

For Conway Lake's AIS PATROL use only:

CYANOBACTERIA PROTOCOL

6 STEP PROTOCOL FOR ANY FORM OF CYANOBACTERIA

Cyanobacteria are a potential public health danger as they may produce toxins. To minimize immediate risks:

- Don't wade or swim or drink the water
 - Keep pets and livestock out
- Wash your hands if you've made contact.

1st step: Is it actually Cyanobacteria ?

- **Cyanobacteria** blooms can occur anywhere on the lake!
 - On beaches
 - Along any shoreline and as patches on the lake's surface
 - At boat launches and in front of private residences
 - As thick mats
 - Attached to rocks or substrates
 - Can extend from the lake's surface deep within the water column
 - Shoreline accumulations can change rapidly and even disappear.
 - Weather, wind, and currents may shift accumulations
 - Water disturbance from boats or other recreational activities can alter the conditions of the reported bloom sighting.
 - *Again, best to hesitate before entering the water until toxicity is identified !!*

- **Look-Alikes:** The green stuff you see floating on the lake might not be cyanobacteria! Here are a few identifiers:
 - If you see leaves or roots, or distinguishable parts, it is likely a tiny (and harmless) aquatic plant like **duckweed**.
 - If it is a stringy, silky substances that can be draped over your finger or a stick it is probably **filamentous green algae**.
 - If it is yellow and almost "dusty" in texture, floating or suspended in the water column (and seem to act like cyanobacteria) it may be **tree pollen** (especially mid-May to mid-June),
 - **If you are not sure, then follow these next steps of this protocol**

2nd step: Notify the AIS patrol coordinators

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- First call either:
 - Maria Gross (cell 603-491-3107, home 603-447-6068)
 - Don Yurewicz (713-253-1211)
- If Maria nor Don are not reachable, then call either:
Brad Gaudrault (603-387-3372), Tim Keith (617-285- 4945),
Bill Petry (781- 929-2021), or Steve Kafka (617-869-2366).
Please note that steps to take a sample of the bloom will only be done by one of these listed.

If you cannot reach any of those listed above, then proceed to Step 3

3rd step: Immediately collect data needed for HAB of NHDES

- Your full name and contact info
- Date and time
- Waterbody's name and town
- **Location** of the bloom—Get a GPS
 - Use app, *Solocator*, which will take the GPS + provide a photo
 - Mark down *zone and grid* coordinates used on Conway Lake's AIS patrol maps.
 - If this isn't initially possible, record the specific street address(es) where the bloom is located.
- **Take high-resolution photos** (large format) to highlight the nature of the infestation (color, how extensive it seems, and its physical appearance).
- **Notify** Kate Hastings, DES Coordinator of HAB @603-848-8094
 - **Send Photos** to Kate Hastings at: HAB@des.NH.gov
 - **Send the same photos** to:
Maria (maria.m.gross@gmail.com)
Don (dyurewicz@gmail.com)

4th step: Take a Sample

All definitive identifications of any cyanobacteria need to be made in a lab with microscopes at HAB (DES' Harmful Algae Bloom program)

TO TAKE A BLOOM SAMPLE:

- Wear gloves, mask, and have a labeled high density plastic bottle (e.g., Nalgene type.) A well cleaned jar would be good for any short-

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term transfer as long as it seals well and will not puncture. No plastic bags!

- Can also use a sampling “stick” (create a long pole with an attached durable container.) *Must drag the container thru the surface of the bloom to collect a sample.*
- Firmly close the container and thoroughly wash off the surfaces.
- Store in fridge (*NOT* in freezer) until it is delivered to DES for both microscopic analysis and toxin identification.

If someone is available, dropping off samples at the NHDES office will expediate getting results.

Samples can be delivered to:

NHDES Jody Connor Limnology Center

Watershed Management Bureau

Water Division, NH Department of Environmental Services

Hazen Drive (P.O. Box 95) Concord, NH 03302-0095

The entrance that faces the DMV has several black bins out on the sidewalk and they are labeled with “cyanobacteria, blooms, algae.”

Call or text Kate (603-848-8094) to confirm sample drop off.

Note: She might also be able to send a crew up to take samples of the bloom, or pick up the samples we've collected, but it might take longer for her to be able to do that than if we collect ourselves.

5th step: Wait for Cyanobacteria Confirmation

All definitive identifications of any cyanobacteria need to be made in a lab with microscopes at NHDES @ HAB

While waiting for results, Kate states: “Do not try to mark or contain the bloom...letting the material move where it would naturally be better than gathering and concentrating it. When it "disappears" it is just getting mixed back into the water column and becomes more dilute. Eventually the cells will die, degrade, and sink to the bottom of the waterbody. We post waterbody wide advisories, not statewide advisories. We do not disclose or include specifics about where the bloom was initially observed because the concentrated material can move around a waterbody so quickly. It can be frustrating for people to not visually see a bloom, but to have an advisory in place. It is a challenging and dynamic situation. A week in between sampling tends to give the event long enough to see if it will fully pass

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or continue to persist. When we resample, I try to connect with community members to see if they're observing accumulations in different parts of the water body, and we focus on sampling the most severe part to determine advisories.”

6th step: Communication of Results

Kate will be in contact with Maria and Don about the results within 24 hours. An alert may be issued if cyanobacteria is found below advisory levels. An advisory will be issued if cyanobacteria density exceeds the state's recreational threshold. If an advisory is issued, Kate will also contact both Health Officers for Conway and for Eaton to post signs at public access points.

In case further action needs to be done:

- **Conway Township** Contact Information
Website: <https://conwaynh.org/staff/>
Phone: (603) 447-3811 - Dial 2 Board of Selectmen/Town Manager
Email: conway@conwaynh.org

- **Eaton Township** Contact Information
Phone: (603) 447-2840
Email: Selectmen@eatonnh.org