



**CATARAQUI SOURCE PROTECTION COMMITTEE
AGENDA FOR MEETING # 41**

Date: Thursday May 12, 2011
 Time: 7:00 PM
 Location: Outdoor Centre, Little Cataraqui Creek Conservation Area
 1655 Perth Road, Kingston

#	Topic	Leader	Time (min)	Action Item?
1	Roll Call and Notice of Proxies	John Williamson, Chair	15	
2	Adoption of the Agenda			
3	Declarations of Conflict of Interest			
4	Approval of Previous Meeting Minutes from April 14, 2011 (attached)			
5	Business Arising			
(a)	Update on Repairs to the Miller Manor Apartments Septic System, Mallorytown			
6	Delegations			
7	Correspondence (attached)	Rob McRae, Project Manager	10	
(a)	Letter from Ian R. Smith, Director, Source Protection Programs Branch, Ontario Ministry of the Environment, to source protection areas/regions, regarding two Ministry information bulletins about municipal land use planning, dated April 18, 2011			
(b)	Letter from Ian R. Smith, Director, Source Protection Programs Branch, Ontario Ministry of the Environment, to source protection areas/regions, regarding a Ministry information bulletin about Threat Policies and Aboriginal and Treaty Rights, dated April 21, 2011			
(c)	Letter from Ian R. Smith, Director, Source Protection Programs Branch, Ontario Ministry of the Environment, to source protection areas/regions, regarding a Ministry information bulletin about Permits to Take Water, dated May 3, 2011			

#	Topic	Leader	Time (min)	Action Item?
(d)	Letter from Ian R. Smith, Director, Source Protection Programs Branch, Ontario Ministry of the Environment, to source protection areas/regions, regarding a Ministry information bulletin about source protection planning tools in Section 26 of Ontario Regulation 288/07, dated May 5, 2011			
8	Sector Updates from the Committee	John Williamson, Chair	20	
9	Business/Reports			
(a)	Draft Policies for Brockville, James. W King and Sydenham Intake Protection Zones (staff report and draft policies attached)	Christine Woods, Source Protection Planner	60	
(b)	Follow-Up from Drinking Water Source Protection Open House, May 10 th in Kingston	Rob McRae, Project Manager	10	
10	Announcements or Inquiries (information attached)			
(a)	Announcement by the Ontario Minister of the Environment regarding a Second Extension of the Canada – Ontario Agreement Respecting the Great Lakes Ecosystem (2007) to June 24, 2012			
11	Motions or Notices of Motion	John Williamson, Chair	5	
12	Questions from the Media			
13	IN CAMERA Session (if required)			
14	Next meeting – June 9, 2011 (Kingston)			
15	Adjournment			

Please inform Donna Cellini at (613) 546-4228 ext. 248 or via e-mail at dcellini@cataraquieregion.on.ca if you will not be able to attend the meeting. Members voting by proxy are requested to please communicate their proxy to the Chair prior to the meeting.

Delegations wishing to speak to the Source Protection Committee are asked to contact Rob McRae, Project Manager at (613) 546-4228 ext. 224 or via e-mail at robmcrae@cataraquieregion.on.ca.

Sent on Behalf of Ian Smith, Director, Source Protection Programs Branch – Ministry of the Environment

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the Environment**

Source Protection Programs
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April 18, 2011

Greetings,

I am pleased to provide you with the attached document entitled “**Source Protection Planning Bulletin – Land Use Planning Tools**”. I have also attached a complimentary bulletin, which provides details on the land use planning tools and municipal authorities, entitled “**Source Protection Planning Bulletin – Existing Municipal Authorities and Land Use Planning**”. These documents are part of a series of bulletins intended to assist local source protection committees in preparing source protection plans and policies.

The Ministry is providing these bulletins to source protection committees and authorities to help in understanding the key legislative requirements and other important considerations. This document will not be posted on the Ministry’s public website but it is our expectation that you share these Source Protection Planning Bulletins with your committee, working group members, municipal contacts and partners that are engaged in the source protection planning process.

If you have any questions, please contact your Liaison Officer.

Sincerely,

Ian Smith, Director
Source Protection Programs Branch
Ministry of the Environment

c: Conservation Ontario
Ministry of Natural Resources
Ontario Ministry of Agriculture and Rural Affairs
Ministry of Municipal Affairs and Housing
Source Protection Programs Branch Staff

Sent on Behalf of Ian Smith, Director, Source Protection Programs Branch—Ministry of the Environment

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April 21, 2011

Greetings,

I am pleased to provide you with the attached document entitled “**Source Protection Planning Bulletin – Threat Policies and Aboriginal and Treaty Rights**”. This document is one in a series of bulletins intended to assist local source protection committees in preparing source protection plans and policies.

The Ministry is providing this bulletin to source protection committees and authorities to assist with the development of drinking water threat policies for source protection plans.

If you have any questions, please contact your Liaison Officer.

Sincerely,

Ian Smith, Director
Source Protection Programs Branch
Ministry of the Environment

Sent on Behalf of Ian Smith, Director, Source Protection Programs Branch – Ministry of the Environment

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May 3, 2011

Greetings,

I am pleased to provide you with the attached document entitled “**Source Protection Planning Bulletin – Permits To Take Water**”. This document is one part of a series of bulletins intended to assist local source protection committees in preparing source protection plans and policies. This is the last of eight bulletins released that relate to instruments prescribed to the CWA.

The Ministry is providing bulletins to source protection committees and authorities to help in understanding the key legislative requirements and other important considerations. This document will not be posted on the Ministry’s public website but it is our expectation that you share Source Protection Planning Bulletins with your committee, working group members, municipal contacts and partners that are engaged in the source protection planning process.

If you have any questions, please contact your Liaison Officer.

