

Big Cedar Lake

Water Testing Results
Summer of 2025

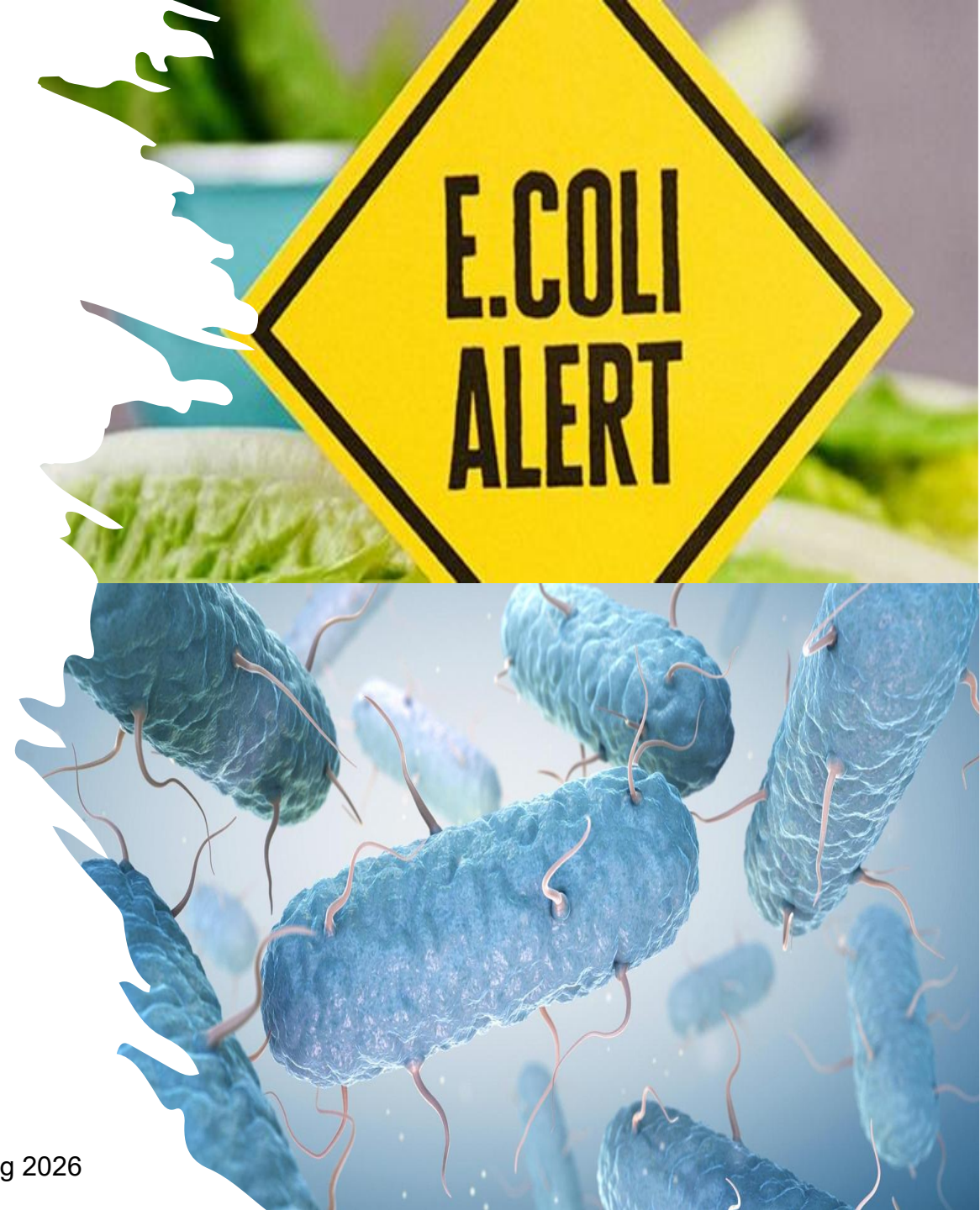


E.Coli Guidance

- eColi is a “biological indicator”
- At risk: children, elderly, compromised immunity
- Bacteria levels change quickly

- To reduce risk:
 - Wait 24 hours after heavy rain to swim
 - Don't swallow lake water

- If concerned, you may do your own localized testing



Other BCLSA Water Quality Publications available on website:

Water Quality Testing Primer

Trent Aquatic Research Program, Trent University, Peterborough, Ontario, Canada

What's in the water at the lake?

A brief review of water quality and limnology

You should not be surprised that there is an entire world to study just below the lake's surface. Whether it's whitecaps breaking during a stiff breeze on a warm summer afternoon or the water getting colder as you dive deep into your lake, there are complex physical processes at play in the water. Not only that, there are a myriad of chemical processes that clarity and allow algae and other subsurface life to survive and grow. This subsurface foodweb lurking under the lake's surface that includes a diversity of bacteria, algae, zooplankton, insects, aquatic plants, and fish. The study of chemistry, and biology of lakes, is the main focus of a scientific field called limnology and show you quality of water in your lake.



