



Memphrémagog Conservation inc

Newsletter - June 2008



A Word From the President

We were very pleased and proud to celebrate the 40th anniversary of the founding of MCI. We are continuing the work of our founders and last year was a year full of significant projects. We are proud to have assisted young filmmaker Ismaël Aurey in his making of the film, *Sauveteurs d'O*. At our request, he also made a film on best environmental practices. The enclosed DVD entitled "Guide des résidents du bassin versant" is an excellent tool to make people aware of actions that can be taken right now to improve water quality in the lake. These films were officially released on May 17, 2007, at a well-attended reception.

During the BAPE public hearings on the proposed enlargement of the dump site in Magog, MCI presented a brief that you can read on our website.

Setting up a surveillance network for cyanobacteria was an excellent way of providing information for the MDDEP (Ministère de l'environnement). We would like to thank the twenty-some residents who helped to provide surveillance and to those who will continue in 2008.

MCI maintains a close relationship with our neighbours in the State of Vermont. This is a high priority for us because corrective actions must be taken to halt the increasingly rapid aging of the lake throughout the entire drainage basin.

MCI participates actively in the deliberations of the Québec-Vermont Agreement; an understanding to unite the efforts of both countries in helping to protect the health of Lake Memphremagog.

In 2008, the battle to control cyanobacteria will be our first priority. To increase our knowledge about the true state of the lake and its tributaries, MCI is working to put into place a major research project to identify the phosphorus load and the proportion attributable to various human activities. We are planning to develop a detailed action plan to reduce the amount of phosphorus in the lake, eliminate the algae bloom and improve water quality.

This year, to better watch over the huge lake and to give better service to our members and to residents,

our patrol will be made up of three persons; all highly qualified in stewardship of the environment.

Two major replanting projects are under way. MCI, in partnership with the Ville de Magog and RAPPEL (a group of associations involved in protecting the aquatic environment),

As an active member of the coalition SOS PARC ORFORD, MCI is seeking the reintegration of the 459 hectares removed from the Mont-Orford provincial park.

On a sad note, we at MCI learned with deepest regret of the death of two of our founders, Messrs. Herb Mitchell



Peter Kohl, MCI co-founder with some board members

is taking part in a project on Audet Point. This demonstration site will enable us to explain to citizens how to replant their waterfront. We will also carry out phase II of replanting Weir Beach in Ogdun.

We are closely following the review of the regional land use and development plan by the MRC. This document will define the guidelines for development in our region. The position of MCI is that protection of the environment is just as important as economic development. It is essential that people take part in this process of consultation meetings organized by the MRC or by your municipalities. Register for our info-lettre to find out more information about these important consultations. We must speak up whenever we have the opportunity.

and Peter Kohl. We salute them for their lives of devoted service to saving Lake Memphremagog.

In conclusion, on behalf of the Board of directors, I would like to thank all of you for your moral and financial support. I would also like to thank the board members for their magnificent work to protect the lake.

Happy summer to all!

Gisèle Lacasse-Benoit, President

Summary

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The arrival of cyanobacteria or blue-green algae was first reported in 2006, and the summer of 2007 brought confirmation of the problem. Several areas of the lake were hit with health notices advising not to drink the water...

General Assembly

This year's Annual General Meeting will take place Saturday, August 2, 2008, 9h30 in the chapel of Southière-sur-le-Lac.



MCI Patrol



During the 2007 annual meeting, our members recognized the excellent work of the lake patrollers, seen as an important link with lakefront residents. Their competence and dedication is greatly appreciated.

During the summer of 2007, our patrollers carried out a number of different activities. They worked with the young filmmaker Ismaël Aurey in two productions dealing with promoting protection of the lake. In July, the presence of cyanobacteria on the lake led to numerous interviews with Quebec media. Our patrollers, accompanied by members of the MCI board, explained the problem of blue-green algae in detail, and discussed the various ways of dealing with it.

As in past years, they also did water sampling for testing water quality for the MDDEP and the MRC. They also updated data for the Healthy Lake study by observing the progression of aquatic plants. Our patrollers were also in constant communication with municipal inspectors in lakefront municipalities to let them know about environmental problems they had found. This relationship with the municipal inspectors made it possible to react quickly to correct some of the problems identified.

