

Drinking Water Quality Monitoring Requirements

As an owner of a registered public drinking water supply, you are responsible for all water quality sampling, testing, and monitoring requirements in accordance with the *Water and Wastewater Facilities and Public Drinking Water Supplies Regulations* and *Guidelines for Monitoring Public Drinking Water Supplies* as summarized below. Samples submitted for compliance purposes must be analysed by an approved laboratory. **Put your registration number on all samples submitted to the laboratory.**

The following parameters are considered to be minimum requirements. Nova Scotia Environment and Labour (NSEL) may require additional parameters to be monitored.

1. Microbiological Water Quality

The owner shall monitor all public drinking water supplies for the presence of total coliform and *Escherichia coli* (*E. coli*) bacteria on a quarterly basis (e.g. every three months). Where a water supply is not in operation year round, at least one of the samples is to be collected prior to start up. The owner shall maintain records of sample results, including the original lab records, for a minimum of two years from the collection date. The owner shall make sample results available to NSEL upon request.

Whenever the presence of coliforms is detected (total or *E. coli*), the owner is responsible to immediately notify NSEL and forward the results to NSEL. Receipt of any results sent electronically must be confirmed by telephone. If the local NSEL office cannot be contacted for any reason, the environmental emergencies number is to be called at 1-800-565-1633.

2. Chemical and Physical Quality

The owner shall monitor the general chemical and physical quality at least once every two years for a groundwater supply (e.g. well) or once every year for a surface water supply (e.g. river, lake). The minimum parameters to be monitored are shown in the following table. The owner shall maintain records of sample results for a minimum of ten years from the collection date. The owner shall make sample results available to NSEL upon request. If treatment devices are in place to remove any chemical or physical substance, two samples must be collected - one untreated and one from a point after treatment - to verify that the treatment unit is removing the parameter of concern.

Upon receipt of results that indicate a Maximum Acceptable Concentration (MAC) or an Interim Maximum Acceptable Concentration (IMAC) has been exceeded, the owner shall immediately notify NSEL and forward the results to NSEL. Receipt of any results sent electronically must be confirmed by telephone.

Alkalinity	Colour	Potassium
Aluminium	Conductivity	Selenium
Ammonia	Copper	Sodium
Antimony	Fluoride	Sulphate
Arsenic	Hardness	Total Dissolved Solids
Barium	Iron	Total Organic Carbon
Boron	Lead	Turbidity
Cadmium	Magnesium	Uranium
Calcium	Manganese	Zinc
Chloride	Nitrate	
Chromium	pH	

Boil Water Advisories

Whenever total coliform or *E. coli* bacteria are found to be present in your supply or any of the following conditions as described below exist, a boil water advisory must be issued by the owner to consumers and the owner must notify NSEL. Copies of the results showing the presence of total coliform or *E. coli* bacteria sent electronically to NSEL must be confirmed by telephone.

Deficiencies that require a boil water advisory include:

1. Presence of total coliform or *E.coli*.
2. Lack of disinfection, where required.
3. Ineffective disinfection, where required, due to high turbidity or high chlorine demand.
4. Suspected cross connection or negative pressure.
5. Other circumstances which in the opinion of NSEL or the Medical Officer of Health (MOH) constitutes a risk to public health (e.g. *Giardia*, *Cryptosporidium* contamination, etc.).
6. Evidence of an outbreak of waterborne illness as determined by the MOH (the risk to young children, elderly, and immuno-compromised people should be considered in a decision).
7. A serious incident of raw water contamination.

Notification to NSEL must be made by calling the local office during normal business hours (8:30 a.m. - 4:30 p.m.) or the after hours environmental emergency number at 1-800-565-1633.

The owner will ensure that proper signage is posted to inform consumers of the boil water advisory. Signage must be acceptable to NSEL. **Signage is to be posted for the duration of the boil water advisory.**

The boil water advisory will be removed by NSEL, in consultation with the MOH and the owner. Under normal circumstances the boil water advisory will be removed when:

- a) the Guidelines for Canadian Drinking water quality for bacteriological quality are met for two (2) consecutive sets of samples separated by a minimum of 24 hours; and
- b) the deficiencies which led to the boil water advisory are corrected.

Copies of the two negative results required to remove the boil water advisory must be faxed or sent to NSEL. Any results sent electronically must be confirmed by telephone.

Where corrective measures have failed to remediate problems related to the presence of total coliform or *E. coli*, treatment shall be required pursuant to Section 34 of the *Water and Wastewater Facilities and Public Drinking Water Supplies Regulations*.