitoring Collaborative

WCMC Results June 29, 2024

Lake and Overall Risk	Phycoyanin Concentration (ug/l)	Particle Concentration (#/ml)	Cyanobacteria Density	Cyanobacteria Observed
Bell Pond	ND	42	none	
Burncoat Pond	22	1924	low	Dolichospermum, Microcystis, Microcystis Debris
Coes Reservoir	38	1594	high	Aphanizomenon, Woronichinia
Cooks Pond	ND	403	low	Woronichinia
Ecotarium Pond	ND	177	none	
Farm Pond	ND	23	none	
Flint Pond	ND	62	low	Aphanizomenon, Dolichospermum, Woronichinia
Green Hill Park Pond	ND	230	some	Dolichospermum, Microcystis Debris
Indian Lake	11	392	some	Dolichospermum, Microcystis, Woronichinia
Jordan Pond	9	233	low	Woronichinia, Aphanizomenon
Kiver Pond	16	633	low	Aphanizomenon
East Lake Waushacum	ND	0	0	
Lake Quinsigamond	ND	150	low	Microcystis Debris
Little Indian Lake	170	6929	high	Aphanizomenon, Dolichospermum, Microcystis Debris
Manchaug Pond	ND	40	low	Dolichospermum, Microcystis Debris
Newton Pond	ND	53	low	Microcystis Debris
Salisbury Pond	ND	21575	none	
Stevens Pond	ND	51	Low	Dolichospermum
Crystal Pond	ND	No Data	No Data	
Lake Lashaway	9	60	low	Dolichospermum, Woronichinia

Previous Results for Lake's Not Tested this Period

Elm Park Pond	36	2877	High	
Patch Pond	ND	71	None	
Patch Reservoir	ND	1361	None	

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 cyanobcteria, contact your veterinarian as soon as possible.

Learn more at 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 uses 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.