

# DRINKING WATER SOURCE PROTECTION

ACT FOR CLEAN WATER



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## Drinking Water Threats from Waste Disposal

Waste disposal sites are listed as drinking water threats under Ontario's *Clean Water Act, 2006*. There are many different types of waste disposal sites which are necessary to deal with the waste produced by residents of the Quinte Region. Waste disposal activities are considered to be possible

threats to drinking water due to the potential for leaching of many varied types of contaminants into ground and surface water. Few waste disposal sites are located within the vulnerable areas of municipal drinking water systems in the Quinte Region.

### Which waste disposal activities are considered threats?

Specific waste disposal activities that are listed in the regulations under the *Clean Water Act, 2006* as significant drinking water threats are:

- land application of untreated septage,
- storage, treatment and discharge of tailings from mines,
- landfilling of petroleum waste,
- landfilling of hazardous, municipal, non hazardous, or commercial waste,
- storage of PCBs, waste oil and other hazardous waste.

The occurrence of these activities in vulnerable areas does not necessarily mean they are significant drinking water threats. That determination is made based on site specific circumstances which include factors such as the size of the landfill.



### Types of threats to our drinking water sources:

#### Waste Disposal Sites

**On-site Sewage Systems** (septic systems)

**Sewage Works** (sewage treatment plants, municipal sewers)

**Fuel Oil** (residential heating oil)

**Liquid Fuel**

**Nutrients** (manure, bio-solids, outdoor livestock areas)

**Commercial Fertilizer**

**Pesticides**

**Road Salt and Snow Storage**

**Chemicals** (DNAPLs (toxic chemicals) and Organic Solvents)

**Aquaculture**

## *Where are the waste disposal threats in the Quinte Region?*

Waste disposal sites are considered to be significant drinking water threats in the vulnerable areas surrounding municipal wells (WHPAs) and surface water intakes (IPZs). This includes vulnerable areas near the municipal wells in Madoc, Tweed, Deloro, Peats Point, and Point Anne and the vulnerable areas near the municipal drinking water intakes for Belleville, Picton, Ameliasburgh, Point Anne, Deseronto, and Napanee.

Based on the definition of a waste disposal site and threat activities, there have been no active landfill waste disposal sites found in the above vulnerable areas in the Quinte Region. However, past land use activities which have been identified as 'conditions' include two closed landfill sites. Closed landfill sites are not considered a current activity. Contamination has been identified at these two sites which could be a concern to the drinking water intakes at Picton and Belleville.

The storage of hazardous liquid waste, for instance at automotive servicing businesses, is also considered to be a significant threat.



## *How are waste disposal threats being addressed?*

Eight policies in the Source Protection Plan address both existing and future activities related to waste disposal that are or would be significant and moderate drinking water threats in the specific vulnerable areas. The Plan is posted at [www.quintesourcewater.ca](http://www.quintesourcewater.ca).

Policies in the Plan call for:

Municipalities to establish risk management plans to address waste storage sites where hazardous waste (liquid waste) is not already regulated by Ontario Regulation 347/09.

The Ministry of the Environment and Climate Change is requested not to issue Certificate of Approvals for new landfill sites in vulnerable areas. For existing sites a review of the Certificate (s) of Approval is to be completed to ensure adequate measures are in place to protect the source of municipal drinking water. Policies also address 'conditions' (past land use activities) to ensure appropriate monitoring and closure plans exist at two landfill sites that are no longer in use. Another policy addresses all landfill sites in the Quinte Region that are moderate threats and requests the Ministry of the Environment and Climate Change to review Certificate(s) of Approval for these sites in respect of all vulnerable areas including Highly Vulnerable Aquifers and Significant Groundwater Recharge Areas.

Municipalities are asked to use land use planning tools to prevent the establishment of any new waste disposal sites in the vulnerable areas surrounding municipal drinking water supplies.

For the drinking water systems located in the vicinity of two landfill sites that are no longer in use (Belleville and Picton), municipalities are asked to monitor for potential contaminants in the raw water of the municipal drinking water intake.