Sincerely,

Ian Smith, Director
Source Protection Programs Branch
Ministry of the Environment

c: Conservation Ontario
Ministry of Natural Resources
Ontario Ministry of Agriculture and Rural Affairs
Ministry of Municipal Affairs and Housing
Source Protection Programs Branch Staff
Ministry of the Environment

Sent on Behalf of Ian Smith, Director, Source Protection Programs Branch—Ministry of the Environment

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May 5, 2011

Greetings,

I am pleased to provide you with the attached document entitled “**Source Protection Planning Bulletin – Overview of O.Reg. 287/07 section 26 p.1 Tools**”. This document is the last planned bulletin in the series of bulletins prepared by our branch and is intended to assist local source protection committees in preparing source protection plans and policies.

The Ministry is providing this bulletin to source protection committees and authorities to help in understanding the key legislative requirements and other important considerations. This document will not be posted on the Ministry’s public website but it is our expectation that you share these Source Protection Planning Bulletins with your committee, working group members, municipal contacts and partners that are engaged in the source protection planning process.

This bulletin will also be posted to the CO members only webpage for future reference.

If you have any questions, please contact your Liaison Officer.

Sincerely,

Ian Smith, Director
Source Protection Programs Branch
Ministry of the Environment

c: Conservation Ontario
Ministry of Natural Resources
Ontario Ministry of Agriculture and Rural Affairs
Ministry of Municipal Affairs and Housing
Source Protection Programs Branch Staff

THE CATARAQUI SOURCE PROTECTION COMMITTEE

REPORT

To: Cataraqui Source Protection Committee Date: May 5, 2010

From: Christine Woods, Source Protection Planner Files: SPP 4-0, 8-2-3, 8-2-4,
Holly Evans, Water Quality Specialist 8-2-5, 8-3-3, 8-3-5, 8-3-11

**Re: Draft Source Protection Plan Policies for Pre-Consultation
Brockville, Gananoque and Sydenham Intake Protection Zones
Miller Manor, Lansdowne and Cana Subdivision Wellhead Protection Areas**

The purpose of this report is to present the proposed draft policies for the Brockville, Gananoque and Sydenham intake protection zones (IPZ). The proposed draft policies for the Cana Subdivision, Lansdowne and Miller Manor wellhead protection areas will be presented to the Source Protection Committee (SP Committee) at its June 2011 meeting. At that time staff will seek approval-in-principle from the SP Committee for the draft policies for the purpose of pre-consultation.

Background

The SP Committee created two working groups: one to address surface water sources and another to address groundwater sources. These working groups met together in the fall of 2010 to consider drinking water threats and policy options. This approach enabled well-informed discussions, eliminated duplication of effort, and ensured consistency where appropriate. The working groups then met separately to discuss drinking water threats and policy options for specific vulnerable areas.

The draft policies for the vulnerable areas with existing and 'would be' (future) significant drinking water threats were developed based on discussions with roundtable participants, municipal and Provincial staff, and affected landowners. Staff collaborated to ensure consistency between surface water and groundwater protection policies. They were reviewed by French Planning Services Inc., our policy advisor, for direction, content and format. In April 2011 the Working Groups endorsed the draft policies for the purpose of pre-consultation in accordance with sections 35 through 39 of Ontario Regulation 287/07 (as amended).

The draft policies for the remaining vulnerable areas *without* significant drinking water threats are now being prepared through additional early engagement and the six remaining roundtable events. They will be prepared for pre-consultation during fall 2011.

Discussion: Considering the Draft Policies

The attachments containing the draft policies will be available for discussion at the SP Committee meeting, therefore do not feel obliged to print them beforehand.

At its May and June meetings, the SP Committee will be asked to consider draft policies for all of the vulnerable areas where significant drinking water threats do or could occur. The draft policies for the Brockville, Gananoque and Sydenham intake protection zones will be discussed at the May 12th meeting, while those for the Cana Subdivision, Lansdowne and Miller Manor wellhead protection areas will be discussed at the June 9th meeting.

You will notice that certain draft policies that are applicable to all of the vulnerable areas are repeated throughout the attachments in order to provide the reader with a complete picture of each vulnerable area. Similarly, area-wide policies have also been included; however, please note that these draft policies will be subject to further discussion at a later date. It is also important to remember that through pre-consultation and development of policies for the other vulnerable areas it is expected that the ideas presented for these six vulnerable areas will evolve.

Based on the approved timeline for the development of the source protection plan, pre-consultation on these draft policies will begin in June following their approval-in-principle by the SP Committee.

Pre-consultation will be conducted in accordance with the requirements of Ontario Regulation 287/07 (as amended). Draft policies will be posted on the Internet (www.cleanwatercataraqui.ca) for a period of 30 days, and notices will be sent to the bodies (i.e. Province, municipalities, source protection authority) that would potentially be responsible for implementing one or more of the policies. Comments received as part of the pre-consultation process will be distributed to the SP Committee for your review.

Recommendation

The following resolution was made by the Surface Water Working Group at its April 14, 2011 meeting:

THAT the draft policy ideas for the Brockville, Gananoque and Sydenham Intake Protection Zones as discussed on April 14, 2011 be approved in principle by the Cataraqui Source Protection Committee for the purpose of pre-consultation in accordance with sections 35 through 39 of Ontario Regulation 287/07 (as amended).

The following resolution was made by the Groundwater Working Group at its April 21, 2011 meeting:

THAT the draft policy ideas for the Cana, Lansdowne and Miller Manor Wellhead Protection Areas as discussed on April 21, 2011 be approved in principle by the Cataraqui Source Protection Committee for the purpose of pre-consultation in accordance with sections 35 through 39 of Ontario Regulation 287/07 (as amended).

Staff recommend that the SP Committee consider granting its approval-in-principle to the draft policies for *all six vulnerable areas* at its June meeting. This approach will allow final edits to be made to the surface water policies between now and then, and for staff to ensure consistency, where appropriate, between the groundwater and surface water policy direction, content and format.

