



How will the Source Protection Plan affect municipal decisions?

Municipality

Area: Lansdowne Wellhead Protection Area A

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 A (WHPA-A)

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-A is one of five areas that form a complete WHPA and is defined as the immediate area surrounding the well. It is particularly important to prevent pollution in WHPA-A because there is little time to react

and little distance for any pollution to dissipate before it reaches the well and is distributed through the drinking water system.

WHPA-A has a vulnerability score of 10. 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 high vulnerability score like that of WHPA-A means that certain activities are or could be significant drinking water threats, and therefore these activities require special attention by the municipality and others. In general, vulnerability scores are highest near the well and lowest at 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 *Building Code Act, 1992* and the Building Code **require** mandatory maintenance inspections in vulnerable areas where on-site sewage systems are identified as significant threats to a drinking water source, such as WHPA-A. 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 councillors 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-A, 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 <i>Clean Water Act</i>	Risk management plans
	Prohibitions
	Restricted land use
Land Use Planning and Related Reporting	Prohibited land use
	Low impact development
	Land purchasing strategy
Municipal Operations	Emergency and spill response
	Road salt management plans
	Management of hauled sewage
	Municipal waste management programs
	Source protection road signs
	Wastewater treatment facility
	Enforcement of By-law 06-056
On-Site Sewage Systems	Maintenance inspection program
	Education and awareness program
Regional Programs	Education and outreach

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

[6.4.2-CW](#): Risk management plans for liquid fuel

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 and storage of liquid fuel under the following circumstances is a significant drinking water threat: <ul style="list-style-type: none">i. Below grade/partially below grade storage/handling of liquid fuel of more than 250 litres but less than 2,500 litres (e.g. home heating oil)ii. Storage of more than 2,500 litres of liquid fuel at any grade (e.g. gas pumps) Therefore a risk management plan is <i>required</i> for these activities.

[6.4.3-CW](#): Risk management plans for agricultural-related activities

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 following activities are significant drinking water threats: <ul style="list-style-type: none">i. The existing storage of agricultural source materialii. The existing use of land as livestock grazing/pasturing/an outdoor confinement area/farm animal yard Therefore a risk management plan is <i>required</i> for these activities.

[6.4.4-CW](#) Risk management plans for DNAPLs/organic solvents

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) and/or organic solvent 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.

[6.4.5-CW](#): Risk management plans for small quantities of waste

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 storage of hazardous waste at disposal sites in Lansdowne WHPA-A is a significant drinking water threat. Therefore, a risk management plan is <i>required</i> for these activities where they relate to existing or future uses. This policy applies to the storage of small amounts of waste generated

	onsite at a business/facility due to the nature of their activity (e.g. waste oil at an auto repair shop) but does not apply to infrequent events such as a do-it-yourself oil change at a private residence.
--	---

[6.4.6-CW](#): Prohibition

Intent	Policy summary
Ensure that certain activities never become established in areas where they would be a significant drinking water threat.	Some activities, where they would be significant drinking water threats, are <i>prohibited</i> from becoming established in the future in WHPA-A. For more details regarding these activities, please refer to the SPP.

[6.4.9-CW](#): Restricted land uses

Intent	Policy summary
To flag proposed developments to ensure that any Part IV prohibition or risk management plan requirements are met prior to processing a <i>Planning Act</i> , <i>Condominium Act</i> or building permit application.	Any proposed developments in WHPA-A that could involve certain activities <i>must</i> be forwarded to the Risk Management Official, such as the handling and storage of fuel and other substances. For more details regarding these activities, please refer to the SPP.

Land use planning and related reporting

[6.2.5-CW](#): Prohibited land use

Intent	Policy summary
Ensure that specific land uses never become established in areas where the associated activities would be significant drinking water threats.	The following land uses <i>must</i> be prohibited from becoming established in the future in WHPA-A: waste disposal sites involving activities that would be significant drinking water threats, wastewater treatment facilities that would be significant drinking water threats. For more details regarding these activities, please refer to the SPP.

[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).

[6.2.9-CW](#): Monitoring the implementation of 6.2.5-CW

Intent	Policy summary
To monitor the implementation of policy 6.2.5-CW.	Municipalities <i>shall</i> provide the Cataraqui 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 policy 6.2.5-CW.

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

Intent	Policy summary
To monitor the implementation of policy 6.2.8-HR.	Municipalities <i>should</i> provide the Cataraqui Source Protection Authority with a copy of any approvals under the <i>Planning Act</i> or <i>Condominium Act</i> for applications for properties in the WHPA, when the Notice of Decision is issued.

