2014 Activities Report
A year of transition

The year 2014 represented a continuation of the efforts of the preceding years in terms of the water quality in the lake. In other words, a pretty good yet precarious year that reflects the various climatic challenges the lake faces.

• Water transparency was observed to be average.
• The volume of water entering the lake surpassed the 2013 total by 24% because of the heavy spring runoffs. The lake maintained its desired level, thanks to the proper flow management at the Foster Dam.
• Brome Lake still receives too much phosphorous intake as our water quality tracking programs indicate. (144 samples taken in 2014). This intake should be reduced by 50%, especially from such feeder streams as Quilliams, McLaughlin, Inverness and Pearson.
• A heavy concentration of dead fish was observed at the beginning of the season without any valid explanation ever confirmed:
  • A generalized cyanobacteria bloom was observed at the end of August and dissipated a few days later.
  • The lake was invaded by Rusty Crayfish, with origins in Ohio and they are now taking over from indigenous crayfish; all lake users should have their boats systematically analyzed and perhaps scrubbed down before putting them into the lake. We must at all costs fight against the introduction of invasive species.
• Awareness efforts must continue especially with regard to shoreline protection, the use of fertilizers and proper septic installation maintenance.

Structured actions remain necessary

The year 2014 was the turning point in terms of a concrete implementation strategy regarding run-off water management. Structured and sustainable measures to better manage water overflows and reduce the entry of contaminants into the lake were initiated:
• Ville de Lac-Brome, in collaboration with RBL, obtained a substantial grant to put in place innovative and performing installations on four sites. The grant covers both 2014 and 2015 and applies to the: drainage ditch on Conference (removal of asphalt, adding stones and sedimentation basin), drainage ditch at the bottom of Conference (consolidation of the banks, re-naturalization and re-routing the low point to facilitate water infiltration before it arrives at the lake), Pine (raising the drainage ditch, runoff garden, shrub planting). Domaine Brome (filled ditches, re-routing at low point for infiltration and runoff garden).
• An important project in the flood plain of Quilliams brook (in partnership with the land owners and other habitat protection and biodiversity agencies) will permit the stabilization of the banks of the brook, eliminate a water crossing, level the land and plant 5-metre wide banks for more than 2 km. A request for funding for $128,000 over a two year period has been submitted. For RBL, this represents a strategic project that will provide a unique occasion to improve the quality of the water and preserve fish and other living species in this sector.
• After the characterization of Coldbrook and Quilliams, we gave a mandate to RAPPEL (shoreline management biologists) to conduct a study of Pearson to better know and understand its characteristics. Several recommendations were given and 39 areas needing corrective measures identified. The report was then sent to the town.
Several important events occurred for us in 2014:

- During the inventories carried out in 2011 along the shorelines of the wetlands, and in the lake itself in 2013, RBL noted the presence of the Bridle Shiner, a species of fish considered vulnerable in Quebec. A project to better understand and protect the habitat of these small fish began in 2014 and will continue in 2015.

We were also involved in several other files to not only protect the water in the lake, but the entire drainage basin as well:

- Improving the management of water runoff at the foot of Mountain, an area serving as a boat descent and lake access for residents in the sector and members of the property owners association. RBL reached an agreement with the association and obtained funding to replace a conduit (water flow from the lake) and replace it with five gutters and a stone scupper allowing for water filtration.

- A letter was sent to the Environment ministry demanding better protection of mountain summits: 16 associations and three municipalities joined RBL in this undertaking.

- RBL, in September 2014, issued a notice requesting that the CPTAQ refrain from granting a renewal permit to sablière DJL (sand pit operation - Bailey sector) because of the environmental risks to the Ville de Lac-Brome wells.

- RBL made its growing concerns known in terms of the bylaw planned by the MRC relative to water runoff management, highlighting the new norms related to shorelines and water infiltration.

**A year of major achievements for the association**

Several important events occurred for us in 2014:

- Canada Revenue Agency (CRA) recognized RBL as a charitable organization. This means that in the future we can issue tax receipts for donations. RBL subsequently amended its letters patent to add to its mission, the conservation of wetlands and areas of ecological interest related to water quality.

- In October, the Appalachian corridor organization, welcomed us as an affiliate member. We are now part of a network of 16 organizations that promote conservation in the region.

- The membership of RBL has enjoyed remarkable growth and now boasts some 889 individual members in 438 families.

- RBL continued on with its bathymetric map of the lake and guide to responsible boating practices. We are still awaiting the formation of a municipal committee to oversee the management of the lake and better offer a framework for nautical activities.

**Our priorities in 2015**

RBL will continue its efforts to better manage water runoff. We also intend to continue to work on several projects during 2015-2016, as previously outlined. Repairs are needed to the Blackwood dam and work required on Mill Pond, which has now become a low-water basin that will become a sedimentation basin. Across the entire watershed, RBL supports an eventual project of dams, sedimentation basins and filtration marshes, that might be carried out under the coordination of the MRC.

On another front, the environmental protection measures contained in the urban plan that puts the accent on water runoff management and focuses on protecting wetlands and ecologically sensitive lands must be vigorously applied.

Another priority for 2015: to banish fertilizers used mainly for aesthetic purposes. The municipal bylaw adopted in 2010 by VLB should be extended throughout the drainage basin. We strongly urge the town to create further awareness among the citizenry and publish information about its follow-ups in this area, its infraction notices issued and the fines assessed.

Regarding the matter of septic installations, we firmly believe that only a systematic inspection program can lead to overall efficiency and the desired result. In addition, the municipal sewage treatment network should better control overflow situations.

Much more robust interventions are needed to reduce the flow of phosphorous into the lake. For example, the building of dams to slow down the movement of organic material and the creation of stream deltas. These are costly measures that demand a great deal of analysis and planning.