Respectfully submitted,

Christine Woods MCIP, RPP
Source Protection Planner

Holly Evans
Water Quality Specialist

Attachments: Draft policies for the Brockville Intake Protection Zone (May 5, 2011)
Draft policies for the Gananoque Intake Protection Zone (May 5, 2011)
Draft policies for the Sydenham Intake Protection Zone (May 5, 2011)

Approved for circulation _____ RM _____

Attachment 1. Draft policies for the Brockville Intake Protection Zone (May 5, 2011)

A. Context

The Brockville water treatment plant in the City of Brockville draws water from the St. Lawrence River. The intake pipe is located about 294 m offshore at a depth of 10.5 m. The water is treated and distributed to 22,000 residents and businesses in the City of Brockville and 1,000 residents in the Township of Elizabethtown-Kitley along County Road 2.

Intake Protection Zone 1

The majority of intake protection zone 1 (IPZ 1) consists of the St. Lawrence River. It includes a number of island residential properties which are serviced by either septic systems, holding tanks or privies, and by ground water or shore wells. The St. Lawrence Seaway shipping lane travels through the IPZ.

On the mainland, IPZ 1 consists of low-density residential properties, the majority of which are on full municipal services (water and sewer). The water treatment plant, a City park and docking facility are also located in IPZ 1.

Intake Protection Zone 2

Similar to IPZ 1, the majority of IPZ 2 consists of the St. Lawrence River, and includes a number of island residential properties which are serviced by either septic systems or holding tanks, and by ground water or shore wells. Within the City of Brockville, IPZ 2 consists mainly of residential properties that are on full municipal services, as well as the downtown core which has a variety of professional and retail land uses. Within the Township of Elizabethtown-Kitley, IPZ 2 consists mainly of estate residential properties that are on private services (well and septic system) or on partial services (City water and septic system). It also contains parts of farms and a golf course.

Drinking Water Issues

E. coli was identified as a drinking water issue for the Brockville IPZ in the Draft Amended Proposed Assessment Report (April 2011). Further study would need to be done to determine the possible sources for the *E. coli* issue identified in the untreated water. There will be no policies to address drinking water issues in the source protection plan until the source of the *E. coli* has been identified.

Drinking Water Threats

The latest available information for the Draft Amended Proposed Assessment Report (April 2011) includes a count of properties in the IPZ on which existing activities are associated with drinking water threats. Three parcels were enumerated for significant drinking water threats. Two parcels of land were enumerated on which agricultural activities are ranked as significant drinking water threats, however, these activities would occur outside of the IPZ. There is one additional parcel of land on which the application of pesticides would be ranked as a significant drinking water threat if the activity were to occur in the future. The balance of the enumerated activities in the IPZ are ranked as moderate (293) or low (8) drinking water threats.

The most common enumerated moderate and low-ranked drinking water threats in the Brockville IPZ relate to:

- On-site sewage (septic) systems
- The transportation, handling and storage of fuel (mainly for heating purposes)

- Road salt application

The source protection plan must include policies to address significant drinking water threats, and it will also include policies to address moderate and low drinking water threats. The significant threat policies must address existing activities and those that ‘would be’ significant if they were to occur in the future.

The Cataraqui Source Protection Committee determined where drinking water threats should be prohibited and where management should be sufficient to address the risk to drinking water sources.

B. Policy Format

The draft policies are assigned a code so that they can be tracked throughout the development of the source protection plan, where policy “VA.x.– LE” would mean:

- VA Vulnerable area (The code for the Brockville intake protection zone is BR.)
- x Sequential number assigned to policies
- LE Legal effect

The legal effect of the draft policies is coded as follows:

- CW The implementing body is required to conform/comply with significant threat policies. This means they are obligated to comply with the policies.
- HR The implementing body is required to have regard for the policy when making a decision under the *Planning Act* or *Condominium Act*, or when making a decision to issue, create or amend a Provincial prescribed instrument. This means that they have to carefully consider the policies, and be prepared to provide a rationale if they choose not to comply with them.
- SA Strategic action policies are not legally-binding on public bodies.
- M Monitoring policies are required for activities that are or would be significant drinking water threats. They must be implemented by the public body designated in the source protection plan.

The draft policies presented below have been grouped by implementing body, drinking water threat(s) and policy tool type as appropriate. A rationale is provided for the draft policies. Please note that the rationale will evolve based on input received from stakeholders.

C. Application of Policies

The draft policies in this document would apply to Brockville IPZ 1 and/or IPZ 2, as indicated in the text of each policy. The boundaries of IPZ 1 and IPZ 2 are illustrated on the following map. [insert map for pre-consultation] Policies that may be applicable area-wide are identified as such.

Implementation Bodies: City of Brockville, Township of Elizabethtown-Kitley, and United Counties of Leeds and Grenville

The City of Brockville and the Township of Elizabethtown-Kitley will be the main municipal implementation bodies of the Cataraqui Source Protection Plan for the Brockville IPZ. The United Counties of Leeds and Grenville will also have a role to play in protecting sources of drinking water.

Policy Reference Number	Location Implementing Body	Draft Policies for City of Brockville, Township of Elizabethtown-Kitley, United Counties of Leeds and Grenville	Rationale
Part IV of the <i>Clean Water Act</i>			
BR.1-CW	IPZ 2 Elizabethtown-Kitley	<p>The Township of Elizabethtown-Kitley SHALL PROHIBIT:</p> <ul style="list-style-type: none"> • the storage and land application of agricultural source material; and • Livestock from being kept (specifically grazing and pasturing, outdoor confinement areas and barnyards) in the Brockville IPZ 2. <p>✓ These activities constitute SIGNIFICANT drinking water threats.</p> <p>✓ This policy is in accordance with the <i>Clean Water Act</i>, Part IV (S. 57(1))</p>	<p>✓ The <i>Clean Water Act</i> requires that the source protection plan address all ‘would be’ significant drinking water threats, regardless of their feasibility to occur in the Brockville Intake Protection Zone (IPZ). These draft policy ideas are proposed to address activities related to agricultural source material that would be significant drinking water threats based on the Tables of Drinking Water Threats (Ministry of the Environment, 2009) and vulnerability scoring in the Brockville IPZ, but that do not exist and are unlikely to occur in the future based on local characteristics.</p> <p>✓ There is no land within the Brockville IPZ on which agricultural source material (ASM) could reasonably be applied or stored; nor livestock kept.</p> <p>✓ These draft policies would be effective and appropriate to maintain the status quo.</p> <p>✓ There is no anticipated economic impact on the community.</p>
BR.2-CW	IPZ 2 Brockville Elizabethtown-Kitley	<p>The City of Brockville and the Township of Elizabeth-Kitley SHALL REQUIRE a risk management plan for the application of MCPA to land areas greater than 10 ha in IPZ 2.</p> <p>The risk management plan may recognize existing pesticide management plans such as those completed through the legislated IPM Accreditation Program for golf courses.</p> <p>✓ This activity is a SIGNIFICANT drinking water threat.</p>	<p>✓ Under Ontario Regulation 63/09 (Ontario’s Cosmetic Pesticides Ban), golf courses must be fully accredited by the IPM Council of Canada in order to continue using Class 9 pesticides (including MCPA) in their maintenance operations.</p> <p>✓ The RMP could be modeled on or make use of the requirements of the IPM Accreditation Program that is mandatory for all golf courses under the Pesticides Act</p> <p>✓ MCPA (2-methyl-4- chlorophenoxyacetic acid) is an</p>

