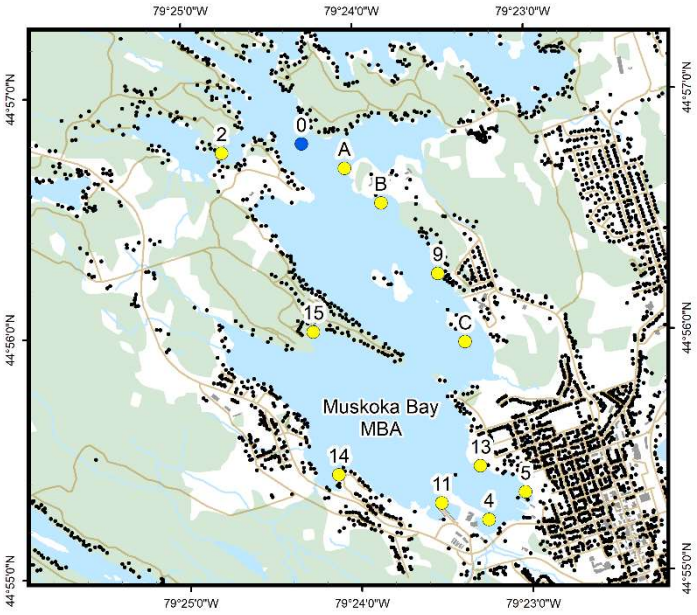
Muskoka Bay (MBA)



Area Description:

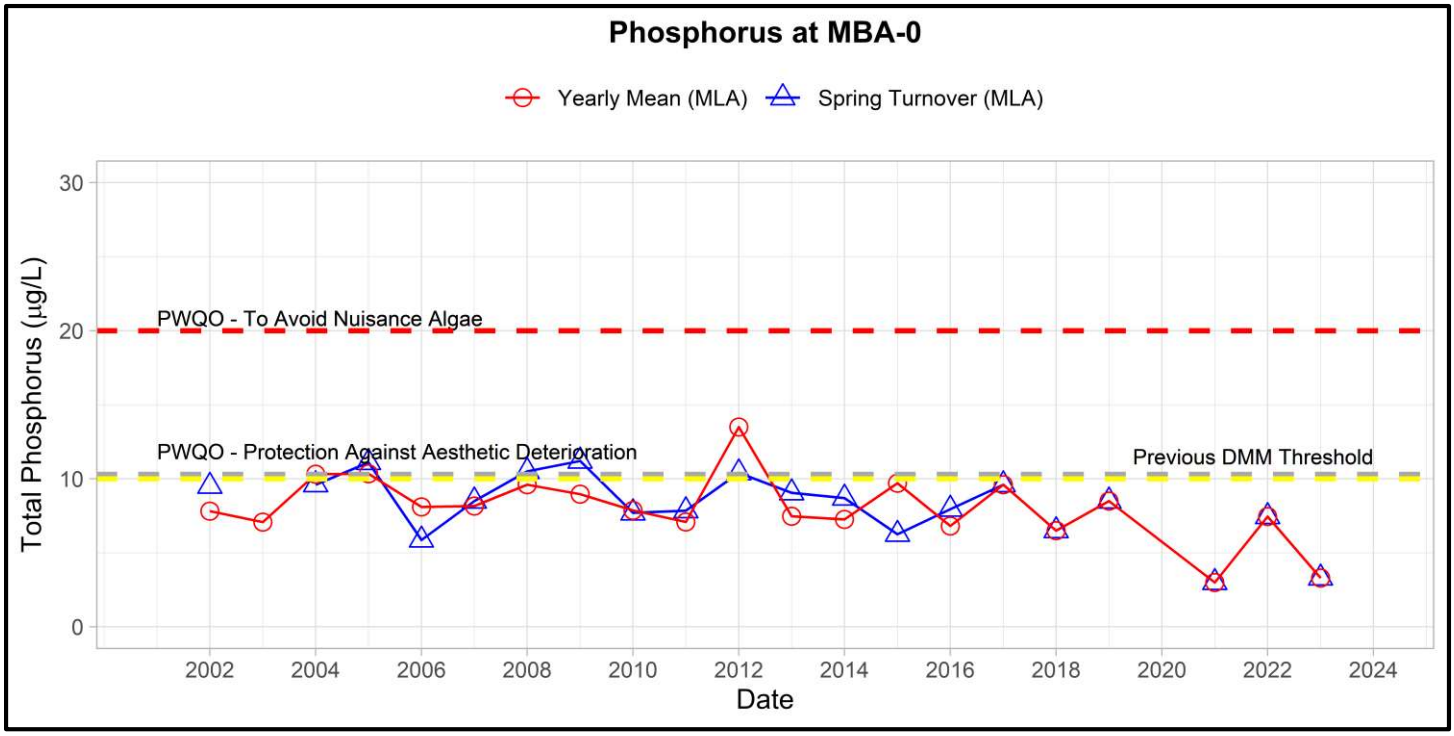
Muskoka Bay is a highly developed bay in southern Lake Muskoka. The highly developed bay has a surface area of 4.03 km^2 and a maximum depth of 14 m. Development in the area includes a commercial development and marina in the south, the town of Gravenhurst in the East and cottage development along most of the shoreline. The bay also receives urban stormwater from the town of Gravenhurst. Numerous creeks outlet into Muskoka Bay and wetlands account for 13% of the shoreline area. MLA monitoring of Muskoka Bay began in 2002.

Volunteer Recognition: Karen Abells and Alan Goldenberg.

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		
MBA-0	2.8	3.3			
MBA-2		3.7			
MBA-4		3.1			
MBA-5		5.0	7.7		
MBA-11		3.4			
MBA-A	4.4	2.9	10.0		
MBA-B		4.1	12.1		
MBA-C		3.0	7.3		

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



The spring phosphorus concentration at the deep-water station (MBA-0) was within the range of long-term variability and 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 phosphorus concentrations at MBA-2, 4 and 11 were within the range of variability of previous monitoring years. Average annual Secchi disk depth (2.8 m) was consistent with previous monitoring (2.15 – 5.9 m). Additional stations at MBA-A, B and C were first sampled in 2022. Elevated phosphorus concentrations were recorded in August at MBA-B (32.5 µg/L). Two years of sampling is not sufficient to determine the variability in phosphorus concentrations at a site, additional sampling in 2024 and beyond will help determine if these concentrations are cause for concern. **HESL recommends ongoing sampling to continue to monitor for long-term trends and emerging issues.**