



How will the Source Protection Plan affect municipal decisions?

Municipality

Area: Lansdowne Wellhead Protection Area D

Water Source: Groundwater (two municipal wells)

The Importance of Source Protection

Drinking water source protection is intended to ensure that activities do not pollute our sources of drinking water. Some chemicals such as liquid fuels and other chemicals are not removed from water, even with a water treatment system. In some cases when the pollution cannot be cleaned up, the resulting contamination can ruin a water source forever. It is much easier to keep water clean than it is to try and clean it up after it has been polluted. More details about the benefits of source protection can be found [here](#).

For source protection, particular activities that have the potential to pollute drinking water are called “drinking water threats”. This is because they pose a risk of pollution, especially if the activities are improperly managed. The source protection plan accounts for drinking water threats that already exist, and those that must or should be considered if they were to become established. Depending on their scale, the type of activity, and their proximity to the source of drinking water, drinking water threats are ranked significant, moderate, or low.

Threats to drinking water exist in the Lansdowne Wellhead Protection Area (WHPA). The majority relate to the handling and storage of fuel and septic systems/holding tanks. There are policies within the Cataraqui Source Protection Plan (the Plan) to protect the drinking water source from activities occurring within the WHPA.

Wellhead Protection Area D (WHPA-D)

A wellhead is the actual part of the well that sits above the ground. A wellhead protection area is the area around the wellhead that contributes source water to a drinking water system (i.e. municipal wells). Actions must or should be taken within the WHPA to protect the drinking water supply. WHPA-D is one of five areas that form a complete WHPA and is defined as an area where water and any pollution that may be present can reach the well within five to twenty-five years.

WHPA-D has a vulnerability score of 6. Vulnerability scores refer to how vulnerable a drinking water source is to contamination. It is determined by considering the physical characteristics of the area and of the well itself, including how easily contaminants could soak into the ground, how long it would take contaminants to reach the well, as well as the pathways that contaminants could travel along to reach the well. A lower vulnerability score like that of WHPA-D means that activities are or could be moderate or low drinking water threats. Certain activities could be a significant drinking water threat despite the lower vulnerability score (i.e. activities involving DNAPLs) and therefore these activities require special attention by the municipality and others. In general, vulnerability scores are highest near the well and lowest by the edge of the WHPA.

Requirements for Municipalities under the *Clean Water Act*

Planning decisions and documents

Decisions made under the *Planning Act* and the *Condominium Act* must conform to related significant drinking water threat policies in the Plan and have regard for moderate and low threat policies immediately following the Plan effective date. Planning documents should be updated to reflect Plan policies by at least the next five year review.

Transport pathway notification

The creation of a new transport pathway or the modification of an existing transport pathway has the potential to increase the vulnerability score of a wellhead protection area. Additional landowners or businesses may become subject to binding source protection policies as a result of an increased vulnerability score in the WHPA. Examples of transport pathways include drainage ditches, subsurface infrastructure, and service trenches.

Subsection 27(3) of Ontario Regulation 287/07 (General) under the *Clean Water Act* requires that:

If a person applies to the municipality for approval of a proposal that may create a new transport pathway/modify an existing transport pathway, the municipality *must* notify the source protection authority and the source protection committee of the proposal and *must* include a description of the proposal, identify the person responsible for the proposal, and describe the approvals required for the proposed activity.

On-site sewage systems

The Cataraqui Source Protection Plan as enabled by the *Building Code Act, 1992* and the Building Code encourages municipalities to **establish** an on-site sewage system maintenance inspection program for areas of the WHPA (such as WHPA-D) where the systems are moderate or low drinking water threats. The inspection confirms that the on-site sewage systems are functioning properly, and requires that failed/poorly functioning on-site sewage systems are remediated to protect source water.

Cataraqui Source Protection Plan

The Township of Leeds and the Thousand Islands is responsible for providing safe drinking water to Lansdowne. The *Safe Drinking Water Act* includes a standard of care for individuals responsible for overseeing municipal drinking water systems. Responsible individuals include not only the operator of the on-site drinking water treatment system, but also municipal counsellors and municipal staff with decision-making authority over the drinking water system. The intent is to ensure that the appropriate

steps are taken in good faith by the individuals responsible for safeguarding the drinking water system. This responsibility includes the implementation of the Cataraqui Source Protection Plan.

[Click here for more information on standard of care.](#)

The Plan has several policies to help the Township protect the source water. The following information is applicable to Lansdowne WHPA-D, and is only a summary of the policies directly applicable to the municipality. It is provided as a scoped and plain language alternative to referencing the full **Plan**. For more detail, please refer to the Plan. Note that the policies relevant to municipalities belong to three different categories of implementation: comply with (CW), have regard to (HR), and non-binding (NB).

Plan Policy Summaries

To go directly to the section you are interested in, select it from the table below. If you want to see the policy as it appears in the Plan, simply click on the policy number and you will be directed to the appropriate chapter within the Plan.

Area of Interest	Included Topics
Risk Management Office – Part IV of the Clean Water Act	Risk management plans for DNAPLs
Land Use Planning and Related Reporting	Risk management measures
	Low impact development
Municipal Operations	Emergency and spill response
	Source protection road signs
	Municipal waste management program
	Road salt management plans
	Management of hauled sewage
	Wastewater treatment facility
On-Site Sewage Systems	Maintenance inspection program
Regional Programs	Education and outreach

Risk Management Office – Part IV of the *Clean Water Act*

[6.4.4-CW](#): Risk management plan for DNAPLs

Intent	Policy summary
Ensure that a risk management plan is developed to reduce the risk to source water by officially recognizing risk management measures already in place or including others to fill gaps in management.	The handling/storage of a dense non-aqueous phase liquid (DNAPL) of any quantity related to industrial or commercial uses are significant drinking water threats. Therefore, a risk management plan is <i>required</i> for these activities.

