

# Does Your Lake Have The “Blues”?

Cyanobacteria or “blue-green algae” are aquatic microorganisms. When they die, some species release natural poisons called cyanotoxins. Cyanobacteria are naturally present in lakes. They become a nuisance when they reproduce rapidly and in great numbers to form a mat, or bloom that is visible to the naked eye. This phenomenon shows symptoms of the deteriorating of lake’s health.



There are no magic products or techniques to prevent cyanobacteria blooms. Any type of intervention must be approved by the Ministère de l'Environnement, de la Lutte contre les changements climatiques, de la Faune et des Parcs (MELCCFP), and requires a certificate of authorization. It is extremely important that we change both our own individual behaviour and the practices of our community.

We cannot predict when a bloom will appear; however, the main contributing factor is an excessive amount of phosphorus due to:

- Effluents from septic systems
- Fertilizers (organic and chemical)
- Products that are phosphate-based
- Deforested or artificially developed shorelines
- Certain activities such as agriculture, fishing, and forestry ...
- The modification of riverbeds and the draining of wetlands

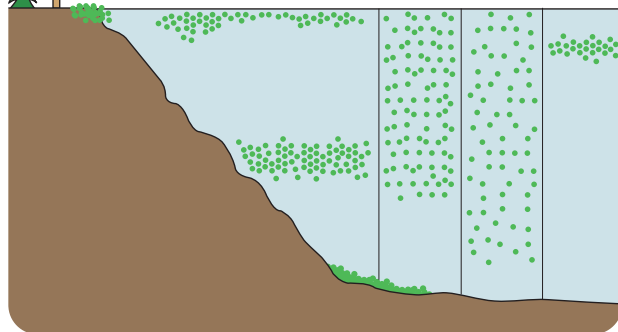
Stagnant or barely running water and elevated temperatures are other contributing factors.



Cyanobacteria observed through a microscope

Source: David Bird, (UQAM and GML)

The possible distributions of cyanobacteria in a deep lake, based on different factors such as (wind, light...)



Adapted from the MDDEP, 2005

If a bloom of cyanobacteria has been identified in your lake, the public health director recommends to adopt the following health measures:

- Avoid direct exposure with contaminated water (swimming, showering, recreation, etc).
- Do not eat fish or other aquatic organisms from area.
- Do not use water for cooking or drinking.
- Prevent domestic animals from being exposed to the contaminated water in the affected areas of the lake.



Blooms generally have an olive-green color but may sometimes be reddish or purple in colour. Learn to recognize cyanobacteria by reading the MELCCFP's identification guide ([www.environnement.gouv.qc.ca/eau/algues-bv/index.asp](http://www.environnement.gouv.qc.ca/eau/algues-bv/index.asp)). If you think you have cyanobacteria in your area, take photos and notify your regional MDDEP office and your municipality. **WARNING!** Boiling water does not destroy cyanotoxins, on the contrary, it kills all the cells and releases the toxins.

## Good practices to limit phosphorus loading:

- Make sure that your septic system is adequate and empty it regularly.
- Avoid using fertilizers (even organic).
- Use of phosphate-free domestic products.
- Preserve your shoreline's natural vegetation by avoiding urban style landscaping such as lawns, retaining walls, concrete...
- Encourage environmentally friendly activities.