IS THERE A HARMFUL ALGAL BLOOM (HAB) IN MY LAKE OR POND?

Harmful algal blooms (HABs) are caused by cyanobacteria, tiny organisms that live naturally in the water. Despite being bacteria, they're often called blue-green algae, because they get energy from the sun like plants. Sometimes cyanobacteria and other types of algae can "bloom," or multiply quickly enough that their population can be seen by human eyes. Cyanobacteria blooms can make water look green or other unusual colors, like purple.

Sometimes cyanobacteria blooms produce toxins that harm human or animal health, which is why we call them "harmful algal blooms," or HABs. HABs can grow and fade quickly and may drift around with wind and waves. A visible HAB may linger for several days. Once the water is clear, it's generally safe to touch.

IF YOU SEE SOMETHING STRANGE IN YOUR LAKE OR POND, START HERE:


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- Check in with your local HOA or lake association, if there is one.
- Rule out other natural phenomena that can change the way your lake or pond looks.
- Use this cyanobacteria photo guide and these aquatic plant resources to rule out common plant and non-harmful algae species.

  Plants and algae are natural parts of many healthy aquatic habitats. Removing plants and killing non-harmful algae can disrupt the nutrient balance and leave the lake or pond less healthy in the long run.

- If you've ruled out natural phenomena, aquatic plants, and non-harmful algae, you may have a harmful algal bloom.

IF YOU THINK YOU HAVE A HARMFUL ALGAL BLOOM, START HERE:


Tom Archer

Take clear pictures that show the bloom close up, with a leaf or familiar object to show scale. Get photos of the surroundings, too, and try using your map or camera app to pinpoint the location. Report information online to Michigan.gov/HABs or call EGLE's Environmental Assistance Center at 800-662-9278.

Your report will reach trained staff at state agencies. If they agree that the photos show a HAB, the location will be added to Michigan's map of confirmed HABs.

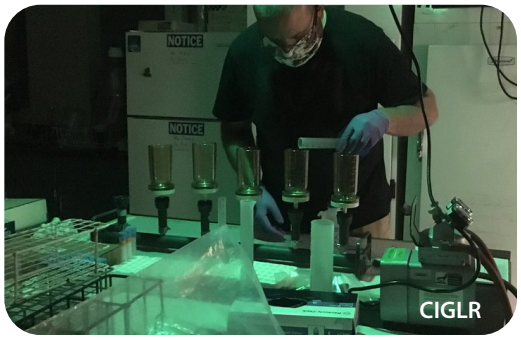
IF YOU'VE ALREADY REPORTED A HARMFUL ALGAL BLOOM, START HERE:

If a HAB hasn't been reported at that location before, staff from a state agency or local health department may visit the site to take a water sample. A test strip and/or laboratory test will confirm whether the water contains algal toxins. If the location has a history of confirmed HAB reports, staff may not visit the site, but your report will still show up on the online map.

Staff will follow up if they need more information or if the photos don't appear to show an identifiable HAB. They can provide guidance on how to keep your family and animals safe.

Reporting a potential HAB is important! If a HAB is confirmed, the local health department may notify nearby residents. Your report also becomes valuable data for studying where and when HABs occur.

KEEP YOURSELF AND YOUR COMMUNITY SAFE DURING A HARMFUL ALGAL BLOOM:



- **Don't touch water with a visible HAB.** HABs can cause health impacts like skin rashes, runny noses, stomach pain, and headaches.
- **Keep livestock and pets away from the water.** If you think a domestic or wild animal is ill or dead because of a HAB, submit one of the forms on the EGLE HABs webpage.
- **Alert your neighbors to do the same.** Use Nextdoor, a neighborhood Facebook page, your community newsletter, etc.

EXPLORE STRATEGIES TO PREVENT AND MANAGE HABS AND NUISANCE ALGAE:

Many types of algae can bloom. Only some produce toxins that harm humans and animals. Even so, algal blooms can become a nuisance by creating mats, scums, or unpleasant smells. If your lake or pond is experiencing nuisance algal blooms or HABs caused by cyanobacteria, you can take steps to promote a healthier habitat in the water.

Nutrients like phosphorus and nitrogens are building blocks of life. If nutrients are available, they will be used by whichever organisms get them first. Many factors can give cyanobacteria a competitive advantage that helps them use the nutrients to grow quickly into a bloom.

Increased phosphorus and nitrogen input, or loads, can come from inside or outside the lake. These are called "internal loads" and "external loads." Sources of external loads include fertilizer washing off lawns and farm fields, or leaking and faulty septic systems. Nutrients also accumulate in lake sediment over time. When water chemistry changes or sediment is stirred up, nutrients can re-enter the water column, providing an internal load source.

STRATEGIES FOR MANAGING NUTRIENTS AND ALGAE, INCLUDING CYANOBACTERIA, TYPICALLY FALL INTO THREE CATEGORIES:

- Prevent extra nutrients from coming into the water body (examples: repair or remove leaky septic systems in the area, reduce fertilizer use on nearby lawns or fields).
- Remove or trap nutrients already present in the water (examples: keep sediment from getting stirred up by reducing boat speeds or limiting livestock access).
- Promote healthy habitats so native plants and other microscopic life can outcompete cyanobacteria and nuisance algae (examples: add native plants to the shoreline and bottom sediments, reduce carp populations).

Every lake or pond is unique. You may not find clear answers or easy fixes. That's okay! Be patient and try different options over time. Contact your local watershed group, drain commission, or conservation district for more support and ideas.

EVERYONE CAN TAKE ACTION TO HELP PROMOTE HEALTHY HABITATS IN AND AROUND MICHIGAN'S LAKES AND PONDS. FOR EXAMPLE:

- Use rain barrels to catch stormwater.
- Plant rain gardens and native plant buffers to filter nutrients.
- Clean up pet waste.
- Avoid washing your car in the driveway where soap, soil, and metals can run directly into the storm drain.

Visit this HABs 101 resource page for more information and potential management strategies.