



Glossary



Activity

An action that has the potential to contaminate or deplete a source of drinking water. Activities are prescribed in the Table of Drinking Water Threats: *Clean Water Act*, 2006 dated December 12, 2008 and in the Technical Rules: Assessment Report. Generally they include actions such as storage, handling and application of potential contaminants.

Agricultural Source Material (ASM)

See definition in section 3.9 on page 58.

Aquifer

A geological formation (typically porous material, such as sand or gravel, or fractured rock) that stores and is capable of transmitting water in sufficient quantities to serve as a sustainable source of water supply.

Assessment Report

A technical document that is prepared by a source protection committee under Section 15 of the *Clean Water Act*, 2006 to record its knowledge of a source protection area, and to rank risks to drinking water within that area. Each report is approved by the Ontario Ministry of the Environment and Climate Change.

BTEX

An acronym for benzene, toluene, ethyl benzene and xylene. These compounds are some of the volatile organic compounds (VOCs) found in petroleum derivatives such as gasoline.

Circumstances

Circumstances specify details about what makes an activity a threat. See Appendix B for a summary of the Drinking Water Threat Circumstances used to determine significant drinking water threats. The details included in the circumstances are often unique to the type of threat and can include several different factors such as chemical being used, storage volumes or application rates.

Committee

See Source Protection Committee.

Contaminant

Biological or chemical substances (normally absent in the environment) which, in sufficient concentration, can adversely affect living organisms through air, water, soil and food.

Contamination

The mixing of harmful elements, compounds or microorganisms with surface or groundwater. Contamination can occur naturally (e.g., an aquifer flowing through mineral deposits that contain heavy metals) or through human activity (e.g., sewer water flowing into a river). Nutrients, such as nitrogen and phosphorus, can also cause water contamination when they are present in excessive amounts.

Custom Applicator's Storage Yard

Custom farm work of any type refers to ownership or operation of farm equipment for hire on another person's farm. Custom Applicator refers to a person or business that applies pesticide for a fee. The Custom Applicator's Storage Yard where the pesticide is stored prior to application would store larger volumes of pesticide than a typical farm yard.

Dense Non-Aqueous Phase Liquid (DNAPL)

A liquid which is denser than water and does not dissolve in water. The term is most often used to describe contaminants in groundwater, surface water and sediments that sink below the water table when spilled and only stop when they reach impermeable bedrock. Their penetration into an aquifer makes them difficult to locate and remediate.

Drinking Water

Drinking water, or potable water, is water pure enough to be consumed or used with low risk of immediate or long term harm.

Drinking Water System

A system of works that is established for the purpose of providing users of the system with drinking water. It includes:

- a) anything used for the collection, production, treatment, storage, supply or distribution of water;
- b) anything related to the management of residue from the treatment process or the management of the discharge of a substance into the natural environment from the treatment system; and
- c) a well or intake that serves as the source or entry point of raw water supply for the system.

Drinking Water Threat

An activity or condition that adversely affects or has the potential to adversely affect the quality or quantity of any water that is or may be used as a source of drinking water, and includes an activity or condition that is prescribed by the regulations as drinking water threats.

Environmental Farm Plan

A program that is delivered locally through the Ontario Soil and Crop Improvement Association with expertise provided by the Ontario Ministry of Agriculture, Food and Rural Affairs. It is a voluntary educational program for farmers delivered through local workshops. Participants are provided instruction on how to progress through the risk assessment and action plan development contained in the farm plan workbook. Limited funds (either a 50/50 or 30/70 cost share depending on project) are available to help address areas identified in the plan as needing improvement.

Existing and Future Activity

See definition in Section 3 on page 22.

Groundwater

Water beneath the earth's surface, often between saturated soil and rock, which supplies wells and springs.

Highly Vulnerable Aquifer (HVA)

It is one of four types of vulnerable areas identified in the *Clean Water Act*. It is an aquifer on which external sources have or are likely to have a significant adverse effect, and includes the land above the aquifer. See section 2.2 on page 10 for more information.

Hydrogeologist

Is a Geoscientist who specializes in the flow dynamics of and solute transport in groundwater as these relate to the host geological media.

Intake Protection Zone (IPZ)

It is one of four types of vulnerable areas identified in the *Clean Water Act*. It is the area upstream of a surface water intake where land use activities have the potential to affect the quality of water that flows into the intake. See section 2.2 on page 10 for more information.

