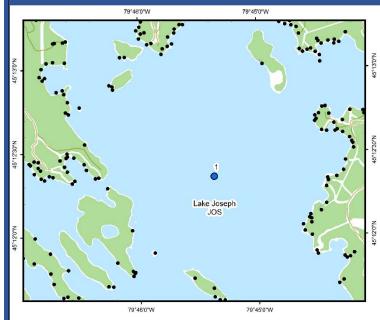




## Lake Joseph (JOS)



## **Area Description:**

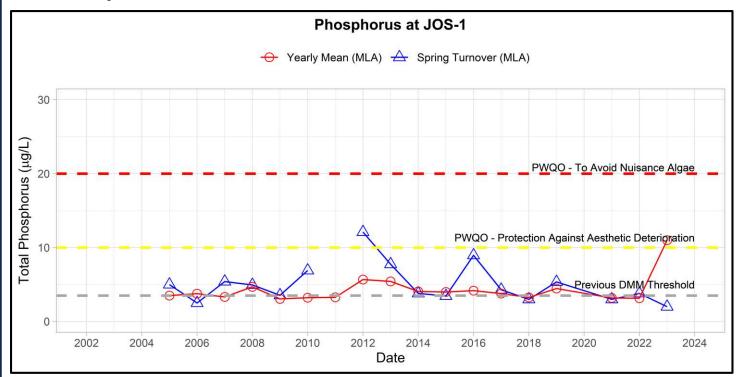
Lake Joseph is a large lake with a surface area of 50.9 km² and a maximum depth of 94 m. The watershed area of Lake Joseph is 55 km² and contains a coldwater fishery. Lake Joseph receives drainage from numerous inflowing streams and rivers and is connected to Lake Rosseau through the narrows at Port Sandfield and the Joseph River. The main basin of the lake is currently classified by the DMM as highly sensitive. MLA monitoring of Lake Joseph's main basin began in 2005.

Volunteer Recognition: Alex Magditsch, Cecil Hayhoe.

## 2023 Water Quality Results:

	Mean Secchi Disk (m)	Total Phosphorus (μg/L)		E. coli Yearly	Total Coliforms
		Spring Turnover	Yearly Mean	Geometric Mean (cfu/100mL)	Yearly Geometric Mean (cfu/100 mL)
JOS-1	5.3	2.0	11.0 (2.9*)		

\*Indicates the average without the inclusion of extreme value believed to be contamination.



Note: Grubbs test indicates 2012 spring total phosphorus concentrations were an outlier.







In 2023, spring phosphorus concentrations were below the historic DMM threshold of 3.5  $\mu$ g/L. All measured phosphorus concentrations were below Provincial Water Quality Monitoring Objectives for Protection Against Aesthetic Deterioration (10  $\mu$ g/L) and Nuisance Algal Growth (20  $\mu$ g/L) with the exception of a single sample collected in July (36.4  $\mu$ g/L) which substantially increased the annual average above historical results. It is likely that this sample was contaminated during collection and therefore annual results from 2023 should be interpreted with caution. Average annual Secchi disk depth (5.3 m) was consistent with previous monitoring (3.0 – 7.75 m). **HESL recommends ongoing sampling to continue to monitor for long-term trends and emerging issues.**