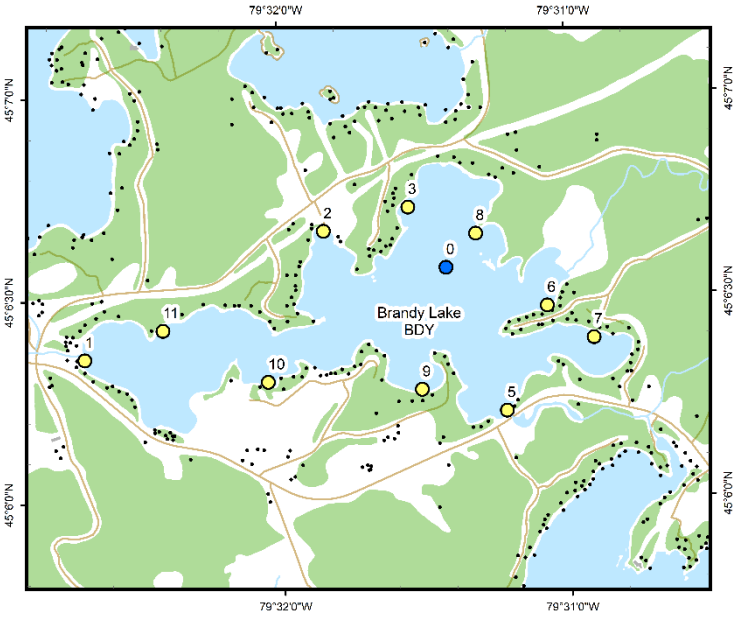
Brandy Lake (BDY)



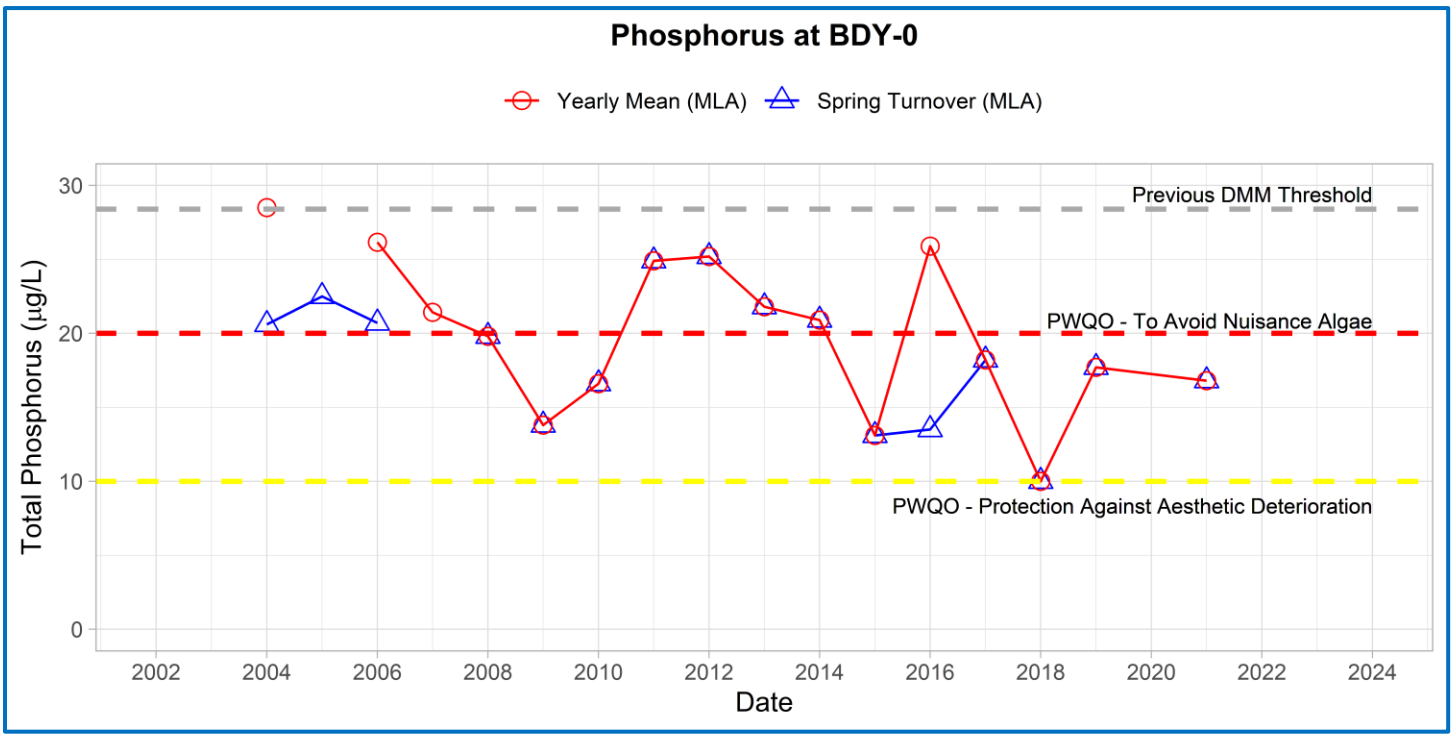
Area Description:

Brandy Lake is moderately developed with a surface area of 1.15 km^{2}and a maximum depth of 8 m. Many of the residential properties on Brandy Lake maintain a natural shoreline however, ~ 10% of the shoreline area is estimated to be un-buffered lawn. Wetlands comprise ~40% of the shoreline. Brandy Lake is a dystrophic lake, with naturally elevated dissolved organic carbon. MLA monitoring of Brandy Lake began in 2004.

