

Drinking water threats from fuel

It is said that just one litre of fuel can pollute one million litres of water. By making sure fuel is stored safely you can help to reduce risk to your community's drinking water supply.



Understanding the threat

Why is fuel a threat?

A spill of fuel or other petroleum products can seep through the ground and into the aquifers (which store groundwater under our feet) that provide a source of municipal drinking water.

Compounds in the fuel can cause a range of health problems, and make the water undrinkable. Fuel could also harm surface water if it reaches rivers and lakes.

How much fuel is a significant threat?

The risk level posed by fuel depends on the volume of fuel stored, and the proximity of the fuel to the water supply. Large amounts of fuel – greater than 250 litres – can be a significant threat in wellhead protection areas (zones A or B).

Examples of Fuel Storage

Large amounts of fuel storage include:

- Gas stations, card locks
- Heating oil tanks for businesses & homes
- Marinas
- Farms
- Private businesses

Spill prevention is key. Make sure your facility meets all applicable codes and regulations.

Do plan policies affect me?

Source protection plan policies don't apply legal obligations to everyone who stores fuel. People must comply with policies where fuel storage is considered a significant threat to drinking water.

Where is fuel a significant threat to drinking water sources?

- On properties located within 100 metres of the municipal well (Wellhead Protection Area A), or in most vulnerable areas of the two-year time-of-travel zone (Wellhead Protection Area B).
- For maps of wellhead protection areas go to our website at: sourcewaterinfo.on.ca

To learn more, contact your risk management official or source protection staff.

Online resources:

- Technical Standards and Safety Authority: tssa.org/regulated/fuels
- Storage of petroleum products: www.ontariosoilcrop.org/wp-content/uploads/2023/08/EFPIfosheet5-SCAP-logo.pdf

Examples of threat activities

Activities that pose threats to drinking water sources include:

- Septic systems; On-site sewage
- Fuel oil (including home heating oil)
- Liquid fuel such as gas stations
- 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 collection and treatment; stormwater management)
- Road salt and snow storage
- Others: For the list of 22 provincially prescribed drinking water threats, visit: <https://threats.swpip.ca/>

Find out more online:

- Plans, maps, more: sourcewaterinfo.on.ca
- Province of Ontario: ontario.ca/page/source-protection

Contact us:

Ausable Bayfield Maitland Valley
Source Protection Region
c/o 71108 Morrison Line,
RR 3 Exeter, ON • N0M 1S5
1-888-286-2610
<https://www.sourcewaterinfo.on.ca>
Maitland Valley: 519-335-3557
Ausable Bayfield: 519-235-2610



How is fuel threat addressed?

Source protection plans help to protect your sources of municipal drinking water.

The Province of Ontario approved plans, for Maitland Valley and Ausable Bayfield areas, in 2015.

These plans use a variety of tools to protect municipal drinking water sources:

Education and Outreach

Are you located close to a municipal well or water intake? Learn how to protect water by identifying activities that can threaten our sources of water – groundwater in aquifers and surface water (Lake Huron).

Risk Management Plan (RMP)

- A local risk management official works with the operator or landowners to develop the RMP, similar to a spills prevention plan.
- Required for fuel storage only where it poses a significant threat to drinking water sources.

Prohibition

- Any new (i.e., future) fuel storage larger than 2,500 litres will be prohibited.
- Prohibition is only used in the most vulnerable areas near municipal wells.

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