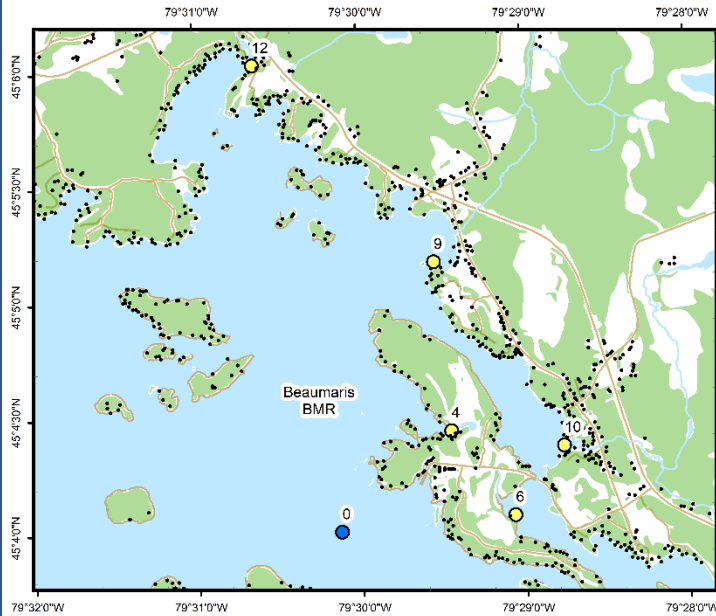




## Beaumaris (BMR)



### Area Description:

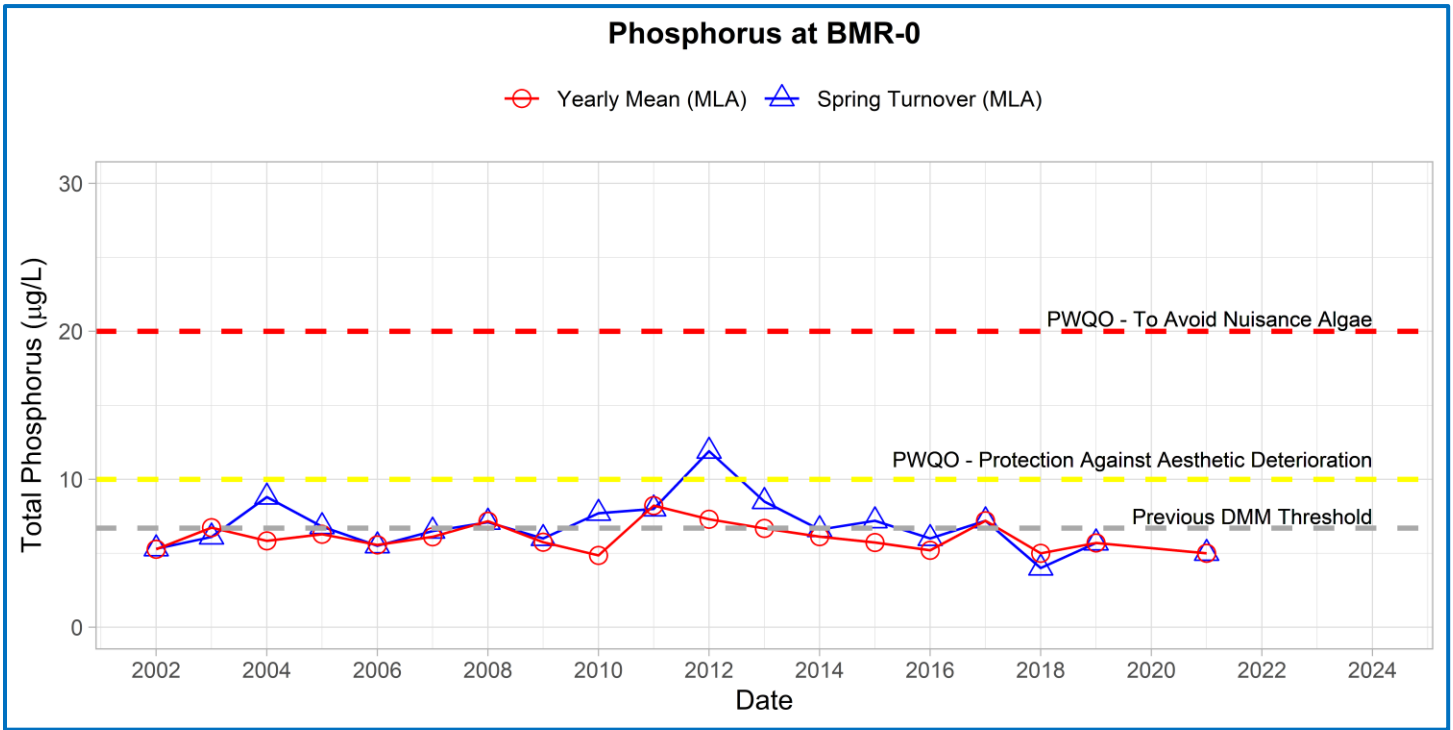
Beaumaris is an island in the Milford Bay region of north-eastern Lake Muskoka and is approximately 132 ha in size. The majority of the island is covered by a golf course with a small private club and marina. Natural shoreline vegetation is largely intact, however large boathouses are common in this area. The watershed includes a wetland to the east where the mainland and the island are linked by a causeway. MLA monitoring at Beaumaris began in 2002.

Volunteer Recognition: Louise Cragg, Don Furniss, Andree Baillargeon, Chris Cragg.

