

# Ministry of the Environment and Climate Change's Source Protection Standard Operating Policies

The EBR Registry Number 012-2968 provides information on the Standard Operating Policies (“**SOPs**”) developed by the Ministry of the Environment and Climate Change (“**ministry**”) to support the ministry’s implementation of source protection prescribed instrument policies. The content of the SOPs for ensuring approvals for waste, sewage works, hauled sewage, water taking and land application of pesticides **conform with policies in source protection plans** are summarized below, **noting that where a prohibition policy applies, the ministry will refuse the application as is legally required**. The ministry will apply the SOPs on a province-wide basis, to ensure a consistent approach to implementing source water protection policies.

This document has two sections: the first section provides a summary of the ministry actions to be taken to conform with source protection prescribed instrument policies for significant threat activities (otherwise known in the **Clean Water Act, 2006** (“**CWA**”) as significant threat policies), and the second section provides a summary of the ministry’s actions to be taken to have regard to policies that govern moderate and low threat activities (otherwise known as moderate and low threat policies).

The threat activities listed below are defined in the ministry’s [Table of Drinking Water Threats](#) (“**Table**”). This Table was prepared and released as part of the Director’s Technical Rules issued under section 107 of the CWA.

The [Risk Management Measures Catalogue](#) (“**RMMC**”) provides means to determine which management measure(s) and management targets is/are suitable to effectively manage a specific threat to the quality or quantity of source water, allowing the user to take local conditions into consideration.

## **Section 1: Summary of Ministry Actions to be taken to Conform with Source Protection Prescribed Instrument Policies for Future Significant Threat Activities**

### **Waste Disposal Site Prescribed Threat Activities**

*Threat activities:*

- Landfarming Petroleum Refining Waste, threat #1a
- Landfilling (Hazardous Waste and Liquid Industrial Waste), threat #1b
- Landfilling waste from municipal sources, threat #1c
- Landfilling Industrial and Commercial waste, threat #1d
- Liquid Industrial Waste Injection into a Deep Well Disposal Site, threat #1e
- Storage of Hazardous/Liquid Industrial Waste at Waste Disposal Sites, threat #1g

- Storage of wastes described in clauses (p), (q), (r), (s), (t) or (u) of the definition of hazardous waste or clause (d) of the definition of liquid industrial waste (under Regulation 347), threat #1h

*Prescribed Instrument:*

An Environmental Compliance Approval (“**ECA**”) under Part II.1 of the *Environmental Protection Act* (“**EPA**”) for activities under s.27 of the EPA.

*Standard Operating Policy:*

The ministry screens ECA applications for waste disposal sites to identify if the site is located in a vulnerable drinking water area and if the activity meets the circumstances to be considered a significant threat to drinking water.

A stringent site-specific technical review is conducted to ensure that waste disposal facilities are designed and operated in a manner that meet regulatory, guidelines and best management practices. The ministry’s assessment of the proposal is clearly documented which includes how the activity meets the ministry’s requirements and how the Statement of Environmental Values were considered. The technical review in conjunction with imposing conditions in an ECA related to design, environmental monitoring, reporting and trigger mechanisms and contingency plans, provide comprehensive controls that ensure regulated waste management activities do not become significant drinking water threats. Where proposals do not meet these requirements, the ECA application will be refused.

When a source protection policy requires risk management of a waste prescribed significant threat activity, the ministry will apply current program and regulatory standards when making a decision on the ECA.

*Details and Rationale:*

For significant drinking water threat activities, the *Environmental Assessment Act* (“**EAA**”) process (where it applies), the requirements for an ECA under the EPA and requirements under existing regulations and guidelines are comprehensive and adequately address the objectives of the source protection policies.

The EAA sets out a planning and decision-making process to evaluate the potential environmental effects of a proposed project before any decisions are made to proceed with the project. Since March 2007, certain private and public sector waste management projects are subject to the EAA through the Waste Management Projects Regulation (O. Reg. 101/07). The level of assessment required depends on the project’s expected environmental effects. Projects subject to an environmental assessment (EA) cannot obtain an ECA to engage in the waste management activities until the requirements of the EAA have been met. As part of the EA process, proponents are required to:

- anticipate environmental, social, economic and cultural consequences of a proposed project or activity (i.e. siting considerations, effects on surface and/ groundwater quality, quantities and flow, commitments to monitoring of discharges and emissions);
- assess plans to manage any potential environmental effects resulting from the proposed project or activity (i.e. development of mitigation measures); and,
- allow for the involvement of the public and government agencies in the review of the proposed project or activity.

