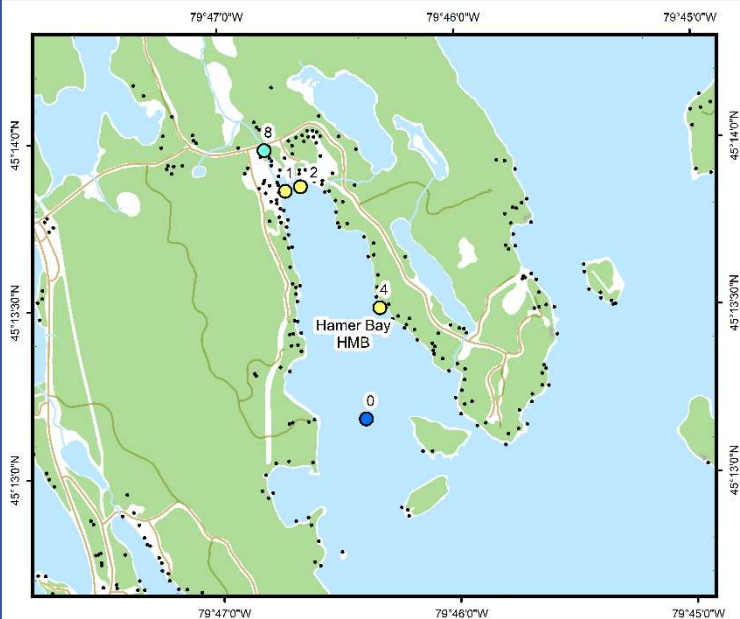




Hamer Bay (HMB)



Area Description:

Hamer Bay is in the northern region of Lake Joseph. The bay receives drainage from three creeks, one of which flows through a large golf course and wetland in the north, and the others through smaller lakes and wetlands. Hamer Bay is highly developed including a large marina with several parking lots, a resort, and many residential properties along most of the available shoreline. The main basin of Lake Joseph is currently classified as highly sensitive by the DMM. MLA sampling in Hamer Bay began in 2002.

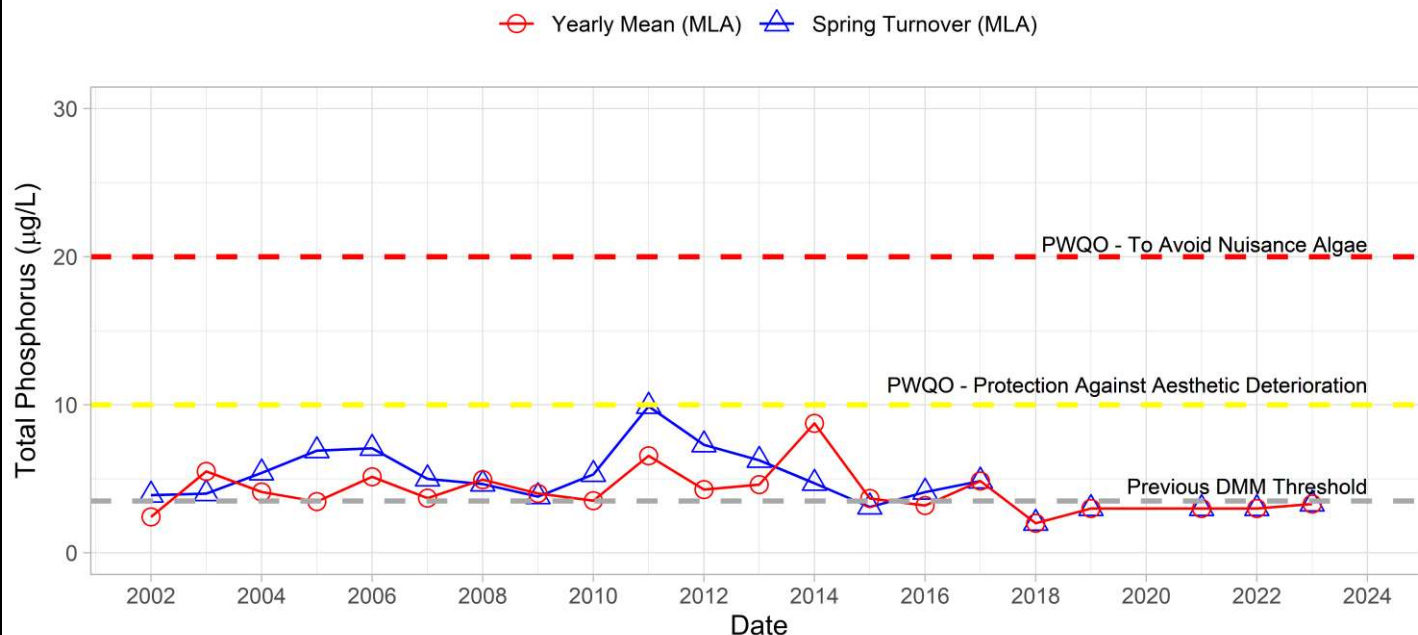
Volunteer Recognition: Alex Magditsch, Cecil Hayhoe.

