

Understanding Cyanobacteria



WHY DO WE CARE?

Cyanobacteria are forms of bacteria that can harness the sun's energy and nutrients in waterbodies for growth. When conditions are right, they can grow very quickly to form a bloom. Cyanobacteria sometimes - but not always - produce toxins. People and pets can be exposed to the toxins by touching, ingesting, or inhaling airborne particles from contaminated water. Exposure can irritate skin, or affect the liver or nerves of both people and animals.

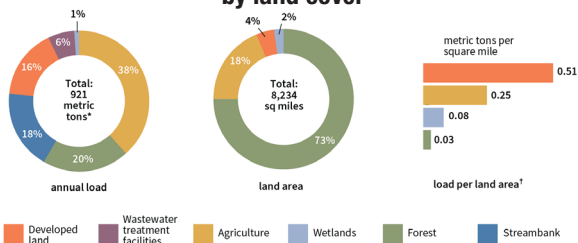
Blooms mostly occur in shallow, nutrient-enriched waters during periods of warm, calm, and sunny weather. Heavy rains can bring nutrients from across the landscape to waterbodies and increase the chance for a bloom.

Blooms can look like spilled paint, foam or scum on the water's surface. Blooms can be green, red, brown, or blue in color. Sometimes they hide below the water's surface and are not very visible.

Excess phosphorus contributes to cyanobacteria blooms in freshwater systems, like Lake Champlain. Phosphorus comes from natural and human-impacted sources: agriculture, developed land, wastewater treatment facilities, streambanks, wetlands, and forests. To reduce the frequency and intensity of cyanobacteria blooms, phosphorus runoff from all sources needs to be reduced. Developed land contributes more phosphorus to the lake per acre of land compared to other land uses, including agriculture.

To find out more about cyanobacteria conditions in Vermont's waters visit: <https://go.uvm.edu/cyanobacteria-tracker>

Annual phosphorus loading to Lake Champlain by land cover



* Estimated 2001-2010

† Does not include load from streambanks and wastewater treatment facilities



Image: VT Department of Health

WHAT IS BURLINGTON DOING?

- Updates to the Burlington wastewater treatment plant, combined sewer storage tanks, sub-surface storage systems, and enhanced green stormwater infrastructure, like bioretention, are all part of Burlington's Integrated Planning process.
- This program! Efforts undertaken by residents like yourself help Burlington address its water quality improvement goals.

ACTIONS YOU CAN TAKE TO KEEP WATER CLEAN:

- Reduce stormwater runoff from your property to minimize the amount of nutrients that reach local waterbodies.
- Clear leaves away from storm drains, as they can leach nutrients into waterways and promote the growth of cyanobacteria.
- Get a soil test to assess soil conditions and plant needs prior to fertilizing your lawn. To learn how to test your soil, visit <https://go.uvm.edu/vtsoiltest>.
- Only fertilize your lawn in the fall.
- Reduce areas of bare / eroded soil on your property.
- Reduce impervious surfaces if possible.

Contact us: blue@uvm.edu

Find out what you can do
to be more **BLUE**



The University of Vermont



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BLUE BTV is a residential green stormwater infrastructure incentive program in Burlington, VT. BLUE BTV educates and collaborates with residents to identify opportunities for stormwater mitigation, affect behavioral changes, and establish stewardship principles to protect our waters from cyanobacteria blooms.