Land use planning and related reporting

[6.2.7-HR](#): Risk management measures

Intent	Policy summary
Encourage proposed developments that are associated with the listed activities to incorporate appropriate risk management measures to protect the source of drinking water.	Municipalities <i>should</i> incorporate measures/management practices to manage the risk to groundwater associated with activities such as: <ol style="list-style-type: none">Handling/storage of more than 25 litres of organic solventsHandling/storage of more than 2,500 kg or litres of commercial fertilizer and/or more than 250 kg or litres of pesticideHandling/storage of more than 2,500 litres of liquid fuelHandling/storage of more than 500 tonnes of road saltAt/above-grade snow storage that is more than 1 hectareStorage of PCBsHandling and storage of more than 25 litres of DNAPLs

[6.2.8-HR](#): Low impact development

Intent	Policy summary
Encourage municipalities to incorporate low impact development into new/expanding developments to reduce impervious surfaces, maintain natural recharge and maximize infiltration of clean water prior to collection in a stormwater management facility.	The municipality <i>should</i> consider how to incorporate low impact development techniques in <i>Planning Act</i> or <i>Condominium Act</i> decisions related to proposed stormwater management plans for a new/expanding development in the WHPA (not including single lot residential development).

[6.2.10-NB](#): Monitoring the implementation of 6.2.7-HR and 6.2.8-HR

Intent	Policy summary
To monitor the implementation of policies 6.2.7-HR and 6.2.8-HR.	Municipalities <i>should</i> provide the Cataraqui Region Source Protection Authority with a copy of any approvals under the <i>Planning Act</i> or <i>Condominium Act</i> for properties in the WHPA that relate to the activities listed in policies 6.2.7-HR and 6.2.8-HR, when the Notice of Decision is issued.

Municipal operations

[4.3.3-NB](#): Emergency and spill response for all WHPAs

Intent	Policy summary
Encourage municipalities to be prepared for emergencies and spills within the vulnerable areas and have up-to-date procedures and information.	<i>ALL</i> municipalities that have an IPZ or WHPA <i>should</i> update their Emergency Management Plan and department supplemental plans in order to identify the location of these vulnerable areas, and to protect drinking water sources in case of an emergency, spill or unauthorized discharge along a highway/railway/shipping lane.

[4.4.1-NB](#): Source protection road signs

Intent	Policy summary
Encourage the municipalities with WHPAs or IPZs to purchase and install source protection road signs.	As part of 4.4.1-NB, municipalities are responsible for the purchase, installation and maintenance of road signs (designed by the Province and the Source Protection Authority) which identify the location of the IPZ or WHPA. The signs should be placed where municipal arterial roads are located within the IPZ or WHPA.

[4.4.4-NB](#): Municipal waste management programs

Intent	Policy summary
Reduce the overall impact of waste on drinking water sources through proper waste management.	All municipalities <i>should</i> evaluate their waste management programs and improve them in order to reduce the impacts of waste on drinking water sources.

[4.7.2-NB](#): Road salt management plans

Intent	Policy summary
Encourage the Township of Leeds and the Thousand Islands to develop their own salt management plan to address the drinking water threat posed by the Township public works yard, which is not currently addressed in the United Counties of Leeds and Grenville's salt management plan.	All municipal road authorities <i>should</i> review/update their salt management plans, taking into consideration the risk that salt operations/snow storage pose to drinking water sources. The Township should establish a salt management plan.

[4.7.3-NB](#): Management of hauled sewage

Intent	Policy summary
Encourage municipalities to protect drinking water sources where certain activities related to hauled sewage would be a moderate or low drinking water threat.	Municipalities <i>should</i> consider taking the following actions to protect drinking water sources in WHPA-D, where the application of hauled sewage to land, sewage treatment plant effluent discharges, and on-site sewage treatment systems are moderate or low drinking water threats: <ul style="list-style-type: none"><li data-bbox="841 478 1468 583">i. Managing the treatment of untreated septage at existing wastewater facilities and/or<li data-bbox="841 590 1422 657">ii. Upgrading existing/constructing new facilities to handle demand and/or<li data-bbox="841 663 1393 724">iii. Encouraging the use of alternative treatments.

[6.4.11-NB](#): Wastewater treatment facility

Intent	Policy summary
Encourage the Township of Leeds and Thousand Islands to develop a monitoring plan for the sewage lagoons in WHPA-C and WHPA-D.	The Township of Leeds and the Thousand Islands <i>should</i> develop a monitoring plan for the Lansdowne Sewage Lagoons at King Street East located in WHPA-C and WHPA-D, in order to identify any sewage treatment plan effluent discharge losses to the sub-surface and take corrective action.

On-site sewage systems

[6.2.2-NB](#): Maintenance inspection program

Intent	Policy summary
Encourage municipalities to establish an optional on-site sewage system maintenance inspection program, and to extend policy 6.2.1-CW to the whole WHPA.	Municipalities <i>should</i> consider establishing an optional on-site sewage system maintenance inspection program under the Ontario Building Code, and extending the education and awareness program specified in 6.2.1-CW to the rest of the WHPA where on-site sewage systems are a moderate or low drinking water threat.

Regional programs

4.4.3-NB: Education and outreach

Intent	Policy summary
<p>Encourage the update of education/outreach materials to include drinking water source protection information.</p>	<p>Municipalities are expected to deliver education and outreach programs with the assistance of the Source Protection Authority. The Cataraqui Source Protection Authority <i>should</i> consider working with the municipality and with provincial partners to coordinate the update of education and outreach programs to include source protection information for use in IPZs and WHPAs where moderate or low drinking water threats could/do exist.</p>



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