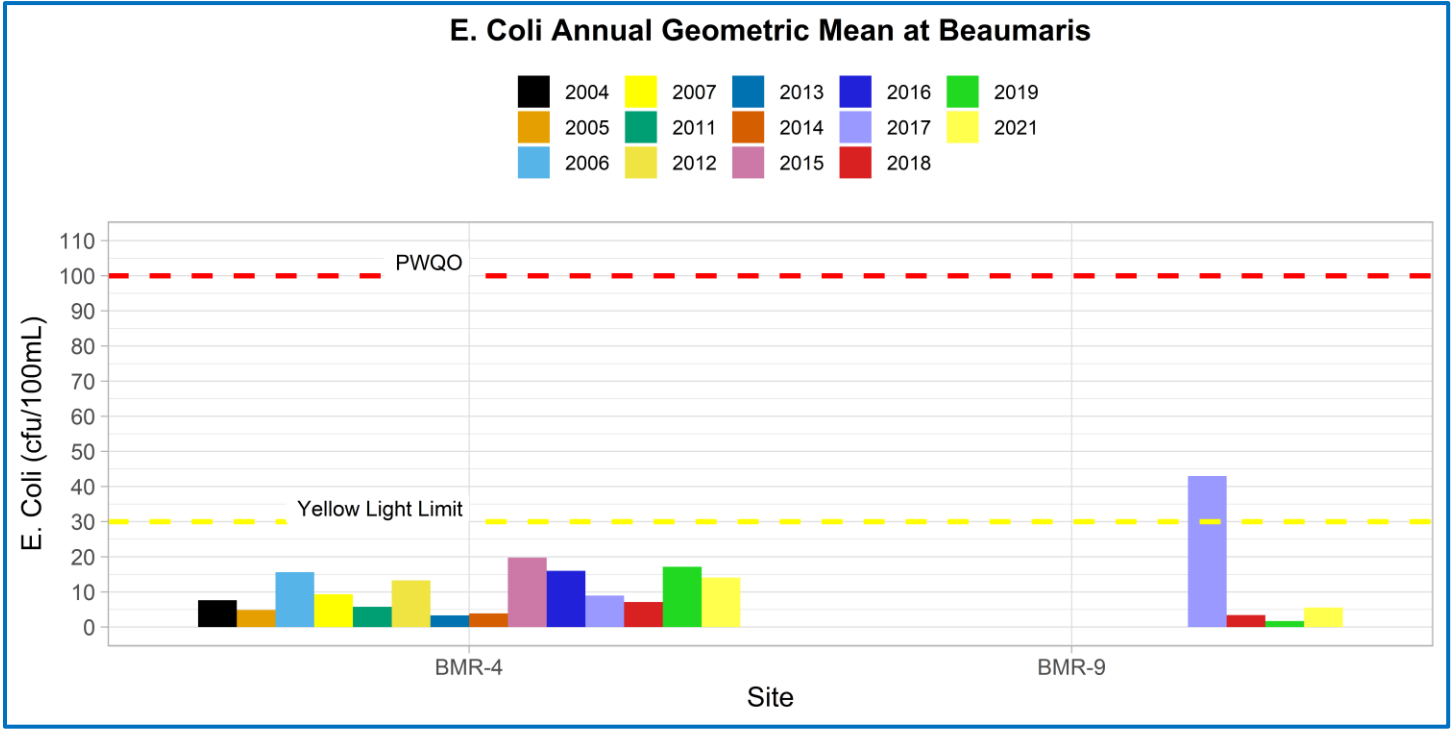
### 2021 Water Quality Results:

	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		
<b>BMR-0</b>	2.4	5.0			
<b>BMR-4</b>		5.6		14	209(113)*
<b>BMR-6</b>		6.0			
<b>BMR-9</b>		7.9		5.5	201
<b>BMR-10</b>		58.2		76+	307+
<b>BMR-12</b>		33.1			

Note: Grubbs test indicated that the Phosphorus concentration in 2021 at BMR-10 was an outlier. \* Total coliforms at BMR-4 recorded a single sample value of 2425 cfu/100mL, geometric mean has been reported both including and excluding this anomalously high result.



Note: Grubbs test indicates data collected in 2012 are considered an outlier



Spring phosphorus concentrations at the deep-water station (BMR-0) were below the historic DMM threshold of 6.7 µg/L and the Provincial Water Quality Monitoring Objectives for Protection Against Aesthetic Deterioration (10 µg/L) and Nuisance Algal Growth (20 µg/L) in 2021. Nearshore monitoring of spring phosphorus concentrations at BMR-4, 6, and 9 were within the range of variability of previous monitoring years, however phosphorus concentrations at BMR-10 and BMR-12 were substantially higher than previous recorded results. Spring phosphorus concentrations at BMR-10 (58.2 µg/L) were considered an outlier based on the Grubb's test. Elevated phosphorus concentrations at nearshore sites should be closely monitored to determine if increased concentrations in 2021 represent an emerging concern or if these concentrations are a result of sample contamination or other temporary local factors. Average annual Secchi disk depth



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(2.4 m) was consistent with previous monitoring (2.25 - 4.40 m). The *E. coli* concentrations at BMR-4 and BMR-9 were well below the yellow light limit set by the MLA, bacteria collected at BMR-10 are based on a single sample and therefore cannot be compared against triggers based on geometric mean. **HESL recommends ongoing sampling to continue to monitor for long-term trends and emerging issues.**