Integrated Pest Management

A process that uses a variety of tools, including best practices, mechanical and biological methods, along with pesticides when necessary, to manage pest populations. If not subject to Ontario's Cosmetic Pesticide Ban an organization must prepare an annual report on how they minimized their pesticide use and make the report accessible to the public. Also, they must hold a public meeting annually to present the report.

Liaison Member

Are those individuals who fulfill the intent of Section 19 of Ontario Reg. 288/07 to act as a liaison between the Committee and other bodies.

Low Drinking Water Threat

Is a drinking water threat that, according to a risk assessment under the *Clean Water Act*, poses or has the potential to pose a low risk to source water. See explanation in Section 2.1 on page 8.

Moderate Drinking Water Threat

Is a drinking water threat that, according to a risk assessment under the *Clean Water Act*, poses or has the potential to pose a moderate risk to source water. See explanation in Section 2.1 on page 8.

Municipal Residential Drinking Water System

A drinking water system or part of a drinking water system:

- a) that is owned by a municipality or by a municipal service board established under the *Municipal Act, 2001* or a city board established under the *City of Toronto Act, 2006*;
- b) that is owned by a corporation established under sections 9, 10 and 11 of the *Municipal Act, 2001* in accordance with section 203 of that Act or under sections 7 and 8 of the *City of Toronto Act, 2006* in accordance with sections 148 and 154 of that Act;
- c) from which a municipality obtains or will obtain water under the terms of a contract between the municipality and the owner of the system; or
- d) that is in a prescribed class.

Nutrient

Something that nourishes and promotes growth.

Nutrient Unit

See definition in Section 3.9 on page 59.

Ontario Drinking Water Quality Standards

Is the Ontario Regulation 169/03 (Ontario Drinking Water Quality Standards) made under the *Safe Drinking Water Act, 2002*.

Pathogen

A microbe or microorganism such as a virus, bacterium, prion, or fungus that causes disease in its animal or plant host.

Permit to Take Water

A normal permit issued by the Ontario Ministry of the Environment and Climate Change under section 34 of the *Ontario Water Resources Act* (R.R.O. 1990) to provide permission for an individual or company to take more than 50,000 litres of water in one day.

Phase I Maintenance Inspection (for on-site sewage systems)

Inspections generally begin with a review of available material, including material collected in the identification phase, and reports from previous inspections. The purpose of Phase I maintenance inspections is to:

- a) Obtain the most recent information on the system, as well as the size of the building and the number of fixtures and bedrooms that it is servicing;
- b) Locate the sewage system's components;
- c) Identify any obvious or outward signs of malfunction or failure; and
- d) Identify systems that are at risk of malfunction or failure.

Phase I maintenance inspections generally avoid significant disturbance to the system and the surrounding soil area. During the course of a Phase I maintenance inspection, the inspector would normally identify:

- a) The type of occupancy to determine the source and type of the sanitary sewage;
- b) The source of water supply (municipal, well, lake, etc);
- c) The approximate volume of sewage generated;
- d) The use of special devices such as garbage grinders or water softeners;
- e) The general nature of the system (class, components, type, layout, etc);
- f) The location of the system's components with respect to wells, surface water, and other environmental features;
- g) The approximate level of ground water. This may be achieved by:
 - i. reviewing local maps and records of ground water elevation observed on site or nearby properties, including the local assessment report, if available;
 - ii. Observing the conditions of the septic tank and the distribution box for indications of ground water infiltration;

- iii. Observing the elevation of nearby water body, or evidence of ground water infiltration in other subsurface structures; or
- iv. The use of hand augering;
- h) The size, material and the condition of the septic tank, or the holding tank;
- i) The frequency of tank pump out and the last time the tank was cleaned;
- j) Any indication of sewage system failure, including:
 - i. Evidence of backup of effluent;
 - ii. Signs of hydraulic failure (breakout of sewage, wetting conditions in the leaching bed area);
 - iii. bed area);
 - iv. Condition of surface vegetation; and
 - v. Odour problems;
- k) Documentation of previous effluent sampling test results where required (i.e., under Article 8.9.2.4. of the Building Code).

Phase II Maintenance Inspection (for on-site sewage systems)

A Phase II Inspection is required when:

- The Phase I maintenance inspection has identified that the septic system is at risk of future malfunction or failure, or
- The Phase I inspection detected a malfunction or failure, but did not reveal the reason (e.g., location or nature) of malfunction or failure.

