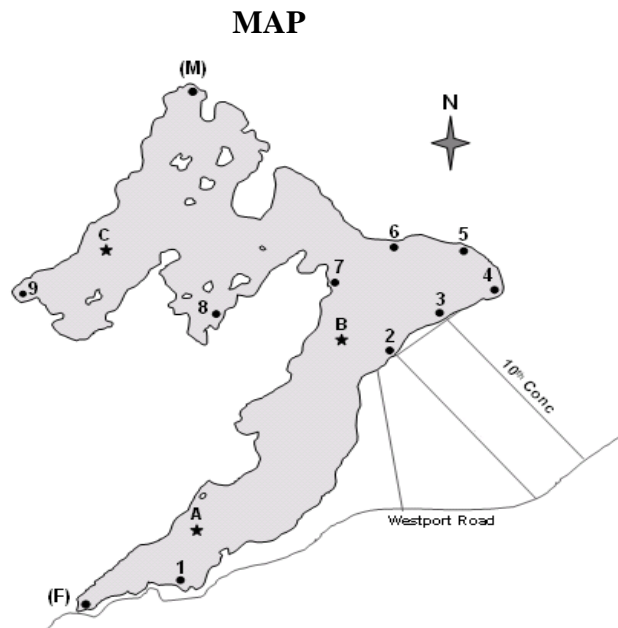


Water Quality 2014

Water quality was tested by the Water Quality Director on 6 occasions in 2014. Deep-water samples taken at sites B and C on May 26, Jun 18, July 29, August 27, September 26 and October 11 were analyzed for total phosphorus (TP) concentration through the Lake Partner Program (Ontario Ministry of the Environment). Deep and shallow-water samples were also taken at several sites by the Rideau Valley Conservation Authority (RVCA) on May 26, July 21, August 25 and September 26. These were analyzed for a number of variables including TP, calcium, total nitrogen, E. coli and dissolved oxygen concentration. The laboratory results from the Lake Partner Program are summarized in Table 1 and those from the RVCA in Table 2.



Water Testing in Wolfe Lake

(to reduce laboratory costs, samples are not taken at every site in any given year)

Table 1: TP Concentration, µg/L (Lake Partner Program Data)

Date	Site			
	B		C	
	Sample #1	Sample #2	Sample #1	Sample #2
May 26	7.2	9.0	7.6	8.0
June 18	8.0	8.2	8.4	8.2
July 29	8.6	8.6	10.0	9.2
August 27	10.4	9.0	9.4	9.0
September 26	10.6	10.0	9.8	11.2
October 11	8.4	8.8	8.4	8.6

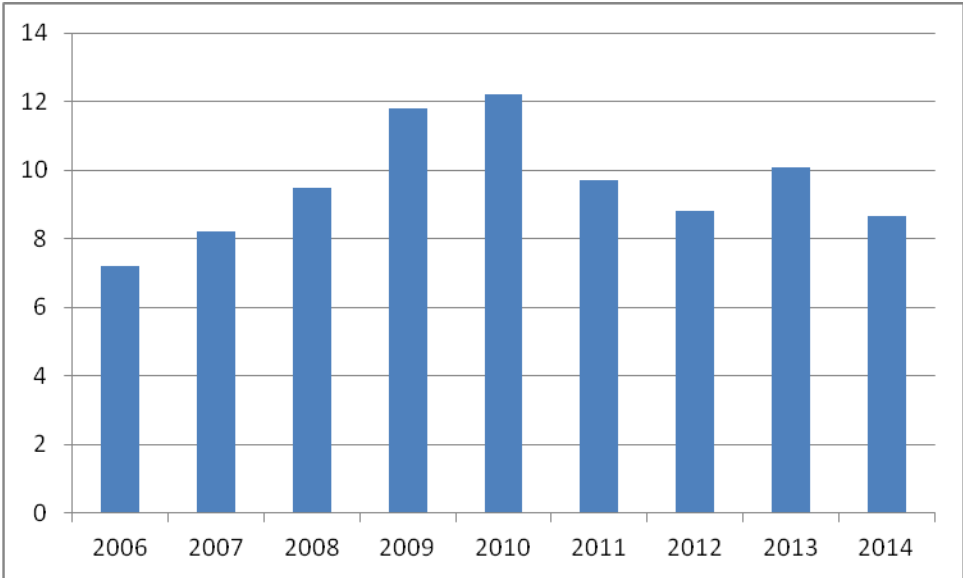
Table 2: TP Concentration, µg/L (RVCA Data)

Date, 2014	Site					
	B	C	1	2	3	4
May 26	8	8				
July 21	13	13	13	15	15	11
August 25	6	11	2	10	8	12
September 26	7	8				

Table 2: TP Concentration, µg/L (RVCA Data)

Date, 2014	Site						
	5	6	7	8	9	(F)	(M)
May 26							
July 21	10	11	13	12	16	17	15
August 25	11	12	11	12	14	16	15
September 26							

Deep-Water Total Phosphorus Concentration,
Average of June and July results
µg/L



Analysis

Overall results were very comparable to the period on record. Total phosphorus (TP) concentrations were all below the Provincial Water Quality Objective (PWQO) of 20 micrograms/litre ($\mu\text{g/l}$) at all monitored sites. Higher readings of nutrients were observed in total Kjeldahl nitrogen (TKN) results, all of which occurred in the nearshore areas at monitored shoreline sites. These higher readings occurred in the August sampling round. This may be the result of nutrient release as certain species of plant and algae at these sites begin to die off and decay during the late growing season, this decay process can release nutrients into the water column. E. coli results were well below the PWQO of 100 colony forming units/100 milliliters (CFU/100ml) at all monitored sites.

As reported by Sarah MacLeod-Neilson, Surface Water Quality Co-ordinator, RVCA

Glen and Shirley Ewen with Duncan MacDougall's assistance