

LAKE HUGHES HIGHLIGHTS FROM OUR WATER QUALITY MONITORING 2022 – 2023

<https://www.lakehughesquebec.ca>

PHOSPHORUS - LAKE

PHOSPHORUS “THE ENEMY” – THE NUTRIENT OF PRIMARY CONCERN IN LAKES

The first phosphorus test at Lake Hughes was done in 2000 and since 2010 we have been collecting water quality data annually. Phosphorus generally finds its way into waterways through rainwater runoff – wetlands are referred to as “phosphorus sinks”. As well, in deep lakes, during lake turnover, a significant load of phosphorus is redistributed throughout the water.

2022 results were very worrying with an 11 % increase in phosphorus. 2023 results showed a slight improvement with a 3% decrease.

“RSVL Water Quality Monitoring Results - Summary 2010-2023” [READ MORE ON THE WEBSITE](#)

DISSOLVED OXYGEN

CONSIDERED A VERY IMPORTANT INDICATION OF LAKE HEALTH

The first Dissolved Oxygen testing was done in 2006 and 7 more times since.

There was a very serious decline in oxygen levels in 2022: pronounced oxygen deficit -0,4% at the bottom of the lake.

The 2023 results showed improvement: 24% at the bottom of the lake.

In order not to have any oxygen deficit 54% is required.

[READ MORE ON THE WEBSITE](#)

PHOSPHORUS - STREAMS

In order to determine phosphorus inputs, sampling was done in three streams flowing into Lake Hughes.

The Phosphorus target levels in streams is 30 micrograms per litre.

Lake Hughes stream results:

- *INLET: 16 micrograms/litre*
- *Guardrail Stream: 53 micrograms/litre*
- *Pointe-au-Vent Stream: 81 micrograms/litre*

Even though all these streams are flowing through phosphorus rich wetlands, the Pointe-au-Vent stream stands out.

[READ MORE ON THE WEBSITE](#)

ENVIRONMENTAL PLAN 2024

- Continue to monitor the water quality in both the lake and streams
- Investigate the Pointe-au-Vent Stream to try and determine why the phosphorus levels are so high
- Resident awareness of the crucial importance of shoreline buffer zones and compliant septic systems