These inspections may include examinations of the following elements:

- The depth of the sludge layer and the distance from top of the sludge layer and the outlet tee;
- The thickness of the scum layers;
- The distance between the bottom of the scum/grease layer and the bottom of the outlet tee;
- The distance between the top of the scum layer and the top of the outlet tee'
- The physical condition of the inlet and outlet; and
- The condition of the effluent filter, if utilized.

Prescribed Instruments

Are provincially issued documents with specific rules that govern activities on a specific property. They often contain rules to protect human health and the environment and may include licenses, permits, approvals, orders or other legal provincial documents. They are listed in the *Clean Water Act, 2006* (Ontario Regulation 287/07) and fall under six Acts (*Environmental Protection Act; Ontario Water Resources Act; Pesticides Act; Safe Drinking Water Act; Aggregate Resources Act; and Nutrient Management Act*). Prescribed instruments can be relied upon to achieve the desired outcome for addressing a threat because the *Clean Water Act, 2006* mandates conformity of these instruments to certain policies in the Plan.

Principal Authority

Responsible for enforcing the administrative and technical requirements of Ontario's *Building Code Act, 1992* and Building Code (including Part 8 which regulates on-site sewage systems). Principal authorities can include municipalities, Conservation Authorities and health units.

Provincial Tables of Circumstances

A document issued by the Ontario Ministry of the Environment and Climate Change that identifies the circumstances under which each prescribed drinking water threat is considered a significant, moderate and low drinking water threat.

Public Body

Public body is defined in the *Clean Water Act* as:

- a) a municipality, local board or Conservation Authority;
- b) a ministry, board, commission, agency or official of the Government of Ontario; or
- c) a body prescribed by the regulations or an official of a body prescribed by the regulations.

Raw Water

Raw water is natural water found in the environment, such as groundwater and surface water, that has not been treated.

Retail Sales Establishments

A retail business sells products directly to consumers from a location such as a storefront, a mobile kiosk or an online shop. E.g. Home Hardware, Walmart, and automotive parts suppliers.

- Exclusions — Automotive repair and maintenance businesses.

Risk Management Plan

See definition in Section 3 on page 23.

Sewage Works

Stormwater from a stormwater retention pond:

Rainwater runoff, water runoff from roofs, snowmelt and surface runoff. Stormwater ponds provide quantity and quality control by capturing this excess runoff and allowing time for settling of suspended pollutants.

Sanitary sewers and related pipes:

Pipes and related infrastructure (such as pumps) that collect sanitary waste from serviced buildings in an area.

Sewage treatment plant effluent discharges (including lagoons):

Sewage treatment plants release treated wastewater that is called effluent. Effluent can be directly released to a watercourse or waterbody. Effluent from a lagoon is usually scheduled for release during high flows.

Storage of sewage:

A treatment tank or storage tank that is part of a sewage works within the meaning of the *Ontario Water Resources Act*; the tank treats or stores sanitary sewage containing human waste.

Combined sewer discharge from a stormwater outlet to surface water:

See definition in Section 3.2.5 on page 37.

Sewage treatment plant by-pass discharge to surface water:

Sometimes the capacity at a sewage treatment plant is overwhelmed and partially treated or untreated sanitary waste is released into the receiving water body. This is generally as a result of an extreme wet weather event where the sanitary sewer network is not completely isolated from stormwater. Combined sewers or sewer networks with inflow or infiltration issues are the root causes of bypasses.

Industrial effluent discharges:

Industrial processes often produce industrial sewage requiring industrial sewage works to collect, transmit, treat or dispose of it. The resulting effluent, when discharged to surface water, can be a significant drinking water threat.

Septic system:

A system that stores and/or treats human waste on-site (not including a sewage treatment plant).

Significant Drinking Water Threat

Is a drinking water threat that, according to a risk assessment under the *Clean Water Act*, poses or has the potential to pose a significant risk to source water. See explanation in Section 2.1 on page 8 and Section 3 on page 23.

Significant Groundwater Recharge Area (SGRA)

It is one of four types of vulnerable areas identified in the Clean Water Act. It is the area where an aquifer is replenished through the infiltration of rainfall and snowmelt and the seepage from lakes, streams and wetlands, or from built structures such as storm water management systems. See section 2.2 on page 10 for more information.

Source Water Protection

A program of education, stewardship, planning, infrastructure, and regulation activities that together serve to help prevent the contamination or overuse of source water.

