

Clear Lake Water Tests 2016

Year	Site	Sample Date	Phosphorus Concentration (ug/l)		Total Coliforms (cfu's per 100 ml)	Ecoli (cfu's per 100 ml)	Secchi Depth (metres)	Water Temp.
			Sample 1	Sample 2				
2016	CLR-0	23-May Spring Turnover readings	5.3	5.5			5.15	16
	CLR-2		5.9	5.9				16
	CLR-4		5.9	6.2				16
	CLR-5		5.0	5.8				17
	CLR-7		bacteria testing only at Site 7					17
2016	CLR-0	25-Jun	5.3	5.8			6	24
	CLR-2		8.1	7.7	62	0		24
	CLR-4		5.3	5.5	22	0		24.5
	CLR-5		6.4	6.3	22	3		24
	CLR-7				49	22		24
2016	CLR-0	31-Jul	4.7	4.5			6.45	25
	CLR-2		4.3	5.8	55	11		25
	CLR-4		4.3	4.2	62	8		24
	CLR-5		6.4	6.3	151	0		25
	CLR-7				28	3		25
2016	CLR-0	26-Aug					6.35	25
	CLR-2				22	0		25
	CLR-4				127	3		24
	CLR-5				141	5		24
	CLR-7				33	0		25
2016 Annual	CLR-0	Average	5.2					22.5
2016 Annual	CLR-2	Average	6.3	46.3	3.7			22.5
2016 Annual	CLR-4	Average	5.2	70.3	3.7			22.1
2016 Annual	CLR-5	Average	6.0	104.7	2.7			22.5
2016 Annual	CLR-7	Average		36.7	8.3			22.8
2016 Annual	All Sites	Average All Sites	5.7	64.5	4.6	6	22.5	
* over threshold (4.79)								

Phosphorus samples at CLR-0 are taken at secchi depth. Phosphorus samples at all other sites are taken near surface

Site Location		Coliform	E. Coli
CLR-0	Middle of lake (deep water test)	Ontario Standard < 1,000 counts/100 ml	< 100 counts/100 ml
CLR-2	NW end of lake (Big Bay/Resort area)	MLA Standard < 100 counts/100 ml	< 10 counts/100 ml
CLR-4	Camp Pine Crest end of lake	* Phosphorus Threshold is 4.79 ug/l as per District of Muskoka Official Plan CFU stands for colony forming unit	
CLR-5	Little Bay area (Ridge Rd./Little Bay Rd)		
CLR-7	Clear Lake Rd. (near 1104-1106 area)		

PHOSPHORUS SOURCES

Up to 75% occurs naturally, remainder is human influence ie. detergents, fertilizers, phosphorus leaching from septic

TOTAL COLIFORM BACTERIA

Total coliform bacteria are a group of bacteria found in high numbers in both human and animal intestinal wastes and therefore are found in water that has been contaminated with fecal material. Unfortunately, bacteria with the biochemical characteristics of total coliforms are also found in non-contaminated water. Thus, in the absence of fecal coliforms, the presence of total coliforms may indicate older fecal contamination or the presence of decaying organic matter. Although the total coliform bacteria group is a less reliable indicator of sewage contamination, because of its superior survival characteristics, it is preferred as an indicator of treatment adequacy in drinking water supply systems For Drinking water coliform count must be 0.

FECAL COLIFORMS (E. COLI)

Fecal coliform bacteria are a subset of the total coliform bacterial group and also are found in human and animal intestinal wastes. However, they are a more precise indicator of the presence of sewage contamination than total coliforms. The fecal coliform bacteria group includes the genera Escherichia and, to a lesser extent, Klebsiella and Enterobacter. For Drinking water E. Coli count must be 0