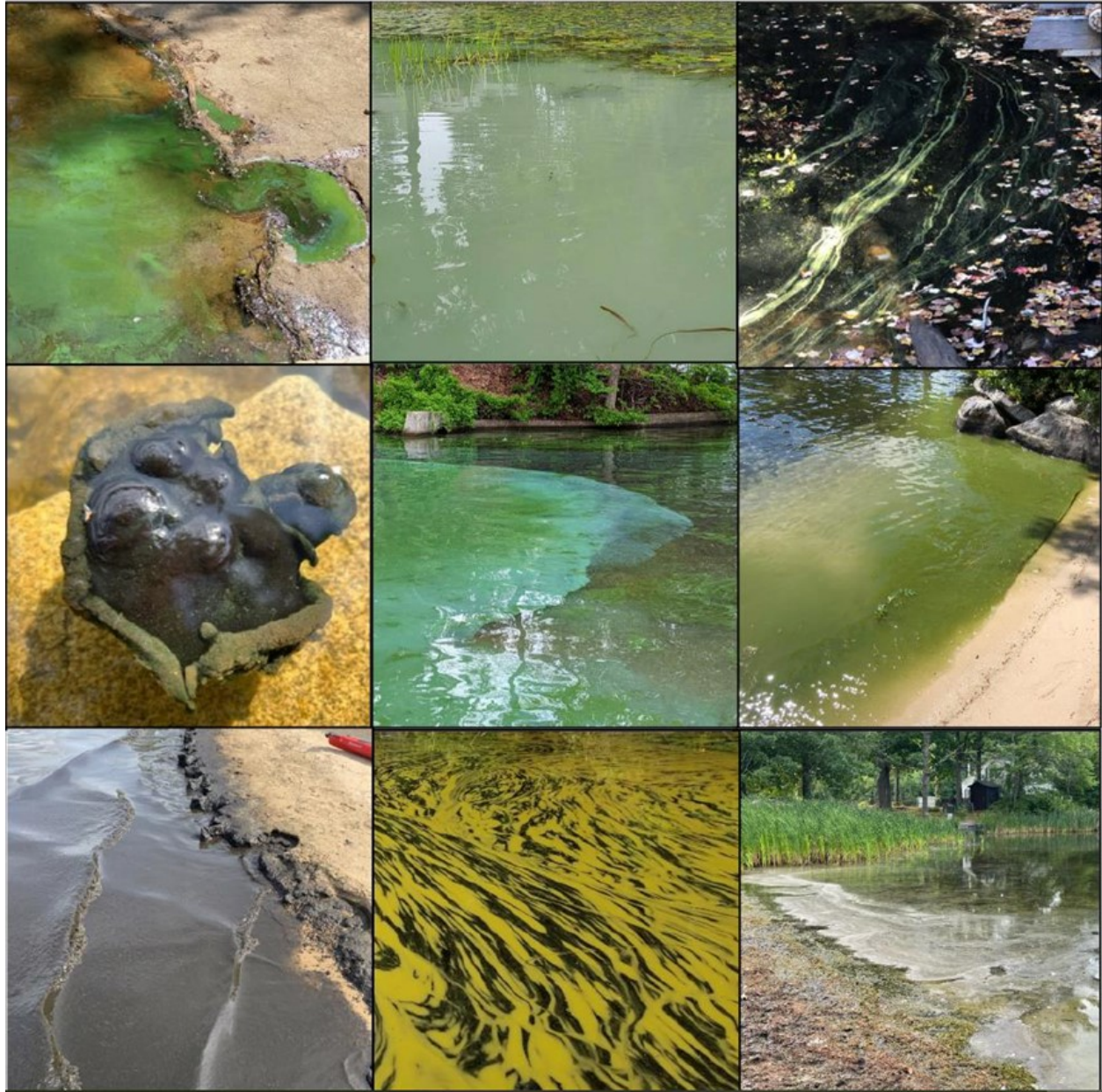


Be on the Lookout for Cyanobacteria Blooms!

Although Pleasant Lake is one of the clearest lakes in New Hampshire, it is not immune from toxic cyanobacteria blooms. Especially as the water warms, keep an eye out for blooms that may visually take many forms as seen below:



What are Cyanobacteria and what is a harmful algal bloom?

Cyanobacteria are natural components of freshwater ecosystems but can grow out of control and form surface blooms. These blooms are variously referred to as cyanobacteria harmful algal blooms, CyanoHABs, or cyanobacteria blooms. Blooms can be toxic to pets, livestock, wildlife and people.