The EPA, specifically section 27 (under Part V), requires proponents to obtain an ECA from the ministry prior to using, operating, establishing, altering, enlarging or extending a waste disposal site. The ECA includes stringent conditions that:

- identify the maximum volume and design requirements for the waste disposal site;
- approve a closure plan for the site or require a detailed closure be submitted based on the conceptual closure plan included in the site's Design and Operations Plan;
- approve plans such as Environmental Monitoring Plans, trigger mechanism plans, and contingency plans to ensure the long-term protection of the environment;
- require record keeping, inspections (daily, monthly and annual) and the submission of an annual report;
- state the ministry's requirements for buffer lands, and includes appropriate setbacks from wellheads or intake zones, as appropriate;
- require financial assurance (for privately owned sites) to ensure that if a proponent is unable or unwilling to meet their responsibilities for the site or whether the site is abandoned, the site is properly closed and maintained to ensure it does not pose a risk to the environment, including drinking water sources.

Existing program and regulatory requirements for the approval of waste disposal sites are consistent with the significant threat prescribed instrument policies. Therefore existing program requirements conform with source protection risk management policies.

The Risk Management Measures Catalogue (“**RMMC**”) provides a means for a user to determine which management measure(s) and management targets is/are suitable to effectively manage a specific threat to the quality or quantity of source water, allowing the user to take local conditions into consideration. The RMMs were reviewed to determine if they are consistent with waste disposal site designs typically approved by the ministry. Site specific design criteria are submitted to the ministry with an application for a prescribed instrument (i.e. an ECA), as prepared by a Qualified Person (e.g. Professional Engineer).

**Ministry Policy and Guideline Framework for each Waste Sub-threat Activity:**

<b>Waste Sub-threat Activity</b>	<b>Ministry's Policies and Guidelines</b>
Landfarming Petroleum Refining Waste, threat #1a	<ul style="list-style-type: none"> <li>• Section 27 of the EPA requires that an ECA be obtained from the ministry prior to using, operating, establishing, altering, enlarging or extending a waste disposal site.</li> <li>• To obtain an ECA for a new Landfarming Petroleum Refining Waste site, detailed technical assessments of the site must be carried out to identify any potential effects on the environment including groundwater, surface water, air and soil to show how these potential effects can be satisfactorily addressed (review completed by the ministry's regional technical support section and/or Environmental Approvals Branch review engineer(s)).</li> <li>• Regulation 347 (General Waste Management) made under the EPA, was amended in 2005 to establish a land disposal restrictions ("<b>LDR</b>") program in Ontario. Under these rules, hazardous wastes that are to be land disposed must be treated to meet prescribed treatment requirements prior to land disposal.</li> <li>• The ministry's LDR program prohibits the direct disposal of hazardous waste to land without meeting the treatment standards within Regulation 347.</li> <li>• The ministry receives very few ECA applications related to landfarms.</li> <li>• Hydrogeology and surface water studies would be a component of the application. During the technical review, site specific conditions may be included in the ECA to ensure that each specific site has adequate measures to protect drinking water sources including monitoring plans, inspection procedures, reporting requirements and contingency measures.</li> </ul>
Landfilling Hazardous Waste and Liquid Industrial Waste, threat	<ul style="list-style-type: none"> <li>• The EAA provides for the analysis of impact assessment, conservation and wise management of Ontario's environment by establishing a responsible</li> </ul>

