



2015 Activities Report

Preparing the future of the lake

The year 2015 was marked by a late spring and colder but clearer water than usual. Despite everything, the lake still unfortunately remains fragile: its health is at the mercy of severe weather conditions. As is often the case at the end of the season, a general spreading of blue-green algae blooms was observed in September.

Significant progress has been made in recent years however. Our citizens are better informed and accordingly more concerned about the health of the lake. They visit our website more frequently to learn about the state of the lake water and they also are planting more frequently along the shoreline and increasingly respecting applicable regulations. RBL has also noticed a net improvement in roadway ditch interventions and the management of stripped soil by the town's public works people.

However, more structural actions are needed if we are to permanently reverse the historical trend. There is no Plan B for saving Brome Lake. It is a unique body of water and nothing can replace it if we fail in our efforts to support its beauty and other assets for the benefit of future generations. We will therefore continue with our shift in focus that began in 2014: to carry out concrete and sustainable actions in various ecologically fragile locations; to better manage runoff water from downpours, and to reduce the sediment and phosphorus flowing into the lake.

RBL, in collaboration with the three landowners located upstream from the Quilliams Natural Reserve, carried out a major upgrade project in the Quilliams Brook flood plain. This innovative effort, largely financed by Environment Canada, was accepted in June 2015. Also supporting the venture was the MAPAQ (Quebec's ministry of agriculture, fisheries and food), through its Prime-Vert program, in recognition of this major undertaking.



Quilliams Stream : before and after!

Most of the activities we had planned were carried out: the river crossing was closed on October 8, the new bridge went into service on October 13 and the work on the shoreline and banks nearly completed. A follow-up to assess the progress of this work will be carried out in 2016.

Regarding runoff management, work on four sites in the municipality is behind schedule:

- Conference Hill (removal of asphalt, rock bed application, ditches and sedimentation basin);
- drainage ditch at the foot of Conference (consolidation of the banks, replanting and adjusting the flow direction to help water to infiltrate before it reaches the lake);
- Pine Street (elevation of the ditch, rain garden and shrub planting);
- road through Domaine Brome (drainage ditch upgrading, redirecting the flow at the bottom end for infiltration and rain garden).

RBL was asked to prepare a scientific follow-up protocol to help track and evaluate the results of these work projects to be able to monitor the phosphorous rate and level of suspended materials.

With the help of a biologist we were able to carry out several interventions aimed at gathering increased knowledge, better control of plants and greater citizen awareness of native aquatic plants and invasive species:

- an information guide, a citizen's guide and a list of plants were all prepared;
- a workshop was held for residents;
- an information session with three groups of youngsters from the day camp, *Les Salamandres* was held at the community centre;
- a pilot project to control aquatic plants in two bathing and boating areas. A follow-up will be carried out in 2016 to evaluate the efficiency of these actions.

Considerable efforts went to saving the *Bridle Shiner*, a tiny member of the minnow family – an at-risk species - and documenting its eco-zone habitats in Brome Lake. This included creating awareness among shoreline dwellers and developing a conservation plan. RBL also produced an information pamphlet to this end. Thanks to financial help from the Fondation de la Faune du Québec (FFQ), this pamphlet clarifies the vulnerability status of the *Bridle Shiner*, the reasons it should be protected and how to do so.

RBL gave a mandate to RAPPEL, a Townships' lakeside biology group, to do an inventory of Inverness Brook, a tiny stream in the urban sector. This is the fourth report produced, to better learn about and understand the characteristics of the main tributaries flowing into the lake. Several recommendations and corrective measures concerning 39 intervention sites in the Inverness sector could be undertaken by TBL's public works and territory and environmental management services. The report was officially deposited with the town council in February, 2016.

RBL received its ecological donor status recognition last May from the federal government. This allows it to function on a wider scope and issue tax receipts, so the association can now inform and issue tax receipts for those who seek to protect their lands that have an ecological and conservation value. To help achieve its new conservation mission the board, at its December 2015 meeting, approved a bylaw to create a special fund made up of the operating surpluses of recent years. This new regulation, which also defines how it will be operated, will be presented for approval at the AGA in April 2016.

RBL submitted a brief to the town as part of TBL's strategic planning process. It reminded our elected members of the absolute priority that the lake deserves in future decision-making issues. RBL condemned the fact that the plan contains very few measurable deliveries, that the actions were not evaluated in budget terms and the rendering of accounts remained theoretical.

Following our repeated requests, it now seems likely that the town will finally, in 2016, issue a complete report about the overflow situation of the sewage network and install two measurement meters at the site where the waste water is released into the lake when its sewage network is saturated by torrential rains. This is certainly a file to watch closely.

When we conduct our water quality monitoring program (SQE), we gather samples from certain sites to ascertain the fecal coliform bacteria count. The reading at the site occupied by "Parc Eugène" in 2014 was high. At our request the town examined its sewage system in this sector. New samples were taken in 2015 and they confirmed the continued existence of the problem. A specialized firm was then hired to examine the septic tank installations in this sector. At the end of 2015, the town announced that there would be a new program of septic tank inspections that would cover all houses and cottages located near the lake and not hooked up to the municipal system. RBL has been demanding this action for years.

Brome Lake is both popular...and a victim of its success!... RBL recently identified local 539 motor boats, while in 2010, there were some 476, not counting the pleasure boaters from outside and their possibility of carrying invasive plants. We also note the immense popularity of wakeboard boats, which have increased by an estimated 36% since 2010. All of this additional turbulence has consequences for the lake. A policy of lake management is no longer a luxury; it has become a necessity.

To enhance and enjoy the environmental heritage of Brome Lake we propose a self-guided ecological circuit to help people appreciate and respect the beauty and tranquillity of the Quilliams Natural Reserve. This project will provide information pamphlets containing a description of each of the 10 stations of ecological interest to canoeing and kayak buffs. In 2016, Renaissance Brome Lake will prepare descriptions of each of these observation stations and will conclude partnership agreements.

Other projects are currently on the drafting board for 2016:

- a project to manage water runoff in the Tibbits Hill sector to help stem sediment flow into the lake;
- an inventory of artificial ponds throughout the drainage basin;
- an inventory of the walleyed pike found in Brome Lake;
- a project to improve our mapping tools and skills;
- a presentation about the history and evolution of the territory entitled « *If the lake could talk* »;
- a setting up a RBL major recognition award to pay tribute to the exceptional contribution of some of our citizens.

We are pleased to present you with this very full and motivating road map to planning the future of Brome Lake!