

Notes of a Sherbrooke Lake Stewardship Committee Meeting

Held virtually via Microsoft Teams

Wednesday, 02 December – 3:00 p.m.

Attendance:

Garth Bangay, Chair

Robin McAdam

Mike Morrison

Melanie Kingsburg, Coastal Action Representative

Shanna Fredericks, Coastal Action

Staff:

Bill Schurman, Director of Recreation - MODL

Chad Haughn, Director of Community Development - MODC

Sandra Challis, Administrative Assistant

1. REVIEW OF EARLIER ALGAL MONITORING IN SHERBROOKE LAKE

The Preliminary Investigation of Algae and Cyanobacteria in Sherbrooke Lake written by Barrie Clarke in 2015/6 had been circulated and was reviewed by the Committee. The study did show evidence of bacteria, but it did not result in any follow-up action. Residential Associations had contributed financially towards the creation of the report, and it had been circulated among them.

It was agreed that the report is an inciteful document and worth noting as a foundational piece going forward.

2. STATUS OF DRAFT STEWARDSHIP COMMITTEE PROPOSAL

A proposal for a pilot program to determine the presence of Cyanobacteria in Sherbrooke Lake had been circulated and was discussed.

In considering the draft document, Coastal Action (CA) proposed we consider purchasing a probe that attaches to the YSI and fluoresces in the presence of Blue/Green algae. This would allow a more focused sampling program based on the actual presence of the algae in the lake.

Key Features:

- Can detect blue/green algae at various depths.
- Gives real-time responses, no delays in waiting for lab results.
- Would be easy to target and test key areas.
- Could be used to monitor other lakes, and possibly expand the water quality monitoring program.
- Would mean a proactive approach, rather than reactive.

- Regular monitoring could establish baseline data, which would act like an early warning system.
- Would make it possible to target testing in affected areas, restricting shut-down of only these areas of the lake if a bloom were present.
- Calibration is done in-house and would happen at the beginning of the season, two or three times during the system, and it could be zeroed in the field.
- It is relatively straightforward and easy to use.
- Cost of the probe is approximately \$5,000 and lab testing of any resultant samples would be approximately \$160 per sample.

The ensuing discussion raised the following points:

- Regular bi-weekly testing with the probe was suggested by CA. The first year would be a learning process to better understand how the lake behaves. Blooms can appear and disappear in a matter of days.
- Increasing frequency of testing on Sherbrooke Lake may mean that other testing programs are stressed, and coordination of the unit's use may present a logistical challenge.
- Testing for blue/green algae would only be really needed when the lake reaches a certain temperature – June through September, with the focus being during the latter of these months. However, there would need to be a lot of flexibility in the schedule.
- Could create a volunteer capacity issue with moving the unit around and increasing the frequency of monitoring.
- The need for a third volunteer testing team on Sherbrooke Lake is an issue, regardless of the use of the probe, it would be advantageous to have another boat and trained volunteers in reserve.
- Current regular monitoring program would continue, the algae investigation would be an addition, and although some sites will overlap, using the probe will take additional time and likely create more work.
- Lab Testing would be more focused, samples could be sent for testing once the blue/green algae levels were detected exceeding a predetermined threshold. Although it was anticipated that with increased monitoring, there would be an increased need for lab testing.

A discussion followed regarding funding of the pilot project; the following points were raised:

- Splitting the capital cost of the probe of around \$5,000 should be acceptable to both Councils, especially considering the possibility for using the equipment on other lakes. Alternatively, MODC, who have capped their operational \$ contribution at \$7,000 could purchase the probe out of capital and MODL could pay for the sample analysis.
- It will be very hard to put a dollar figure on the lab testing, as the number of tests would be unknown.

- Perhaps, the budget for the pilot could allow for a certain number of lab tests, e.g. 20 samples, should this cap be reached, then both Councils could be approached for additional funding.
- Nova Scotia Environment should be part of the pilot project; perhaps following-up on lab testing if the algae levels reach/exceed a specific level.
- Another partnership to consider could be the municipal Economic Development departments – increasing algae blooms on lakes, enforcing shut-down causes a negative impact on the locally economy and house prices.
- No testing was carried out in 2020, In 2018, two samples were tested, both negative. Three samples were built into the original Water Quality Monitoring budget, the suggestion was to build in twenty samples.

3. NEXT STEPS

It was agreed that CA would redraft the current proposal for the Pilot Project for determining the presence of Cyanobacteria on Sherbrooke Lake. The proposal would be directed towards both municipal units and Nova Scotia Environment, with specific financial asks of each body.

The draft would include a scope, budget and some background information. CA would aim to have this document ready in early January, with the hope that it may be completed, for the Stewardship Committee's review, before Christmas.

The education and communication piece for the public would be a vital component of the Pilot Project, it was agreed that Robin McAdam would work on this section.

It was agreed the Bill Schurman would reach out to Nova Scotia Environment to try to set up a meeting around the third week of January.

Robin McAdam would continue to investigate how HRM run their Water Quality Monitoring Program. He has so far found out that they run their own algae assessment program and is waiting to connect with the key staff person, who may be a seasonal employee.

4. MEMBERSHIP UPDATE

The Expression of Interest deadline passed on Monday, November 30th. Three applications were received, two from property owners in MODC and one from MODL. The vacancy is for a person with property in MODL and the Committee were given details on the application.

The application will be reviewed by MODL's Nominating Committee and should be approved ready for the New Year.

It was agreed to reach out to the MODC applicants to find out if they could potentially be interested in assisting in another capacity.

There had been no applications for the vacancy for persons with the professional knowledge of the techniques of water quality monitoring. It was agreed that the vacancy would continue to be marketed, and the Committee were requested to be on the lookout for potential candidates.

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