<p>#1b</p>	<p>and accountable process for decision-making before a project is undertaken. Key components of an environmental assessment (“<b>EA</b>”) include the mitigation and management of potential environmental impacts. The EA process for a proposal such as a Hazardous and Liquid Industrial Waste Disposal Site includes consideration and evaluation of alternatives.</p> <ul style="list-style-type: none"> <li>• Waste Management Projects are subject to O. Reg.101/07 made under the EAA. This regulation describes the waste management projects that are designated by the regulation and subject to the EAA and EA requirements. Under the regulation, waste management projects may be required to undertake an Individual EA or an Environmental Screening Processes (“<b>ESP</b>”) to ensure that the intent of the EAA is met.</li> <li>• New landfills or expanding landfills that are proposed to have waste disposal volumes of less than 40,000 m<sup>3</sup> are not designated under the EAA. These landfills are required to meet the requirements of the EPA Regulation 347 (General Waste Management).</li> <li>• For landfills subject to the EAA requirements, numerous technical studies and impact assessments are required to be completed. This includes a hydrogeological assessment, surface water assessments and geotechnical assessments. Section 6 of the Landfill Standards and A Guideline on the Regulatory and Approval Requirements for New or Expanding Landfilling Sites (PIBS 3651E), outline the type of technical studies required.</li> <li>• <b>Hazardous and Liquid Industrial Waste Disposal (Landfill) Sites</b> are subject to Part V of the EPA and applicable regulation made under the Act (i.e. Regulation 347 and O. Reg. 232/98). Section 27 of the EPA requires that an ECA be obtained from the ministry prior to using, operating, establishing, altering, enlarging or extending a waste disposal site. The EPA is the overarching legislation that provides the basic legislative framework for waste management in Ontario. These landfills may also have requirements under the <i>Ontario Water Resources Act</i> (“<b>OWRA</b>”).</li> </ul>
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	<p>An application to obtain an ECA for a new or expanding landfill site must include reports that address the detailed technical assessments of the site carried out to identify any potential effects on the environment including groundwater, surface water, air and soil to show how these potential effects can be satisfactorily addressed.</p> <p><b>Applicability of Regulation 232/98, under the EPA</b></p> <ul style="list-style-type: none"> <li>• O. Reg. 232/98, Landfilling Sites contains comprehensive landfill standards that include requirements for site design, operation, closure, post-closure care and financial assurance.</li> </ul> <p><b>Applicability of Regulation 347, under the EPA</b></p> <ul style="list-style-type: none"> <li>• Regulation 347 is the general waste management regulation that provides an overview of waste management in the Province.</li> </ul> <p><b>Guidelines</b></p> <ul style="list-style-type: none"> <li>• Guideline B-7: Incorporation of the Reasonable Use Concept into MOEE Groundwater Management Activities establishes the basis for determining the "reasonable use" of groundwater on property adjacent to sources of contaminants and for determining the levels of contaminant discharges considered acceptable by the ministry.</li> </ul> <p>The Guideline applies to matters which fall under the authority of the EPA and OWRA.</p>
<p>Landfilling waste from municipal sources, threat #1c and Landfilling Industrial and Commercial waste, threat #1d</p>	<ul style="list-style-type: none"> <li>• Source protection policies were reviewed and it was determined that the ministry's current regulatory framework for municipal/industrial/commercial landfills meets the policy requirements. The current framework for waste threats #1c and #1d is the same as waste threat #1b described above.</li> </ul>
<p>Liquid Industrial Waste Injection into a Deep Well Disposal Site, threat #1e</p>	<ul style="list-style-type: none"> <li>• A waste disposal site ECA for activities under section 27 of Part V of the EPA is required for deep well injection of waste, except for oil field brine disposal which is regulated by the Ministry of Natural Resources</li> </ul>

	<p>and Forestry (MNR) through the <i>Oil, Gas and Salt Resources Act</i>.</p> <ul style="list-style-type: none"> <li>• The ministry regulates deep well injection of waste through the Deep Well Disposal Regulation (Regulation 341) and Regulation 347 under the EPA.</li> <li>• Under Regulation 341 of the EPA, operators of a waste well disposal must provide the ministry's local district office Director with monthly reports showing the source, volume and chemical composition of the wastes received at the site, and the volume of wastes discharged into the well.</li> <li>• Regulation 347 was amended in 2005 to establish a Land Disposal Restriction (LDR) program in Ontario. Under these rules, hazardous wastes that are to be land disposed must be treated to meet prescribed treatment requirements prior to land disposal.</li> <li>• The ministry's LDR program prohibits the direct disposal of hazardous waste into deep wells without meeting the treatment standards within Regulation 347. This will not affect the disposal of non-hazardous fluids such as brine.</li> </ul> <p><b><i>Oil, Gas and Salt Resources Act</i></b></p> <ul style="list-style-type: none"> <li>• MNR regulates disposal of brine through the <i>Oil, Gas and Salt Resources Act</i> (the disposal of brine is exempt from the EPA, and only regulated by MNR if re-injected in wells).</li> <li>• Currently, there are no ministry approved deep well disposal sites operating in Ontario. The last two (2) ministry-approved deep well disposal sites were plugged in 2013.</li> </ul>
<p>Storage of Hazardous/Liquid Industrial Waste at Waste Disposal Sites, threat #1g</p>	<ul style="list-style-type: none"> <li>• Waste management projects are subject to O. Reg. 101/07 made under the EAA. This regulation describes the waste management projects that are designated by the regulation and subject to the EAA and EA requirements. Under the regulation, waste management projects for the storage of waste at transfer/processing sites may be required to undertake</li> </ul>

