

Table 2: Prescribed Instruments - Management of Drinking Water Threats

This document is intended as a general guide for source protection committees that are considering the use of instruments prescribed by section 1.0.1 of Ontario Regulation 287/07 to manage significant drinking water threats identified in assessment reports.

This matrix depicts the general activities that are prescribed as drinking water threats in section 1.1 of Ontario Regulation 287/07, specific activities that would be included as a sub-category of or would be associated with those general activities from the tables of drinking water threats and some prescribed instruments that might be considered for the purpose of managing those activities in circumstances where they are a significant drinking water threat.

Whether or not a specific prescribed instrument will be able to manage a significant drinking water threat in specific circumstances in a way that the source protection committee considers desirable will depend on the legislative authority that governs the issuing of the prescribed instrument and on the discretion of the Ministry official or other person who is issuing the instrument, to the extent that they are entitled to exercise their discretion under the legislative authority governing the issuing of the instrument.

It is therefore very important that a source protection committee, when considering the use of a prescribed instrument depicted on the matrix to manage a drinking water threat, consult the Ministry official or other person who issues the instrument about how the committee proposes to use the instrument so they will know from a practical point of view whether their proposal is likely to be workable, as per section 36 of O. Reg. 287/07.

Prescribed Drinking Water Threat (s. 1.1, Ontario Regulation 287/07, CWA)	Threat Sub Category (Tables of Drinking Water Threats)	Instrument Prescribed (s. 1.0.1, Ontario Regulation 287/07, CWA)												
		C of A – Sewage Works (s. 53, OWRA)	Section 39, Part V, EPA Waste Certificates of Approval (C of A)				Renewable Energy Approval (s. 47.5, EPA)	Municipal Drinking Water License and Permit (s. 40, 44, SDWA)	Pesticide Permit (s. 7, 11, Pesticides Act)	Nutrient Management Plan (s.14, 28, O.Reg. 267/03, NMA)	Nutrient Management Strategy (s. 10, 28, O.Reg 267/03, NMA)	NASM Plan (s. 15.2, O.Reg 267/03, NMA)	Aggregate Licenses, Wayside Permits, and Aggregate Permits and Site Plans (s. 8, 11, 13, 25, 30, 36, 37, ARA)	PTTW (s. 34, 34.1, OWRA)
			C of A - Waste Disposal Site	C of A - Waste Management System	C of A - Organic Soil Conditioning Site	C of A - Hauled Sewage Disposal Site								
Ministry of the Environment (MOE)								Ministry of Agriculture and Rural Affairs			Ministry of Natural Resources	MOE		
The establishment , operation or maintenance of a waste disposal site/ waste management system within the meaning of Part V of the EPA ¹	Storage, treatment and discharge of tailings from mines	X	X											
	Landfarming of petroleum refining waste		X											
	Landfilling (hazardous waste)		X											
	Landfilling (municipal waste) - includes storage of waste		X			X ³								
	Landfilling (solid non hazardous industrial or commercial waste) - includes storage of waste		X			X ³								
	Liquid industrial waste injection into a well		X											
	PCB waste storage ²													
	Storage of hazardous waste at disposal sites		X											
	Storage of wastes described in clauses p, q, r, s, t, or u of the definition of hazardous waste (O. Reg. 347 of EPA)		X											
	Application of untreated septage to land (i.e., hauled sewage) ⁴			X ⁴		X ⁴								

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The application of ASM to land									X ⁵					
The storage of ASM										X ⁵				
The management of ASM	Aquaculture	X												
The application of pesticide to land								X ⁶						
The handling and storage of pesticide														
The application of commercial fertilizer to land									X					
The handling and storage of commercial fertilizer														
The handling and storage of NASM			X ⁷		X ⁷						X ⁷			
The application of NASM to land				X ⁷							X ⁷			
	Application of treated septage (i.e., processed organic waste, biosolids) to land ⁸		X ⁸	X ⁸	X ⁸	X ⁸					X ⁸			
The use of land as livestock grazing or pasturing land, an outdoor confinement area or a farm animal yard (O. Reg. 385/08, s.3)	The management or handling of agricultural source material (generation due to grazing and pasturing)								X					
	The management or handling of agricultural source material (generation due to outdoor confinement)									X				
The management of runoff that contains chemicals used in the de-icing of aircraft		X ⁹												

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The establishment, operation or maintenance of a system that collects, stores, transmits, treats or disposes of sewage	Combined sewer discharge from a stormwater outlet to surface water	X												
	Discharge of untreated stormwater from a stormwater retention pond	X												
	Industrial effluent discharges	X												
	Sanitary sewers and related pipes (excluding "plumbing")	X												
	Septic system regulated under <i>Building Code</i> ¹⁰													
	Septic system regulated under <i>Ontario Water Resources Act</i> ¹⁰	X												
	Septic System Holding Tank	X												
	Sewage treatment plant by pass discharge to surface water	X												
	Sewage treatment plant effluent discharges (including lagoons)	X												
Storage of sewage (e.g., sewage treatment plant storage tanks)	X													
The handling and storage of an organic solvent														
The handling and storage of a dense non-aqueous phase liquid														
The handling and storage of fuel							X ¹¹				X ¹²			
The storage of snow														
The application of road salt														
The handling and storage of road salt														
An activity that takes water from an aquifer or surface water body without returning the water taken to the same aquifer or surface water body ¹³													X ¹³	

