

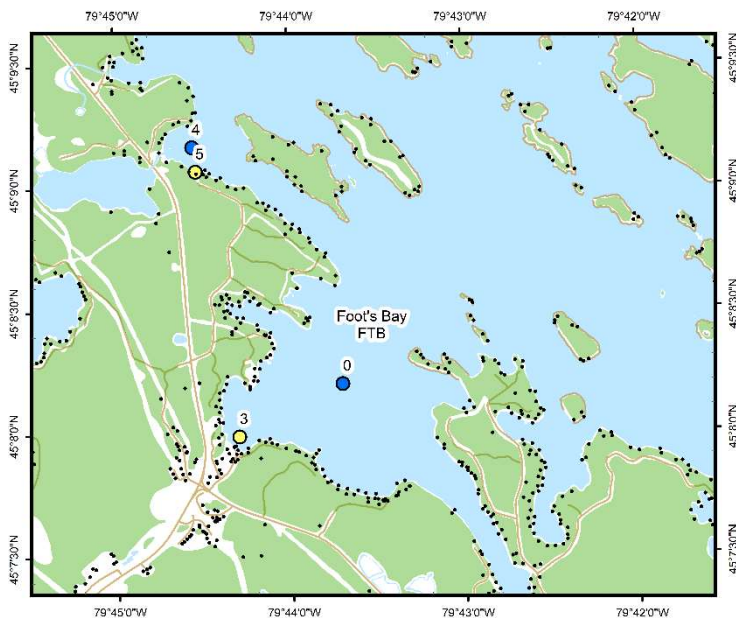


Foot's Bay (FTB)

Area Description:

Foot's Bay is located in the south-eastern portion of Lake Joseph. The Bay is highly developed along the southern shore near the marina and adjacent to the highway. Several undeveloped shoreline areas, with mostly intact forests, can be found within the Bay. The main basin of Lake Joseph is currently classified as highly sensitive by the DMM while several bays are classified as moderately sensitive. The DMM does not maintain a monitoring station at Foot's Bay. MLA monitoring of Foot's Bay began in 2009.

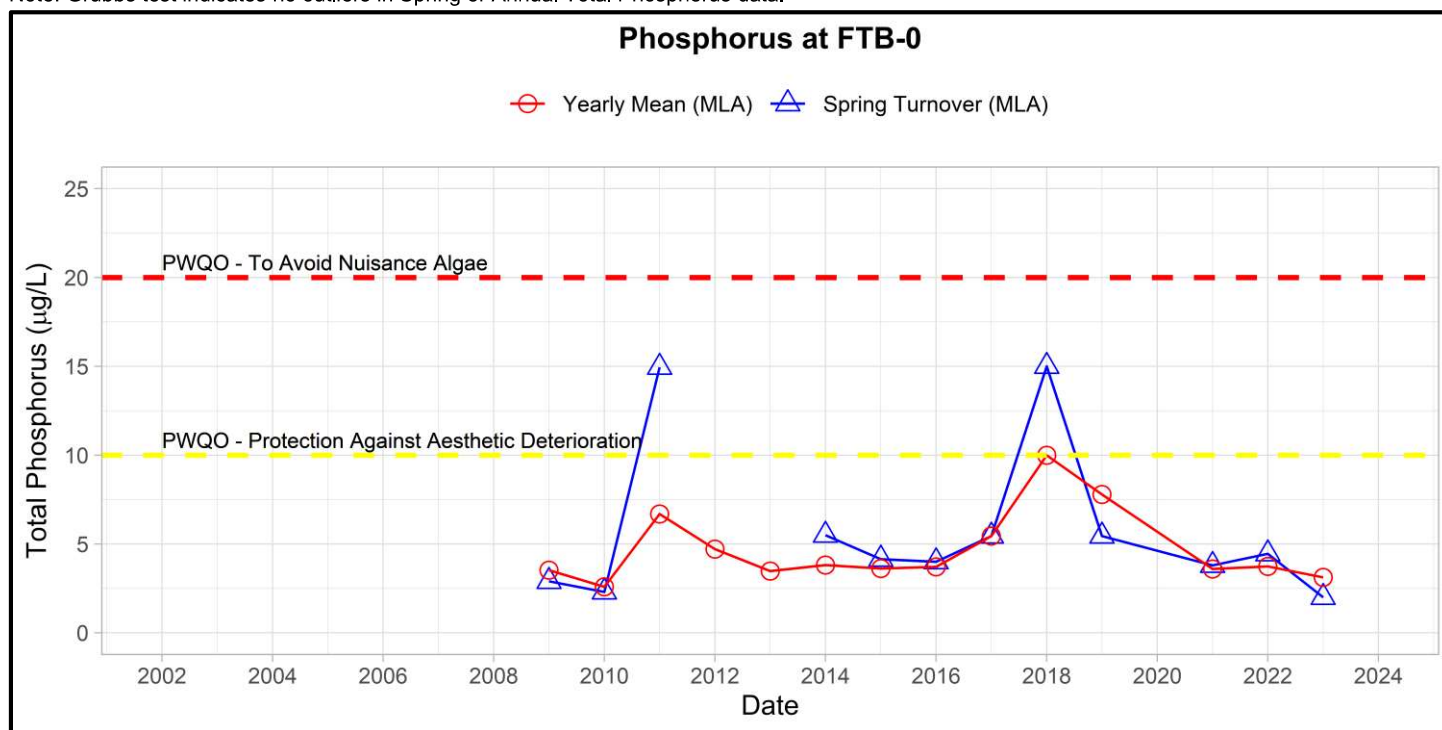
Volunteer Recognition: Dave Clark and Penny Middleton.



