



An Introduction to Operating a Small Drinking Water System

Safeguarding our health

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Did you know that effective December 1, 2008, the Ministry of Health and Long-Term Care (MOHLTC) has oversight of small drinking water systems (SDWS) in Ontario? Two new regulations under the Health Protection and Promotion Act will come into force at this time.

Ontario Regulation 318/08 (Transitional - Small Drinking Water Systems) which carries forward the main requirements of Ontario Regulation 252/05 under the Safe Drinking Water Act. It will be in effect until a public health inspector (PHI) conducts a risk assessment of your SDWS and issues a binding directive with site-specific requirements, at which time Ontario Regulation 319/08 will apply to your SDWS.

Ontario Regulation 319/08 (Small Drinking Water Systems) sets out the new requirements that must be followed by each SDWS, such as minimum quarterly testing for E. coli and total coliforms, once a directive has been issued for the SDWS.

Do you operate a small drinking water system?

If your system makes drinking water available to the public and you do not get your drinking water from a municipal drinking water system, you may be an owner or operator of a SDWS.

Some examples are systems that supply:

A sit down restaurant, hotel, motel, trailer park, camp ground, gas station, marina, place of worship, recreational facility, club or fraternal organization, or other facilities that provide the general public with access to a washroom, drinking water fountain or shower.

Contact your local public health unit if you may be operating a SDWS.

Remember... this brochure is an introduction and overview of the recent changes to Ontario's small drinking water systems program.

- It is only a summary of your legal responsibilities as the owner or operator of a SDWS. You must refer to the requirements in the SDWS regulations and any directives issued under Ontario Regulation 319/08.

This brochure and related fact sheets have been prepared to help you learn your basic duties as an owner or operator of a SDWS.

Did you know that...?

- The public health inspector (PHI) is an accredited public health professional who will be delivering the new SDWS program.
 - The PHI is one of the most important partners who will work with you along with the MOHLTC and the MOE, to help you provide safe water to all users of your SDWS.
 - The PHI works for the local public health unit (PHU) to keep your community safe. In addition to delivering the SDWS program and keeping our restaurants safe, The PHI also:

- Educates the public on a variety of programs for Rabies and West Nile Virus illnesses;

- Investigates, consults and responds to health hazard complaints, adverse water quality incidents, spills, indoor air quality complaints;

- Plays a role in the control of communicable diseases such as food-related and water-related illnesses caused by E. coli, Listeria and Salmonella bacteria;
- The medical officer of health (usually called the MOH) is the head of the local public health unit.

- The MOH oversees the delivery of the Ontario Public Health Standards and Protocols in partnership with a highly trained group of public health professionals in your community.

- Who are some of the PHU staff? PHIs, doctors, public health nurses, dentists, nutritionists, epidemiologists, and homecare specialists, just to name a few.

- Your local public health unit is governed by a board of health that comprises members from your regional or municipal areas.

place public health unit contact information here

Where can I find additional information?

Please remember...

This brochure is only a summary of your responsibilities as the owner or operator of a SDWS and is not a substitute for legal advice. For a more complete understanding of your legal responsibilities as an owner or operator, refer to Ontario Regulation 318/08 and Ontario Regulation 319/08 or any directives issued on your system.

In addition, you should become familiar with the procedure documents produced to help you efficiently operate a SDWS:

- *Procedure for Disinfection of Drinking Water in Ontario*
- *Procedure for Corrective Action for Small Drinking Water Systems that are Not Currently Using Chlorine*

For general information about well water safety, ask your health unit staff for a copy of:

- *Keeping Your Well Water Safe to Drink: An information kit to help you care for your well.*

You may also find additional information on the following Ontario ministry websites:

Acts and Regulations:

www.e-laws.gov.on.ca/index.html

Ministry of Health and Long-Term Care (MOHLTC):

www.health.gov.on.ca

- Current list of local public health units:
www.health.gov.on.ca/english/public/contact/phu/phuloc_mn.html

Ministry of the Environment (MOE):

www.ene.gov.on.ca/en/index.php

- Current list of licensed laboratories:
www.ene.gov.on.ca/en/water/sdwa/licensedlabs.php

Ministry of Agriculture, Food and Rural Affairs (OMAFRA): www.omafra.gov.on.ca/english/

How can you stay up-to-date on drinking water issues?

You can request that you be added to the mailing list to stay current on small drinking water systems by sending an email to: safewater.moh@ontario.ca

TO BEGIN...

Do you know where to begin or what your responsibilities are for operating your SDWS?

