

# Lakescape

newsletter of the



WABAMUN WATERSHED  
MANAGEMENT COUNCIL

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## Blue-green Algae (Cyanobacteria) Bloom

On August 13 during a water sampling trip the WWMC and the Alberta Lake Management Society were conducting on Wabamun Lake (see following story), the investigators identified blue-green algae (cyanobacteria) blooms along the northwest shoreline of the lake. The finding was reported to Alberta Health Services, who subsequently confirmed it and issued a blue-green-algae bloom advisory for the lake on August 16. This was the first time AHS has issued such an advisory for Wabamun Lake since it began investigating cyanobacterial blooms in 2010.



### What does it Mean?

From the advisory: "Residents living near the shores of this lake, as well as visitors to this lake, are advised to take the following precautions:

- **Avoid all contact** with blue-green algae (cyanobacteria) blooms. If contact occurs, wash with tap water as soon as possible.
- **Do not swim or wade** (or allow your pets to swim or wade) in any areas where blue-green algae (cyanobacteria) is visible.
- **Do not** feed whole fish or fish trimmings from this lake to your pets.
- Consider limiting human consumption of **whole fish** and **fish trimmings** from this lake, as it is known that fish may store toxins in their liver. (People can safely consume **fish fillets** from this lake)."  
[Note: Current fishing regulations for Wabamun Lake are catch-and-release only for all species.]

Cyanobacteria is a normal component of a lake ecosystem. There are several different species and some are toxic while others are not. Normally, they are not a problem in a lake unless conditions are right for their rapid reproduction and distribution. Why the bloom occurred when it did this summer is not known. Several factors affect the occurrence of a bloom, including phosphorus concentration in the water, sunlight, water temperature and wave action, just to name a few.

The problem is that once a lake's water chemistry supports cyanobacterial blooms, it is hard to prevent them in the future. Such blooms curtail enjoyment of the lake and threaten the health of aquatic ecosystems including fisheries, not to mention losses in property values.

For more information about the bloom, cyanobacteria and what you can do about it, go to our website page: <https://www.wwmc.ca/bluegreen-algae-cyanobacteria>.

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## Water and Vegetation Sampling

Four times during the summer of 2019, WWMC volunteers helped the Alberta Lake Management Society gather water samples from Wabamun Lake. The sampling was part of



ALMS' Pat Heney readying one of the water samplers

of ALMS' **LakeWatch** program, where ALMS samples several lakes across the province to provide important information about the health of the lakes to lake stewardship groups. At Wabamun, members of the WWMC provided boats, drivers and assistants to help ALMS staff collect water samples at several locations around the lake.

All the water samples from the various locations during each trip were combined and treated for later analysis in a laboratory to determine the various chemicals in the water and their concentrations. Also assessed were oxygen level, water pH, water temperature at various depths, water turbidity and a sample of the zooplankton in the water column. On one sampling trip, aquatic vegetation was also sampled at various locations to determine the variety of native vegetation in the lake and identify any invasive species that might be present.

ALMS will provide the WWMC with a LakeWatch Report on the results of the study in the new year. We will inform members about the results.

## Watershed Management Plan

Cyanobacteria blooms, water quality testing, significant surface runoff, tonnes of sediment flowing into the lake. All these things the WWMC faced this year relate to the need for a comprehensive Watershed Management Plan with which all stakeholders can agree and work together to keep the lake healthy. As we've reported here before, the WWMC in conjunction with the North Saskatchewan Watershed Alliance and the guidance of a steering committee (made up of representatives from governments, residents, industry and other stakeholders) has been writing such a plan. We are now working through the last drafts and are hoping to get some feedback from the public in the coming months. Everyone who uses the lake has a responsibility to help keep it healthy and will want to know how they fit into the plan.

For more information on the plan, go to <https://www.wwmc.ca/watershed-management-plan>.



## Highlights from the Lake User Survey

We hope everyone had a chance to fill out the WWMC Lake User Survey that we ran in November (closed November 30) to gather information about who uses the lake and how they view the quality of the lake. We had some interesting results and will publish a full report on the website. In the meantime, here are a few highlights from the **262** responses we received.

### Lake Use

Seventy percent (70%) of the respondents either reside at the lake or own a cottage there. Only 10% either camp or rent a place there when they stay overnight. Other top uses of the lake include boating (75%), swimming (58%), fishing (58%), watching wildlife (56%) and hiking (30%).



### Lake Quality

Over 90% of respondents felt the overall quality of the lake was either good or very good. Seven percent (7%) thought it was either poor or awful, and 2% felt it was excellent. Blue-green algae led the list of quality issues observed (50%), followed by too few authorized boat launches (44%), boating (41%), noise (24%) and lake water level (22%).



WWMC member Ron Stefaniuk sampling vegetation.

### Willingness to Help

A majority of responders were willing to do their part to help the lake. Most (60+%) expressed willingness to minimize shoreline disturbance, avoid use of fertilizers, use phosphate-free soaps and detergents or work with neighbours and community associations to protect and improve lake quality—we hope the latter respondents are, or will think about, supporting the WWMC.

### Other Concerns

Many people felt compelled to add their thoughts about what they are seeing on the lake. We had 73 wide-ranging responses, from complaints about blue-green algae, fishing, boats, boat launches and government accountability—to praise for the work of the WWMC, criticism of the WWMC for not doing enough, and criticism of the WWMC for interfering with development. All responses will be published in the report.

The WWMC thanks all who participated in the survey. In the report we will do some comparisons of the responses made by different users to see if viewpoints change how people value the lake. All the information will be used to direct future WWMC programs and activities.



WWMC members who volunteered to help ALMS with water and vegetation sampling this July



*MERRY CHRISTMAS and HAPPY HOLIDAYS*

from the Board of Directors of the Wabamun Watershed Management Council

## Corporate Members

The WWMC thanks the following businesses, governments and organizations for partnering with the WWMC as corporate members and helping the council achieve its goals.



**Camp Oselia Society, Dairy Queen, Falher Drugs, Seba Beach Ice Cream Stop  
Summer Village of Betula Beach, Summer Village of Point Allison, Wabamun & District Lions Club**

If you own or represent a business or organization that is concerned about Wabamun Lake and would be willing to help maintain its health, become a corporate member of the WWMC for just \$100 a year (go to Get Involved at [www.wwmc.ca](http://www.wwmc.ca)). Corporate members will be acknowledged at WWMC functions, in each newsletter and on the website. For more information contact Neil Fleming by e-mail, [fleming.neil@outlook.com](mailto:fleming.neil@outlook.com) or telephone, 780-953-6345.

If you are already a corporate member and would like to see your logo here and on the WWMC website, please send a digital copy to Don Meredith at [wwmc@donmeredith.ca](mailto:wwmc@donmeredith.ca)