[6.4.1-CW](#): Land purchasing strategy

Intent	Policy summary
Ensure that the Township of Leeds and the Thousand Islands is prepared for opportunities to purchase additional land in WHPA-A through the development of a land purchasing strategy.	The Township of Leeds and the Thousand Islands <i>shall</i> consider developing a land purchasing strategy for WHPA-A, and prepare a set of criteria for purchasing specific areas of land that can control the occurrence of any significant drinking water threats.

Municipal Operations

[4.3.2-CW](#): Emergency and spill response

Intent	Policy summary
Ensure that municipalities are prepared for emergencies and spills within the vulnerable areas and have up-to-date procedures and information.	Municipalities <i>must</i> update their Emergency Management Plan and departmental supplemental plans to identify the location of the IPZ or WHPA and also update procedures to manage the threat to the drinking water source in case an emergency or spill occurs related to a significant local transportation-related drinking water threat.

[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.

[4.7.2-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 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: <ol style="list-style-type: none"><li data-bbox="836 1339 1469 1444">i. Managing the treatment of untreated septage at existing wastewater facilities and/or<li data-bbox="836 1451 1421 1518">ii. Upgrading existing/constructing new facilities to handle demand and/or<li data-bbox="836 1524 1388 1591">iii. Encouraging the use of alternative treatments.

[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.

[4.4.1-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.

[6.4.10-CW](#): Wastewater treatment facility

Intent	Policy summary
Ensure that the Township of Leeds and Grenville evaluates/updates the sanitary sewer network in a timely manner.	The Township of Leeds and the Thousand Islands <i>shall</i> prepare a Standard Operating Procedures manual to outline sewer network evaluation/repair requirements. The manual should ensure that the entire sewer network in WHPA-A is evaluated at least every 10 years and repaired as necessary.

[6.4.12-NB](#): Local drainage

Intent	Policy summary
Encourage the Township of Leeds and the Thousand Islands to improve local drainage to reduce the impact that the ground surface can have on source water quality.	The Township of Leeds and the Thousand Islands <i>should</i> prepare a master drainage plan to: <ul style="list-style-type: none">i. Improve drainage in the WHPAii. Address the existing drainage ditch and runoff from nearby recreational fields.iii. Consider an alternate route for the drainage ditchiv. Address the issue of water ponding near the wells.

[6.4.14-CW](#): Enforcement of By-law 06-056

Intent	Policy summary
Ensure that the Township of Leeds and the Thousand Islands maintains By-law 06-056 and conducts compliance inspections.	The Township of Leeds and the Thousand Islands <i>shall</i> maintain By-law 06-056 (i.e. the timely removal of agricultural source material from WHPA-A and B where it is used as an outdoor confinement area). The Township shall perform monthly compliance inspections and provide a record of inspections to the Cataraqui Source Protection Authority each year.

On-site sewage systems

[6.2.1-CW](#): Education and awareness program

Intent	Policy summary
Ensure municipalities inform landowners in WHPA-A how to operate/maintain their on-site sewage system, and the associated benefits.	Municipalities <i>shall</i> develop and implement an education and awareness program for the landowners in WHPA-A, to inform landowners about the proper operation and maintenance of their on-site sewage system, and about the benefits of a well-maintained system.

[6.2.2-NB](#): On-site sewage system maintenance

Intent	Policy summary
Encourage municipalities to establish a discretionary on-site sewage system maintenance inspection program, and extend the education and awareness program to the rest of the WHPA.	Municipalities <i>should</i> consider establishing a discretionary on-site sewage system maintenance inspection program, as well as extending the education and awareness program discussed in policy 6.2.1-CW to the rest of the WHPA where on-site sewage systems are a low/moderate drinking water threat.

[6.2.3-CW](#): Report on the results of 6.2.1-CW

Intent	Policy summary
Ensure the principle authority for the municipality reports on the results from implementation of policy 6.2.1-CW.	The principal authority for the municipality <i>shall</i> provide the Cataraqui Source Protection Authority with a summary of the results from implementing the program described in policy 6.2.1-CW. The principle authority shall include a copy of any orders/recommendations which identify corrective options that must/should be taken for proper system function, and copies of the educational materials used.

Regional programs

[4.4.2-CW](#): Education and outreach

Intent	Policy summary
Ensure the update of education/outreach materials to include drinking water source protection information.	Municipalities are expected to deliver education and outreach programs with the assistance of the Source Protection Authority. The Cataraqui Source Protection Authority <i>must</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 significant drinking water threats could/do exist.
--	--

4.4.3-NB: Education and outreach

Intent	Policy summary
Encourage the update of education/outreach materials to include drinking water source protection information.	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.



CATARAQUI REGION CONSERVATION AUTHORITY

1641 Perth Road • P.O. Box 160 • Glenburnie, ON • K0H 1S0
 Telephone: (613) 546-4228 Fax: (613) 547-6474
 E-mail: info@crca.ca Website: cleanwatercataraqui.ca & crca.ca



Made possible through the support of the Government of Ontario.