

# Threats to your drinking water sources

In your area, many activities have the potential to harm drinking water sources. These activities may include storage of sewage (including septic systems), fuel (including home heating oil), chemicals, storing or applying pesticides and fertilizers, and others.

When these types of activities take place near a municipal well there is a chance of impairing your local drinking water. That's why we need your help to ensure activities are managed well to protect water sources.

The Province of Ontario created a law called the *Clean Water Act, 2006* to reduce risk to your drinking water. Ontario has listed 21 activities or conditions that could harm water sources.

Activities are assessed as low, moderate, or significant threats to drinking water. The level of threat depends on where the activities take place (for example, near a municipal well, on land that is vulnerable to contamination, etc.) and the circumstances (for example, the quantity; above or below the ground; etc.).

Find out about how vulnerable areas were mapped and how threats were assessed by visiting your local website at [sourcewaterinfo.on.ca](http://sourcewaterinfo.on.ca). You may also talk to your local risk management official or staff of the source protection region. Contact information is on the next page.

Together, we can protect our local sources of drinking water.

## Reducing risk

Your local source protection committee has worked to create practical, effective plans to reduce risk posed by the 21 drinking water threat activities.

Plans for the Maitland Valley and Ausable Bayfield areas use a number of ways to reduce this risk. Policies include education and outreach, risk management plans, changes to municipal land use planning documents, and prohibition of establishing some threat activities.

The Ontario Minister of the Environment and Climate Change approved the plans on January 19, 2015. The plans took effect on April 1, 2015.

Many landowners have already reduced risk to drinking water by doing stewardship projects in close proximity to drinking water sources, and improving storage or application practices.

Locally-developed source protection plans are found at [sourcewaterinfo.on.ca](http://sourcewaterinfo.on.ca).

## What are examples of threats to drinking water?

- Septic systems; On-site sewage
- Fuel oil (e.g., home heating oil)
- Liquid fuel (e.g., large commercial fuel storage)
- Chemicals (toxic chemicals such as organic solvents and dense non-aqueous phase liquids or DNAPLs)
- Commercial fertilizer
- Pesticides
- Nutrients (manure, bio-solids, grazing)
- Waste disposal sites (including storage of hazardous waste)
- Sewage works (sewage treatment plants, municipal sewers)
- Road salt and snow storage
- Others: See list of 21 provincially prescribed drinking threats, and more examples, on next page. You may also visit the local website at: [sourcewaterinfo.on.ca](http://sourcewaterinfo.on.ca)

Drinking Water Threat Activity – Prescribed by Regulation	Examples of Threat
Establishment, operation or maintenance of a waste disposal site within the meaning of Part V of the Environmental Protection Act.	Storage of PCBs, waste oil and other hazardous waste; landfilling of hazardous, non-hazardous, municipal or commercial waste; land application of untreated septage.
Establishment, operation or maintenance of a system that collects, stores, transmits, treats, or disposes of sewage. <i>(Includes septic systems).</i>	Septic systems, stormwater treatment ponds, discharge of industrial effluent, sewage treatment plants and sanitary sewer systems.
Use of land as livestock grazing or pasturing land, an outdoor confinement area or a farm animal yard.	Fields where livestock graze, feed lots and confinement areas outside barns.
Application of agricultural source material to land.	Manure produced by farm animals, and runoff from farm yards and manure storages, or wash water such as milking centre waste, or compost (such as mushroom compost).
Storage of agricultural source material.	
Management of agricultural source material.	
Application of non-agricultural source material.	Land application of sewage bio-solids or other similar wastes such as pulp and paper bio-solids or waste materials from food processing.
Handling and storage of non-agricultural source material.	
Application of commercial fertilizer to land.	Nitrogen and phosphorus applied or stored for farm or commercial use (such as landscaping or golf courses).
Handling and storage of commercial fertilizer.	
Application of pesticide to land.	Specific categories of pesticides including: herbicides, fungicides, or those used as a soil fumigant to control fungi, nematodes, and weeds, for farm and commercial use.
Handling and storage of pesticide.	
Application of road salt.	Road salt, pickled sand in large quantities.
Handling and storage of road salt.	
Storage of snow.	Snow storage over one (1) hectare. Municipal or commercial snow dumps.
Handling and storage of fuel.	Gas stations and card locks or key locks, marinas, private storage such as farms and contractor yards, and heating oil tanks for homes and businesses.
Handling and storage of a dense non-aqueous phase liquid or DNAPL.	DNAPLs and/or organic solvents may be found in dry-cleaning chemicals, paint and spot removers, rug cleaning fluids, varnishes, paints, lacquers, adhesives, glues, and de-greasing or cleaning agents, and substances used in the production of dyes, polymers, plastics, textiles, and printing inks.
Handling and storage of an organic solvent.	
Management of runoff that contains chemicals used in the de-icing of aircraft.	Large airports using ethylene glycol to de-ice aircrafts.
An activity that takes water from an aquifer or a surface water body without returning the water taken to the same aquifer or surface water body. <i>(This is a water quantity threat).</i>	Water taken from groundwater and then discharged into a lake or river. Canning factories; bottling plants.
An activity that reduces the recharge of an aquifer. <i>(This is a water quantity threat).</i>	Increasing impervious cover of the ground, often through construction of paved areas, for example, parking lots.

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Maitland Valley Source Protection Area: 519-335-3557 • Ausable Bayfield Source Protection Area: 519-235-2610

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