Policy Reference Number	Location Implementing Body	Draft Policies for City of Brockville, Township of Elizabethtown-Kitley, United Counties of Leeds and Grenville	Rationale
		<ul style="list-style-type: none"> ✓ This policy is in accordance with the <i>Clean Water Act</i>, Part IV (S. 58) 	herbicide registered for use in Ontario to control weeds in grass-type crops, such as cereal and turfgrass.
BR.3-CW	IPZ 2 Brockville Elizabethtown -Kitley	<p>The following land uses SHALL BE RESTRICTED in Brockville IPZ 2 under section 59 of the <i>Clean Water Act</i>:</p> <ul style="list-style-type: none"> • large scale recreational facilities; private recreation areas, including private golf courses and other private open space lands; other public park uses; and public uses in the City of Brockville • farms; golf courses; and public uses in the Township of Elizabethtown-Kitley. <p>such that</p> <ul style="list-style-type: none"> • A person shall not make an application under the <i>Planning Act</i> for the purpose of using land for the land use at any location within Brockville IPZ 2; and • A person shall not construct or change the use of a building at any location within Brockville IPZ 2, if the building will be used in connection with the land use, <p>unless the risk management official issues a notice to the person indicating that:</p> <ul style="list-style-type: none"> • The proposed activity for which the land is to be used is neither prohibited under section 57 of the <i>Clean Water Act</i> nor is a risk management plan required under section 58 of the <i>Act</i>, or • That a risk management plan under section 58 of the <i>Act</i> is required for the proposed activity, and that the plan has been agreed to or established under section 58 of the <i>Act</i>. 	<ul style="list-style-type: none"> ✓ The “restricted land uses” policy tool (section 59 of the <i>Clean Water Act</i>) is used to flag land uses that are or may be associated with the activities that are prohibited under section 57 of the CWA or that require a risk management plan under section 58 of the CWA. ✓ Note: For City of Brockville, designation and land uses taken from City of Brockville Official Plan, Final Draft, July 2010.

Policy Reference Number	Location Implementing Body	Draft Policies for City of Brockville, Township of Elizabethtown-Kitley, United Counties of Leeds and Grenville	Rationale
Planning Act (Land use planning)			
BR.4-CW	IPZ 1 and 2 Brockville Elizabethtown-Kitley	<p>Through its Official Plan and Zoning By-law, the City of Brockville and the Township of Elizabethtown-Kitley SHALL CONTINUE TO PROHIBIT the following land uses in the specified areas of the Brockville intake protection zone:</p> <ul style="list-style-type: none"> a) Waste disposal sites of the following types: mine tailing impoundment structures; municipal, industrial, commercial, or petroleum refining waste landfills; and storage of PCB, hazardous or liquid industrial wastes in IPZ 1 b) Waste disposal sites for the application of hauled sewage to land in IPZ1 and IPZ 2 c) Wastewater treatment facilities and by-passes in IPZ 1 and IPZ 2 d) Pesticide storage associated with retail sales, extermination, manufacturing, processing and wholesale in IPZ 1 e) Contractor’s yards (for snow removal), and public works/maintenance yards where road salt and/or snow is stored in IPZ 1 f) Snow storage areas/snow dumps in IPZ 1 g) Airports in IPZ 1 h) Agriculture in IPZ 1 and IPZ 2 <ul style="list-style-type: none"> ✓ These land uses are associated with activities that would be SIGNIFICANT drinking water threats. ✓ This policy is in accordance with of the <i>Clean Water Act</i> (S. 39(1)(a) and/or 40 and 42) 	<ul style="list-style-type: none"> ✓ The <i>Clean Water Act</i> requires that the source protection plan address all ‘would be’ significant drinking water threats, regardless of their feasibility to occur in the Brockville Intake Protection Zone (IPZ). ✓ These land uses are not currently permitted in the IPZ 1 or 2 by the City and Township: the area consists mainly of residential neighbourhoods. ✓ These land uses do not and are unlikely to occur based on existing settlement pattern and physical characteristics on the area. ✓ The draft policies would be effective and appropriate to maintain the status quo. ✓ There is no anticipated economic impact on the community. ✓ Provides land use planning policy that complements restrictions in draft policies BR.22-CW and BR.26-CW.