the Environmental Screening Process to ensure that the purpose of the EAA is met.

- The EPA is the overarching legislation that provides the basic legislative framework for waste management in Ontario. Hazardous Waste and/or Liquid Industrial Waste Transfer and Processing Sites, Municipal Hazardous and Special Waste Depots (MHSW Depots) and hazardous waste thermal treatment facilities (all sites where storage of hazardous and liquid industrial occurs) are subject to Part V of the EPA and the regulations made under the EPA.
- Section 27 of the EPA requires that an ECA be obtained from the ministry prior to using, operating, establishing, altering, enlarging or extending a waste disposal site.
- Storage of hazardous waste and liquid industrial waste by a generator for more than 24 months requires an ECA (per section 17.2 of Regulation 347).
- To obtain approval for a new Hazardous Waste Transfer and Processing site, MHSW Depot and /or Hazardous Waste thermal treatment facility, a technical assessment of the site must be carried out to identify any potential effects on the environment including groundwater, surface water, air and soil to show how these potential effects can be satisfactorily addressed.

### **Regulations and Guidelines**

Regulations and guidelines for storage of hazardous waste and/or liquid industrial waste at transfer/processing sites include:

- [Regulation 347](#) limits the mixing, blending, bulking, etc. of hazardous waste.
- Household Hazardous Waste Collection and Facility Guidelines, 1993.
- Ministry's Guidelines of "Environmental Protection Measures at Chemical and Waste Storage Facilities", 2007.

	<p><b>Technical Review Approval Process</b></p> <ul style="list-style-type: none"> <li>• The ministry’s review engineers/evaluators with knowledge of hazardous waste and liquid industrial waste storage activities are assigned to review ECA applications for these proposed activities. Applicants of proposed hazardous waste and liquid industrial waste storage sites are required to submit supporting documentation, including storm water management plans, secondary storage containment plans, emergency spill procedures and contingency measures.</li> <li>• Review engineers will impose site specific terms and conditions in the ECA to ensure that each specific site has adequate measures to protect drinking water sources.</li> </ul>
<p>Storage of wastes described in clauses (p), (q), (r), (s), (t) or (u) of the definition of hazardous waste or clause (d) of the definition of liquid industrial waste (under Regulation 347)*, threat #1h</p>	<p>The source protection policies were reviewed and it was determined that the ministry’s current regulatory framework for storage of wastes described in clauses (p), (q), (r), (s), (t) or (u) of the definition of hazardous waste or clause (d) of the definition of liquid industrial waste (under Regulation 347)* meets the policy requirements. The current framework for waste storage threats #1h is same as it is for hazardous waste storage threat #1g.</p>

\* For reader clarity, the sub-threat 1h, “Storage of wastes described in clauses (p), (q), (r), (s), (t) or (u) of the definition of hazardous waste or clause (d) of the definition of liquid industrial waste” is storage of non-hazardous waste at transfer/processing sites.

Clauses (p), (q), (r), (s), (t) or (u) of the definition of “hazardous waste” or clause (d) of the definition of “liquid industrial waste” (“Small Quantity Wastes”) are time-accumulating and amount thresholds that determine how a waste is classified in Regulation 347. Generally, these clauses state that small amounts and/or accumulation of inherently hazardous waste can be managed as non-hazardous waste for the purposes of waste management. For the purposes of Source Protection, these materials can be a threat to drinking water.

