



2011 Activities Report

An average year for the health of the lake

We were expecting that the 2011 season would not be a good one, much like the terrible year we suffered through in 2006. The water temperature was very high: 26⁰ C on July 20, an all-time record. Water transparency was, on average, 2.3 metres instead of the historical average of 3.3 metres. Throughout the season, there was a great deal of suspended material in the water.

The phosphorous content still largely exceeds the phosphorous rate which is evacuated from the lake at the Foster dam. Despite everything, cyanobacteria appeared only occasionally, without compromising the usual seasonal activities.

Five factors explain this average season:

- the rains were very abundant, bringing large quantities of sediment into the lake;
- normally, the lake renews itself every 10 months; in 2011, it took six months, creating a flushing effect;
- there were no extended heat waves, temperatures which are favourable to algae bloom explosions;
- citizens are increasingly adopting more responsible environmental patterns, using less fertilizers and phosphates, replanting their shorelines and river banks and maintaining their septic installations;
- public authorities are now better managing the roads and roadsides even though they don't employ preventive management practices frequently enough to combat sudden and violent flows of water.

Our activities in 2011

We continued with our important water quality monitoring program (SQE). Our protocol is recommended by Quebec's ministry of sustainable

development, the environment and parks, the MDDEP and monitored by a biologist from the OBV-Yamaska. From April to November, some 160 samples were taken over 20 sites: nine in the tributaries at the mouth of the lake and 11 in the overall watershed. It is important to note that the results from the Coldbrook stream in the West Bolton sector indicated a deteriorating situation. The phosphorous content, adjusted to take into account runoffs from the tributaries, was on average 29.4 µg/l. We are far from reaching the objective of 15 µg/l in 2015.



RBL is opposed to the construction of non-conforming piers or decks in fragile wetland areas, especially in the Colibris sector. A global approach to development in the sector by a municipal policy for wetlands protection and access to the water was the chosen path rather than a piece-by-piece

approach where minor derogations are used to get around the holes in the regulations.

RBL got involved in the preparation of the town's Planning Program and attended both the working meetings and the public hearings. Many of our proposals were integrated in the draft proposal for the final document.

RBL prepared a technical notice for the return to norms of chemin Centre, opposite rue McPherson. This technical notice warned the town against digging more ditches, without first redoing the foundations themselves on chemin Centre. The RBL notice was well received.

We planted some 4,000 trees on the banks of the tributaries and we also distributed about 700 shrubs to shoreline dwellers. Since 2008, we have distributed

about 9,000 shrubs and 34,000 trees for planting in the drainage basin.

RBL carried out three inventories of the different wetlands located near the deltas of the tributaries. These inventories studied birds, reptiles, amphibians and fish. They helped us to confirm the richness of the ecological life in the wetlands around the lake.

The municipal bylaws governing the use of fertilizers on golf courses has been revised, with a requirement to describe them. RBL suggested closer water quality monitoring upstream and downstream of the principal bodies of water which cross each course.

A detailed analysis of the lake levels between 2005 and 2010 focused on the effects of the variations in the level of the lake (that is to say between the highest level and the lowest). According to the data, there is no evidence that the lowering of the lake level during winter causes any significant prejudice against wildlife or flora or their habitat, especially in the wetland areas.

RBL mandated researchers from the Université de Sherbrooke, (department of civil engineering), to carry out a preliminary analysis of the water flow in Quilliams brook and the behaviour of the lake water in terms of the wind and rainfall. The team of researchers submitted their report in January 2011 and it was presented at the annual general assembly last June.

We also gave considerable thought to the management of the Foster dam and the agreement that exists between TBL and Ville de Bromont. We do not feel that it is necessary to greatly revise this agreement which sets out that VLB must at all time assure a flow of at least 0.88 m³/sec, for the drinking needs of Bromont residents.

Finally, RBL has completely overhauled its website. A guide to good environmental practices has been completed and 5000 copies produced for citizens. We also officially support the annual cycling event, the Tour du lac Brome, to help promote our association and its visibility.

Coming in 2012...

An environmental diagnostic of the head of Coldbrook stream, (in the Foster, Glenn and Gauvin mountain sectors) will be carried out to identify the exact causes of the degradation of the water quality and to propose remedial measures.

To reach the objective of reducing by 50% the phosphorous content in the lake over the next five years, we will develop a simple method to measure how we can reach this objective.

In the spring, rain water recovery barrels will be offered at a very low rate to members.

A pedagogical guide for students with the theme of water quality is being prepared and should be ready to be used by teachers in Knowlton's two primary schools during the 2012-2013 school year.



34,000 trees have been planted since 2008 along the various banks and shorelines. Before we go any further with this program, we will first monitor the situation to see if the planting has really

taken hold. This tracking will allow us to determine the best conditions for flourishing plant life.

We will continue to pursue with the Université de Sherbrooke our water flow study of the three tributaries of the lake (Coldbrook, Quilliams and Pearson). This will help us better understand the behaviour of the water once it has reached the lake and identify the sources of any contamination.

We will be working in close collaboration with TBL to prepare an interpretation circuit focused on the improvement of the quality of the water Brome Lake.

Greatly strengthened by the support of its now 711 members, RBL continues to work energetically on the vast array of issues related to preserving the quality of the lake and its tributaries in the watershed. To all our members, donors and partners, we would like to offer you our sincere thanks for this constant support.

