

Water Quality Monitoring for Bacteriological Parameters in Drinking Water

Permitted water systems are required, by the Drinking Water Protection Regulation, to monitoring drinking water for the presence of total coliforms and Escherichia coli (Schedule A) on a regular basis (Schedule B). Samples are tested at an approved laboratory. Laboratories are required by law to immediately notify the Water Supplier, Medical Health Officer and the Drinking Water Officer of Escherichia coli positive water sample test results.



Schedule A Water Quality Standards for Potable Water (Drinking Water Protection Regulation)	
Parameter	Standard
Escherichia coli (E.coli)	No detectable E.coli per 100 ml
Total coliform bacteria	
(a) 1 sample in a 30 day period	No detectable total coliform bacteria per 100 ml
(b) more than 1 sample in a 30 day period	At least 90% of samples have no detectable total coliform bacteria per 100 ml and no sample has more than 10 total coliform bacteria per 100 ml.

Schedule B Frequency of Monitoring Samples for Prescribed Water Supply Systems (Drinking Water Protection Regulation)	
Population Served by the Prescribed Water Supply System	Number of Samples Per Month
less than 5000	4
5000 to 90,000	1 per 1000 of population
more than 90,000	90 plus 1 per 10,000 of population in excess of 90,000

Total Coliforms This group of bacteria occur naturally in the environment and can be found in feces, soil and vegetation. Most coliform bacteria will not cause illness and their presence in drinking water does not necessarily represent an immediate health concern. When total coliforms are detected in a water sample, the Water Supplier, in consultation with the Drinking Water Officer, will assess why total coliforms are in the system, collect repeat samples and take the necessary corrective actions.

Escherichia coli (E.coli) Is a member of the total coliform group of bacteria and is the only member that is found exclusively in the feces of humans and other warm blooded mammals. The presence of E.coli in a water sample represents an immediate public health concern. A positive test result is investigated immediately by the Drinking Water Officer and the Water Supplier. A boil water notice will be issued when there is evidence to suggest a public health threat exist.

Overgrown (OGO) Is a term used by testing laboratories to refer to a water sample which contain an excessive amount of a general bacterial population hindering the accurate detection of coliform bacteria. Water suppliers will be directed to collect a repeat water sample.

Legend used to interpret Water Quality Monitoring (Range) Reports

LT	Less Than
ESTCT	Estimated Count
OGO	Overgrown
REJECT DELAY3	Sample Rejected; Too Long in Transit
REJECT LKS2	Sample Leaked/Broken in Transit
REJECT NO DATE	Sample Rejected; Collection Date not indicated

For more information on the microbiological parameters listed above and to view the Guidelines for Canadian Drinking Water Quality, please visit Health Canada's website at <http://www.hc-sc.gc.ca/index-eng.php>

For any questions or concerns contact your Environmental Health Officer at HPIand@fraserhealth.ca or call 604-870-7903.