## **Sewage Prescribed Threat Activities**

### *Threat activities:*

- Combined Sewer discharge from stormwater outlet to surface water, threat #2a
- Discharge of stormwater from a stormwater facility, threat #2b
- Industrial sewage effluent discharge, threat #2c
- Sanitary sewers and related pipes, threat #2d
- Septic system, threat #2e
- Sewage Holding tank, threat #2f
- Sewage Treatment Plant bypass, threat #2g
- Sewage Treatment Plant effluent discharge (includes lagoons), threat #2h
- Storage of Sewage, threat #2i
- Sewage – Mine tailings, storage, treatment and discharge, threat #1j

### *Prescribed Instrument:*

ECA under Part II.1 of the EPA for activities under s.53 of the OWRA

### *Standard Operating Policy:*

For sewage works governed by ECAs where the sewage works are located in areas where they are significant drinking water threats, the ministry will conform with source protection policies by applying design and operational measures (identified in the table below) to an ECA to manage the threat. The ministry has also introduced a new requirement for ECA applicants to submit a Source Protection Supplementary Report to outline how the activity for the sewage works is being managed and mitigated so that the activity will not become a significant drinking water threat. These requirements follow a precautionary and pollution prevention approach and will be applied on a consistent province-wide basis to protect drinking water sources. Some of the requirements identified below are currently implemented by the ministry on a site-specific basis. However, the ministry will now apply these requirements whenever the proposal would be considered a significant drinking water threat activity. The “General” section of the table is applicable to all sub-threat activities identified in the Table.

Sewage works that are significant threats to drinking water are not eligible for processing under the Transfer of Review Program. Only applications for approval of sewage works that have low technical complexity and low potential for significant environmental or public health impact and that are proposed to be located within certain designated municipalities are eligible to be processed under this program. An ECA application for sewage works that is excluded from the Transfer of Review Program must be submitted directly to the Environmental Approvals Access and Service Integration Branch of the ministry for review and processing. For additional information on the Transfer of Review Program, please refer the ministry’s [“Guide to Applying for an Environmental Compliance Approval, 2012”](#).

Ministry staff are currently screening ECA proposals for sewage works to identify if the site is located in a vulnerable drinking water area and if the activity meets the circumstances as a significant threat to drinking water. Guidance documents will be developed and/or updated to outline the ministry's ECA requirements for source protection.

Sewage Sub-Threat Activity	Requirements for ECA Applications
<p><b>General (applicable to all sewage works included within this table)</b></p>	<p>In order to prevent potential risks from becoming a significant drinking water threat, the ministry is implementing the following requirements for the establishment of sewage works where the works have been identified as a significant drinking water threat.</p> <p><b>Design Requirements</b></p> <ul style="list-style-type: none"> <li>• Design must include a Source Protection Supplementary Report that demonstrates that the proposed design recognized the significant drinking water threat and has implemented mitigation measures to protect drinking water sources. The report should identify drinking water sources, how the sewage works has met the requirements of the CWA and the ministry's design and operational requirements and how the works considered the <u>Risk Management Measures Catalogue</u> (e.g., monitoring, reporting requirements), as amended, to address the risks</li> <li>• Designs must be accompanied with a monitoring and reporting plan.</li> <li>• Designs must be accompanied with a Spill Prevention and Contingency Plan, covering information requirements as per O.Reg. 224/07 to prevent, eliminate or ameliorate any adverse drinking water effects that result or may result from spills of pollutants. This includes steps taken in the event drinking water sources are contaminated for example, notifying members of the public who may be directly affected by a spill.</li> </ul> <p><b>Operational Requirements</b></p> <ul style="list-style-type: none"> <li>• The Spill Prevention and Contingency Plans must be kept up-to-date.</li> <li>• Regular and annual reports to include maintenance, inspections, and monitoring details.</li> </ul>