The patrollers were also involved in public awareness activities related to replanting the shore, through private meetings and through the distribution of explanatory materials.

The summer of 2008 will certainly be another busy one. Because of the increase in the amount of work, a third patroller will join the team. This patroller will be responsible for relations with the municipal inspectors and coordinating the many requests from our members wanting advice about replanting the shoreline or the best environmental practices. Another change: the patrollers will be on the lake for 10 weeks this year, rather than 8. Our three patrollers are university and CEGEP students specializing in the environment.

As in 2006, after heavy rains, we will take a series of aerial photos, to visually assess the sediment load at the mouth of the tributaries. These photos will help us convince elected officials of the importance of controlling soil erosion (an important source of phosphorus), preserving forest areas and replanting the shores and banks of all watercourses.

Our mission is the protection of water quality; the patrollers work will make residents aware of the importance of reforesting the banks and shoreline. Following new municipal by-laws, this effort will be in cooperation with the municipalities and the many residents' associations created to protect lakes in the watershed.

Our patrollers also promote MCI novelty items such as t-shirts, sweatshirts, key rings, etc. The revenues from these sales help to finance our association.

They will visit as many waterfront dwellers as possible during the summer. The team is small but their energy is enormous. We invite you to be open to their ideas when you meet them. And don't hesitate to contact us if you need them: 819-620-3939.

Robert Benoit, Patrol Administrator

Vermont

In our report last year we talked of the initial stages of a Vermont volunteer watershed association and our hope it would blossom into an organization with a mission similar to that of MCI. Such an organization is now a reality, operating under the banner: *Memphremagog Watershed Association (MWA)*.



Pictured above is Chet Greenwood, President of MWA, along with Susan Watson, Board member of MCI and charter member of MWA.

In a separate initiative, The Vermont Agency of Natural Resources (ANR) has begun to assemble a Newport-based watershed council (*Lake Memphremagog, Tomifobia and Coaticook Rivers Watershed Council*) that would have representation from a wide group of local sectors. The

recruitment strategy so far has been to gauge interest by holding open public meetings. We, (Susan Watson, Tom Fletcher and the author), have attended all of these open meetings and to date almost all of the attendees have come from the environment sector. The reach of MCI is extended by an ANR invitation to Susan Watson to join the council representing MCI. At this point, the initiative is a work in progress.

We continue to follow waste management company, Casella and its Phase V proposed expansion to the Coventry, VT, landfill site. The proposal, first made public in February 2006, appears to be held up by the Solid Waste Department of ANR. If and when the ANR regulations have been met, the project will move to Act 250 public hearings. MCI intends to be a party at these hearings.

Donald Fisher, Vice-President

Municipal Inspectors

Austin: 819 843-2388
Stephen Nicholson

Potton Canton: 450 292-3313
Marie-Claude Lamy : ext.: 224
Charlène Blais : ext.: 226

Stanstead Canton: 819 876-2948
Josiane Pouliot
Paul Carignan

Magog: 819 843-7106
Sylvain Thomas
Christian Lamoureux
Daniel Charron
Daniel Couture
Normand Audet
Mario Drouin

Ogden: 819 876-7117
Dominique Gagnon
Paul Carignan

Stanstead: 819 876-7181

Useful Ressources

Patrouille du lac MCI: 819 620-3939
Sophie Paré, Simon C. Tétreault and Samantha Morley

Ministère de l'environnement de l'Estrie : 819 820-3882
Urgence : Yvan Tremblay, poste 248
Urgence environnement 24h. 1-866 694-5454
Urgence faune 1-800 463-2191

Patrouille nautique de la MRC Memphrémagog : 819 620-7669 / 819 821-0435



Renaturalizing the Shoreline Buffer Zones, an obligation in 2008



Photo: Comité Zip Alma-Jonquière, 2004

To prevent soil erosion caused by runoff from impacting on watercourses and the Lake, there must be adequate vegetation along the shoreline or on the banks. Tree-cutting along lakes and watercourses has seriously disturbed the natural protection offered by vegetation – and sometimes even removed it altogether. This has allowed sediments loaded with nutrients (phosphorus, nitrogen, nitrates) to enter the lakes and this, in turn, has encouraged the growth of aquatic plants and promoted the development of cyanobacteria.

