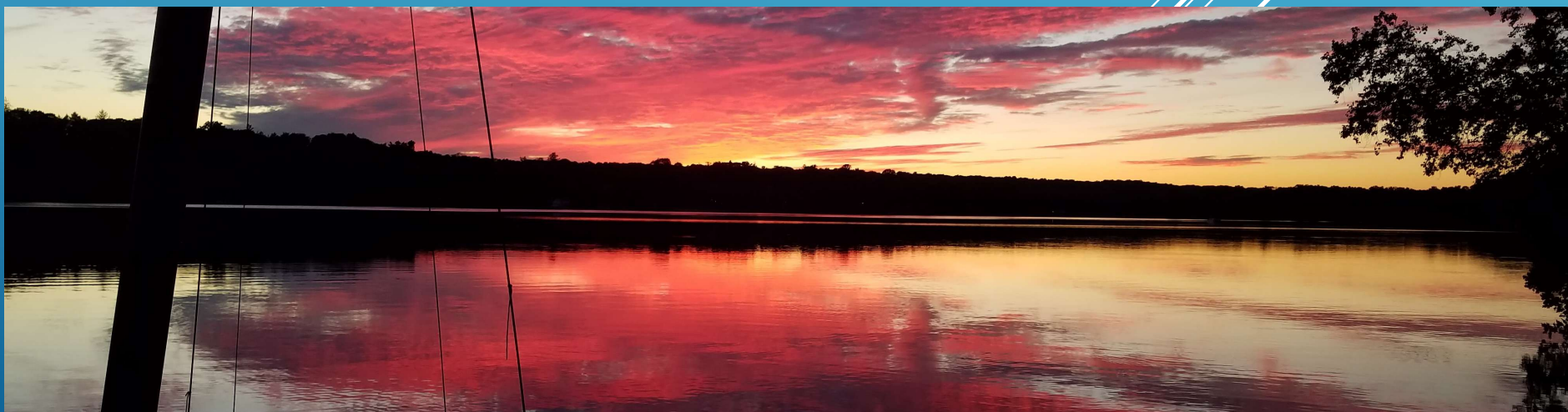


# IS THAT BLUE GREEN ALGAE I SEE IN LAKE HAYWARD?

2026

Wolf Koste

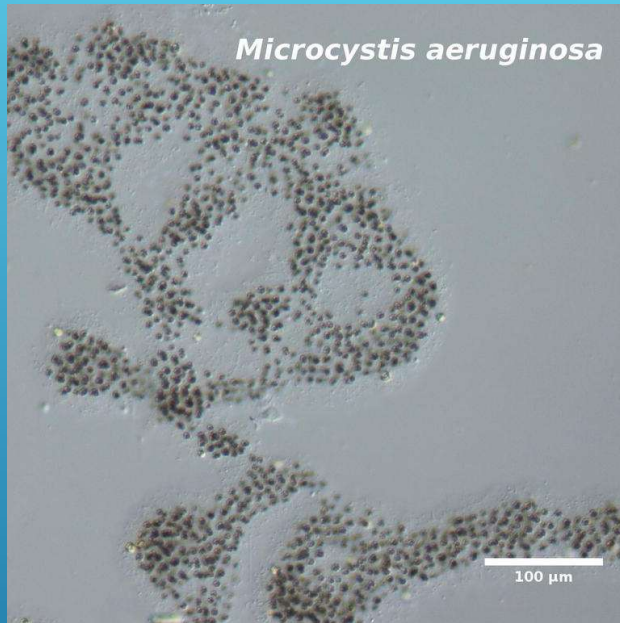


## OUTLINE

- ▶ How we got here
- ▶ What are cyanobacteria
- ▶ Potential health effects
- ▶ Algae bloom Categories
- ▶ CT DPH guidance
- ▶ Reporting a bloom
- ▶ How to prevent blooms
- ▶ LQIC Monitoring