2023 Water Quality Results:

	Mean Secchi Disk (m)	Total Phosphorus ($\mu\text{g/L}$)		E. coli Yearly Geometric Mean (cfu/100mL)	Total Coliforms Yearly Geometric Mean (cfu/100 mL)
		Spring Turnover	Yearly Mean		
HMB-0	5.25	3.3			59*
HMB-1		5.6	4.9	7	144
HMB-2		2.2	2.6	3*	94*
HMB-4		2.0	2.7		
HMB-8		9.5	28.2	3*	5*

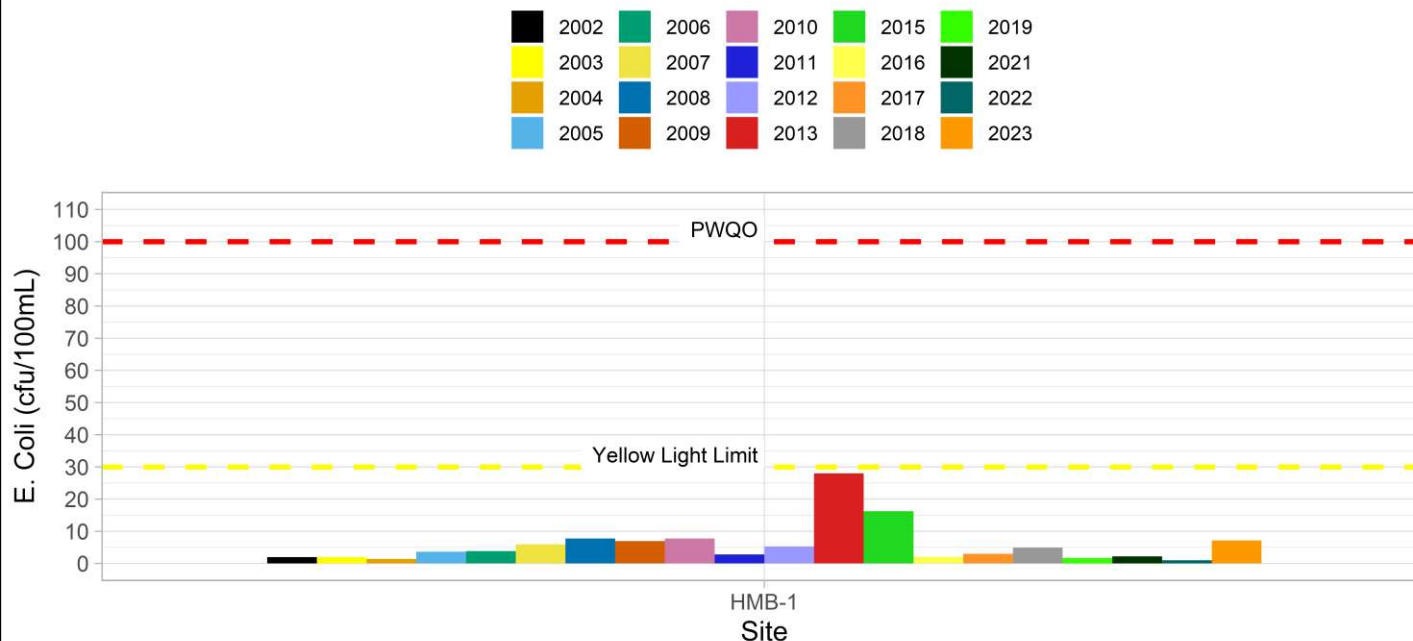


Phosphorus at HMB-0



Note: Grubbs test indicates 2014 Annual Total Phosphorus data was an outlier.

E. Coli Annual Geometric Mean at Hamer Bay





In 2023, the spring phosphorus concentration at HMB-0 was below Provincial Water Quality Monitoring Objectives for Protection Against Aesthetic Deterioration (10 µg/L) and Nuisance Algal Growth (20 µg/L). Nearshore monitoring of spring and annual average phosphorus concentrations at HMB-1, 2 and 4 were within the range of variability of previous monitoring. Phosphorus concentrations at HMB-8 were below the PWQO guideline for controlling excessive plant growth in rivers and streams (30 µg/L) in three of the four samples collected but were elevated during June sampling (66.7 µg/L) which occurred during a light rainfall event. Bacterial counts of *E. coli* at HMB-1 remain well below the MLA established limits. Elevated total coliforms at HMB-1 in 2023 were heavily influenced by a single sample (559 cfu/100mL) collected during heavy rain. Average annual Secchi disk depth (5.25 m) was within the range of variability (3.25 – 8 m) previously recorded at the site. Sampling at Hamer Bay was frequently performed during rainfall events (3 of 4 samples in 2023),

which has the potential to skew results of both TP and bacteria and impact our ability to track long-term changes over time. Future monitoring at the site would benefit from a reduction in storm event sampling consistent with the rest of the monitoring program.

HESL recommends ongoing sampling to continue to monitor for long-term trends and emerging issues.