To halt the damage caused to watercourses, the MRC de Memphremagog has adopted by-law 6-07 which seeks a gradual return to the natural state of altered shorelines or those that have been degraded. **In 2008, renaturalization will be required for the first 5 metres** of the shoreline buffer zone, measured from the high water mark. The objective is to **renaturalize 10 to 15 metres**, depending on the slope, **within 5 years**.

Madeleine Saint-Pierre, Vice-President

Shoreline Renaturalization – Free Consultation Offer

One way to protect Lake Memphremagog and its tributaries and to control the proliferation of blue-green algae is to increase the vegetation at the edge of the lake and along all watercourses. Degraded shorelines should be renaturalized, thereby stabilizing the shore and halting soil erosion, filtering out pollutants such as phosphorus, creating shade, preventing silting, reducing algae and aquatic plants and conserving clear, cool water which is necessary to aquatic life.

To help our members and residents around Lake Memphremagog and in the watershed, **MCI** is offering **free** consultations with experts in re-naturalizing the shoreline.

MCI has reached an agreement with **Aménagement Natur'eau-Lac** to offer these free consultation sessions lasting one (1) hour for persons who ask for them.

Procedure:

- If you are interested, phone MCI at 819 340-8721
- **MCI** will send a list of persons interested and their contact information to **Aménagement Natur'eau – Lac**.
- The biologist in charge of shoreline landscaping will contact you and arrange a visit.
- The biologist will visit you, offer advice on ecological landscaping for your shoreline and give you a list of recommended plants and a landscaping sketch based on the visit. The biologist could also propose a landscaper if you wish.
- **MCI** will cover the cost of this visit. You will receive a reduction of 10% if you then decide to use the landscaping services of **Aménagement Natur'eau – Lac**

Claude Bernier, Administrator

Two Renaturalization Projects in 2008

MCI is involved in two replanting projects along the lake. In the first, MCI and RAPPEL, partly financed by COGESAF and the Ville de Magog, have renaturalized a section of the shoreline at Pointe Audet, along the promenade. This is an in-the-field action project providing a “green showcase”, accessible to the public. Thus the project has a dual role of actually renaturalizing an area and, at the same time, serving as a demonstration site. In addition to identifying different species of shrubs and trees planted, permanent information panels explain what is involved in renaturalizing a shoreline. In May, MCI collaborated in planting trees and shrubs with a team of volunteers. We

invite you to see what this shoreline revegetation project looks like and how it can benefit the lake.

The second project, carried out by *Aménagement Natur'eau Lac*, is phase II of the renaturalization of Weir beach at Ogden. This is a joint project financed, at a cost of \$20,000, by MCI and possibly by a grant from the Pacte rural of the MRC.

We hope to see many of you to help plant at the Weir beach site in the Municipality of Ogden on Saturday and Sunday, June 14-15.

Madeleine Saint-Pierre, Vice-President

IN MEMORIAM MCI Co-founders



Peter Kohl



Herb Mitchell



Have You Renewed Your MCI Membership For 2008?

For more than 41 years, the MCI with its many dedicated volunteers has sought to protect the natural beauty and the health of Lake Memphremagog and the surrounding region. We share our love of this wonderful lake with every person who finds pleasure in its beauty.

A membership form is included in this newsletter, and if you have not already done so, we ask you to renew your membership for 2008. If you wish, you may complete your membership transaction and pay online with complete confidence in the safety and confidentiality on our internet site at memphremagog.org.

Liz Goodwin, Administrator

Bestan Dump Site

Last June, MCI presented a brief at the BAPE hearings on the proposed enlargement of the dump site in Magog. We recommended that the precaution principle set out in Quebec's sustainable development policy be applied and that the enlargement of the site in the Lake Memphremagog watershed be refused. We asked the government to initiate a far-ranging research project to know specifically the level of contamination of Lakes Lovering and Memphremagog, and demanded the closing, securement and long-term surveillance of the present dump site in Magog.

Our objections were joined by opposition from the elected officials of the MRC, the Ville de Sherbrooke and the Ville de Magog where the site is located. We made the case for better protection, starting immediately, of water quality in Lake Memphremagog, which is the source of drinking water for more than 160,000 people living in Magog, Sherbrooke, the Municipality of the Township of Pottton, the Abbaye de Saint-Benoit-du-Lac and, as well, the many waterfront dwellers who draw water directly from the lake.