Trent University has an active lake monitoring program that collects and Kawartha-Haliburton region. As part of these efforts, the Frost Lab (frostlab.ca) began monitoring water quality of lakes in the Kawartha off, they collected samples yearly since 2017 and plan to continue foreseable future.

This sampling program is now completed as part of the Trent Aquatic Research Program, which monitors lake health as part of its aquatic research and educational activities. The monitoring of health for selected lakes on an annual basis. Even more information on water quality that is necessary for detecting and Having long-term information puts the data collected each year identification of current or emerging problems in lake health.

This booklet provides a short review of the primary water monitoring program and of interest to lake stewards, cottage owners and reported in our water quality reports on your lake.

Trent Aquatic Research Program

Kawartha Highlands Water Quality Report 2026

We have much to report from our research and monitoring of the Kawartha Highland lakes from the past year. Before doing that, we would like to thank all of the cottage associations and groups that helped support us financially this year. Their funds are invaluable as they help cover costs of travel, sampling equipment, student salaries, and lab analyses. Support from the Kawartha Highland Provincial Park has once again been tremendous. They assist us with sampling effort park lakes, many of which are quite difficult to access for sampling purposes assistance in deploying and retrieving monitoring buoys this past summer was invaluable. A final word of thanks to our own group: Shirina Begum, Emil tian, Sen Han, Ella Honey, Joanna Gauthier, Vedanti Ghatwala, Kendrick Fayers, Emily McCormack, Abbey McGuire, Jack Millar, Sherryann Pro Claire Stevens. These are the folks who make it all happen whether it in the field, processing samples in the lab, or completing the extensive analyses in the laboratory. Our program is built on teamwork and couldn't out the contributions of you all.

Our research activities this past year (2025) included the normal lake sampling and a number of other sampling efforts. With a project Sherryann Prowell, we installed two buoys, one in Bottle Lake and one in bottom waters. Shirina Begum contributed with her project sampling of carbon dioxide, methane, and nitrous oxide in many of our locations (close to shore, deepwater). A new member of our team took samples for analysis of lake fungal communities. The efforts are on-going but we will share results in the future water quality report.

We would like to hear back from you. Email us if you have any questions or quality related to discuss whether that's a concern or you are happy to share our knowledge of water in the Kawartha. Please reach us by emailing the Trent Aquatic Research Program at paulfrost@trentu.ca

This report is produced by the Trent Aquatic Research Program, Trent University. For more information or to direct all questions and inquiries about this report to Dr. Paul Frost. Email: paulfrost@trentu.ca



Lake Partner Program

Report Overview

Lake Data Report for Big Cedar Lake STN 363

General Information

Big Cedar Lake has been monitored by Lake Partners from 2004 to 2023. During this time, water samples were collected in the spring for total phosphorus levels. Water clarity is sampled monthly using a Secchi disk. Calcium and chloride were included in the Lake Partner Program (LPP) in 2008 and 2015, respectively, and were sampled along with total phosphorus in the spring.

Scope of the Lake Report

This report provides background information on Ontario's LPP, summarizes and provides analysis for each of the four water quality indicators monitored as part of the program (total phosphorus, calcium, chloride, and water clarity), and provides information on how anyone can act as a steward for their lake.

A note on statistical significance and figure scales

Throughout this report, we use Mann-Kendall trend tests to determine if changes in certain measurements are statistically significant. This means we check if the changes are due to chance or if they show a real trend. We use a 95% confidence interval, meaning we're 95% sure the changes are real. When viewing the figures in this report, please check the scales on the x-axis (horizontal axis) and y-axis (vertical axis) to understand the extent of the changes over time. Due to formatting difficulties, not all scales start at 0, which would have been preferable. Keep this in mind when viewing the figures. Also, note that this analysis is based on the LPP data and should not replace existing research on a lake or watershed. Instead, we hope it acts as a starting point to understanding lake chemistry.

How to navigate the Lake Data Report

Please note this digital report is best viewed in a "full screen" layout, using a Chrome or Edge browser. This report consists of 5 sub-reports, which you can access from tabs at the top of this page (Total Phosphorus, Calcium, Chloride, Water Clarity). This report also includes Background Information on the LPP as well as a Best Practices for using a lake or living on a lake. Navigate between other tabs by clicking their labels. The indicator-specific tabs (Total Phosphorus, Calcium, Chloride, Water Clarity) contain basic information and data visualizations for each indicator. The Background Information tab provides links to further reading and the References Tab is where you can find all the literature we used to inform the report. This report also contains two maps. These maps show your lake, sampling locations, and information about the LPP data collected. To access lake-specific information, click anywhere on the lake. To access site-specific information, click on the site indicator. (Note: only sites with at least five years of consistent data were included in these maps)