



Drinking Water Source Protection Primer: For Municipal Councillors

Your community relies on safe, sustainable drinking water. Protecting the water at its source is an important first step in the drinking water safety net.

Ontario has a comprehensive Drinking Water Source Protection Program to ensure sources of municipal drinking water are protected now and into the future. Under this program, local source protection plans developed under the Clean Water Act, 2006, are in place. These plans contain policies that protect municipal drinking water sources (water found in lakes, rivers and groundwater aquifers) from contamination and overuse.

Meet your statutory standard of care responsibilities

Source protection plans require municipalities to implement policies to protect the source water for their drinking water systems. The Safe Drinking Water Act, 2002, includes a statutory standard of care (section 19) for individuals with oversight responsibilities for municipal drinking water systems, including municipal councillors.

This standard ensures that you are practicing due diligence to protect public health when making decisions that could affect drinking water. This includes a consideration of the source water characteristics as well as the risks posed to it.



Learn more at: ontario.ca/page/taking-care-your-drinking-water-guide-members-municipal-councils.

Ensure source protection planning is in place

New regulation 205/18 has been established under the Safe Drinking Water Act, 2002, to ensure that source protection planning is in place for new and changing municipal systems, before treated drinking water is provided to the public.



The regulation came into effect on July 1, 2018. Municipal residential drinking water system owners are now responsible for ensuring that vulnerable areas are delineated and vulnerability scores are identified before they apply for a drinking water works permit. Source protection plans must also be amended and approved prior to the treated water being supplied to the public.

Notify your local conservation authority immediately, when planning changes to your drinking water systems, or planning for a new well/intake or a new system.

Provincial Policy Statement

Municipalities and other planning authorities must follow the Provincial Policy Statement. Section 2.2.1 mandates planning authorities to protect, improve or restore the quality and quantity of water. This includes protecting vulnerable areas associated with drinking water sources.

Be informed

- **Your constituents** may come to you with questions about the source of their drinking water supply. Find out how drinking water source protection benefits your region, and the cost of the protection. Know how many municipal wells/surface water intakes there are, where they are located, and who they serve in your municipality. Determine these with help from your municipal staff and local conservation authority.
- **Municipalities** are responsible for implementing more than half of the policies found in source protection plans. Many of these policies are legally binding.

Review the source protection plan for your area to find out what policies are to be implemented within your municipality and what actions are being taken to protect drinking water vulnerable areas.

- Understand how **source protection plan policies** can impact building requirements. Development applications and planning or building permits may be flagged at a municipality for land use planning policies. These applications or permits often need to be reviewed by the local risk management official (RMO) before they can be submitted to the municipality. Proposed activities may require a risk management plan, or in some cases are prohibited.
- When a **risk management plan** is needed, a risk management official works with the landowners/renters to develop a plan that contains measures to protect drinking water sources. A risk management plan is only required when a property is in a vulnerable area and the activity being undertaken poses a significant level risk to drinking water sources.
- **Sewage systems** identified under the Clean Water Act as causing significant level risks to drinking water sources, are subject to mandatory inspections through the Building Code Act, 1992.
- The Drinking Water Source Protection Program does not include **individual private wells**. A private well owner needs to regularly sample their water to test its quality, and properly maintain their well to protect water sources. [The Best Practices for Source Water Protection](#) developed by the Ministry of the Environment, Conservation and Parks, provides guidance for systems not covered under Clean Water Act.



What's a vulnerable area?

Drinking water source protection is based on science. Local scientific data was used to create maps that show drinking water vulnerable areas. In these areas, we need to pay attention to activities causing contamination and overuse of our municipal drinking water sources.

To find out if a property is located in a drinking water vulnerable area, search the Source Protection Information Atlas at ontario.ca/page/source-protection.

There are four types of vulnerable areas:

Wellhead protection areas (WHPAs) are areas around municipal wells where the groundwater is travelling toward that well when the well is being pumped. These areas should be protected from risks to the quality and quantity of the drinking water source.

Intake protection zones (IPZs) are areas of land and water around surface water intakes that should be protected from risks to the quality and quantity of the drinking water source.

Significant groundwater recharge areas (SGRAs) are areas where a relatively high percentage of precipitation seeps into the ground to help maintain the water level in an aquifer that supplies a community or private residence with drinking water.

Highly vulnerable aquifers (HVAs) are areas that are particularly susceptible to contamination based on factors such as the aquifer depth underground, the soil types, soil permeability and other characteristics of the surrounding soil or rock.

If a water quality issue is identified by source protection committees under the Clean Water Act, issue contributing areas (ICAs) can be delineated within the vulnerable areas. Examples of issues identified in Ontario include nitrate and sodium. Mandatory policies apply within issue contributing areas in order to ensure that the source water quality is protected or improved.

Know the threats to drinking water sources

The Clean Water Act identifies activities that could pose a threat to drinking water sources under certain circumstances. These threat activities may be significant, moderate or low level risks. Identified threats include:

- Application, handling and storage of agricultural source material (such as manure), non-agricultural source material (such as biosolids), commercial fertilizer, and pesticides.
- Handling and storage of fuel, dense non-aqueous phase liquids (DNAPLs*), and organic solvents.
- Management of aircraft de-icing chemical runoff.
- Land used for livestock grazing or pasturing, outdoor confinement areas, and farm-animal yards.
- Application, handling and storage of road salt, and storage of snow.
- The establishment, operation and maintenance of systems that collect, store, transmit, treat or dispose of sewage (such as septic systems and sewage treatment plants, stormwater management facilities).
- The establishment, operation and maintenance of waste disposal sites (such as landfills).
- Activities that take water from a water body without returning the water to the same water body.
- An activity that reduces the recharge of an aquifer.
- The establishment and operation of a liquid hydrocarbon pipeline (added in April 2018, through an amendment to the Clean Water Act).

**DNAPLs, or dense non-aqueous phase liquids, are a particularly hazardous group of substances that are heavier than water and are difficult to remove once they contaminate a water source.*



Have you seen this Drinking Water Protection Zone sign?

These signs are appearing across Ontario to raise awareness about the vulnerability of our municipal drinking water sources. Governments at the local and provincial level are placing signs along roadways where a pollution spill could have a negative impact on our drinking water sources.

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SOURCE PROTECTION
Our Actions Matter