LWCA WATER QUALITY REPORT SUMMER 2025 AGM

TO: LWCA BOARD

FROM: JARED BELL

SUBJECT: WATER QUALITY BOARD REPORT

DATE: 1st AUGUST 2025

2025 Sampling Program

The Spring and early Summer round of deep water sampling was completed in June. August sampling will be completed the weekend of August second, in advance of the AGM. September sampling will occur the week following labour day, with October sampling scheduled to be completed over Thanksgiving. The chemistry sampling will occur during September, with results returned and entered into the database by the end of the calendar year.

A visual of deep water sampling locations has been mapped, allowing for a greater scope and understanding of the water quality program for LWCA members. Please find the map below. The green markers denote sampling sites.



LWCA Deep Water Sampling Sites - Green marker denotes the 5 testing sites

2025 Lake Partner Program

This year marks the third year of our participation in the Lake Partner Program. This program is a province - wide water quality initiative to monitor water quality status of Canadian Shield lakes. In mid - June, we collected samples from our deep water sites and sent them into the Lake Partner Program. We are also collecting Secchi depths during our regular deep water sampling for the duration of the year and submitting that data to the program. The data will be uploaded to a public site, and past years data can be found at the following link: https://data.ontario.ca/dataset/ontario-lake-partner.

A Note on Current & Past Data

Comprehensive data analysis for the 2025 season has not yet been completed as the field season is still ongoing. Following the completion of the field season, data related to deep water sampling and chemistry results will be processed and uploaded to the database. Thus far, the 2025 season has shown similar trends in dissolved oxygen and temperature in comparison to historical data sets. Upon completion of the sampling, any significant deviations from trends will be highlighted in the analysis.

The Water Quality portfolio is completing a transition to a new Director. This means there is a back-log of data to work through from the previous season. As such, we're unable to share results from the 2024 sampling season at this time. We anticipate having this back-log cleared by the end of the calendar year, and will complete an analysis of both the 2024 and 2025 data. Members are welcome to consult past Directors reports (linked here) for previous data. We appreciate the patience of both Members and the Board as we complete the transition.

CONSIDERATIONS FOR COTTAGERS

Here are some things to consider to help protect the water quality of Lake Weslemkoon:

According to FOCA, in recreational lakes that do not have a large point source of phosphorus (e.g., sewage treatment plant), domestic waste from septic systems is the largest human source of phosphorus. The concentrations of phosphorus in septic wastewaters are roughly 200-300 times higher than the concentrations needed to stimulate significant algal growth in lakes! Therefore, as cottage owners, we have a shared responsibility to maintain the health of our lakes by limiting the inputs of phosphorus. Below are some ways that you can help reduce the effects of shoreline development on water quality:

- 1) Maintain a properly functioning septic system. Have your septic system pumped every 3-5 years to remove the build-up of solids and scum, and take this opportunity to have the system checked for any required maintenance. If you are converting a cottage into a permanent dwelling be sure to check the capacity of your septic system. Exceeding the capacity of your septic could result in the remobilization of phosphorus in the soil.
- 2) Reduce your water use at the cottage. Excessive water use is the most common cause of septic failure. Cut down on the amount of water entering your septic by installing low flow toilets and showerheads, and taking laundry home to wash.
- 3) Implement septic inspections. Arrange for an inspector to come inspect your current septic system to ensure it is operating properly.

- 4) Naturalize your shorelines (e.g., vegetated buffer strips, wetlands) to help control soil erosion and the runoff of nutrients to the lake and nearby rivers and streams. Aim to keep natural areas natural!
- 5) Limit the amount of impervious surfaces, including roofs, parking areas, and patios, to reduce runoff to nearby waterbodies.

CLOSING REMARKS

I hope everyone has a happy, healthy and safe remainder of the Summer. We appreciate your patience as we work through the data back-log. We will share more data as it becomes available. Please feel free to reach out if you have any additional questions.

Best,

Jared Bell