

Drinking Water Protection Act

What you need to know and resources

June 2023

To Water Suppliers;

Re: Summary of legislative requirements of the Drinking Water Protection Act (DWPA) to operating a water supply system

This letter summarizes the legislative requirements to running a water supply system under the Drinking Water Protection Act (the “Act”) and Drinking Water Protection Regulation (the “Regulation”). The intent is to offer a basic summary of the responsibilities for water suppliers by the Act and Regulation. References are made to the relevant sections of the Act and Regulation, and these sections should be consulted to determine the specific nature and extent of responsibilities. Definitions are found in Section 1 of the Act. Much of this information was adapted from the Drinking Water Officer’s Guide, (linked below) published by the Ministry of Health, which also contains an excellent collection of documents pertaining to best practices and technical assistance.

Water Supplier

This is legally defined as an owner of a water supply system. It includes those who are responsible for the ongoing operation of the water supply system or simply in charge of managing that operation. (defined in section 1 of the Act)

Water Supply System

Anything which collects, treats or distributes water used for domestic purposes to more than one single family dwelling. (Legally defined as “*equipment, works and facilities used for the intake, treatment, diversion, storage, pumping, transmission and distribution of drinking water that is used for domestic purposes by more than one single family dwelling*”.)

- **Domestic purposes** is legally defined as the use of water for human consumption, food preparation or sanitation.
- **Small System** means a water supply system that serves up to 500 individuals during any 24 hour period.

Potable water

“Potable” is defined as:

- (a) meets the standards prescribed by regulations, and
- (b) is safe to drink and fit for domestic purposes without further treatment.

All water suppliers must supply water which is potable and meets any requirements of the operating permit or regulations.

Interpretation notes:

- *In the Regulation, prescribed standards are established for bacteria in water: E.coli and total coliforms.*
- *Chemical exceedances in finished drinking water (e.g. above the thresholds established as Maximum Allowable Concentrations (MACs) in Health Canada’s Guidelines for Canadian Drinking Water Quality) may be considered to interpret section 1(b) of the potable water definition.*
- *The Regulation also requires all surface water to be “disinfected”*
- *Potability for “small systems” may be provided in some situations by use of a Point-of-Entry or Point-of-Use treatment system where accepted by the DWO.*

Construction permits

Persons may only construct or alter a water supply system if they obtain a construction permit in advance. (See Act section 7 and Regulation section 6).

Interpretation notes:

- *VCH employs a Public Health Engineer as an issuing official for review and issuance of Construction Permits.*
- *In some situations for “small systems” the requirement for a construction permit may be waived (with or without conditions) by an issuing official. (See Regulation section 6(3)(c))*
- *The requirement for construction permits is not limited to new systems. Existing systems carrying out upgrades also require construction permits.*
- *Construction permits may not be required where a person is simply undertaking a repair to return a system to the condition for which construction had previously been authorized, or for emergency repairs.*

Operating permits

Water suppliers must not operate a water supply system without an operating permit and must comply with the terms and conditions of the permit (See Act section 8 and Regulation section 7). Annual operating permit fees may apply depending on the number of connections (i.e. > 14 connections). Bulk water haulers also must possess an operating permit.

Possible Permit Conditions:

- *Treatment requirements (which may include dates by which they must be implemented)*
- *Equipment, works, facilities and operating requirements (including compliance with the construction permit)*
- *Qualifications, training or certification of the persons operating, maintaining or repairing the water supply system*
- *Minimum sampling frequency (bacteriological and chemical water quality) of the drinking water source and water being supplied*
- *Water treatment standards required (e.g., minimum free chlorine residual level)*
- *Requirement to establish operation plans and maintenance plans*
- *Requirement to review and update the emergency response and contingency plans (ERCP) every year*

Operator Training

Persons must not operate a water supply system unless they meet the operator training and certification requirements set out in the regulation. (See Act section 9, Regulation section 12)

Interpretation notes:

- *This requirement may be relaxed in some cases for “small systems” (See Regulation section 4(2))*

Emergency Response and Contingency Plans

Water suppliers must have written Emergency Response and Contingency Plans. (See Act section 10, Regulation section 13). The information in the plan must be kept up to date.

Interpretation notes:

- *This plan contains contact information, and steps for the water supplier to follow in different types of emergencies or abnormal operating conditions including protocols for communication to users. For example, what series of actions should the water supplier should do in the event that monitoring detects E. coli in finished drinking water.*
- *Templates and samples of signage are available from the Drinking Water Officer.*

Monitoring

Water suppliers must sample as required by the regulations, operating permit and directions of a Drinking Water Officer (See Act section 11, Regulation section 8). This includes laboratory analysis of total coliforms and *Escherichia coli* in drinking water. The frequency of sampling (both bacteriological and chemical) may be established as an operating permit condition.

