

# Blue-green Algae

## What You Should Know



**PLM**  
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Planktonic blue-green algae, also known as cyanobacteria, are increasingly becoming an aquatic nuisance for many lakes and ponds in Michigan. Planktonic blue-green may have many detrimental effects not only to a waterbody's ecosystem but also to animals and even humans. Planktonic algae are microscopic and usually appear in the top portion of the water column. When planktonic blooms occur the water can have a pea green soup or blueish appearance that may be accompanied with a strong odor. Not all planktonic algae blooms are a sign of blue-green algae. Many green algae species are capable of producing non-harmful blooms. However, blue-green algae are capable of secreting a toxic substance when alive or release the substance after cell die-off. This release of the toxic substance is the major cause for concern when dealing with blue-green blooms.

### What are the signs of a blue-green bloom

Although it requires the identification of a blue-green by means of laboratory confirmation, there are some signs that may indicate that a blue-green bloom has occurred. Many times a blue-green bloom will appear non-natural, having a bright green or blueish coloration forming a slick on the water's surface. They often look like paint or anti-freeze has been dumped in the water. Blooms can appear overnight and disappear just as quickly. Most blooms will last from a couple days to severe cases lasting a week to several weeks. They usually occur in mid to late summer, although fall blooms are not uncommon.

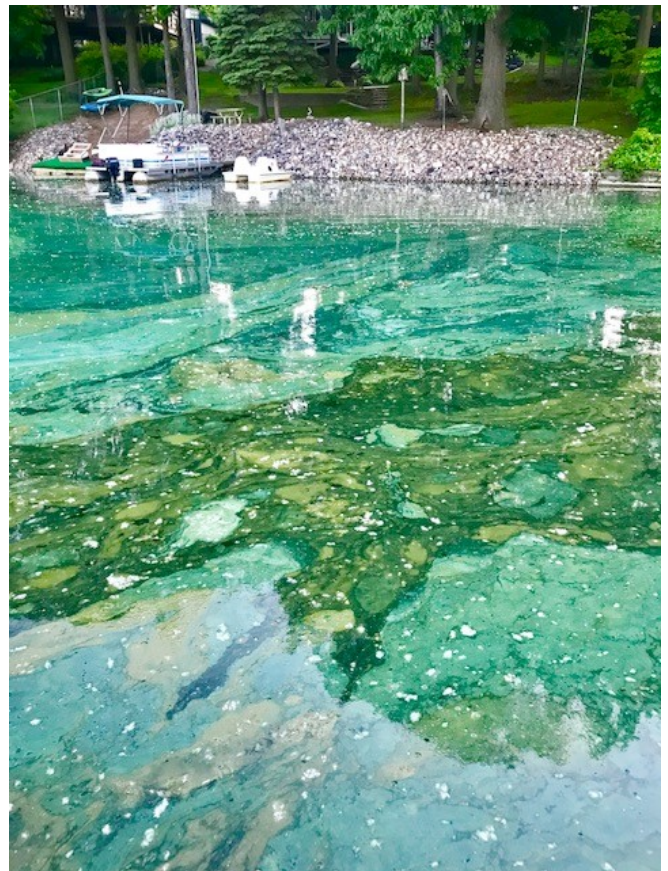
### What are the causes of blue-green blooms?

In general, blooms occur when water temperatures are warm, abundant nutrients are available and conditions are relatively calm. However, blooms can appear at almost any time under varying conditions. Drastic changes in temperature following long periods of hot weather, such as cool nights or cold rains are thought to trigger blooms. Sudden temperature changes can mix lake waters bringing bottom nutrients up for use by planktonic algae.

### What are the health effects for people?

The concerns for human health depend on several factors. Not all blue-green algae blooms produce toxins at levels considered to be dangerous for human exposure. However, it should be assumed as long as the bloom persists that there is a risk of exposure. The risk to humans depends upon the species of blue-green and the concentration of toxin produced. The type of exposure is also important. Exposure to skin may produce a rash, hives or an allergic like reaction. You should always rinse exposed skin with fresh water following skin exposure to an algae bloom.

Swallowing large amounts of water containing blue-green algae can cause flu-like symptoms or neurotoxic symptoms. These may include vomiting, diarrhea, headaches, dizziness or trouble breathing.



If you suspect you have had contact with or swallowed water containing blue-green algae and are experiencing any symptoms of illness, consult your health care provider and/or call Poison Control at 1-800-222-1222.

#### MICHIGAN LOCATIONS



**Alto Location**  
8865 100th St. SE  
Alto, MI 49302-9221

**Morrice Location**  
10785 Bennett Dr.  
Morrice, MI 48857-8760

**Evart Location**  
9826 S Industrial Drive  
Evart, MI 49631

**Sturgis Location**  
1169 N Nottawa St.  
Sturgis, MI 49091

Phone (616) 891-1294

Fax (616) 891-0371

Toll-free (800) 382-4434

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## What are the health effects on pets?

If you see a bloom, do not allow your pets to come into contact with it - especially dogs. Dogs are more likely than humans to drink the water and can swallow a lot of water for their size. When they groom themselves, dogs can potentially swallow blue-greens collected in their fur.

Symptoms of illness from blue-greens often appear quicker in animals than in humans - sometimes in minutes to a few hours. Symptoms in animals can include vomiting, diarrhea, fatigue, staggered walking, excessive salivation, convulsions, erratic behavior, or physical distress.

Dogs should be thoroughly rinsed off or bathed with fresh water after contact with water that may contain algae, even if it's not toxic algae.

Contact your veterinarian immediately if pets or livestock show signs of illness or if you know or suspect your pet or livestock had contact with a blue-green algae blooms.

## Can I swim or go boating if blue-greens are in the water?

If a HAB is suspected, do not swim, wade, or touch the water where algae are present. Humans and pets should be rinsed thoroughly in fresh water if there has been any contact with the water.

Humans and pets should avoid the water entirely if there is a large algal bloom spread out across the lake, river, or pond, including water sports like boating.

Algae can cover the surface of the water so densely that you cannot see underneath to tell how deep the water might be or see rocks in the water. Trying to wade or swim through the algae can be dangerous.

## Can I eat fish if HABs are in the water?

Toxins may build up in the meat of fish, such as the fillet, and especially in the guts or organs (liver, kidney, etc.). The amount of toxin found in fish depends on a number of factors, including how badly and for how long the blue-green has been blooming in the area where the fish are caught.

Following the Eat Safe Fish waterbody-specific guidelines, or Statewide Safe Fish Guidelines, and eating only the fillets (and not the guts) reduces the danger of eating fish from areas affected by HABs and from other chemicals that are regularly found in them. The guts should be thrown away and fillets should be rinsed with fresh water before cooking.

## What to do if you suspect a blue-green bloom?

If you suspect a blue-green bloom, avoid contact with the water including pets. You should then contact your PLM manager and the State of Michigan Department of Environment, Great Lakes & Energy (EGLE) Environmental Assistance Center at 1-800-662-9278 or send an e-mail to [AlgaeBloom@Michigan.gov](mailto:AlgaeBloom@Michigan.gov).

Once you call or email a report of a suspected blue-green bloom, information will be collected about the extent of the bloom, the duration of the bloom and you may possibly be requested to send photos to document the current conditions. Other information about any noticeable effects, such as dead fish or other wildlife, human effects such as rashes or illness and reports of odors and other observable conditions.

A representative from PLM, a State Agency or Community Health Department may collect samples to confirm a positive identification and samples for toxins in the water column.



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