When does MDPH recommend an advisory?

- A visible scum or mat layer is present
- The blue-green algal cell count exceeds 70,000 cells/milliliter of water
- The microcystin toxin level exceeds 14 parts per billion (ppb)

What Can I Do?

- Properly maintain septic systems
- Use phosphate-free dishwasher detergent
- Apply fertilizer correctly
- Pick up pets' waste
- Do not feed ducks or geese
- Plant or maintain native vegetation around the water's edge.

Most storm drains empty directly into water bodies without treatment. These drains are intended to collect only rainwater. Wash your car in areas away from storm drains or at a commercial car wash. Use caution when applying fertilizer to avoid getting it on pavement, which may allow for transport to storm drains.

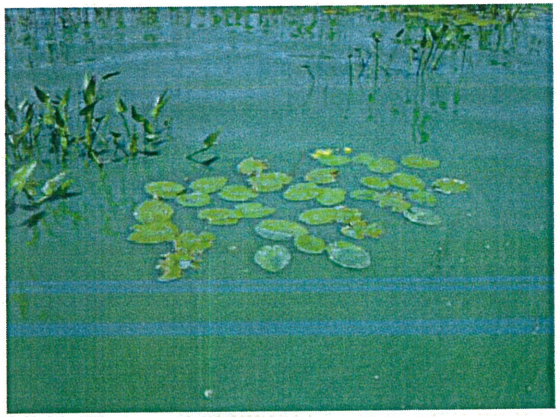
For More Information or To Report a Bloom or Health Effect

Massachusetts Department of Public Health
Bureau of Environmental Health
250 Washington Street, 7th floor
Boston, MA 02108
Phone: 617-624-5757
Fax: 617-624-5183
TTY: 617-624-5286
www.mass.gov/dph/environmental_health

Additional Resources:
U.S. Centers for Disease Control and Prevention: http://www.cdc.gov/hab

Revised July 2012

HARMFUL ALGAE BLOOMS IN FRESH WATER BODIES

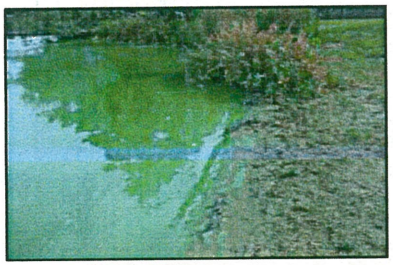


Massachusetts Department of Public Health
Bureau of Environmental Health
Environmental Toxicology Program

What are algae blooms?

- Algae blooms form in fresh water when cyanobacteria (blue-green algae) grow quickly and form scums or mats in the water. Some blooms can produce toxins harmful to people and animals. These are called harmful algae blooms.

- Blooms in New England are most common in summer and early fall.



How do I know if there is an algae bloom in the water?

Algae blooms can change the water's appearance from slightly discolored to resembling pea soup or thick paint.

Blooms frequently appear blue or green but could be another color, such as brown or red. Algae blooms can also give the water a bad odor or taste.

What causes algae blooms?

Certain environmental conditions, such as

- warm weather,
- sunlight, and
- excess nutrients in the water

help blue-green algae grow faster.

- Excess levels of nutrients in water bodies can come from human-related sources.

- Phosphorus and nitrogen are two important nutrients used by blue-green algae in their growth. They are found in fertilizers and human and animal waste.

- Examples of sources that can input large amounts of nutrients to water bodies are leaking septic or sewer systems, stormwater runoff, lawn fertilizers, pet and wildlife waste, and agricultural activities.

What are the possible health concerns of harmful algae blooms?

Health concerns from harmful algae blooms and their toxins vary depending on the type of exposure, and the amounts and types of toxin present.

- Contact with these algae can cause skin and eye irritation.

- Ingesting small amounts can cause gastrointestinal symptoms. Ingesting large amounts of toxins may cause liver or neurological damage.

- Inhaling water spray with algae in it can cause asthma-like symptoms.

- Small children and pets are more susceptible to the effects of toxins than adults. Livestock and pet deaths from ingesting algal toxins have occurred.

If you see water that appears to have an algae bloom, do not come into contact with or ingest the water. Treating water by boiling does not get rid of any toxins present. Prevent contact and ingestion by kids and pets.

Dogs can get very ill and even die from licking algae off of their fur. Rinse dogs off immediately if they come into contact with an algae bloom.

MDPH Guidelines

- Monitoring harmful algae is important because they can multiply quickly. Because health risks rise with cell counts, the goal is to take action before levels that pose health risks are reached.

- MDPH developed a protocol for evaluating potential health concerns related to the presence of algae.

- In some circumstances, MDPH will recommend people and pets stay out of the water and that an advisory be issued.