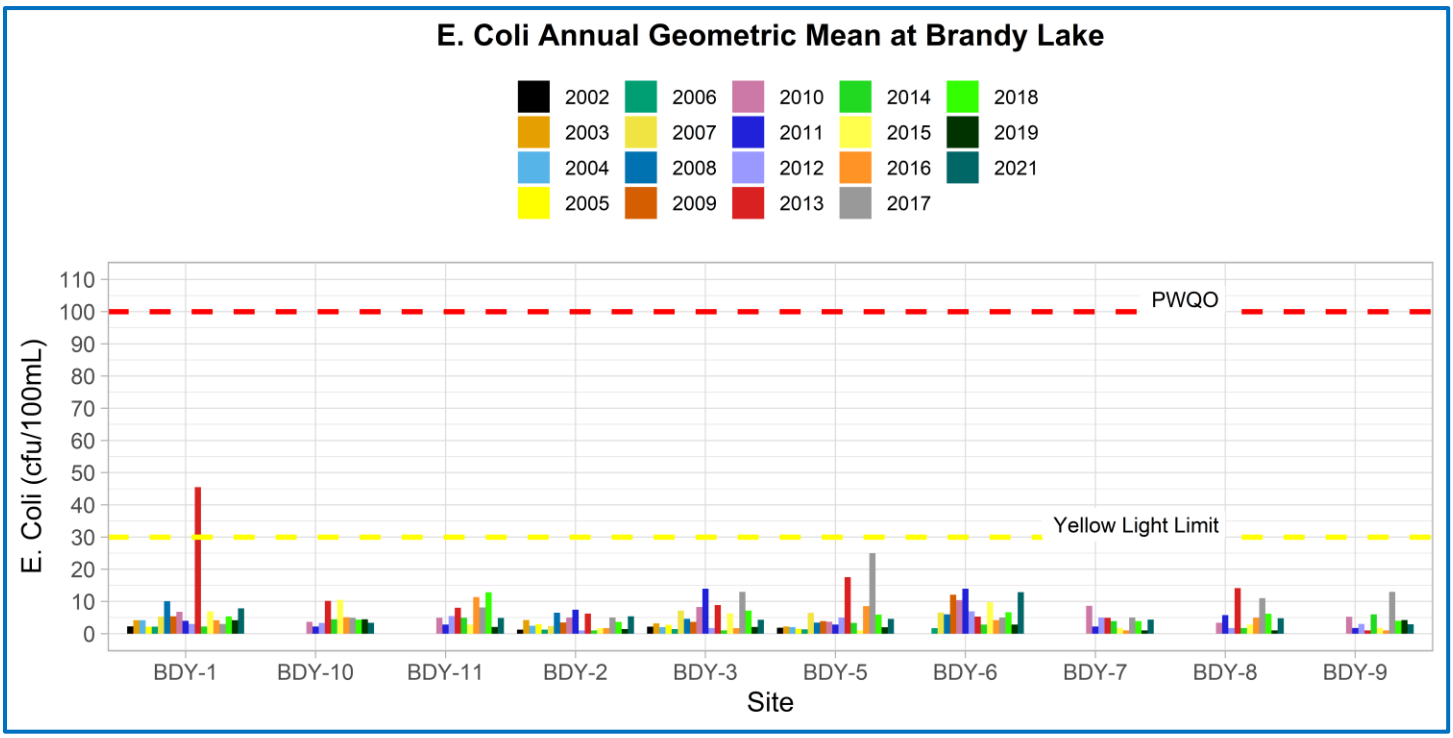
Volunteer Recognition: Kevin Trimble, Andy von Bredow, Derek Stevens.

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		
BDY-0	1.1	16.8			
BDY-1				4	81
BDY-2				5	95
BDY-3				4	80
BDY-5				5	45
BDY-6				13	64
BDY-7				4	64
BDY-8				5	58
BDY-9				3	52
BDY-10				3	63
BDY-11				5	86



Note: Grubbs test indicates no data collected for spring or annual average total phosphorus concentration are considered an outlier



In 2021, the spring phosphorus concentrations at the deep-water station (BDY-0) was below the historic DMM threshold of 28.4 µg/L and the Provincial Water quality Objective (PWQO) for Nuisance Algal Growth (20 µg/L), but above PWQO for Protection Against Aesthetic Deterioration (10 µg/L). *E. coli* counts at all nearshore stations were below the yellow light trigger established by the MLA. Average annual Secchi disk depth (1.1 m) was consistent with previous monitoring (0.44 and 3.10 m). A harmful algae bloom was detected in Brandy Lake in September of 2019 resulting in the lake being listed as vulnerable under the Districts Official Plan. Brandy Lake experienced another bloom in 2020 and we have therefore maintained the yellow light in 2021. **HESL recommends ongoing sampling to continue to monitor for long-term trends and emerging issues.**