- ▶ Algae not an issue at Lake Hayward until recently
- ▶ 2018 – First recognized algae scum
- ▶ 2019 – LQIC hired Northeast Aquatic Research to evaluate lake & started volunteer lake monitoring

## HOW WE GOT HERE

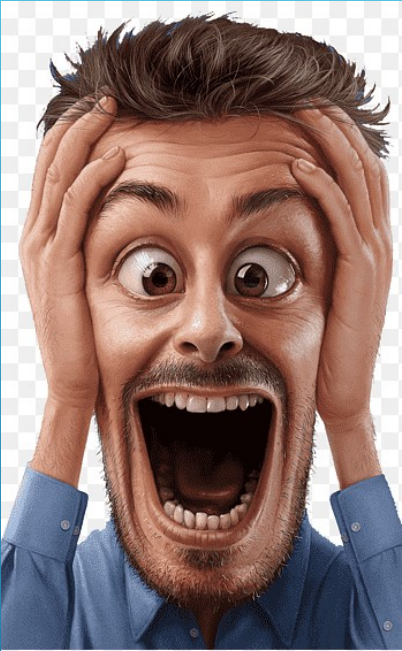


- ▶ Microscopic bacteria that are a natural part of a lake ecosystem
- ▶ There are many different species
- ▶ They can form colonies

## CYANOBACTERIA (AKA BLUE GREEN ALGAE)

- ▶ They need sunlight for photosynthesis
- ▶ They “eat” nitrogen and phosphorus nutrients
- ▶ Like tiny submarines, they can regulate their depth
- ▶ With enough sunlight and nutrients, can grow very numerous and form a bloom
- ▶ Some types may produce toxins

## **ALGAE BLOOMS**



- ▶ A bloom that produces toxins is called a Harmful Algae Bloom (HAB)
- ▶ Contact with or ingesting toxins may cause:
  - ▶ Vomiting, cough, diarrhea, sore throat, headache, skin rash, abdominal pain and/or blistering

**WAIT...TOXINS?**

- ▶ There is no way to tell the amount of toxins from just looking at a HAB
- ▶ Only laboratory sample testing can quantify toxins – results take days
- ▶ Other means of categorizing HABs are by cell counts per mL or visual observation



**HOW TOXIC IS A HAB?**

**CATEGORY 1** –  
Recreation not impaired

**CATEGORY 2** – Use  
caution

**CATEGORY 3** – Stay out  
of the water

CT  
DEPARTMENT  
OF PUBLIC  
HEALTH  
VISUAL  
BLOOM  
CATEGORIES

- ▶ Water is generally clear
- ▶ Cyanobacteria colonies may be seen as tiny green dots in the water
- ▶ No surface accumulation
- ▶ Safe to swim



**CATEGORY 1**



- ▶ As populations increase, surface scums may start to form
- ▶ Light winds may push the dead cells into “wispy bits” of cyanobacteria, visible on the surface as faint wavy lines

## CATEGORY 2 - WISPY BITS

▶ Solid green surface streaks and/or small mats may form



**CATEGORY 2 –  
HEAVIER SCUMS**

- ▶ Dense, solid green water
- ▶ Entire lake may have a green tinge
- ▶ September 13, 2025 – Third Beach closed

## CATEGORY 3 – BROAD CONTINUOUS COVERAGE



- ▶ Typically seen in mid to late summer along the downwind shore under light wind
- ▶ Stronger winds can break them up
- ▶ They may be highly localized and can come and go in minutes or hours



**WHERE'S THE SCUM?**



- ▶ They are typically green at Lake Hayward, but can also be blue, red or brown
- ▶ Toxins may persist after scums are broken up
- ▶ In July 2021, this Lake Hayward scum had **357** ppb toxins compared to an EPA “safe” level of **8**

