

LITTLE HUGHES LAKE

	Transparency (metres)	Phosphorus (micrograms/litre)	Chlorophyll (micrograms/litre)	Dissolved Organic Carbon (milligrams/litre)
2010	6.4	5.6	1.3	3.0
2011	5.7	2.9	0.8	3.0
2012	6.8	2.2	1.1	2.4
2013	5.3			
2014	6.1			
2015	6.3			
2016	----			
2017	----			
2018	7.2*			
2019	6.1	3.4	0.9	2.2
2020	6.4	3.4	1.0	2.9
2021	5.7	4.9	0.88	2.3

*Only one Secchi disk measurement taken (September 2018).

Brief Summary of 2021 Results:

- Transparency of 5.7 metres characterizes clear water (oligo-mesotrophic state);
- Phosphorus level indicates that the lake is slightly enriched by phosphorus (oligotrophic);
- Chlorophyll level shows a very low biomass of microscopic algae in suspension (ultra-oligotrophic);
- Dissolved organic carbon level indicates that the water is not very coloured (from organic deposits) and this colour would likely have very little effect on the transparency of the water;
- Overall, Little Hughes is considered to be in an **oligotrophic** state with little or no signs of eutrophication. This is the second best out of the seven classifications of trophic levels.

The Government of Quebec uses a scale of 7 different classes along a spectrum from "ultra-oligotrophic", which indicates a lake of exceptional quality, to "hyper-eutrophic", which indicates a lake in serious trouble.

Seven Classifications of Trophic Level of Lakes:

- 1 = Ultra-oligotrophic (exceptionally good state)
- 2 = Oligotrophic
- 3 = Oligo-mesotrophic
- 4 = Mesotrophic
- 5 = Meso-eutrophic
- 6 = Eutrophic
- 7 = Hypereutrophic (extremely poor state)