Policy Reference Number	Location Implementing Body	Draft Policies for City of Brockville, Township of Elizabethtown-Kitley, United Counties of Leeds and Grenville	Rationale
BR.5-CW	IPZ 1 and 2 Brockville Elizabethtown-Kitley	<p>Through its Official Plan and Zoning By-law, the City of Brockville and the Township of Elizabethtown-Kitley SHALL CONTINUE TO direct industrial land uses to lands designated Employment Areas and Industrial-Business Areas, respectively.</p> <p>The City of Brockville SHALL also CONTINUE TO require buildings and structures associated with industrial land uses to be connected to the municipal sanitary sewer in accordance with the City of Brockville Sewer Use By-law.</p> <ul style="list-style-type: none"> ✓ Industrial land uses that have independent sewage works that discharge to surface water would be SIGNIFICANT drinking water threats. ✓ This policy is in accordance with of the <i>Clean Water Act</i> (S. 39(1)(a) and/or 40 and 42) 	✓ Same as above.
BR.6-M	IPZ 1 and 2 Brockville and Elizabethtown-Kitley	<p>The City of Brockville and the Township of Elizabethtown-Kitley SHALL REPORT TO the Cataraqui Source Protection Authority by February 15 of each year on any <i>Planning Act</i> applications received related to the land uses specified in policies BR.4-CW and BR.5-CW.</p> <ul style="list-style-type: none"> ✓ All the land uses referenced, or activities associated with those land uses, are SIGNIFICANT drinking water threats. ✓ This policy is in accordance with <i>Clean Water Act</i> (S. 45). 	✓ Section 22(2) of the <i>Clean Water Act</i> requires that the source protection plan contain policies governing the monitoring of activities that are or would be significant drinking water threats.

Policy Reference Number	Location Implementing Body	Draft Policies for City of Brockville, Township of Elizabethtown-Kitley, United Counties of Leeds and Grenville	Rationale
BR.7-HR	IPZ 1 and 2 Brockville Elizabethtown-Kitley	<p>When reviewing applications made under the <i>Planning Act</i> for the following land uses, the City of Brockville and the Township of Elizabethtown-Kitley SHOULD REQUIRE applicants, as a condition of approval, to conduct studies of the potential impact of the land uses on source water:</p> <ul style="list-style-type: none"> a) Bulk Plants and Fuel Distributors in IPZ 1 and IPZ 2 b) Gas stations and automotive service stations in IPZ 1 and IPZ 2 c) Marinas in IPZ 1 and IPZ 2 d) Businesses that store large quantities of commercial fertilizer and/or pesticides in IPZ 1 and IPZ 2 e) Waste disposal sites (with the exception of those for the application of hauled sewage to land which are prohibited) in IPZ 2 f) Contractor's yards (for snow removal), and public works/maintenance yards where road salt and/or snow is stored in - IPZ 2 g) Snow storage areas/snow dumps - IPZ 2 h) Airports - IPZ 2 <p>And, if any of the listed land uses are approved, the municipality SHALL IMPLEMENT site plan control agreements to apply Best Management Practices to manage the drinking water threats associated with the land uses (e.g. connection to sanitary sewer, spill containment design features; Transportation Association of Canada BMPs), and to require the preparation of spill contingency and emergency response plans.</p> <ul style="list-style-type: none"> ✓ All these land uses constitute MODERATE drinking water threats. ✓ This policy is in accordance with section 39(1)(b) of the <i>Clean Water Act</i> (S. 39(1)(b)). 	<ul style="list-style-type: none"> ✓ Gas stations and marinas, although not associated with significant drinking water threats, are concerns for local stakeholders. If these land uses are located near an intake there is a perceived or real threat to the source water. ✓ The waste disposal, snow removal contractor, municipal works/maintenance yard, snow dump and airport land uses are not currently permitted in the IPZ by the City and Township since the area consists mainly residential neighbourhoods. ✓ These land uses do not and are unlikely to occur based on existing settlement pattern and physical characteristics on the area. ✓ The draft policies would be effective and appropriate to maintain the status quo. ✓ There is no anticipated economic impact on the community. ✓ If these land uses are contemplated, requiring these actions for new development can easily be incorporated into the site plan control process, and should or may be required through other means as well (such as <i>Technical Standards and Safety Act</i>). ✓ Water and chemicals used to suppress fires can contaminate sources of drinking water whether it is surface or groundwater. ✓ The spill contingency and emergency response plans may be required under other legislation, in which case the municipality should ensure that the plans satisfy requirements to protect source water.

Policy Reference Number	Location Implementing Body	Draft Policies for City of Brockville, Township of Elizabethtown-Kitley, United Counties of Leeds and Grenville	Rationale
BR.8-HR	IPZ 1 and 2 Brockville Elizabethtown-Kitley	<p>Through application of the site plan control process of the <i>Planning Act</i>, the City of Brockville and the Township of Elizabethtown-Kitley SHOULD REQUIRE designated snow storage areas on new development in IPZ 1 and IPZ 2 that take into consideration the sensitivity of the vulnerable area. This can be addressed as part of a stormwater management report.</p> <ul style="list-style-type: none"> ✓ This is a MODERATE drinking water threat. ✓ This policy is in accordance with the <i>Clean Water Act</i> (S. 39(1)(b)). 	<ul style="list-style-type: none"> ✓ Requiring designated snow storage areas for new development can easily be incorporated into the site plan control process, however, it is difficult to enforce. ✓ The purpose of requiring designated snow storage areas for new development is to ensure that the snow does not impede the functioning of the site’s stormwater management facility, and that the meltwater from the snow is treated before being discharged to a watercourse or to the St. Lawrence River, where it would pose risk to source water.
BR.9-HR	IPZ 1 and 2 Brockville Elizabethtown-Kitley	<p>Through their official plan and development guidance documents under the <i>Planning Act</i>, the City of Brockville and the Township of Elizabethtown-Kitley SHOULD REQUIRE the preparation, and implementation where appropriate, of a stormwater management report for:</p> <ol style="list-style-type: none"> a) Urban infill development in IPZ 1 and 2; and b) Redevelopment of properties where there is a lack of stormwater management controls in IPZ 1 and 2. <ul style="list-style-type: none"> ✓ Stormwater is a MODERATE drinking water threat. ✓ This policy is in accordance with the <i>Clean Water Act</i> (S. 39(1)(b)). 	<ul style="list-style-type: none"> ✓ Stormwater runoff is not a significant drinking water threat in the Brockville IPZ because the drainage areas in the IPZ are small and there are no stormwater management facilities, specifically ponds, in the IPZ. However, depending on the location of outfalls there could still be risk to source water. ✓ This policy idea would be effective if done right. It would treat everyone the same; however those affected may challenge the requirement. It could be expensive depending on the location. For some it would be a cost of doing business.
BR.10-SA	IPZ 1 and 2 Brockville Elizabethtown-Kitley	<p>The City of Brockville and the Township of Elizabethtown-Kitley should screen land uses/activities that make use of DNAPLs and organic solvents so that when there is an application made under the <i>Planning Act</i>, or for a building permit, the municipality can ENCOURAGE the proponent to consider the use of best management practices when land uses/activities involve the use of DNAPLs or organic solvents.</p> <ul style="list-style-type: none"> ✓ The handling and storage of DNAPLs and organic solvents is a MODERATE drinking water threat. 	<ul style="list-style-type: none"> ✓ In Brockville, it would be in the best interest of the municipality to manage or monitor these types of land uses within and outside the IPZ since they could impact their sources of drinking water through the sanitary and storm sewer networks.