In his report, the chairman of the BAPE commission concluded that, given the present state of knowledge, the proposed enlargement of the Magog dump site did not present any major problem for the biological and physical environment. Nevertheless, the commission felt that the project would only be acceptable if the MRC de Memphremagog and the Ville de Magog, where it is located, agreed. However, both these bodies were opposed to the enlargement project.

MCI also made an official representation to the State of Vermont of its opposition to the expansion (phase V) of the Coventry dump site, situated right near the Lake. It goes without saying that if the Quebec government gives its authorization for the expansion of the Magog site, the position of MCI concerning this dump site will be substantially weakened. In a letter sent to Premier Jean Charest on September 26, 2007, we emphasized that such a decision would jeopardize not only MCI's position but also that of the MRC and the Ville de Sherbrooke.

At the time of going to press, the Quebec government still had not announced its position regarding the BAPE's recommendations.

Claude Bernier, Administrator

Networking for Lake Memphremagog

Comité de gestion du lac (CLBV) (Lake Memphremagog management committee)

In recent years, a number of organizations devoted to the protection of our lakes have realized how important it is to work together to get the best results. This year, COGESAF has started the Comité Local du Bassin Versant du lac Memphremagog. This network will bring together all stakeholders such as elected officials, farmers, forestry workers, developers and associations of residents living near lakes, rivers and streams that flow into the lake. The new network, CLBV, will allow us to share information, make an increasing number of people aware of the importance of protecting the shoreline and minimize the amount of phosphorus entering the Lake. Phosphorus is the main cause of the proliferation of blue-green algae and the premature aging of the Lake.

Lake and waterfront property owners associations

We are very happy to see the creation of this new network. However, we realize that we must work even harder to share information with a large number of residents around Lake Memphremagog. While our patrollers meet many people over the summer, we believe that it would be advantageous to meet members of the many residents' associations when they hold their annual meetings.

Members of the board of MCI will, therefore, be available to visit groups of residents who would like to get together with us. The main objective would be to share information about the work of MCI, the problem of cyanobacteria and the actions that can be taken by each citizen, to protect the Lake.

As the person in charge of this initiative, I invite all presidents of the associations of waterfront property owners in the Lake Memphremagog watershed to contact me, at 819-847-0845. I will be very happy to find a person, either French- or English-speaking, who would be able to meet with you. .

Claude Bernier, Administrator

MCI Board Members (2007-2008)

Gisèle Lacasse Benoit, President
Austin 819 868-1369

Donald R. Fisher, Vice-President
Austin 819 843-4102

Madeleine Saint-Pierre, Vice-President
Austin 819 843-6063

Pat Trudel, Treasurer
Mansonville 450 292-3550

Tom Fletcher, Secretary
Magog 819 868-8890

Robert Benoit, Patrol
Austin 819 868-1369

Claude Bernier
Magog 819 847-0845

Anne Boswall
Ogden 819 876-2838

Jean-Claude Duff
Austin 819 843-2131

Liz Goodwin
Magog 819 843-2498

Harvey Goodwin
Magog 819 843-4237

Jan Lundgren
Austin 450 292-3964

Peter Lépine
Ogden 819 876-2838

David Monty
Austin 819 847-2600

Susan Watson
Newport 802 334-5173

Noise Pollution From Boats

The excessive noise of speed boats presents a major nuisance for all citizens.

Each time you hear noisy motorboat upsetting the tranquility of the Lake, notify the police with an official complaint. This action will put pressure on the police to increase their presence on the Lake.

Telephone
Sûreté du Québec : 819 310-4141
Lake Patrol, MRC de Memphremagog
819 620-7669 or 819 821-0435



Cyanobacteria, A Serious Problem!

