WCMC Results June 6, 2022								
Lake and Overall Risk of Exposure	Phycoyanin Concentration (ug/I)	Particle Concentration (#/ml)	Cyanobacteria Density	Cyanobacteria Observed				
Bell Pond	ND	272	none					
Burncoat Pond	14	22411	low	Aphanizomenon				
Coes Reservoir	ND	1071	some	Dolichospermum, Aphanizomenon				
Cooks Pond	ND	1974	none					
Dark Brook Reservoir	ND	535	low	Microcystis				
Lower Ecotarium	26	39130	none					
Elm Park Pond	184	52256	some	Dolichospermum, Aphanizomenon, Microcystis debris				
Flint Pond	ND	1294	some	Dolichospermum, Aphanizomenon				
Green Hill Park	23	1633	some	Microcystis, Aphanizomenon				
Indian Lake	17	8934	high	Dolichospermum, Microcystis debris				
Kiver Pond	104	3682	none					
Lake Quinsigamond	ND	436	none					
Little Indian Lake	19	8178	some	Aphanizomenon				
Manchaug Pond	ND	947	some					
Newton Pond	ND	1854	low					
Patch Pond	19	26399	none					
Patch Reservoir	ND	4654	none					
Salisbury Pond	52	11313	low	Microcystis debris				
Shore Park/Indian Lake	43	10587	high	Woronichinia, Microcystis, Dolichospermum				
Singletary Lake	ND	1386	none	: N				
Stevens Pond	ND	683	none	Sobacteria Monitorii				
Risk of Exposure	Phycocyanin ug/I	Particles/ml	Comparative density of cyanobacteria					
Almost none	0-15	0-1000	none	5 3 5 8				
Low Elevated	15-20 20-50	1000-5000 5000-10000	low some	Zo Marie E				
Blooming  ND = Below detection limits	>50	>10000	high	3.10 M = 3Vitero				
Definitions								
Risk of Exposure:	Overall risk of exposure	to cyanotoxins in the wate	erbody based on a holistic interpret	tation of the data collected.				
Phycocyanin:	Cyanobacteria-specific pigment concentration in the water. Relevance of the result is based in part on the genera of cyanobacteria present.							
Particles:	Particles include living and non-living materials and can be a proxy for overall turbidity of the water. Relevance of the results is based in part on the concentration of cyanobacteria and phycocyanin.							
Cyanobacteria Density:	The ratio of cyanobacteria to other organisms in the sample. Higher densities can indicate elevated risk of exposure to cyanotoxins.							
Cyanobacteria Observed:	Genera of cyanobactera identified in the sample. Relevance to risk of exposure is based in part on what genera are present.							

WCMC Results June 18, 2022							
Lake and Overall Risk	Phycoyanin Concentration (ug/l)	Particle Concentration (#/ml)	Cyanobacteria Density	Cyanobacteria Observed			
Leeseville Pond	0	887	none				
Indian Lake	23	5752	some	Microcystis debris			
Lower Ecotarium Pond	11	9579	none				
Little Indian Lake	98	9415	some	Microcystis, Microcystis debris			
Cooks Pond	0	2104	none				
Singletary Lake	0	761	none				
Patch Pond	9	13521	none				
Manchaug Pond	0	515	low	Microcystis debris			
Stevens Ponds	9	478	none				
Elm Park Pond	852	109760	high	Dolichospermum, Microcystis debris			
Burncoat Pond	28	11940	some	Aphanizomenon			
Farm Pond	0	188	none				
East Wasushacum Pond	0	662	low	Dolichospermum, Microcystis debris			
Kiver Pond	17	3436	none				
Lake Quinsigamond	0	1031	low	Woronichinia			
Bell Pond	0	421	none				
Green Hill Park Pond	0	NA	some	Dolichospermum			
Salisbury Pond	36	3227	low	Microcystis debris			
Newton Pond	0	960	low	Woronichinia, Dolichospermum			
Risk of Exposure	Phycocyanin ug/l	Particles/ml	Comparative density of cyanobacteria	Wording and Monitoring			
Almost none	0-15	0-1000	none	S S S S S S S S S S S S S S S S S S S			
Low Elevated	15-20 20-50	1000-5000 5000-10000	low some	To Swort anthroad			
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.



## **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 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 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.