WCMC Results October 15, 2022								
Lake and Overall Risk	Phycoyanin Concentration (ug/I)	Particle Concentration (#/ml)	Cyanobacteria Density	Cyanobacteria Observed				
Burncoat Pond	93	85611	high	Microcystis, Microcystis debris, Woronichinia, Aphanizomenon				
Cooks Pond	ND	6125	low	Woronichinia, Microcystis debris				
Dark Brook Reservoir	ND	1760	none					
Farm Pond	ND	3990	some	Microcystis debris, Aphanizomenon				
Flint Pond	90	6154	some	Aphanizomenon, Dolichospermum, Microcystis, Microcystis debris				
Green Hill Park Pond	21	12026	high	Woronichinia, Dolichospermum, Microcystis, Microcystis debris				
Indian Lake	29	8308	some	Microcystis, Woronichinia, Dolichospermum, Aphanizomenon, Microcystis Debris				
Jordan Pond	ND	2543	none					
Kiver Pond	61	7491	low	Microcystis debris				
Leesville Pond	ND	2924	low	Aphanizomenon				
Little Indian	65	23100	high	Dolichospermum, Microcystis, Aphanizomenon				
Manchaug Pond	ND	529	none					
Newton Pond	ND	5183	low	Microcystis debris				
Patch Pond	66	4913	low	Dolichospermum, Microcystis, Aphanizomenon				
Lake Quinsigamond	46	3295	high	Dolichospermum, Microcystis debris, Aphanizomenon, Woronichinia				
Stevens Pond	ND	455	none					
East Lake Waushicum	11	2626	some	Aphanizomenon, Woronichinia, Dolichospermum				
				ria M				
Risk of Exposure	Phycocyanin ug/l	Particles/ml	Comparative density of cyanobacteria	Succeria Monion				
Almost none	0-15	0-1000	none	or the second se				
Low	15-20	1000-5000	low	To My Mark				
Elevated	20-50	5000-10000	some	W • W				
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 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 cyanobcteria, 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 cyanobactera identified in the sample. Because different cyanobacteria have different levels of phycocyanin, observed cyanobacteria help determine the threshold of phycocyanin that is considered risky.