

The CSBVLD

In the summer of 2007, more than one hundred lakes in Quebec including our own Lake Davignon, were contaminated by cyano bacteria, commonly known as blue-green algae. The problem was important as it hindered the drinkable water consumption of residents of Cowansville. Touched by the phenomenon, some citizens united to counter the decay of the Lake. The **« Comité de Sauvegarde du Bassin Versant du Lac Davignon »** was born.



Mission

To mobilize and empower all the stakeholders involved in the conservation of the lake and its reservoir, to insure water quality and promote recreational use and oversee developments on the shores of the lake.

Objectives:

- ◆ To promote awareness and collective responsibility of the population in regards to the importance to safeguard the water resources of our reservoir.
- ◆ List all sources of water pollution and problems area.
- ◆ Propose and promote solutions to specific problems encountered and undertake their concretization.

Water, the source of life

Water is essential to life. Without any doubt, water is the most precious of natural resources. We are depending on it for health, leisure and quality of life. It is important to preserve its quality, not to waste nor pollute it. Buying and drinking bottled water is not a solution. Not forgetting the wildlife and plants that also rely on a supply of good quality water.

Everyday, at home or at work, we use water so easily that we have taken this privilege for granted. However, this daily consumption of a precious resource contributes to the contamination of our watershed.

All over the world, as well as in Quebec, blue green algae are taking over lakes and rivers and we have yet to understand and stop the phenomenon. It will be necessary to change certain habits and mentalities that have contributed to the deterioration of the quality of water.

Below is a list of human activities that contribute to the proliferation of blue green algae and the degradation of water quality:

- ◆ Use of chemical fertilizers (all types)
- ◆ Use of pesticides
- ◆ Use of soaps and detergents rich in phosphates
- ◆ Cutting trees on the shorelines
- ◆ Ill maintained septic installations
- ◆ Rain waters that flow into the lake and rivers
- ◆ Man-made installations on the shoreline such as retaining walls and cemented alleyways
- ◆ Buildings too close to the waterline
- ◆ Throwing vegetation into the water such as branches, leaves, grass cuttings, etc.
- ◆ Fecal coliform of animal origin
- ◆ Motorized boats and gas engines operating too close to the water (snowmobiles & ATVs)

Lake Davignon and its catchment area

The magnificent Lake Davignon deserves better attention. The municipalities situated in the watershed area are: Cowansville, Dunham, Brome Lake, Sutton, Bolton West, Brome and Potton. The Nature Centre is also an enchanting site that should be better preserved. It is a small paradise in the middle of the city open to all population to enjoy many activities for the whole family.

We are privileged to live in such a region, surrounded by lakes and rivers. We need to appreciate what we have, protect it and take better care of those natural sites.

Unfortunately, living on the edge of river may contribute to its deterioration if you do not understand the impact of your behavior. Often, ignorance will prevail and actions that compromise the water quality are undertaken by landlords wanting a better view of the lake, a «cleaner» property, a more urbanized access to the water. We do not want to share grounds with shrubs, wild grass, bugs and unsightly brushes. We prefer a clean cut approach to golf green grass, paved alleyways, night lights and cement. This civilized version of an embankment is unfortunately the primary reason of the degradation of water quality. This clean look approach brings about murky waters.

Let it grow back. Leave it natural. Restore the ecosystem!

We agree to endorse the City's actions but the municipalities in the watershed area must continue to control and eliminate sediment and fecal coliform loading too often causing the closing of our beaches.



Blue-green algae or water flowers

Though bearing an attractive name, these are a nuisance to our environment. This phenomenon is similar to bacteria and shares common characteristics with seaweeds. Blue green algae look like green paint that was poured into water.

They naturally occur where human activity contributes to its explosion. Many factors are responsible for this proliferation: water temperature, low current or water stagnation. However, the main responsible is phosphorus.

Cyanobacterium are not without consequences and can be dangerous for both humans and animals that come in contact with contaminated water. Some algae species release toxins that may affect the nervous system, the liver and cause skin infections. According to the Ministry of Durable Development, Environment and Parks, drinking or coming into contact with contaminated water is risky to your health.

Since they reduce the amount of light penetrating water, other species are affected by blue green algae. This results in oxygen depletion that may effectively asphyxiate all other life forms in a pool of water.



Phosphorus, our worst enemy

The main sources of phosphorus are:

- ◆ Domestic wastewaters
- ◆ Soaps and detergents rich in phosphates
- ◆ Illegal clearing of shorelines and deforestation
- ◆ Agricultural fertilizers and manure from pastures



Adopting responsible behaviors

- ◆ Plant trees and shrubs along the banks of the rivers, especially on steep ground. This will diminish erosion, filter running water and provide shade to keep water temperature cool.
- ◆ Leave the shoreline of 10-15m. in it's natural state. Do not mow the lawn or use fertilizers near the water.
- ◆ Check your septic tank to insure it is working properly and maintain it regularly.
- ◆ Only use phosphate free detergents.
- ◆ Avoid the use of insecticides and fertilizers.
- ◆ Keep access to the lake and river at a minimum width, not more than 5m.
- ◆ Do not throw branches or other debris into the water. Remove floating debris and ecologically dispose of them.
- ◆ Wash boats before and after immersion to avoid any contamination of blue-green algae, water-milfoil, zebra mussels or any other invasive species.
- ◆ Notify CSBVLD of any anomaly seen in the Lake Davignon or its watershed.

A collective effort

Water pollution is everyone's concern and will take a collective action to improve the water quality. Every little effort adds up to insure that future generation will have access to clean, potable water.

We are counting on the community to mobilize and make a special effort to adopt changes that will help our environment. This is a long term goal. No change is possible without a collective effort. We are dedicated to make change happen to restore water quality to acceptable standards so our children may enjoy this precious resource.

CSBVLD achievements:

- ◆ Cleaning of the riverbanks
- ◆ Distribution of shrubs in partnership with the town
- ◆ Awareness and information campaigns
- ◆ Canada Geese control project
- ◆ Water analysis
- ◆ Inventory of fish and their environment

To learn about our activities or to become a member:

Web:

www.facebook.com/CSBVLacDavignon

Email:

lac.davignon@hotmail.com

References:

OBV-Yamaska

www.obv-yamaska.qc.ca

MRC Brome-Missisquoi - REGES

mrcbm.qc.ca/en/eau_reglement.php

City of Cowansville - Action Plan

<http://www.ville.cowansville.qc.ca/fr/environnement/nav/lacdavignon/planactionsdulacdavignon.html>

Ministry of the Environment (MDDELCC)

www.mddelcc.gouv.qc.ca



To mobilize and responsabilize all actors concerned by the watershed of Lake Davignon in favor of the preservation of the quality and the use of the water and to promote its development.



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A few varieties found in our lake during the fish inventory conducted in 2016:
Yellow Perch, Sunfish, Smallmouth Bass, Snapping Turtle