

How will the Source Protection Plan affect municipal decisions?

Municipality

Area: Bath Intake Protection Zone 1

Water Source: Lake Ontario

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 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. Protecting drinking water sources can also benefit tourism and recreation, as well as providing good fish and wildlife habitat. 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 Bath Intake Protection Zone (IPZ). The majority relate to agriculture and transportation along Highway 33. There are policies within the Cataraqui Source Protection Plan (the Plan) to protect the drinking water source from activities occurring within the IPZ.

Intake Protection Zone One (IPZ-1)

IPZ-1 is one of two zones that form a complete IPZ. The IPZ is an area of land and water that contributes source water to a drinking water system (i.e. Lake Ontario). Actions must or should be taken within the IPZ to protect the drinking water supply. IPZ-1 is defined as the immediate area surrounding the intake pipe in the lake that brings water into the drinking water treatment plant. It is particularly important to prevent pollution in IPZ-1 because there is little time to react and little distance for any pollution to dissipate before reaching the intake pipe.

IPZ-1 has a vulnerability score of 7. 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 intake itself, including how easily contaminants could enter the waterbody, how long it would take contaminants to reach the intake, as well as the pathways that contaminants could travel along to reach the intake. Bath IPZ-1 is part of an intake protection zone where there cannot be any significant drinking water threats due to the low vulnerability of the area. However, moderate and low drinking water threats can and do occur in this intake protection zone. In general, vulnerability scores are highest near intake points and lowest at the edge of the IPZ.

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 an intake protection zone. Additional landowners/businesses may become subject to binding source protection policies as a result of an increased vulnerability score in the IPZ. Examples of transport pathways include new or modified storm sewers, roadside ditches, sanitary sewers, and tile drainage.

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.

Cataraqui Source Protection Plan

Loyalist Township is responsible for providing safe drinking water to the residents of Bath. 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 drinking water treatment facility, but also municipal councillors and 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 Loyalist Township protect the source water. The following information is applicable to Bath IPZ-1, 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
Land Use Planning and Related Reporting	<i>Planning Act</i> risk management measures for development in sensitive groundwater areas*
	Risk management measures
Municipal Operations	Emergency and spill response
	Source protection road signs
	Municipal waste management programs
	Road salt management plans
	Stormwater management retrofits
On-site Sewage Systems	Maintenance inspection program
Regional Programs	Education and outreach

* Highly vulnerable aquifers and in some cases significant groundwater recharge areas are present within intake protection zones; therefore, it is necessary to account for these policies as well.

Land use planning and related reporting

[5.5.1-HR](#): *Planning Act* risk management measures in sensitive groundwater areas

Intent	Policy Summary
To protect sensitive regional groundwater sources from contamination associated with particular types of development.	<p>Municipalities reviewing proposals for new developments/expansions to an existing development in a highly vulnerable aquifer/significant groundwater recharge area, and involving certain activities, <i>should</i> incorporate risk management measures to protect groundwater quality. If there is evidence of surface karst formation, the municipality should require the developer to have a karst assessment performed to determine if any additional risk management measures may be required. For a list of example activities, please refer to the SPP.</p> <p>This requirement can be waived if the proponent can demonstrate that the property does not exhibit characteristics of a highly vulnerable area and/or significant groundwater recharge area.</p>

[5.5.2-NB](#): Monitoring implementation of 5.5.1-HR

Intent	Policy Summary
To monitor the implementation of policy 5.5.1-HR.	Municipalities <i>should</i> provide the Cataraqui Source Protection Authority with copies of any approvals under the <i>Planning Act</i> or <i>Condominium Act</i> for applications in the highly vulnerable aquifers/significant groundwater recharge when the Notice of Decision is issued related to policy 5.5.1-HR.

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

Intent	Policy Summary
Encourage proposed developments to incorporate risk management measures to protect drinking water sources.	Proposals under the <i>Planning Act</i> or <i>Condominium Act</i> for new development/expansions to existing development <i>should</i> incorporate measures to manage the risk to drinking water associated with the proposed activities. These activities include: <ul style="list-style-type: none"><li data-bbox="841 890 1503 995">i. The handling and storage of a dense non-aqueous phase liquid (DNAPL) and/or organic solvent<li data-bbox="841 999 1479 1066">ii. The handling and storage of commercial fertilizer/pesticides<li data-bbox="841 1071 1386 1104">iii. The handling/storage of liquid fuel<li data-bbox="841 1108 1377 1142">iv. The handling/storage of road salt<li data-bbox="841 1146 1468 1178">v. The storage of snow at or above-grade.

[7.2.7-NB](#): Monitoring implementation of 7.2.5-HR

Intent	Policy Summary
To monitor the implementation of 7.2.5-HR.	The municipality <i>should</i> provide the Cataraqui Source Protection Authority with copies of approvals under the <i>Planning Act</i> or <i>Condominium Act</i> for applications on properties in the IPZ, when the Notice of Decision is issued related to policy 7.2.5-HR.

[7.7.1-HR](#): Stormwater management and best practices

Intent	Policy Summary
Encourage Loyalist Township to require proponents to incorporate stormwater management features using best management practices to protect source water quality.	Loyalist Township <i>should</i> require proponents to incorporate stormwater management features into building and site plans where the discharge of untreated stormwater from a stormwater retention pond is a moderate or low drinking water threat. These best practices should enhance the

	protection of source water quality by reducing the volume of contaminants and sediments entering storm sewer systems and roadside ditches.
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Municipal operations

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

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 line/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 policy 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 municipalities to update/establish salt management plans to account for vulnerable areas.	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.

[7.2.8-NB](#): Stormwater management retrofits

Intent	Policy Summary
Encourage the municipality to develop a strategy to address stormwater management.	The municipality <i>should</i> develop a strategy to address stormwater runoff in IPZ-1.

[7.7.2-NB](#): Improvements for local transport pathways

Intent	Policy Summary
Encourage Loyalist Township to work with property owners in the IPZ to manage the risk to source water associated with existing activities.	Loyalist Township <i>should</i> evaluate samples along watercourses and storm sewers in Bath IPZ to determine the cause of increased sedimentation at the Bath water treatment plant. The Township should then work with landowners to reduce incidents and volumes of sedimentation, where associated activities such as agriculture can pose a risk to source water quality.

On-site sewage systems

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

Intent	Policy Summary
Encourage municipalities to establish an on-site sewage system maintenance inspection program within sensitive groundwater areas as prioritized to reflect local circumstances.	Municipalities <i>should</i> establish an on-site sewage system (i.e. septic systems and holding tanks) maintenance inspection program to address drinking water threats. The inspection program should be consistent with the <u>Ontario Building Code</u> .

Regional programs

[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.



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