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An activity that reduces the recharge of an aquifer														

Notes:

- ¹ Typically generators of solid non-hazardous waste who are temporarily storing waste at their site are exempt from the Environmental Protection Act (EPA) requirements to have a Certificate of Approval to store waste. Typically, generators of "subject waste" (includes liquid and hazardous wastes) who store the waste at a site for less than two years are exempt from the EPA requirement to have a Certificate of Approval to store the waste. However, both of these types of facilities must meet the requirements set out in O. Reg. 347 made under the EPA. See the specific bulletin on Certificates of Approval for additional details and information on exemptions from the requirement for a EPA Part V waste approval.
- ² PCB waste storage/disposal sites are exempt from approval requirements under O. Reg. 362 under the EPA.
- ³ Renewable Energy Approvals are not a final disposal (i.e., landfilling) but the use of materials that could be considered waste that become inputs to a process to generate energy. These 2 circumstances in the context of renewable energy facilities are about the storage of waste products which may occur at REA facilities before processing.
- ⁴ The land application of untreated septage (i.e., hauled sewage from a sewage system) can be approved using a stand alone Hauled Sewage Disposal Site approval or using a waste Hauled Sewage Waste Hauler's approval (i.e. a Waste Management System Certificate of Approval). Note, where portable toilet waste is treated it may be land applied at an Organic Soil Conditioning Site under the EPA or, after January 1, 2011, at a site with an approved Non Agricultural Source Material (NASM) Plan under the Nutrient Management Act.
- ⁵ Only farms that are phased into Ontario Regulation 267 under the Nutrient Management Act (NMA) are subject to NMA instrument requirements. This depends on farm infrastructure, size, and types of nutrients generated and applied to land. See the specific bulletin on NMA instruments for details.
- ⁶ Eleven (11) active ingredients in pesticide products are included as a circumstances in the CWA table of drinking water threats. Some of these active ingredients, but not all, are required to have a pesticide permit for specific applications and application methods (i.e., aerial application). See the specific bulletin on pesticide permits for details. The handling and storage of pesticides is not managed under an instrument but by requirements in the Pesticides Act and regulation.
- ⁷ New sites established on agricultural land for the application of processed organic waste (i.e., NASM) will be regulated under O. Reg. 267 under the NMA. MOE will cease to issue Certificates of Approval (C of A) for land application of processed organic waste to agricultural land as of January 1, 2011. EPA waste approvals issued between 2006 and 2010 will remain in effect until the C of A expires (these approvals typically are issued for 5 years) or 2016 at which time all Part V approvals for NASM applications to farm land. Also note, in some cases the storage of NASM materials will remain regulated under an EPA Part V waste approval (e.g. storage tank constructed prior to 2003 or the NASM is stored on one parcel of agricultural land, but is being land applied on another parcel of agricultural land).
- ⁸ Historically the application of processed organic waste materials (NASM generated from off-farm sources) to farm land has been approved under a Part V EPA, Section 39 waste approval. As of January 1, 2011 these types of approvals will be issued under the Nutrient Management Act. The land application of processed organic waste to lands other than farm land will continue to be approved under Part V of the EPA. Also note that approval for an organic soil conditioning site can be issued using a stand alone waste disposal site Certificate of Approval (i.e., "Organic Soil Conditioning Site") or using a Processed Organic Waste Hauler's approval (i.e., a Waste Management System Certificate of Approval)
- ⁹ Certificates of Approval (sewage) under the Ontario Water Resources Act are issued for discharge from airports when the discharge is offsite or outside the property line.
- ¹⁰ Septic systems and other small sewage systems with a design capacity less than 10,000L/day are regulated under the Building Code with one exception; the components of the system are not all located on the same parcel of land (e.g., septic tank located on one lot while the tile bed is located on a separate lot). In this situation, the septic system is regulated under s. 53 of the Ontario Water Resources Act (sewage Certificate of Approval). Septic systems and other sewage systems (e.g., holding tank) with a design capacity of greater than 10,000L/day are regulated under s. 53 of the Ontario Water Resources Act (sewage Certificate of Approval).
- ¹¹ Only applies fuel storage/handling that occurs at a municipal residential drinking water system.
- ¹² Fuel storage is the most common activity prescribed in Reg 287/07 under the CWA as a drinking water threat which is associated with aggregate operations. The site plan associated with each of the types of aggregate instruments authorizes the location of the tank, whether storage tanks are above or below ground and whether tanks will be portable or permanent in nature. The specific requirements for handling and storage of fuel are regulated by the Technical Standards and Safety Authority.
- ¹³ A Permit to Take Water (PTTW) is typically not required under the following circumstances: i) water taking is less than 50,000L/day, ii) water taking equipment was installed/constructed prior to March 29, 1961, iii) water is taken for the purpose of fire fighting, or iv) water is taken for the purpose of domestic or farm use. See Bulletin on PTTW for more details on exemptions.