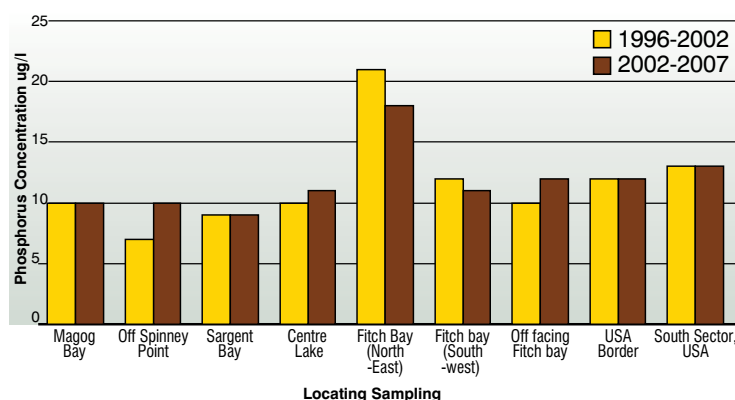
The situation

The arrival of cyanobacteria or blue-green algae was first reported in 2006, and the summer of 2007 brought confirmation of the problem. Several areas of the Lake were hit with health notices advising not to drink the water. The cyanobacteria bloom was visible in some sectors from July to the end of October. This problem must be taken very seriously because it affects not only the quality of drinking water but water-based sports.

PHOSPHORUS is the biggest culprit in this situation and there are many sources: waste water from factories and residential septic systems; agricultural fertilizers; golf courses, bright green lawns; in short – agricultural, forestry and urban human activities. We must also fight soil erosion from dirt roads, ditches along our roads, construction sites, tree-cutting – all of which dramatically increase the phosphorus load in the lake. By way of example, 1 tonne of sediments carries 1kg of phosphorus.

Phosphorus in the Lake

The following table, based on sampling done by MCI and tests carried out by the MDDEP since 1996, shows the concentration of phosphorus in various parts of the lake.



Phosphorus median concentration value - Data MDDEP
Lake Memphremagog - Water quality for 1996-2002 and 2002-2007

Note that if we exclude the very high concentrations of PHOSPHORUS in Fitch Bay and the United States (21ug and 18ug) the level of PHOSPHORUS in the Lake is between 10 ug and 13ug (microgramme per litre). These levels should not be the reason for the outbreak of blue-green algae since 10ug is the acceptable level. It is possible that the five annual tests, only taken during the summer, do not truly reflect the reality because the blue-green “bloom” occurs all summer.

To have a true picture of the level of PHOSPHORUS concentration in the lake, a major year-round program of testing should be undertaken. This means more sampling and adding more sectors to be tested. Among other things, it also means that the first sampling begins during the spring turnover, the time when the load of phosphorus is at its peak.

Important questions remain unresolved: Has the Lake reached a point where it will no longer support additional abuse? What will be the impact of phosphorous which has accumulated in sediments resting on the bottom of the Lake over a protracted period of neglect?



Sargent Bay, July 10, 2007

Objectives for Phosphorus

To be sure of maintaining the quality of raw water, we need to try to reach a concentration of 10 ug/l (microgramme per litre) of PHOSPHORUS. This is the level set by the Environmental Protection Agency in the U.S. (the EPA) to limit the risk of blue-green algae bloom. British Columbia has enacted specific guidelines indicating that if the water is used as a source of potable water, the maximum concentration of PHOSPHORUS must be 10 ug/l. To maintain recreational activities, the concentration must also be a maximum of 10 ug/l of PHOSPHORUS.

We need to set objectives for reducing the concentrations of PHOSPHORUS in Lake Memphremagog. In the central zone of the lake where there are two water intakes, the maximum concentration should be 10 ug/l. The PHOSPHORUS load from the United States and that from Fitch Bay must therefore be reduced. For Magog Bay, a target of 8 ug/l would be desirable taking into account the two major water intakes (Magog and Sherbrooke) and the importance of recreational activities (public beaches).

The Portrait of the Entire Watershed

We know some of the sources of PHOSPHORUS, depending on the activities in the watershed. The results of the five annual analyses of the tributaries in the drainage basin tests carried out by the MRC give only a partial idea of water quality.

We therefore need to complete the portrait of the lake, using a theoretical model applied on other lakes and enhancing the existing data with more detailed studies of the major tributaries over the course of a year, to assess their flow, the PHOSPHORUS load, suspended solids and fecal coliform.

The origin of these materials (agricultural and urban, including seasonal-recreational) will be specified for the various sub-basins and for each municipality. With these data, we can develop a master plan for water in Lake Memphremagog and prepare a concrete action plan that will set targets for reduction in PHOSPHORUS loads for each sub-basin and for each type of producer.



