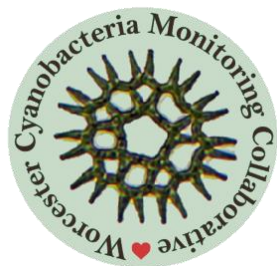


Worcester Cyanobacteria Monitoring Collaborative

| WCMC Results May 15, 2023 | | | | |
|---|---------------------------------|-------------------------------|-----------------------|---|
| Lake and Overall Risk | Phycoyanin Concentration (ug/l) | Particle Concentration (#/ml) | Cyanobacteria Density | Cyanobacteria Observed |
| Bell Pond | ND | 57 | none | |
| Burncoat Pond | 49 | 561 | none | |
| Coes Reservoir | ND | 105 | low | Dolichospermum |
| Cooks Pond | ND | 42 | none | |
| East Lake Wausacum | ND | 44 | none | |
| Ecotarium Pond | 32 | 259 | none | |
| Elm Park Pond | 100 | 1999 | some | Dolichospermum, Microcystis Debris |
| Green Hill Park Pond | 9 | 39 | none | |
| Indian Lake | 11 | 732 | low | Dolichospermum, Microcystis, Microcystis Debris |
| Jordan Pond | ND | 42 | none | |
| Kiver Pond | ND | 74 | none | |
| Leeseville Pond | ND | 22 | none | |
| Lake Quinsigamond | ND | 124 | low | Microcystis |
| Little Indian Lake | ND | 139 | low | Microcystis |
| Manchaug Pond | ND | 52 | some | Dolichospermum |
| Newton Pond | 9 | 64 | none | |
| Patch Pond | ND | 361 | none | |
| Patch Reservoir | ND | 43 | none | |
| Salisbury Pond | 28 | 161 | low | Microcystis Debris |
| Stevens Pond | ND | 30 | low | Dolichospermim |
| Crystal Pond | ND | 652 | none | |
| Lake Chauncy | ND | 34 | none | |
| Lake Lashaway | 9 | 59 | some | Dolichospermum |
| Previous Results for Lakes Not Tested this Period | | | | |
| Farm Pond | ND | 13 | none | Last tested 4/29/23 |
| 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 or water containing cyanobacteria, 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 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.