Policy Reference Number	Location Implementing Body	Draft Policies for City of Brockville, Township of Elizabethtown-Kitley, United Counties of Leeds and Grenville	Rationale
Sewage system maintenance inspection program			
BR.11-SA	IPZ 1 and 2 Brockville Elizabethtown-Kitley	<p>The City of Brockville and the Township of Elizabethtown-Kitley, in conjunction with their respective Principal Authority (Leeds, Grenville and Lanark District Health Unit), SHOULD ESTABLISH a sewage system maintenance inspection program in areas that are considered to be vulnerable based on existing study information and need, starting with the Brockville Intake Protection Zone (IPZ 1 and IPZ 2). [action by date]</p> <ul style="list-style-type: none"> ✓ On-site sewage systems pose a MODERATE drinking water threat; ✓ This policy can be implemented through the Ontario Building Code (as amended O.Reg. 315/10) 	<ul style="list-style-type: none"> ✓ KFL&A Public Health has indicated that they should coordinate such a program with municipalities since the health units are generally involved with existing septic maintenance inspection programs. KFL&A Health Unit has begun to develop septic system educational material in response to their current program needs and the anticipated maintenance inspection programs. It is assumed that a similar approach would be advocated by the Leeds, Grenville and Lanark District Health Unit. ✓ A framework for these inspections has been amended to the Ontario Building Code and an appendix has been added to the Code to guide how these inspections are to be undertaken.
BR.12-SA	IPZ 1 and 2 Brockville Elizabethtown-Kitley	<p>The City of Brockville and the Township of Elizabethtown-Kitley, in conjunction with their respective Principal Authority (Leeds, Grenville and Lanark District Health Unit), SHOULD DEVELOP an education and awareness program directed to landowners in IPZ 1 and IPZ 2 to assist them with the proper operation and maintenance of their on-site sewage systems, and to inform them of the benefits of well maintained systems. [action by date]</p> <ul style="list-style-type: none"> ✓ On-site sewage systems pose a MODERATE drinking water threat. 	<ul style="list-style-type: none"> ✓ Same as above.
Area wide.1-?	IPZ 1 and 2 Brockville Elizabethtown-Kitley	<p>The City of Brockville and the Township of Elizabethtown-Kitley, in conjunction with their respective Principal Authority (Leeds, Grenville and Lanark District Health Unit), SHOULD ESTABLISH an incentive program to provide grants to help cover part of the cost of repairs or replacements required as a result of the proposed on-site sewage (septic) system</p>	<ul style="list-style-type: none"> ✓ Such a program could be source protection area –wide.

Policy Reference Number	Location Implementing Body	Draft Policies for City of Brockville, Township of Elizabethtown-Kitley, United Counties of Leeds and Grenville	Rationale
		<p>maintenance inspection program within [insert number months/years] of the source protection plan being approved.</p> <ul style="list-style-type: none"> ✓ These activities are SIGNIFICANT, MODERATE or LOW drinking water threats depending on the location. 	
BR.13-SA	IPZ 1 and 2 Brockville Elizabethtown-Kitley	<p>The City of Brockville and the Township of Elizabethtown-Kitley, in conjunction with their respective Principal Authority (Leeds, Grenville and Lanark District Health Unit), SHOULD encourage business operators that haul septage by barge from island and waterfront properties to develop and circulate/post a pump-out schedule to provide consistent service options for landowners of these properties and to minimize the effort and cost of mobilizing the necessary marine equipment.</p> <p>This strategic action should be completed prior to the implementation of the proposed sewage system maintenance inspection program for the IPZ.</p> <ul style="list-style-type: none"> ✓ This activity is linked to on-site sewage systems which are MODERATE drinking water threats. 	<ul style="list-style-type: none"> ✓ This was an issue raised by participants at some of the community roundtables. Such a policy could make it easier for island owners to have their tanks pumped on a regular basis, and reduce the risk to drinking water associated with these systems. ✓ This will be particularly important in support of any sewage system maintenance inspection program that might be implemented for the IPZ and other properties along the St. Lawrence River. ✓ Pumping operators should support this as it will provide more effective time management for them
Municipal operations / Other policies			
BR.14-SA	IPZ 1 and 2 Brockville Elizabethtown-Kitley	<p>The City of Brockville and the Township of Elizabethtown-Kitley SHOULD ESTABLISH an education program directed to landowners in IPZ 1 and IPZ 2 to raise awareness of local hazardous waste collection days and opportunities for household products. [action by date].</p> <ul style="list-style-type: none"> ✓ This policy addresses drinking water threats related to waste disposal sites and the handling and storage of DNAPLs and organic solvents. 	<ul style="list-style-type: none"> ✓ Although there are no existing waste disposal sites in the Brockville IPZ, this policy idea would benefit the drinking water sources of other communities to which waste is sent, and would also address sewage-related threats by encouraging residents to properly dispose of waste products.

