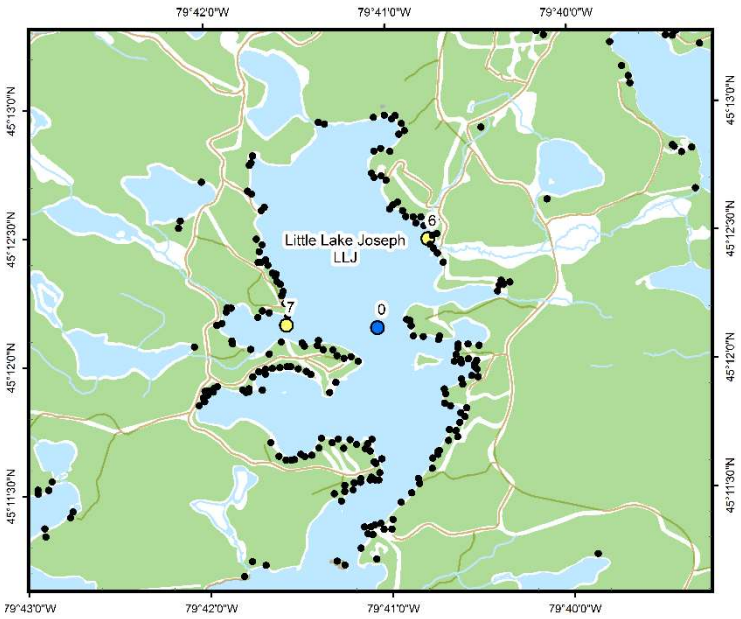
Little Lake Joseph (LLJ)



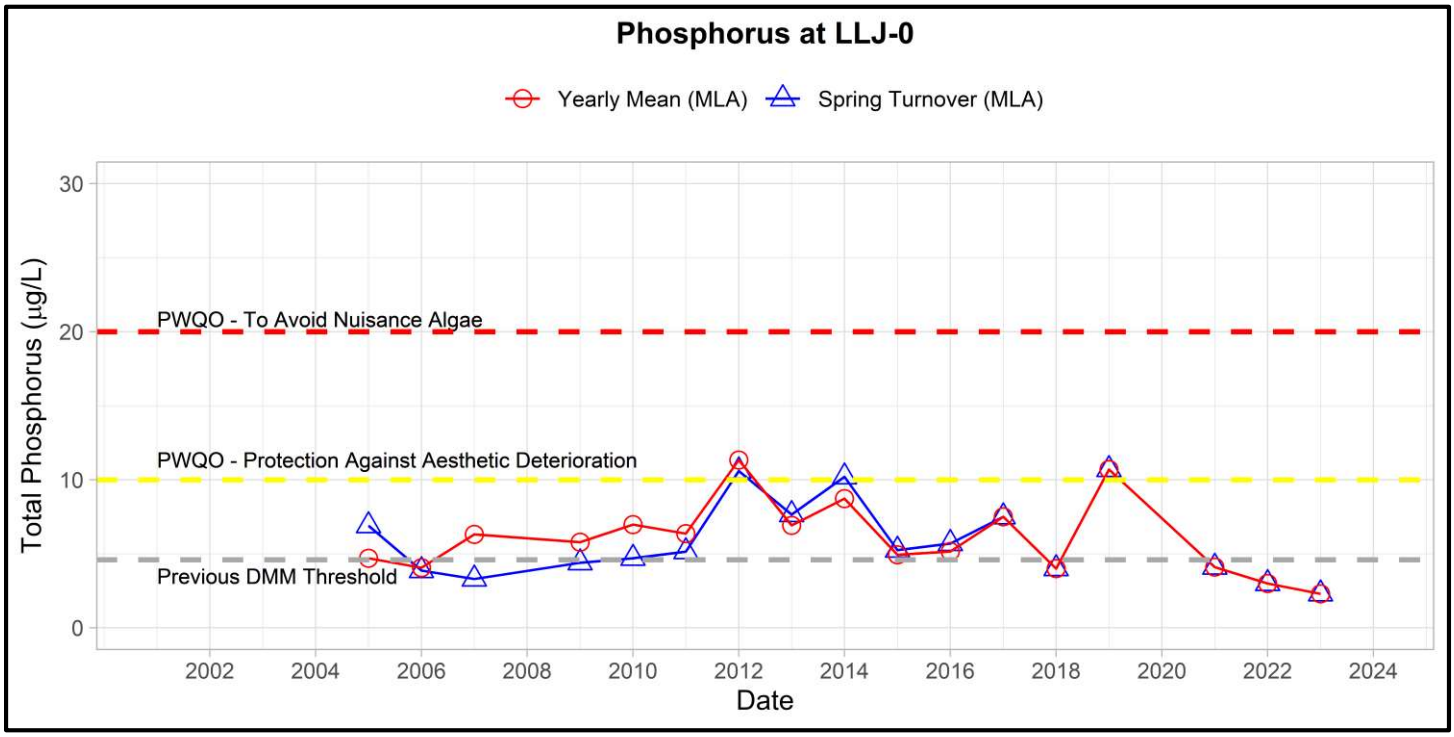
Area Description:

Little Lake Joseph is an isolated embayment of Lake Joseph with an area of 2.8 km² with a maximum depth of 40 m. Despite cottage development the shoreline of Little Lake Joseph remains naturalized. The waterbody receives drainage from three small wetlands. Little Lake Joseph is currently classified by the DMM as moderately sensitive. MLA monitoring of Little Lake Joseph began in 2005.

Volunteer Recognition: Dirk Soutendijk and Westley Begg.

2023 Water Quality Results:

	Mean Secchi Disk (m)	Total Phosphorus (µg/L)		E. coli Yearly Geometric Mean (cfu/100mL)	Total Coliforms Yearly Geometric Mean (cfu/100 mL)
		Spring Turnover	Yearly Mean		
LLJ-0	4.7	2.3			
LLJ-6		3.7	4.8		
LLJ-7		6.5	6.9		



Note: Grubbs test indicates no outliers in Spring or Annual Total Phosphorus data.

In 2023, the spring total phosphorus concentration at LLJ-0 was below the historic DMM threshold of 4.6 µg/L. All measured deep-water phosphorus concentrations were below Provincial Water Quality Monitoring Objectives for Protection Against Aesthetic Deterioration (10 µg/L) and Nuisance Algal Growth (20 µg/L). Nearshore monitoring of annual average phosphorus concentrations at LLJ-6 and 7 were similar, however markedly higher spring phosphorus at LLJ-7 recorded in 2019 and 2021 was no longer detected. This year represents the 8th year with sampling from LLJ-6 and 7, both of which show highly variable spring and annual average phosphorus concentrations and warrant ongoing monitoring. An average annual Secchi disk depth of 4.7 m was recorded in 2023 and is consistent with long-term data at the site (2.5 – 6.5 m). **HESL recommends ongoing sampling to continue to monitor for long-term trends and emerging issues.**