

# LEONARD LAKE STAKEHOLDERS ASSOCIATION

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District Municipality of Muskoka  
70 Pine Street  
Bracebridge, ON  
P1L 1N3  
**Attn: Cassie Emms**

Riverstone Environmental Solutions Inc.  
47 Quebec Street  
Bracebridge, ON  
P1L 2A5  
**Attn: Al Shaw**

## **RE: Comments - Causation Study, Leonard Lake, RiverStone Environmental Solutions Inc.**

We would like to express our appreciation to the District Municipality of Muskoka (DMM) for funding, implementing, and coordinating the Leonard Lake Causation Study, and to Riverstone Environmental Solutions Inc. (Riverstone) for undertaking and preparing the draft study report.

The LLSA Board and the members of the Leonard Lake water testing team have carefully reviewed the Riverstone draft report with the end goal of supporting the DMM and Riverstone in the finalization of a practical and relevant report that will enlighten stakeholders and lead to the best possible management practices and sound policy decisions. Gaps and omissions are discussed along with supplemental data and research findings that we suggest should be included. We respect the time and effort that has resulted in the completion of this major step – the draft report - and agree that the best way forward is to provide you with direct and candid feedback at this time.

It is our opinion that the Riverstone Leonard Lake Causation Study report in its current state is substantially deficient in evidence to determine the primary causes which lead to algal blooms on the lake, and that the study has not fully addressed the terms of the TOR.

The attached Comments Paper is intended to highlight and describe in detail, a range of issues we have identified in the Riverstone draft study that diminish the effectiveness and relevancy of the Causation Study and the report. Some examples of key issues in the report include:

- ✓ Key lines of evidence relevant to Leonard Lake algal blooms were not explored, i.e., the impact of chloride, sampling for reduce iron, recognition of internal nutrient loading.
- ✓ The draft report fails to acknowledge that limited data (sampling at only one spot, at one depth, once a year) cannot be construed as representative of the entire lake throughout the entire season.

- ✓ The draft report has largely failed to address the TOR issue that states “Determine the extent to which development is causing cyanobacterial blooms...”
- ✓ The draft report has recommended few “mitigation actions that can be taken by stakeholders, the district, and others to ensure water quality may be enhanced in the long-term”
- ✓ There is little evidence in the report to indicate that Climate Change is the primary contributing factor, (also termed primary driver) for algal blooms in Leonard Lake.
- ✓ Much of the Literature Review, Lines of Evidence and Weight of Evidence sections of the draft report are not based on data or evidence specific to Leonard Lake although data exists.
- ✓ The 2017 study entitled “Leonard Lake, Water Quality and Algal Blooms”, rich in lake specific data and extensive research, is authored by two of the most highly respected specialists in Harmful Algae Blooms and Algal Taxonomy in Canada. Riverstone failed to make use of this highly relevant resource.
- ✓ Riverstone has disregarded evidence and extensive data pertinent to the Leonard Lake Causation Study provided by LLSA. One example includes 5 years of Leonard Lake bloom report logs (2017-2021) which contain information on wind, water temperature and associated weather conditions

Our 2022 Leonard Lake Water Study (report currently in preparation) contains data that we feel is highly relevant to the Leonard Lake specific factors leading to algal blooms and the Causation Study TOR. The report will be finalized in April 2023, beyond the cut-off date of January 13. Some 2022 Leonard Lake Water Study data has been included in the attached Comment Paper, however we believe the learnings from this study are beneficial not just to the Leonard Lake Causation Study but potentially to other lakes experiencing algal blooms.

We would suggest that after you have had time to read and consider the points raised it would be helpful to meet and discuss next steps. We want the lake stakeholders to know that the best possible result comes from the causation study and be assured that we are committed to working collaboratively with both the DMM and Riverstone.

Sincerely,



Mark Scarrow, President  
Leonard Lake Stakeholders Association

c.c. Gordon Roberts, Ward B Councilor, Township of Muskoka Lakes  
Mayor Peter Kelly, Township of Muskoka Lakes