Interpretation notes:

- *Water analysis must be completed by a provincially-accredited laboratory. In most cases, bacteriological samples are processed by the BCCDC lab in Vancouver; testing for other parameters (chemical and physical) can be undertaken at any other accredited laboratory.*

Laboratory reports

Laboratories must immediately report to water suppliers, the Drinking Water Officer and the Medical Health Officer if any presence of *E. coli* is detected in water which may be supplied to users. Laboratories must also advise Drinking Water Officers of other information if requested. Water suppliers must immediately advise the Drinking Water Officer that they have been notified by the lab in such cases. (See Act section 12, Regulation section 9)

Notifying Drinking Water Officer of threats

Water suppliers must immediately notify the Drinking Water Officer of any threats to drinking water if they become aware of them. (See Act, section 13)

Interpretation notes:

- *This refers to any circumstances that may make the water non-potable. This includes, but is not limited to water quality sample results which do not meet the required standard.*

Public notice of threats

Water suppliers must provide public notice of threats to drinking water if requested by a Drinking Water Officer. (See Act section 14, Regulation section 10). Also, if a laboratory advises that an immediate reporting requirement exists, or the supplier is otherwise aware of a potential drinking water health hazard, and the Drinking Water Officer cannot be immediately contacted, the water supplier must notify the users of the water supply system immediately, in accordance with emergency response and contingency plans. In this case, no request or order from a Drinking Water Officer is required. (See Act section 14, Regulation section 10)

Interpretation notes:

- *This obligation places the duty on water suppliers to communicate advisory information to users on the water supply system. These advisories may be a 'boil water notice' or a 'do not consume notice.'*

Annual Reports: Publication of other information

Water suppliers are required to make an annual report available. This report includes monitoring tests taken (both chemical and bacteriological), and other information pertinent to the operation of the water system. (See Act section 15, Regulation section 11).

Interpretation notes:

- *This annual report covers a 12 month period of the previous calendar year and is due no later than 6 months past the end of every calendar year (June 30).*
- *Templates are available from the Drinking Water Officer.*

Flood-proofing of wells

Owners and operators of wells must flood proof them if required by the regulations. (See Act section 16, Regulation section 14).

Interpretation notes:

- Any well providing drinking water which is at risk of flooding and/or any well supplying a water system which was completed after October 31, 2005 must be flood-proofed.

Assessments and Assessment Response Plans

Water suppliers must conduct water source and system assessments of water supply systems, if required by the regulations or a Drinking Water Officer (See Act, section 19). In response to an assessment, the Drinking Water Officer may add conditions to the operating permit as well as order the water supplier to prepare an assessment response plan.

Other

In various other circumstances, Drinking Water Officers can impose requirements on water suppliers, make requests or issue orders under the Act. Water suppliers must comply with those requests, orders, permit conditions, and requirements. For further questions and clarification, please contact your local Drinking Water Officer:

Service Area	Phone
Central Coast & West Chilcotin	604-983-6793
North Shore	604-983-6793
Powell River	604-485-3310
Richmond	604-233-3147
Squamish	604-892-2293
Sunshine Coast	604-885-5164
Vancouver	604-675-3800
Whistler	604-932-3202

Construction Permit Inquiries or Applications

Public Health Engineer: Michael Wu

604-675-3800

michael.wu@vch.ca

Useful Links for Small Water Systems

Legislation, Policy and Resources

- The Ministry of Health - [Drinking Water Quality Home Page](#)
- Ministry of Health - [Drinking Water Officers' Guide](#) - Contains all provincial health policy related to drinking water
- Thomson Rivers University - [British Columbia Small Water Systems Online Help Centre](#) - Valuable summary of provincial drinking water legislation, resources and requirements for small water system operators
- Health Canada - [Guidelines for Canadian Drinking Water Quality](#)
- Vancouver Coastal Health - [Drinking Water Main Page](#) - Includes resources, reports and notifications

Design Considerations

- VCH Construction Permits - [VCH Construction Permit Guideline](#)
- Ministry of Health - [Safe Water Supply: Vital to your Health](#) - Provides information on the risks, operation and basic components of private and public small water systems
- Ministry of Health - [Small Water System Guidebook](#) - This guidebook is intended to be the first step in helping owners and operators find solutions to the challenges of operating a small water system.
- BC Ministry of Environment - [Design Guidelines for Rural Residential Community Water Systems](#) - Design document.
- Vancouver Coastal Health - [Water Supply System Construction Permit Application & Guidelines](#)

Emergency Response Planning and Water Quality Notifications

- Ministry of Health - [Emergency Response and Contingency Planning for Small Water Systems](#) - Template for small water system operators.
- Vancouver Coastal Health - [Emergency Response and Contingency Plan Template](#) - Ask your DWO for a copy
- Ministry of Health - [Water Quality Notifications](#) - Information and links
- Vancouver Coastal Health - [Boil water notice](#) - Frequently asked questions for general public

Source Protection

- Ministry of Health - [Drinking Water Source-to-Tap Screening Tool](#)
- Interior Health Authority - [Small Water Source Protection Plan Toolkit](#) - A comprehensive guide to help small water suppliers develop a scaled-down version of a source assessment and protection plan
- Ministry of Health - [Guidance Document for Determining Groundwater at Risk of Containing Pathogens \(GARP\)](#)
- Ministry of Environment - [Water Well Disinfection Using the Simple Chlorination Method](#)

Sampling and Reporting

- Vancouver Coastal Health - [Testing Your Well Water](#) - Laboratories approved for full spectrum chemical analysis
- Vancouver Coastal Health - [Drinking Water Annual Report Form](#)