

Water quality update 8-7-2022: pets (dogs) and unsupervised children swimming in Greene Acres Lake (GAL)

Families with children and pets who choose to swim without close supervision or monitoring by adults should consider the following information and take the precautions listed below. Without close supervision, children and pets may come into more unwanted contact and/or have a higher risk of accidental ingestion of lake water.

Algae/cyanobacteria (A/C) intoxications happen more during the summer because warm (>75°F) and sunny weather conditions promote the growth of A/C. The surface water temperature of GAL has been ~86-88°F the past few days (8-6-22 to present). In addition, the total amount of precipitation from 5-1-22 to present has been significantly greater compared to the same intervals in 2020 and 2021 (according to the National Weather Service), and cycles of intense rainfall followed by hotter and drier conditions are also known to contribute to A/C blooms.

Growing amounts of visible phytoplankton (A/C) accumulation have recently been observed *throughout* the lake. This includes “benthic” growth (i.e., growing on the bottom) and growth on submerged structures (logs, sticks, rocks, piers). Recent microscopic analysis of this material shows mostly natural, harmless species of green algae but also the presence of filamentous cyanobacteria. It is unknown whether the isolates seen by microscopy from GAL are toxigenic or not; not all cyanobacteria species have been shown to be toxic, or some species may lack the genes required to produce toxins. Furthermore, even blooms caused by known toxin producers may not produce toxins at the time of the bloom or may produce toxins at levels that are not harmful to mammals. Attempts will continue to be made to physically remove A/C growth, which is often intertwined with strands of *Hydrilla*.

Therefore:

- **A/C blooms and accumulated growth have been observed throughout the lake. This is expected this time of year. Harmful algae / cyanobacteria may also be present.** Recent evidence from microscopic analysis of GAL supports these statements. The lake water may be unsafe, and health risks may be higher this time of year, especially for vulnerable individuals.
- **Avoid** contact with all algae, scum and / or visible accumulations of material in the water.
- **If you decide to let some family members swim unsupervised, education and prevention is the key. Do not let pets drink the water or eat scum or material on the shore and keep both pets and children away from any accumulated material.** A/C cells can stick to pet fur and human skin. With pets, ingestion of A/C on fur can occur when they clean themselves.
- Take extra caution before entering the water – always take a careful look around the water before you enter - and be sure **to always rinse thoroughly with fresh water and soap after swimming.**
- **Look for and avoid:**
 - Foams, scums, mats, or accumulations on the surface or underwater.
 - Strange colors. Harmful blooms and A/C material can be blue, bright green, brown or red and may look like paint floating on the water.
 - Bad odor. Some (but not all) harmful A/C blooms produce a nauseating smell.

Exposure to A/C toxins may cause illness. Call your doctor or veterinarian if there is sudden or unexplained sickness.