Source Protection Area

Those lands and waters that have been defined under Ontario Regulation 284/07 as the “study area” for an assessment report and a source protection plan under the *Clean Water Act*, 2006. See section 1.3 on page 3 for more information.

Source Protection Authority

A Conservation Authority or other person or body that is required to exercise powers and duties under the *Clean Water Act*, 2006. See section 1.4 on page 4 for more information.

Source Protection Committee

A group of multi-stakeholder individuals who have been appointed under the *Clean Water Act*, 2006 by a Source Protection Authority to coordinate source protection activities for a source protection area. See section 1.5 on page 4 for more information.

Source Protection Plan

A document that is prepared by a source protection committee under Section 22 of the *Clean Water Act*, 2006 to direct source protection activities in a source protection area. Each plan is approved by the Minister of the Environment.

Source Protection Region

Two or more source protection areas that have been grouped together under Ontario Regulation 284/07. See section 1.3 on page 3 for more information.

Source Water

Untreated groundwater or surface water that is used to supply a drinking water system.

Surface Water

Water that is present on the earth’s surface, often found in rivers, lakes, wetlands, or ponds.

Time of Travel

An estimate of the time required for a particle in the water to move from a specific point into a well or intake.

Transport Pathways

These are natural or human-made routes where water can flow (e.g., sewer discharge pipes, drainage ditches, utility trenches, transportation corridors, small tributary channels, fractured rock, and sand lenses) towards a drinking water well or intake.

Vulnerable Area

There are four types of vulnerable areas identified in the *Clean Water Act*: significant groundwater recharge area, highly vulnerable aquifer, intake protection zone, and wellhead protection area.

Waste Disposal Sites

Application of untreated septage to land:

Hauled sewage applied to land includes wastes from septic tanks, holding tanks and portable toilets from residential, commercial and industrial sources.

Storage, treatment and discharge of tailings from mines:

Is the storage of "tailings," which may or may not be mixed with water that remains after processing of ore, ore concentrate or mined materials to extract marketable components such as metals, minerals or bitumen. This could include ground rock material, sand, clay, process chemicals or residual metals, minerals or bitumen, petroleum coke (petcoke) and sulphur.

PCB (Polychlorinated biphenyl) waste storage

The storage of PCB waste defined as PCB equipment, PCB liquid or PCB material.

Landfarming of petroleum refining waste

The biodegradation of petroleum refining wastes by natural occurring soil bacteria by means of controlled application of the wastes to land followed by periodic tilling.

Liquid industrial waste injection into a well

Is both liquid waste and industrial waste that has a slump of more than 150 millimeters using the test methods for the Determination of Liquid Waste (slump test) set out in Schedule 9 of Ontario Regulation 347.

Landfilling (hazardous waste)

Disposal of waste by deposit, under controlled conditions, on land or on land covered by water, and includes compaction of the waste into a cell and covering the waste with cover materials at regular intervals. Hazardous wastes includes the following: hazardous industrial wastes, acute hazardous waste chemical (includes commercial waste chemical), hazardous waste chemical, ignitable waste, corrosive waste, reactive waste (except radioisotope as per the Canadian Nuclear Safety Commission), pathological waste, leachate toxic waste or PCB waste.

Landfilling (municipal waste)

Is any waste whether or not it is owned, controlled or managed by a municipality (except hazardous waste, liquid industrial waste or gaseous waste) and solid fuel derived in whole or in part from waste.

Landfilling (solid non-hazardous industrial or commercial waste)

Non-Hazardous industrial waste means industrial waste that is not liquid industrial, hazardous or asbestos waste. Commercial waste includes asbestos waste.

Storage of hazardous waste at disposal sites

Hazardous waste or liquid industrial waste stored at or below grade that has the potential to discharge waste into surface and groundwater.

Storage of wastes described in clauses (p), (q), (r), (s), (t) or (u) of the definition of hazardous waste

Include small quantities of hazardous waste, storage of empty hazardous waste containers and the storage of residues or contaminated materials from the clean-up of a small spill.

Watershed

An area of land from which surface runoff, including water, sediments, nutrients and contaminants, drains into a common water body, such as a lake, river, stream, creek or estuary.

Well Aware

A program of Green Communities Canada that encourages Ontario's residential well owners to protect their wells and common groundwater supplies.

Wellhead Protection Area (WHPA)

It is one of four types of vulnerable areas identified in the *Clean Water Act*. It is the area around a wellhead where land use activities have the potential to affect the quality of water that flows into the well. See section 2.2 on page 9 for more information.