BLUE-GREEN ALGAE

What is Blue - Green Algae?
Blue-green algae, or cyanobacteria, are a group of photosynthetic bacteria that can release harmful toxins and skin irritants. Naturally present in very low concentrations in lakes and streams, a combination of key environmental factors and weather conditions can favor blue-green algae growth and form blooms and surface scums where toxins may become concentrated enough to become a health threat.

Identification
Blue-green algae cells can form into blooms and surface scums. Cyanobacteria are most often blue-green in color, but can also be green, blue, reddish-purple, or even brown. Blooms can take on the appearance of “pea soup,” green or blue paint, or form puffy clumps that float on the surface. Blue-green algae is often confused with filamentous algae which can also collect on the surface. If the bloom in question has a hair-like or stringy appearance, it is likely filamentous algae, which is not a health concern.

Concerns Associated with Blue Green Algae
Exposure to blue-green has the potential to cause illness in humans and animals. You can become exposed to blue-green algae through swimming, inhaling water spray (e.g., when boating or water skiing), or by swallowing contaminated water. Blooms can also have a negative impact on the Lake by discoloring water and producing foul odors that result from the decomposition of blue-green algae cells.

Blue Green Algae Exposure Symptoms
Humans:
Rashes and blisters • Fever • Headache • Eye/nose/throat irritation • Muscle pain and weakness • Difficulty breathing • Vomiting, diarrhea and abdominal pain • Dry cough
Pets (following contact with surface water):
Vomiting • Diarrhea • Lethargy • Loss of appetite

Blue Green Algae “Perfect Storm” Conditions Include:
• Eutrophic or nutrient rich water bodies like Conesus Lake
• Heavy spring rain events flushing increased levels of nutrients into the Lake
• Warm water temperatures (late summer)
• Ample sunlight (long stretch of sunny days)
• Sudden weather changes from stormy to calm causing blue-green algae cells to rise to the surface of the Lake
• Shallow, sheltered water such as coves and lee shores

Frequently Asked Questions
Are fish caught in the lake during a blue-green algal bloom safe to eat?
Do not eat fish caught in areas with visible blue-green algae blooms. For further health advise on the preparation and consumption of sports fish and game visit the New York State Department of Health website: www.health.ny.gov/publications/2800.pdf

Should I treat my waterfront with chemicals to get rid of the algae?
No. Treating blue-green algae with chemicals can cause the cells to break down and release toxins. While the bloom may no longer be visible, blue-green algae toxins may still be present in the water for a few days. It is best to wait for the bloom to go away on its own.

If there is a bloom in one portion of the lake, can I swim in water elsewhere?
Yes. Blue-green algae blooms are often very localized. Recreational activities and water use are usually advised against only where the bloom is visible.

Should I let my pets drink or swim in water containing algal blooms?
No. Pets that ingest water containing blue-green algae can become severely ill or even die. Never allow pets to drink raw, untreated lake water.

There was just an algae bloom but now it is gone. Is the lake water safe for recreational use?
Recreational contact, such as swimming with water not visibly affected by a blue-green algae bloom is not expected to cause health effects. However, some individuals could be especially sensitive to even low levels of algal toxins and might experience mild symptoms such as skin, eye or throat irritation or allergic reactions.
Will boiling affected lake water make it safe for washing or consumption? No. Blue-green algae toxins are very heat stable; boiling will not remove the toxins. Untreated surface water should never be consumed.

My skin was red and itchy after swimming in clear water. Does this mean there’s a blue-green algae bloom that I can’t see? No. The lake is a living water body and all sorts of organisms make it their home, some of which may cause mild skin irritation. It is a good practice to always rinse off after swimming, even if the water is clear.

What is Livingston County doing to address this threat?
• Educating the public with information on how to identify blue-green algae, avoid contaminated water and recognize symptoms if someone has come in contact with the toxins
• Monitoring algae blooms for known toxins
• Alerting the public about potential algae threats
• Long-term identification and reduction of nutrient inputs through implementation of the Conesus Lake Watershed Management Plan

What Can I do...
…the to protect myself and my family from harmful algae blooms?
• Do not swim in or swallow water containing algae scums/blooms; Do not swallow lake water even if algae is not present
• Do not boat, water ski, jet ski, etc. over affected water
• Do not let children play with scum layers, even from the shore
• Wash and dry any clothing and equipment
• Do not let pets drink or swim in waters experiencing blooms
• Immediately rinse off pets with clean water after contact with surface water before they get a chance to groom and ingest toxins that may have collected in their fur
• Never treat surface waters with chemicals, including herbicides or algaecides, without a permit from the Department of Environmental Conservation: [www.dec.ny.gov]
• Always take a shower after coming into contact with any surface water (whether or not a blue-green algae bloom is present)

…the to reduce the frequency of future blue-green algae blooms?
• Minimize activities that cause erosion
• Use lawn fertilizers only when truly needed
• Prevent yard debris from washing into storm drains and the lake
• Support local ordinances and laws that require erosion control measures for residential and commercial construction sites
• Plant and maintain vegetative buffer strips along your shoreline and streams (native plants are many times more effective at filtering nutrients and slowing erosion than grass species found on residential lawns)
• Assure that your private septic system is functioning properly and all sewage from the household is discharged to an approved system

Whom to Contact?
To Report a Blue Green Algae Bloom:
During business hours - M-F 8-4:
Livingston County Department of Environmental Health: 585-243-7280, 585-335-1717
Weekends, Evenings and Holidays:
Livingston County Sheriff’s Office: 585-243-7100

If you or someone you know may have symptoms that you think might be due to blue-green algae toxins:
Contact your physician or call the Poison Control Center: 1-800-222-1222
For pets: Contact your veterinarian
For more information on blue-green algae and Conesus Lake visit:
http://livingstoncounty.us/doh.htm
http://livingstoncounty.us/conesus.htm

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Questions and concerns about blue-green algae may be directed to:
Conesus Lake Watershed Inspector Livingston County Department of Environmental Health: 585-243-7280 or 585-335-1717
Conesus Lake Watershed Manager
Livingston County Planning Department: 585-243-7550
Livingston County Department of Health Center for Environmental Health
2 Murray Hill Drive
Mount Morris NY 14510-1691

Phone: (585)243-7280 or (585)335-1717
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