



# 22 Prescribed Drinking Water Threats

Certain activities on land and in water near municipal drinking water sources may adversely affect water quality and quantity. The Province of Ontario has identified 22 prescribed drinking water threats under the *Clean Water Act, 2006*. Of the 22 threats, 20 of them are related water quality, while the remaining two are related to water quantity.

During a study of the local municipal drinking water systems, threats were inventoried and ranked as significant, moderate, or low. All significant drinking water threats require mitigative measures to ensure that the activities occurring on the property are not adversely affecting the municipal drinking water source.

## How are Drinking Water Threats Addressed?

The Quinte Source Protection Plan (the Plan) outlines the steps that must be taken to reduce the risk posed by drinking water threats. The Plan includes policies that use a variety of approaches such as education and outreach, Risk Management Plans, changes to municipal land use planning documents, and in some cases the prohibition of certain activities near municipal water sources.

Since 2007, numerous stewardship projects were completed to decrease the risk of contamination from activities on landowners' properties.



## 22 Prescribed Drinking Water Threats

- 1 The establishment, operation or maintenance of a waste disposal site within the meaning of Part V of the *Environmental Protection Act, 1990*.
  - **Examples:** the storage of municipal or commercial waste, PCBs, waste oil, other hazardous waste, and disposal of hauled sewage to land.
- 2 The establishment, operation or maintenance of a system that collects, stores, transmits, treats, or disposes of sewage.
  - **Examples:** septic systems, stormwater treatment ponds, discharge of industrial effluent, sewage treatment plants and sanitary sewer systems.





- 3 The application of agricultural source material
  - **Example:** spreading manure produced by farm animals.
- 4 The storage of agricultural source material
  - **Examples:** permanent or temporary storage of manure produced by farm animals
- 5 The management of agricultural source material
  - **Example:** facilities that cultivate fish or other aquatic organisms in a controlled environment which also produces agricultural source materials.

- 6 The application of non-agricultural source material
  - **Examples:** spreading of biosolids or other similar waste products such as pulp and paper.
- 7 The handling and storage of non-agricultural source material
  - **Examples:** storing biosolids or other similar waste products such as pulp and paper.



- 8 The application of commercial fertilizer to land
  - **Example:** spreading fertilizers that contain nitrogen and phosphorus.
- 9 The handling and storage of commercial fertilizer.
  - **Example:** storing commercial fertilizers that contain nitrogen and phosphorous.

- 10 The application of pesticides to land.
  - **Examples:** spreading chemicals used to control weeds (herbicides), fungi (fungicides) or those used as soil fumigants to control fungi, nematodes, and weeds.
- 11 The handling and storage of pesticides.
  - **Examples:** storing chemicals used to control weeds (herbicides), fungi (fungicides) or those used as soil fumigants to control fungi, nematodes, and weeds.



- 12 The application of road salt.
  - **Example:** applying road salts that contain chloride and sodium as a deicer.
- 13 The handling and storage of road salt.
  - **Example:** storing road salt that contains chloride and sodium.
- 14 The storage of snow.
  - **Example:** large snow piles removed from parking areas.



- 15** The handling and storage of fuel.
- **Examples:** facilities where fuel is manufactured, gas stations, marinas, farms or contractor yards, and heating oil tanks for homes and businesses.

- 16** The handling and storage of dense non-aqueous phase liquid (DNAPLs).
- **Examples:** Dry-cleaning chemicals, paints, and spot removers.

- 17** The handling and storage of an organic solvent.
- **Examples:** paints, varnishes, adhesives, degreasing or cleaning agents, and substances used in the production of dyes, polymers, plastics, textiles, and printing ink.



- 18** The management of runoff that contains chemicals used in the de-icing of aircraft.
- **Example:** airports using ethylene glycol to de-ice their aircraft.

## Water Quantity Threats

- 19** 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.
- **Examples:** water taken from a river or bay and then discharged onto the ground and into the groundwater.
- 20** An activity that reduces the recharge of an aquifer.
- **Examples:** Increasing impervious cover of the ground through construction of paved areas



- 21** The use of land as livestock grazing or pasturing land, and outdoor confinement area or a farm yard.
- **Examples:** fields where livestock graze and confinement areas outside of barns.
- 22** The establishment and operation of a liquid hydrocarbon pipeline.
- **Examples:** pipelines that transfer petroleum hydrocarbons and BTEX.