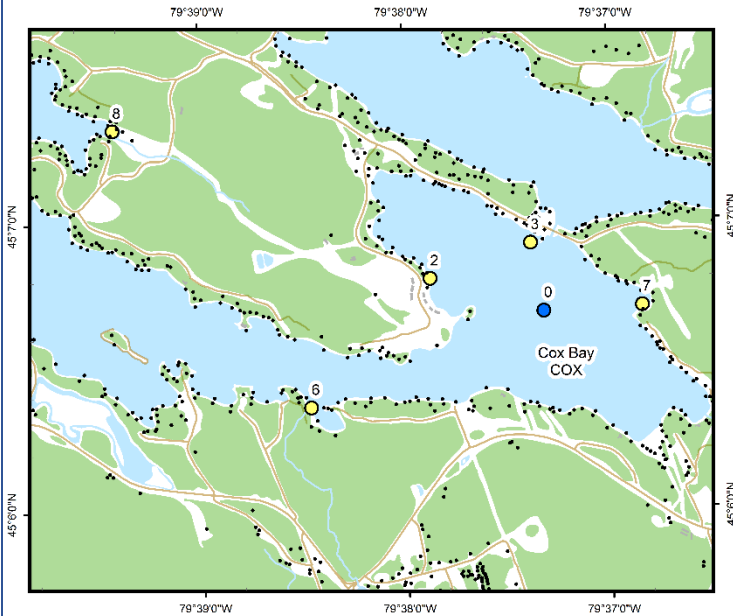




Cox Bay (COX)



Area Description:

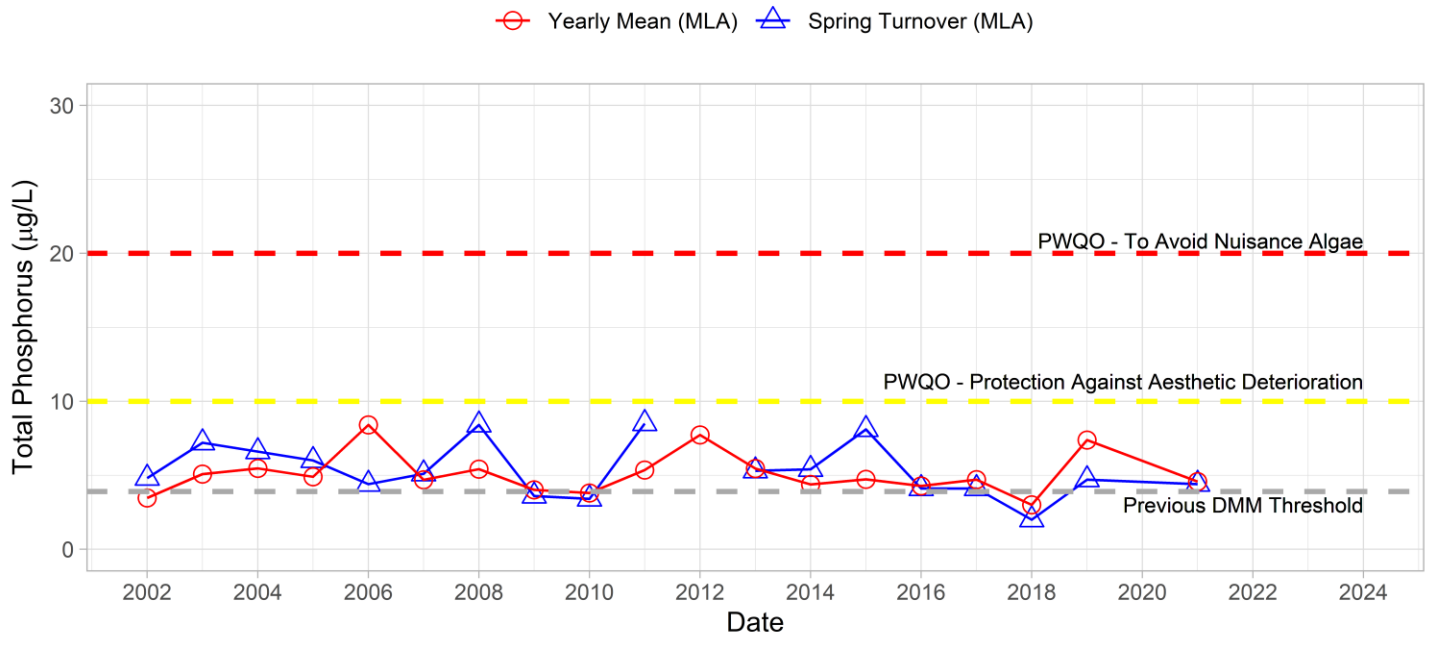
Cox Bay is the southernmost bay of Lake Joseph and is home to a large resort and golf course along with a marina and a canal crossing into Lake Rosseau at Port Sandfield. The bay has an area of 1.84 km² and a maximum depth of 12 m. The bay is highly developed with ~15% of the shoreline being open lawn, pavement or landscaping. The Cox Bay Stewardship Initiative group has identified ten permanent watercourses that drain into the bay. Cox Bay is currently classified as moderately sensitive and over-threshold by the DMM. MLA monitoring in Cox Bay began in 2002.

Volunteer Recognition: Liz Lundell, Stuart Golvin, Judy Golvin, and Guy Burry.

2021 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		
COX-0	4.7	4.4	4.6		
COX-2		8.5			
COX-3		4.5			
COX-6		11.7	6.8		
COX-7		5.7	5.9		
COX-8		5.2			

Phosphorus at COX-0



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



Annual average and spring phosphorus concentrations at the deep-water station (COX-0) were marginally above the historic DMM threshold of 3.9 µg/L but near the DMM 10-year average (4.4 µg/L) in 2021. 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 phosphorus concentrations at COX-2, 3, 6, 7, and 8 and yearly mean at COX-6 and COX-8 were within the range of variability of previous monitoring years. Average annual Secchi disk depth (4.7 m) was consistent with previous monitoring (3.35 - 8.25 m). **HESL recommends ongoing sampling to continue to monitor for long-term trends and emerging issues.**