2023 Water Quality Results:

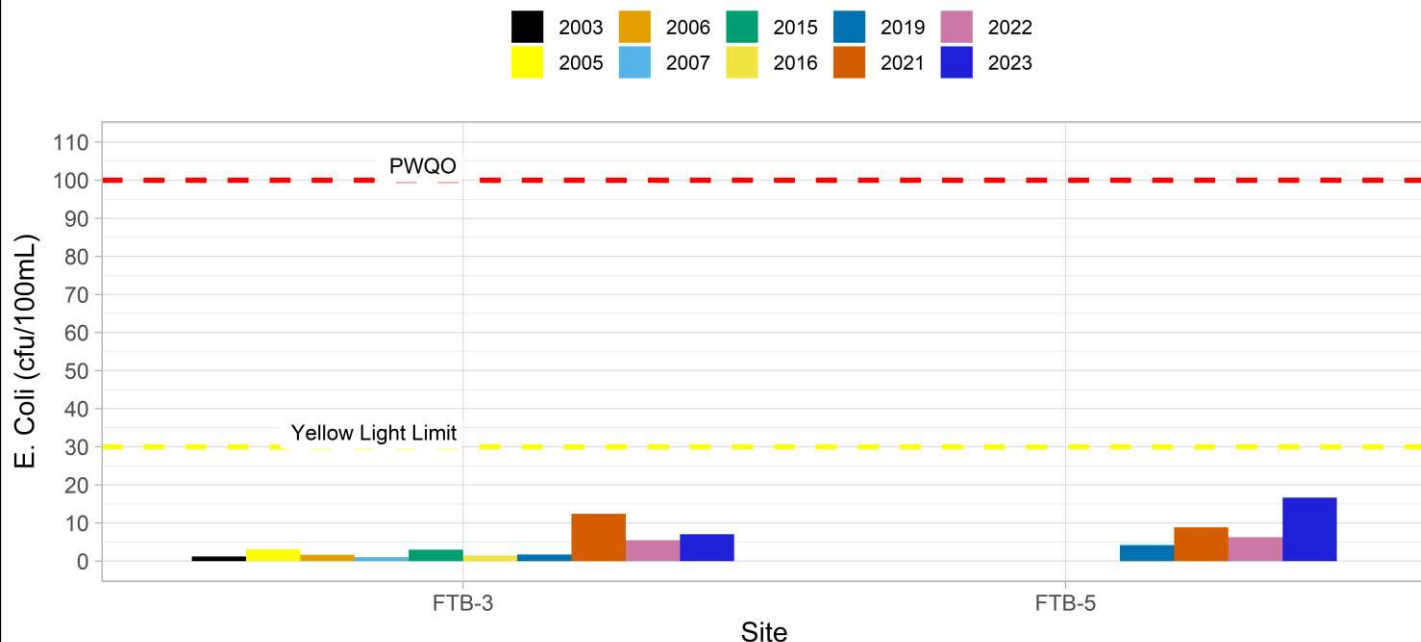
	Mean Secchi Disk (m)	Total Phosphorus ($\mu\text{g/L}$)		E. coli Yearly Geometric Mean (cfu/100mL)	Total Coliforms Yearly Geometric Mean (cfu/100 mL)
		Spring Turnover	Yearly Mean		
FTB-0	4.6	2.0	3.1		
FTB-3				7.0	49
FTB-4		2.1	3.7		
FTB-5		4.8		17	40
FTB-6			3.6		

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





E. Coli Annual Geometric Mean at Foot's Bay



The marked decline in spring total phosphorus concentrations at FTB-0 noted since 2018 continued in 2023. Total phosphorus concentrations peaked at 15.0 µg/L in both 2011 and 2018 but decreased considerably. In 2023, all measured 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 spring and annual average phosphorus concentrations at FTB-3 were within the range of variability of previous monitoring years, FTB-6 was newly established in 2022 and phosphorus concentrations at the site remain low. Secchi measurements in 2023 continued to fall within the range of variability measured during the monitoring program (2.5 to 7.2 m). Bacteria concentrations in 2023 were lower than the peak value observed in 2021 but elevated relative to 2022. Bacteria concentration still fell below the established MLA trigger limit, but ongoing monitoring is advised. **HESL recommends sampling continue in Foot's Bay to monitor long-term trends in nutrients and bacteria.**