We Can Act Now!

What the experts say

Researchers at the Groupe de recherche interuniversitaire en limnologie et en environnement aquatique (GRIL) (the freshwater and aquatic environment interuniversity study group) recommends a 10-point intervention plan:

- Ensure that the septic installations are in compliance
- Avoid spreading fertilizer near the lake
- Ban the use of detergents containing phosphates
- Avoid the construction of paved driveways and impermeable terraces or patios.
- Favour permeable surfaces.

In the urban or seasonal-recreational environment:

- Ban tree-cutting on the lakefront
- **Renaturalize the shoreline buffer zone for 10 to 15 metres from the water. Establishing shoreline buffer zones will help improve the situation but the effects will be limited if the sources of PHOSPHORUS persist or increase.**

In the agricultural setting:

- Make the lakefront buffer zone wider than the proposed 3 metres and push for land management based on agro-forestry.
- The bottom line: the amount of PHOSPHORUS from each farm in the watershed must respect the capacity of the receiving ecosystems and not just the capacity of the soil.
- At both the local and regional level, municipal permits and certificates of authorization from the MDDEP issued for animal production should be revised to take better stock of the capacity of aquatic ecosystems to handle the load of phosphorus.

In the municipal environment:

- Upgrade municipal water and sewage treatment plants and ensure that the waste water from sewers is kept separate from water from storm sewers.

In the watershed:

- The cumulative effects of all the nutrient loads in the drainage basin must be taken into account.

MCI also proposes:

- To lead the fight against soil erosion.
- To protect all the wetlands, large and small;
- To protect the forest by avoiding forestry cuts and clearing of trees to keep the vegetation intact: the mature trees and shrubs on 60% or + of the area of each property.
- To review in depth our traditional patterns of development.

Going forward, we invite you to put these recommendations into practice and **for the biggest impact**, put pressure on your elected officials to ensure that these actions are reflected in the municipal by-laws.

Two Countries, One Problem

Any action plan should take into account the entire watershed including the part in Vermont. It is crucial to work closely with our Vermont neighbours to reach common objectives for reducing PHOSPHORUS. (see article on Vermont)

MCI at Work

MCI has set up a cyanobacteria surveillance network to send as much information as possible to the MDDEP (Ministère du développement durable, de l'environnement et des parcs), We have organized several talks on this subject with the different lake protection associations and we will continue these public education and awareness activities again this year. For many years, we have been promoting the renaturalization of the shores. This summer we are offering our members free consultations with experts in replanting and the choice of plants. Getting information out to people about how to change is a priority. This is why we prepare and publish newsletters and brochures. A DVD on the best environmental practices will accompany this newsletters and brochures. Finally, our patrollers do an immense amount of work informing and making people aware of the situation on the lake and what they can do to help, and conducting surveillance activities. We have also presented an action plan to the MRC and the municipalities in the hope that they will take quick action. We believe that the two Operation Healthy Lake studies in 2004 and 2005, carried out with RAPPEL, have shown how quickly the lake is being degraded and these reports have served to alert the region to the necessity of taking action quickly.

What Are Our Elected Officials Doing?

The Ministre du développement durable, de l'environnement et des parcs (MDDEP) has proposed a multi-faceted action plan, and has adopted a law to reduce phosphates in detergents (which will come into force in 2010). Another bill is being studied on the wastes from wastewater systems of boats. Turning to the municipalities, we are happy that they are preparing to regulate the renaturalization of the the shoreline. We hope they will adopt the 10-metre standard since that is what has been put forward for 20 years in the Politique de protection des rives shoreline protection policy. But they need to do more. Citizens expect a lot from their municipalities because they have an important role to play in protecting water. We agree with journalist Louis-Gilles Francoeur, who wrote in Le Devoir on March 28, 2008, that *"following the media shock waves that reverberated across Quebec over the past two years, we will finally be able to see what elected officials are actually doing for the environment since Quebec gave them specific responsibilities in this area two years ago."*



Patterson Road, Austin, 6 October 2007



This newsletter contains 100% post-consumer fiber paper.

MEMPRÉMAGOG CONSERVATION INC.
C. P. 70, Magog (Québec) J1X 3W7
Tel.: 819 340-8721

Website: www.memphremagog.org
Email: info@memphremagog.org