Policy Reference Number	Location Implementing Body	Draft Policies for City of Brockville, Township of Elizabethtown-Kitley, United Counties of Leeds and Grenville	Rationale
BR.15-SA	IPZ 1 and 2 Brockville	<p>The City of Brockville, SHOULD ENCOURAGE existing marinas in IPZ 1 and IPZ 2 to develop new or update existing spill prevention and spill contingency plans to address the topic of wastewater spills in the event of sewage pumping station overflow or spills within [insert number] years of the approval of the source protection plan.</p> <ul style="list-style-type: none"> ✓ The handling and storage of fuel is a MODERATE drinking water threat. 	<ul style="list-style-type: none"> ✓ Marinas, although not associated with significant drinking water threats, are concerns for local stakeholders. ✓ Wastewater (sewage) spills from sewage pumping station overflows or spills could result in impaired water quality depending on the location and volume of material spilled.
BR.16-SA	IPZ 1 and 2 Brockville	<p>The City of Brockville SHOULD DEVELOP a program to retrofit municipal stormwater management infrastructure in IPZ 1 and IPZ2 as opportunities arise and/or where public concerns have been raised, within two years of the source protection plan being approved.</p>	<ul style="list-style-type: none"> ✓ This policy idea would be effective if done right. It could be expensive depending on the location.
BR.17-SA	IPZ 1 and 2 Brockville Elizabethtown-Kitley	<p>The City of Brockville and Township of Elizabethtown-Kitley SHOULD ESTABLISH fertilizer-free buffer zones along surface water on municipal properties in IPZ 1 and IPZ 2. An action plan should be developed within two years of the source protection plan being approved.</p> <ul style="list-style-type: none"> ✓ Fertilizer runoff or release is a MODERATE drinking water threat. 	<ul style="list-style-type: none"> ✓ This provides the municipalities the opportunity to lead by example, and could result in reduced maintenance costs. ✓ Runoff picks up pollutants such as excess fertilizer and pesticides as it flows over the ground and carries them to local waterways such as Buells Creek and the St. Lawrence River. Too much fertilizer (phosphorus in particular) can result in eutrophication and algae blooms. (excess nutrients = excessive plant/algae growth = low dissolved oxygen) = bad tasting and smelling water.
BR.18-SA	IPZ 1 and 2 Brockville	<p>The City of Brockville SHOULD TAKE ACTION to reduce road salt and other contaminants entering surface water in IPZ 1 and IPZ 2 by:</p> <ul style="list-style-type: none"> • Cleaning catch basins on a schedule sufficient to prevent flushing of road salts and other contaminants; • Performing annual spring street sweeping. 	<ul style="list-style-type: none"> ✓ This provides the municipalities the opportunity to lead by example, and could result in reduced maintenance costs.

Policy Reference Number	Location Implementing Body	Draft Policies for City of Brockville, Township of Elizabethtown-Kitley, United Counties of Leeds and Grenville	Rationale
		<ul style="list-style-type: none"> ✓ Stormwater runoff is a MODERATE drinking water threat. 	
BR.19-SA	IPZ 1 and 2 Brockville Elizabethtown-Kitley Leeds and Grenville	<p>The City of Brockville, Township of Elizabethtown-Kitley, and United Counties of Leeds and Grenville SHOULD REVIEW AND UPDATE their salt management plans to account for the vulnerability of the IPZ 1 and 2 within [insert number months/years] of the source protection plan being approved.</p> <p>Specific actions that should be included in the plans to address the risk of road salt effects on source water include: [insert actions]</p> <ul style="list-style-type: none"> ✓ The application, handling and storage of road salt are MODERATE drinking water threats. Snow storage is a SIGNIFICANT and MODERATE drinking water threat in IPZ 1 and 2 respectively. 	<ul style="list-style-type: none"> ✓ This provides the municipalities the opportunity to lead by example, and could result in reduced maintenance costs. ✓ More than half of the road salt applied to roads is transported in surface runoff, the rest infiltrates through soil into the groundwater. This is most noticeable in urbanized areas and along major roadways. In 1997, the properties along County Road 2 west of Brockville were connected to the City’s water supply because past road salting operations contaminated the groundwater that supplied their wells.
BR.20-SA	IPZ 1 Brockville	<p>The City of Brockville SHOULD ERECT SIGNAGE at its St. Lawrence Park boat ramp to make people aware of the nearby intake and to indicate reasonable actions to take to keep the St Lawrence River clean for all water users within [insert number months/years] of the source protection plan being approved.</p> <p>Signage should indicate:</p> <ul style="list-style-type: none"> • What specifics are appropriate: care with gas and oil; sewage • No mooring and using anchors (scouring can cause turbidity) 	<ul style="list-style-type: none"> ✓ The need to raise awareness among residents and visitors about the potential impact of certain activities on drinking water was raised at the roundtables. ✓ Awareness of the intake may be low.

Policy Reference Number	Location Implementing Body	Draft Policies for City of Brockville, Township of Elizabethtown-Kitley, United Counties of Leeds and Grenville	Rationale
BR.21-SA	IPZ 1 and 2 Brockville Elizabethtown-Kitley Leeds and Grenville	<p>The City of Brockville, Township of Elizabethtown-Kitley, and United Counties of Leeds and Grenville SHOULD ENSURE that their Emergency Management Plans include the following for IPZ 1 and IPZ 2:</p> <ul style="list-style-type: none"> • GIS mapping of IPZ 1 and 2; • Requirements to contain water and chemicals used to suppress fires; • Response to spills from septic haulage; • Other? <p>This action should occur within [insert number months/years] of the source protection plan being approved.</p>	<p>✓ Raised at the Sydenham roundtable. Private well contamination occurred as a result of firefighting measures in the past. Based on the topography of the area (Sydenham is in a bowl), this is something that could happen again, and affect the intake.</p> <p>✓ <i>Emergency Management and Civil Protection Act</i> requires municipalities to prepare Emergency programs and emergency plans</p>

Implementation Bodies: Provincial Ministries

There are a number of Provincial ministries that have a role to play in implementing the Cataraqui Source Protection Plan. These include: the Ministry of the Environment, Ministry of Natural Resources, Ontario Ministry of Agriculture, Food and Rural Affairs, and the Ministry of Transportation.