	<ul style="list-style-type: none"> <li>• All reports are required to be kept onsite (where the reports can be kept on-site) and at the operating authority's office.</li> <li>• All reports are required to be made readily available upon request by ministry staff, Source Protection Authority or any other parties identified in Source Protection Plans.</li> </ul>
<p><b>Stormwater management works</b></p>	<p><b>Design Requirements</b></p> <ul style="list-style-type: none"> <li>• Design must be based on providing Enhanced Level water <b>quality</b> control as per the ministry's Stormwater Management and Planning Manual, 2003.</li> <li>• Design must include an additional 20% water <b>quantity</b> control in addition to the requirements of the ministry's Stormwater Management and Planning Manual.</li> <li>• Design must be accompanied with erosion and sediment control measures to cover all phases of construction.</li> </ul> <p><b>Operational Requirements</b></p> <ul style="list-style-type: none"> <li>• The erosion and sediment control measures plan must be kept up-to-date with records of inspections and maintenance made available for inspection by the ministry.</li> <li>• The monitoring and reporting plan must be kept up-to-date and on-site or at the operating authority's office.</li> </ul>
<p><b>Combined sewers</b></p>	<p>New combined sewers are currently prohibited per the ministry's Design Guidelines for Sewage Works, 2008 and Procedure F-5-5. Treatment Requirements for Municipal and Private Combined and Partially Separated Sewer Systems are outlined in Procedure F-5-5. Combined sewer outflows are to be reported to the Spills Action Centre as per the obligations under Part X of the EPA.</p> <p><b>Design Requirements</b></p> <ul style="list-style-type: none"> <li>• Same as "General" section.</li> </ul> <p><b>Operational Requirements</b></p> <ul style="list-style-type: none"> <li>• Operational procedures established to include closed-circuit television (CCTV) inspections every 5 years with records made available for inspection by the ministry.</li> </ul>

<p><b>Sanitary sewers and related pipes</b></p>	<p><b>Design Requirements</b></p> <ul style="list-style-type: none"> <li>• New and replacement sewers are to be constructed of materials and with joints that are equivalent to watermain standards of construction and are to be pressure tested in accordance with Division 441 (formerly 701) of the Ontario Provincial Standards Specification (OPSS).</li> </ul> <p><b>Operational Requirements</b></p> <ul style="list-style-type: none"> <li>• Operational procedures established to include CCTV inspections every 5 years with records made available for inspection by the ministry.</li> </ul>
<p><b>Sewage treatment plant discharge via bypass</b></p>	<p><b>Design Requirements</b></p> <ul style="list-style-type: none"> <li>• Appropriate sizing to reduce bypasses-in adherence to the ministry’s Sewage Works Design Guideline (2008) and provisions of Procedure F-5-5 and F-5-1.</li> </ul> <p><b>Operational Requirements</b></p> <ul style="list-style-type: none"> <li>• Response plan for unplanned bypasses.</li> </ul>
<p><b>Sewage treatment plant – storage/holding tanks</b></p>	<p><b>Design Requirements</b></p> <ul style="list-style-type: none"> <li>• Same as “General” section.</li> </ul>
<p><b>Sewage treatment plant effluent (including lagoons)</b></p>	<p><b>Design Requirements</b></p> <ul style="list-style-type: none"> <li>• Appropriate sizing to reduce bypasses-in adherence to the ministry’s Sewage Works Design Guideline, 2008 and provisions of Procedure F-5-5 and F-5-1.</li> <li>• Design must include an inspection/maintenance frequency and strategy to prevent unplanned bypasses.</li> <li>• Response plan for pre-mature effluent discharge (i.e. in the event of seasonal lagoons).</li> </ul>
<p><b>Industrial effluent discharge</b></p>	<p><b>Design Requirements</b></p> <ul style="list-style-type: none"> <li>• Designs must include an industrial sewage discharge flood protection and risk assessment report, considering the 1:200</li> </ul>