Before you begin, get to know what your duties are under the two SDWS Regulations: Ontario Regulation 318/08 (Transitional – Small Drinking Water Systems) and Ontario Regulation 319/08 (Small Drinking Water Systems).

- Obtain a copy of the two SDWS Regulations from E-laws
- Obtain a copy of the fact sheets that explain your responsibilities under the SDWS regulations and ask the PHU for copies of the SDWS regulations and directives

Apply a multi-barrier approach

Obtain copies of the fact sheets that have been developed for each step below

- **Protect**
- **Treat**
- **Maintain**
- **Monitor**
- **Notify**

Fact sheets:

Get to know the law: SDWS Regulations

Get to know the law: SDWS Directives

PROTECT

Do you know what, why and how to **PROTECT** the source of the water for your SDWS?

Protect the source where you obtain your water.

The quality of your source water will determine the form of treatment you will use to **protect** the users.

There are two types of sources, ground water (secure and non-secure) and surface water:

1. Groundwater

a) **Secure Groundwater**

- Protect your well
- Properly constructed and well maintained
- Ensure potential pollution source is kept at a distance

b) **Non-secure Groundwater**

- This may include shallow dug or bored wells
- Maintain or improve the structure of the well to minimize contamination
- Ensure potential pollution source is kept at a distance

2. Surface water

- Be aware of potential sources of pollution
- Attempt to remove potential pollution sources

Fact sheet:

Source Water: Working together to safeguard our health

TREAT

Do you know when, why and how you should **TREAT** the water in your SDWS?

Treat your water based on the quality of your source and the complexity of the distribution system.

You may need to **treat** your drinking water to provide:

- Proper disinfection or removal of harmful micro-organisms;
- Secondary disinfection to keep water safe throughout any distribution system.
- Removal of chemical and physical agents

Secure Groundwater

This water is normally considered suitable to be used without treatment. However, the addition of treatment will provide additional protection to the users of your SDWS.

Surface water and Non-secure Groundwater

Filtration and primary disinfection are required to support removal of potential micro-organisms

Distribution System

Secondary disinfection is required to support continued protection of water throughout the distribution system.

Fact sheet:

Treatment options: Working together to safeguard our health

MAINTAIN

Do you know what, why and how to **MAINTAIN** the system equipment, and the water quality of your SDWS?

Maintain your SDWS to ensure that all parts are constructed and operating properly to protect the quality of the drinking water.

As an operator, you must:

- **Maintain** frequent surveillance of the system's construction and operation (at least once weekly)
- Operate your system capably;
- Obtain adequate training in keeping with the complexity of the system;
- Ensure continuous and safe operation of the system (e.g. routine maintenance of UV bulbs);
- Respond appropriately to adverse situations

Maintain your level of competency by ensuring your skills are appropriate for the system you operate. This is as easy as:

- Consulting with your local PHU;
- Reading the manufacturer's manuals for your system;
- Obtaining adequate training from the manufacturer, a local college or through a third party, as approved by your local PHU.

Fact sheet:

Operator Training: Working together to safeguard our health

MONITOR

Do you know what, where, why and how to **MONITOR** the quality of the water in your SDWS?

Monitor the drinking water system to ensure continuous protection of the drinking water quality.

Monitor by collecting and testing samples of the drinking water for E. coli and total coliforms prior to seasonal opening. If closed for more than 60 days and throughout operation of your SDWS.

Monitor your SDWS routinely for the following:

- Turbidity
- Chlorine residual throughout the distribution system
- Know which chemicals to routinely test
- Leaks in the pipes

Monitor the signage for systems that are currently posted.

Licensed laboratories

All bacterial and chemical samples must be tested at a laboratory licensed by the Ministry of the Environment

Fact sheet:

Sampling & and testing: Working together to safeguard our health

NOTIFY

Do you know who to **NOTIFY** when there is a problem with the water in your SDWS?

Notify the users immediately of any unsafe conditions to protect them from becoming ill.

You should provide users with instructions on how to obtain an alternate source of drinking water.

Notify the local medical officer of health (MOH) of any unsafe conditions with your SDWS.

- Follow any other requirements of the SDWS Regulations or as directed by the PHU and MOH.

Notify the users of the SDWS by:

- Direct verbal notification:
- Written instructions:
- Use to provide additional instructions (e.g. boil water or use bottled water);
- Posting of signage:
- Place at all access points (e.g. water fountains and common taps)

Fact sheet:

Response to adverse events: Working together to safeguard our health