Cyanobacteria can produce cyanotoxins, which can cause both acute and chronic illnesses. Acute effects, such as skin and mucous membrane irritation, can occur after short-term exposure with water containing cyanotoxins. Chronic effects such as liver, kidney and central nervous system damage can occur with longer-term exposure and from ingesting water containing toxins over a long period of time.

Performing a self-risk assessment prior to recreating can help to keep you, your family, and your pets safe. There are two steps to a self-risk assessment. First, visually evaluate the water prior to recreating, looking for any discoloration or unusual growth. Second, check the NH Department of Environmental Services (DES) resources to stay informed about active blooms across the state. These include:

- 1) A [Healthy Swimming Mapper](#) with a map of active cyanobacteria ALERTS and WARNINGS in the state
- 2) [FAQ on Cyanobacteria](#) with information on cyanobacteria, what alerts and warnings mean, what to do if you are exposed to a CyanoHAB bloom, and what you can do to help minimize the potential for future blooms.
- 3) An [online form for reporting a bloom](#)

What do I do if I see what I suspect is a CyanoHAB bloom?

If you suspect a cyanobacteria bloom you should:

1. Take both close-up and wide photographs of the bloom and share them with the New London Health Officer, Nick Baer, at n.baer@newlondon.nh.gov.
2. Fill out and submit your photographs on the online [NHDES Cyanobacteria Bloom Report Form](#).
3. Use a clean jar or bottle to take a water sample for analysis by the NH Department of Environmental Services in Concord. See detailed instructions for sampling below.

How can I help reduce the chances of future CyanoHAB blooms?

- 1) Minimize lawn area and minimize or (better) avoid the use of lawn and garden fertilizers, especially anywhere within 100 feet of the lake, streams, and areas that runoff into the lake. This applies to people in the whole watershed of the lake, as it only takes minutes for stream-water to flow to the lake and pollute it.
- 2) Have your septic system thoroughly inspected and pumped every 3-4 years.
- 3) Redirect storm and roof runoff away from the lake
- 4) Pick up your pet waste
- 5) Do not dispose of leaves, grass, or other yard material in the lake
- 6) Minimize the wake of your motorboat: waves mix nutrients into surface waters from nearshore sediments as well as deeper layers of the lake that may have much higher nutrient concentrations.

What is the PLPA doing to reduce the chances of future CyanoHAB blooms?

In addition to providing educational material on our website, the PLPA is supporting three Colby-Sawyer students to continue a study of the nutrients coming into the lake from streams. This is a continuation of an academic year study carried out by Colby-Sawyer students under the direction of professors Nick Baer and David Lutz. This study will help determine the primary sources of nutrients to Pleasant Lake entering from streams so that further investigation can identify and reduce any nutrient inputs. ***This study does NOT measure nutrient inputs from properties located right on the lake that may have lawns and gardens that have the potential to contribute substantial nutrients and stimulate CyanoHAB blooms. It is particularly important to avoid the use of fertilizers and inspect and pump your septic system if your property is located on the lakeshore.***

Instructions for Sampling Cyanobacteria

As a reminder, these blooms are potentially toxic, so please take the necessary precautions – wear gloves and a mask, and wash your hands well with freshwater when done.

- Label a sample jar (clean glass or hard plastic jars are best):
 - Sampler's full name and contact information (phone number and email)
 - Waterbody Name and Town
 - Address or specific location of sample collection
 - Date
- Collect a sample by skimming the bottle on the surface of the water to sample the most concentrated part of the bloom, or scoop clumps of concentrated material
- Use a new bottle for different sampling locations
- Rinse bottle off if bloom residue covers the outside of the bottle
- Wash hands after handling bloom material
- Place sample on ice or in a refrigerator until it is delivered to the Concord NHDES lab or picked up by NHDES
- **** If you collect a sample over the weekend, please take an additional sample Sunday evening or Monday morning prior to sample drop off / pick up. ****

Sample Drop Off Hours

- Monday through Thursday 8:00 am – 3:00 pm, Friday 8:00 am – 11:00 am

- Coordinate with the CyanoHAB program (603-848-8094, hab@des.nh.gov) when samples will be delivered
- Go to the NHDES building on 29 Hazen Drive, Concord NH
- Drop off EITHER
 - In the black bin outside the NHDES office near the entrance facing the DMV labeled "Cyanobacteria Sample Drop Off" and confirm sample drop off by texting 603-848-8094
 - OR come to the Limnology Lab receiving window on the first floor

The material in this article is largely a summary of information provided on the NH DES websites to which links are provided above.