	<p>year storm event, or an additional 0.5 metres freeboard elevation on any lagoon or wastewater containment area.</p> <ul style="list-style-type: none"> <li>• Decommissioning plan for every component of the sewage system.</li> <li>• Design must include a contingency plan for responding to effluent quality not complying with effluent criteria.</li> </ul>
<p><b>Industrial effluent discharge – mine tailings</b></p>	<p><b>Design Requirements</b></p> <ul style="list-style-type: none"> <li>• Designs must include an industrial sewage discharge flood protection and risk assessment report, considering the 1:200 year storm event, or an additional 0.5 metres freeboard elevation on any lagoon or wastewater containment area.</li> <li>• Design must include a contingency plan for responding to effluent quality not complying with effluent criteria.</li> <li>• Response plan for pre-mature effluent discharge (i.e. in the event of seasonal discharge from tailing ponds).</li> </ul>
<p><b>Onsite sewage systems</b></p>	<p>In order to prevent potential groundwater and shallow groundwater contamination and risks from becoming a significant drinking water threat, the establishment of all new onsite sewage systems must adhere to the following criteria.</p> <p><b>Design Requirements</b></p> <ul style="list-style-type: none"> <li>• Design must comply with site specific effluent requirements (objectives, limits, triggers, monitoring, reporting, contingencies, etc.) as established at early stage during pre-application consultation with ministry District/Regional Offices.</li> </ul> <p><b>Operational Requirements</b></p> <ul style="list-style-type: none"> <li>• Maintenance inspections by a qualified person.</li> <li>• Operational plan, which at a minimum shall include, but not limited to: <ul style="list-style-type: none"> <li>○ Pump out and inspection of sewage underground tanks (including septic, balancing tanks, etc.) of each sewage system identified as moderate and high risk in the Sewage System Assessment Report.</li> </ul> </li> </ul>

	<ul style="list-style-type: none"> <li>○ Hydraulic test to assess for any leakage at the time of the pump out.</li> <li>○ Removal of any trees, where they or their roots, are growing in the leaching beds.</li> <li>○ Preparing public information brochure for distribution (in cases of larger sites with more than one resident on site) regarding taking care of septic systems.</li> <li>○ Prohibit the construction of any structures such as decks, patios, or sheds over the disposal fields, as well as there should be no parking or driving vehicles over the surface of disposal fields and over any other components of the onsite sewage system.</li> </ul>
<p><b>Holding tanks</b></p>	<p>The ministry will not issue approvals for new underground holding tanks as current design and operational measures are not sufficient to ensure the activity will never become a significant drinking water threat. The proponent may only consider installation of above-ground tanks in compliance with the current requirements for holding tanks (Ministry Guideline F-9 and Ontario Building Code -OBC), subject to a site-specific review.</p> <p><b>Design Requirements</b></p> <ul style="list-style-type: none"> <li>• Same as “General” section.</li> </ul> <p><b>Operational Requirements</b></p> <ul style="list-style-type: none"> <li>• Inspections of holding tanks every five (5) years for assessment of holding tanks structural integrity including a hydraulic septic test to assess for any possible leakage, and complete with a written assessment and recommendations.</li> </ul>

## **Hauled Sewage Prescribed Threat Activities**

### *Threat activity:*

- Application of hauled sewage to land (waste subthreat #1i)

### *Prescribed Instrument:*

An ECA under Part II.1 of the EPA for activities under s.27 of the EPA.

### *Standard Operating Policy:*

The application of hauled sewage to land in locations where it would be a significant drinking water threat cannot be adequately managed with an ECA, such that the activity would never become a significant drinking water threat. To conform with significant threat prescribed instrument policies, the ministry will not approve the land application of untreated hauled sewage in areas where it has been identified as a significant drinking water threat.

### *Details and Rationale:*

Ministry experts determined that ECA terms and conditions could not adequately manage the land application of hauled sewage activity to ensure the activity never becomes a significant drinking water threat. This approach will address all of the parameters of concern associated with untreated hauled sewage as identified under the CWA (pathogens, nitrates and phosphorus).

## **Pesticides Prescribed Threat Activities**

### *Threat activity:*

- Application of Pesticides to Land, threat #10

### *Prescribed Instrument:*

Pesticide permits for land exterminations issued under section 7 of the Pesticides Act are identified as Prescribed Instruments under the CWA.

### *Standard Operating Policy:*

For activities that are identified as significant drinking water threats, the ministry will:

- ensure the permit includes appropriate terms and conditions that address emergency response measures and spill contingency plans for any pesticide

mixing, loading, and handling related to the proposed pesticide treatment which are protective of drinking water sources.

- ensure the permit includes applicable terms and conditions related to site specific setbacks to watercourses, timing restrictions (including consideration of weather events) and spills/runoff management or other measures necessary to manage the significant threat activity in order to protect sources of drinking water.

The additional terms and conditions will be included on all permits where the land application of pesticides is considered a 'significant' drinking water threat.

