

**The Blue Sea Lake Watershed Association Bulletin**  
**Issue No. 10 – November 2013**

## Blue-Green Algae (aka Cyanobacteria) Blooms

**Sighting** – During the period 26 to 30 September, blue-green algae blooms were spotted along the shoreline in both the Belle Plage and Orlo sectors of Blue Sea Lake. In Belle Plage, these blooms were seen on both sides of Belcourt Point; while in Orlo, they were observed from just north of Gravelle Point all the way to the mouth of the Blue Sea/Grant Lake creek. These sightings were promptly reported to both municipal and provincial authorities.



In addition, several samples of the blooms were taken and subsequently delivered to the Gatineau office of the Ministry of the Environment (MDDEP) which forwarded one of them to their laboratory in Quebec City for analysis. That analysis, the results of which were received in mid-October, confirmed that the blooms were in fact blue-green algae; however, no determination was made as to the toxic level of the algae analyzed.



**Nature of Blue-Green Algae** – As is explained on our [website](#)<sup>1</sup>, blue-green algae are naturally present in lakes and rivers in low concentrations. However, under certain conditions, they can reproduce quickly and become extremely abundant, forming algal blooms. These blooms look like paint spills, broccoli soup, or a mixture of fine particles or very short fibers. They are usually green or blue-green in colour but occasionally may have a reddish tint. Blue-green algae blooms can produce toxins harmful to human and animal health. Whether a body of water experiencing such blooms can be used for recreational or other purposes depends on the level of toxins that the algal blooms produce.



**Causes of Occurrence** – The proliferation of blue-green algae can be triggered by a variety of factors, however, **the major factor in their proliferation is the level of phosphorus in the water.**



Phosphorus naturally occurs in surface waters but at low levels. Unfortunately, many human activities can lead to higher phosphorous levels in aquatic environments. Excessive phosphorus is found in drainage/runoff from deforested and/or cultivated fields and from shorelines that have been enriched with chemical fertilizers, compost, and/or solid or liquid manure. It is also found in **domestic wastewater** which, according to the 2010 GEIGER Report, **is the largest contributor of excessive phosphorus in our watershed.** When present in sufficient quantities, phosphorus stimulates growth of certain organisms such as Eurasian milfoil and blue-green algae.

**Significance of Recent Sightings** – This most recent appearance of blue-green algae in Blue Sea Lake (as well as in Lac Roberge and Lac Edja earlier this year) combined with the proliferation of Eurasian milfoil and periphyton in our waterways clearly demonstrate that, as suspected by our Association, our watershed continues to have a significant problem with excessive phosphorus inflow in spite of the various measures taken to date. These occurrences also demonstrate that our lakes are showing signs of premature aging due to human impact and neglect over the past several decades. This is clearly a very serious situation which will take much time and greater individual and collective action to correct.

**Prevention** – As a resident/cottager, you can be part of the solution by ensuring that your septic system is functioning properly; by using only phosphate-free soaps, detergents, and other cleaning products; and by

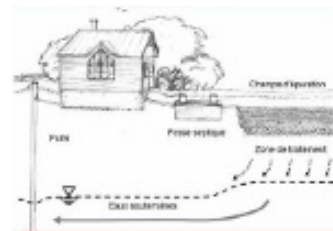
fully complying with the MRC shoreline regulations as restoring and maintaining shoreline vegetation can significantly reduce phosphorus inflow. On the collective level, your Association will be asking the municipalities to enhance their septic system inspection programs and to aggressively enforce all applicable environmental regulations.

Your Association will also be working with the municipalities and the Ministry of the Environment to improve our ability to detect, identify, and report blue-green algae blooms, and to communicate such occurrences in a more timely manner to all residents/cottagers. In the interim, we would ask all our members to watch out for any such phenomena and to report suspected sightings to your respective municipality and to our association ([info@associationblueseas.org](mailto:info@associationblueseas.org)). Please ensure that your family, friends, and neighbours know how to recognize these blooms and that you and they avoid contact with these potentially toxic organisms.



## Association's Key Priorities for the Next Twelve Months

- Although the management of residential septic systems by our two municipalities has improved during the past decade, we need to do better. As explained in the previous article, septic systems are the major human source of excessive phosphorus in the watershed and a direct cause of both blue-green algae blooms and Eurasian milfoil growth - two key threats to our waterways. Accordingly, we will be advocating for stronger municipal septic systems inspection and control measures on both the mainland and the islands.



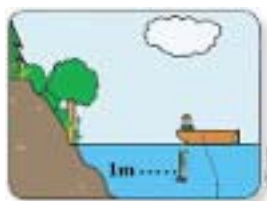
- Based on the serious concern expressed at our last AGM about the dangers of invasive species being brought into our lakes by visiting pleasure craft, we intend to push for the establishment of some form of boat rinsing facility.

- The 2010 GEIGER Report identified concerns with Lac Laverdure, one of Blue Sea Lake's tributaries. In response to these concerns, the Association initiated two studies of that lake, the results of which are currently being reviewed with our funding partners, the Municipalities of Blue Sea and Messines.

In collaboration with our municipal partners and other key

stakeholders, we will strive to implement the key recommendations of these two studies.

- One of the invasive species already present throughout Blue Sea Lake and other lakes in the watershed is Eurasian milfoil. This Fall, we began to install yellow buoys to mark the areas most affected by this aquatic plant, and have widely publicized the need for boaters to avoid milfoil-infested areas. We will continue with these and other initiatives to control the spread of this troublesome species.



- We will continue to monitor the quality of the water and will expand this testing to include other lakes in the watershed (ie: Lac Grenon and Lac Roberge); this will bring to seven the number of watershed lakes being monitored under the provincial RSVL program.

- We will continue to produce and disseminate information and tips to help residents and cottagers of all ages become better environmental stewards. In addition, if we can get enough

volunteers, we will conduct a door-to-door information and membership campaign in order to get more people engaged in our efforts to protect our waterways.

- Finally, we will work collaboratively with municipal and local leaders as well as with other associations and organizations who have a genuine interest in preserving our watershed for the benefit of future generations.



If you have any questions regarding our priorities for the next twelve months, please contact us at "[info@associationblueseas.org](mailto:info@associationblueseas.org)". You are also invited to visit our website to view the details of our [action plan](#).

<sup>1</sup> [www.associationblueseas.org/en/blue\\_green\\_algae](http://www.associationblueseas.org/en/blue_green_algae)