

September 18, 2020

To the managers and users of Lake Wallenpaupack –

Sampling conducted throughout August and as recently as September 8, 2020 at several locations along the shores of Lake Wallenpaupack indicate the continued potential for a harmful algal bloom (HAB).

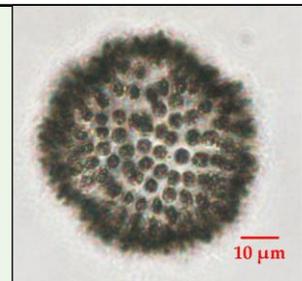
Laboratory analyses of the samples indicated concentrations of cyanobacteria – also known as blue-green algae – up to 2,970 colonies per millileter (colonies/mL), which could cause health impacts to pets or individuals who participate in primary contact water recreation activities (e.g., swimming).

Additional laboratory analyses have also been conducted to determine the concentration of cyanotoxins – toxins that can be produced by cyanobacteria – in the samples collected from Lake Wallenpaupack over the past month. The results of these analyses indicate that cyanotoxin concentrations have been well below advisory thresholds.

Although cyanotoxin concentrations have been well below advisory thresholds, the elevated cyanobacteria colony concentrations pose a risk to human and pet health expressed through diarrhea, vomiting, flu-like symptoms, skin rashes, mouth ulcers, fevers, and eye or ear irritations. In addition, elevated cyanobacteria densities indicate that a significant potential for elevated cyanotoxin concentrations continues to exist.

Because of these results, the Pennsylvania HAB Task Force is recommending a **HAB Watch** be posted around Lake Wallenpaupack throughout the remainder of the recreation season.

cyanobacteria cells and colonies: Many cyanobacteria form colonies made up of numerous individual cyanobacteria cells, as shown in the image to the right. Some organizations have established or recommended cyanobacteria density thresholds in units of cells/mL. For example, the World Health Organization set a guideline of 100,000 cyanobacteria cells/mL as a threshold above which there are increased risks of potential for long-term illnesses and short-term adverse health outcomes.



As far as the Pennsylvania HAB Task Force is aware, most common laboratory analyses of HAB samples produce results in units of cyanobacteria *colonies*/mL, not individual *cells*/mL. Given this fact, applying thresholds set in units of cells/mL to samples analyzed in colonies/mL necessarily involves some determination or estimation of how many cyanobacteria *cells* make up each cyanobacteria *colony* in a sample. There are many different types of cyanobacteria that can cause HABs in Pennsylvania, and each type of cyanobacteria can form colonies in unique ways that can vary with conditions in a waterbody.

The Pennsylvania HAB Task Force is actively working to determine scientifically based estimates using samples from Pennsylvania waters to translate between sample results reported in colonies/mL and thresholds set in cells/mL. Until more information is available, the Pennsylvania HAB Task Force recommends that anyone applying cyanobacteria density thresholds set in units of cells/mL be aware that most laboratory analyses of HAB samples produce results in units of colonies/mL, and that the number of cells per colony can vary substantially across different types of cyanobacteria and varying environmental conditions.

The Pennsylvania HAB Task Force also recommends that the managers and users of Lake Wallenpaupack continue to be vigilant for HABs. In particular, the Pennsylvania HABs Task Force – recognizing that numerous organizations and individuals own and operate facilities and points of access on the lake – provides the following recommendations to the managers and users of Lake Wallenpaupack:

lake managers:

1. Continue to be vigilant for HABs in the lake by observing visual conditions, especially near swimming beaches, boat docks, boat access areas, and other areas where people and pets may come in contact with HABs.
2. If visual indications suggest a potential HAB, especially in areas where people or pets are likely to come in contact with the water, additional samples should be collected and analyzed to determine if cyanotoxin concentrations and cyanobacteria densities are below the advisory and avoid contact thresholds recommended by the Pennsylvania HAB Task Force.
3. Pending results of additional sampling, consider issuing a HAB **watch**, **advisory**, or **avoid contact** response for the areas of the lake affected by HABs.

lake users:

1. Continue to be vigilant for HABs in the lake by observing visual conditions, especially near swimming beaches, boat docks, boat access areas, and other areas where people and pets may come in contact with HABs.
2. If visual indications suggest a potential HAB, people should stay out of the water and keep pets out of the water in those areas. Water users should also wash themselves and their pets immediately after contact with untreated water showing visual indications of a potential HAB.
3. Water users should be aware of symptoms of HAB-associated illness in both humans and animals, such as diarrhea or vomiting, difficulty breathing, dizziness, and weakness or lethargy. If you or your pet show any of these symptoms, contact your primary care provider or veterinarian.

If you have any health-related questions about HABs, please contact the Division of Environmental Health Epidemiology at the Pennsylvania Department of Health at env.health.concern@pa.gov. For other inquiries about HABs or to report a suspected HAB, contact the Pennsylvania HAB Task Force at HABs@pa.gov. For additional information on HABs, see www.dep.pa.gov/OurCommonWealth/Pages/Article.aspx?post=44.

Sincerely,

The Pennsylvania Harmful Algal Bloom (HAB) Task Force*

* Members of the Pennsylvania HAB Task Force include:

the Pennsylvania Department of Environmental Protection;
the Pennsylvania Department of Health;
the Pennsylvania Department of Conservation and Natural Resources;
the Pennsylvania Department of Agriculture;
the Pennsylvania Fish and Boat Commission;
the Pennsylvania Game Commission; and
the Pennsylvania Emergency Management Agency.