*Details and Rationale:*

The ministry will manage significant drinking water threat activities by including appropriate terms and conditions in all permits where the land application of pesticides is a significant drinking water threat.

These conditions will address emergency response measures and spill contingency plans as well as consideration for other measures necessary to manage the significant threat activity. Including these additional terms and conditions will help ensure broader environmental protection from the handling and use of pesticides and ensure a consistent approach to protecting source water across the province.

## **Permit to Take Water**

*Threat activity:*

- 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, threat #19

*Prescribed Instrument:*

Section 34 of the Ontario Water Resources Act, with respect to the permits to take water" is defined as a prescribed instrument by s.1.0.1, O. Reg. 287/07 (General) under the CWA.

*Standard Operating Policy:*

No instrument changes are required at this time to address source protection prescribed instrument policy requirements. However, the ministry is engaged in a broader review of how information generated through the source water protection planning process can enhance a proponent's development of, and subsequent ministry review and evaluation of, water taking proposals that are subject to regulation by a permit. Pending the outcome of this review, best available science would be considered by proponents and

qualified person experts when preparing applications as well as by the ministry in the permit decision-making process, particularly those for higher risk groundwater takings.

*Details and Rationale:*

A Permit to Take Water (PTTW) Director, when considering an application for a PTTW, is required under section 4, O. Reg. 387/04 (Water Taking), under the OWRA, to consider issues, including those relating to water availability, such as may concern municipal residential drinking water systems and any planned municipal use of water that has been approved. A PTTW Director is provided statutory discretion to impose terms and conditions deemed proper to safeguard Ontario waters. The current administration of the PTTW program implements requirements prescribed by prevailing statute, regulation and program policy, and in doing so ensures future proposed and existing water takings which are subject to PTTW are not significant drinking water threats.

As specific examples of this, a signing Director considering an application for a PTTW is required by regulation to consider matters that include but are not limited to those relevant to source protection policies such as:

- the need to sustain ecological and hydrological integrity of key hydrologic features, functions and aquatic systems,
- the need for implementation of water conservation and efficient use measures, and
- the need to protect existing and approved future municipal water supply (i.e., ensure municipal water supply requirements are not interfered with by other permitted water takings).

Therefore, no changes to the terms and conditions already included in PTTWs instrument are recommended to further control water taking in geographic areas identified as significant drinking water quantity threats recognizing that the broader review of how source protection water quantity information can be factored into the PTTW application and decision-making processes is underway.

**Section 2: Summary of Ministry Actions to be Taken to Have Regard To Source Protection Prescribed Instrument Policies for Moderate and Low Threat Activities**

It has been determined that the ministry's review and approval processes for instruments that manage moderate and low drinking water threats for waste, sewage, water taking and application of pesticides drinking water threat activities, are adequate to meet the requirements of source protection prescribed instrument policies. For activities that are identified as moderate or low drinking water threats, no additional measures beyond the existing approval requirements are required.

However, for moderate and low drinking water threats for the application of hauled sewage to land threat activities, the ministry's SOP does identify review and approval process changes.

### **Hauled Sewage Moderate and Low Threat Activities SOP**

If the ministry issues an ECA authorizing the land application of hauled sewage in locations where the activity would be a moderate or low threat, it will include terms and conditions that require the site to be designed, constructed and operated in a manner that meets acceptable standards that are protective of the environment and drinking water sources. The ministry is strengthening application and review requirements in these locations.

Updated requirements for surface application will include:

- a supplemental application checklist
- the ECA will:
  - be issued for less than 2 years duration
  - include terms and conditions that address spill prevention procedures
  - restrict land application activities to sites meeting specified standards relating to: maximum permitted slope, soil permeability requirements, minimum setbacks, storage requirements, prohibition on winter spreading and record keeping requirements.

Updated requirements for dewatering trenches will include:

- a supplemental application checklist
- the requirements of the ministry's "Draft Guide to Disposal of Septage in Dewatering Trenches, Ministry of the Environment, September 2008"
- the ECA will:
  - include terms and conditions that require the facility to be designed, constructed and operated in compliance with specific standards including maximum permitted slope, soil permeability requirements, minimum setbacks to surface water and to wells, storage and maximum application rate requirements,
  - include terms and conditions that require the facility to be closed as per the site specific closure plan.