## WHERE'S THE SCUM?

- ▶ Anything with tiny leaves or roots (e.g., duckweed)
- ▶ Algae attached to the bottom of the lake (usually)
- ▶ Distinct underwater green floating algae clouds
- ▶ Pollen with a yellowish color
- ▶ Stringy algae that clings to a stick dipped into the water (usually)



## WHAT IS NOT CYANOBACTERIA

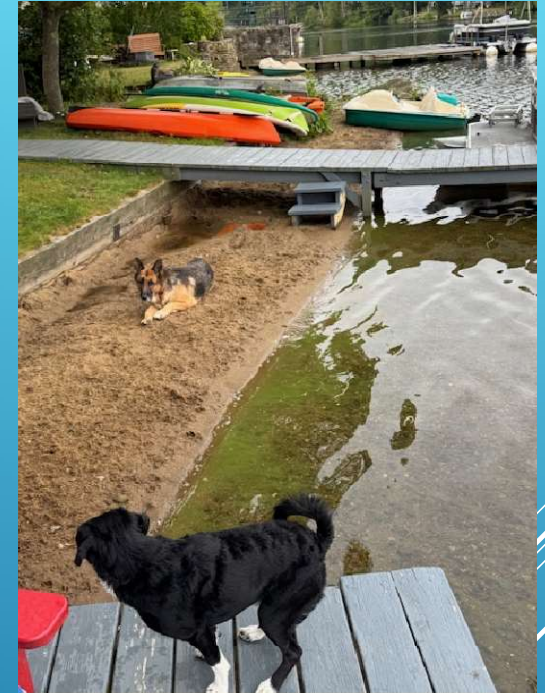
**CATEGORY 1** – No Action Required

**CATEGORY 2** – Place warning signs & monitor more frequently

**CATEGORY 3** – Post closed signs at beaches & warning signs at other access points

CT  
DEPARTMENT  
OF PUBLIC  
HEALTH  
GUIDANCE  
ON ACTIONS

- ▶ **If in Doubt, Stay Out!**
- ▶ Keep people and pets away from any scums
  - ▶ Pets and kids are particularly vulnerable
- ▶ If they contact any scums, rinse skin and fur with clean water



**GENERAL GUIDELINES WHEN YOU SEE  
CYANOBACTERIA SCUM**



- ▶ If you observe any scum, email a picture with the location, date, time and description to:

[algae@lakehaywardct.com](mailto:algae@lakehaywardct.com)

**PLEASE, PLEASE REPORT ANY BLOOM!**

## Nitrogen and phosphorus nutrients feed the algae!

Eliminate or minimize the use of fertilizer

Pump out and maintain your septic system

Route rain runoff away from the lake and streams

Use rain barrels and rain gardens

Don't blow leaves into the lake

Expensive lake treatments

HOW TO  
PREVENT  
ALGAE  
BLOOMS

- ▶ Water clarity
- ▶ Algae identification & cell counts
- ▶ Nitrogen and phosphorus nutrients (lake & streams)
- ▶ Temperature and dissolved oxygen profiles
- ▶ Track algae blooms



## LAKE QUALITY IMPROVEMENT COMMITTEE (LQIC) MONITORS ALGAE PARAMETERS

- ▶ What Category is it?
- ▶ What should you do?  
Or not do?



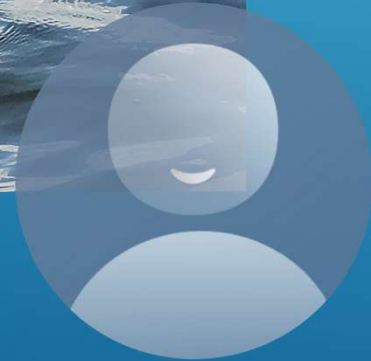
**POP QUIZ!!**











**REMEMBER!!**

**ALGAE@LAKEHAYWARDCT.COM**

- ▶ **Picture**
- ▶ **Location**
- ▶ **Date**
- ▶ **Time**
- ▶ **Description**