Policy Reference Number	Location Implementing Body	Draft Policies for Provincial Ministries	Rationale
<i>Environmental Protection Act</i>			
BR.22-CW	IPZ 1 and 2 MOE	<p>The Ministry of the Environment (MOE) SHALL NOT APPROVE applications for the establishment, operation and maintenance of new waste disposal sites within the meaning of Part V of the <i>Environmental Protection Act</i> under section 39 of the EPA involving the following activities in the specified areas of the Brockville intake protection zone:</p> <p>a) The application of hauled sewage to land in IPZ 1 and</p>	<p>✓ The <i>Clean Water Act</i> requires that the source protection plan address all ‘would be’ significant drinking water threats, regardless of their feasibility to occur in the Brockville Intake Protection Zone (IPZ).</p> <p>✓ These land uses are not currently permitted in the IPZ by the City since the area consists mainly residential neighbourhoods.</p>

Policy Reference Number	Location Implementing Body	Draft Policies for Provincial Ministries	Rationale
		<p>IPZ 2;</p> <ul style="list-style-type: none"> b) The application of non-agricultural source material to land in IPZ 1 and IPZ 2; c) The storage of mine tailings in an impoundment structure on the surface in IPZ 1; d) Landfills (for municipal, industrial, commercial, petroleum refining waste) with fill areas greater than 10 ha in IPZ 1; e) Storage of hazardous or liquid industrial wastes in IPZ 1. <ul style="list-style-type: none"> ✓ These activities, in the zones indicated, constitute SIGNIFICANT drinking water threats; ✓ This policy is in accordance with section 39(7)(a) of the <i>Clean Water Act</i> 	<ul style="list-style-type: none"> ✓ These land uses do not and are unlikely to occur based on existing settlement pattern and physical characteristics on the area. ✓ The draft policy ideas would be effective and appropriate to maintain the status quo. ✓ There is no anticipated economic impact on the community.
BR.23-HR	IPZ 1 and 2 MOE	<p>The MOE, in the case of applications for new waste disposal sites that would be moderate drinking water threats:</p> <ul style="list-style-type: none"> a) SHOULD CONSIDER the potential impact to source water of such sites on properties within and immediately adjacent to IPZ 1 and IPZ 2; and b) As part of any approval, the MOE SHOULD REQUIRE annual reporting to the Ministry on any records kept in accordance with certificates of approval approved under Section 39 of the <i>Environmental Protection Act</i> so that the Ministry can verify that source water is protected. <p>This policy applies to the following types of waste disposal sites:</p> <ul style="list-style-type: none"> a) mine tailing impoundment structures; b) municipal, industrial, commercial, or petroleum refining waste landfills; c) Landfills or injection into wells for hazardous or liquid industrial waste d) and storage of PCB, hazardous or liquid industrial 	<ul style="list-style-type: none"> ✓ These land uses are not currently permitted in the IPZ by the City since the area consists mainly residential neighbourhoods. ✓ These land uses do not and are unlikely to occur based on existing settlement pattern and physical characteristics on the area. ✓ There are properties enumerated in the Brockville IPZ that extend beyond the boundaries of the IPZ and some are adjacent to watercourses that drain into the IPZ. This policy would address the risk to drinking water from the entire parcel rather than just that portion within the IPZ. ✓ The draft policy ideas would be effective and appropriate to maintain the status quo. ✓ There is no anticipated economic impact on the community.

Policy Reference Number	Location Implementing Body	Draft Policies for Provincial Ministries	Rationale
		<p>wastes.</p> <ul style="list-style-type: none"> ✓ These activities, in the zones indicated, constitute MODERATE drinking water threats; ✓ This policy is in accordance with section 39(7)(b) of the <i>Clean Water Act</i>. 	
BR.24-SA	IPZ 1 and 2 MOE	<p>The MOE SHOULD REQUIRE businesses that haul septage on the St. Lawrence River in IPZ 1 and IPZ 2 to prepare or update spill contingency plans as part of their licenses/certificates of approval under section 27 of the <i>Environmental Protection Act</i> to ensure that source water is protected. This strategic action should be completed prior to the implementation of the proposed sewage system maintenance inspection program for the IPZ.</p> <ul style="list-style-type: none"> ✓ This activity is linked to on-site sewage systems which are MODERATE drinking water threats; ✓ This policy is in accordance with section 26(6) of Ontario Regulation 287/07 (as amended). 	<ul style="list-style-type: none"> ✓ Hauled sewage from the islands and waterfront properties along the St. Lawrence River is transported over the Gananoque and Brockville intake and through the IPZs to local marinas or private docks for road transport. As such this activity is a risk to these drinking water sources. This will be particularly important in support of any sewage system maintenance inspection program that might be implemented for the IPZ and other properties along the St. Lawrence River.
BR.25-SA	MOE	<p>The MOE Spills Action Centre SHOULD review and update contact information and Procedure Cards, based on the IPZ delineations to ensure that drinking water sources will be protected in the event of a spill. This strategic action should occur within [insert number months/years] of the approval of the source protection plan.</p>	<ul style="list-style-type: none"> ✓

Policy Reference Number	Location Implementing Body	Draft Policies for Provincial Ministries	Rationale
Ontario Water Resources Act			
BR.26-CW	IPZ 1 and 2 MOE	<p>The Ministry of the Environment SHALL NOT APPROVE applications for the establishment, operation and maintenance of a system that collects, stores, transmits, treats or disposes of sewage under Section 53 of the <i>Ontario Water Resources Act</i> in Brockville IPZ 1 and IPZ 2, in relation to the following activities:</p> <ul style="list-style-type: none"> a) Combined sewers; b) Wastewater treatment facilities; and c) Industrial sewage treatment facilities and outfalls. <ul style="list-style-type: none"> ✓ Discharge from these facilities would be SIGNIFICANT drinking water threats. ✓ This policy is in accordance with section 39(7)(a) of the <i>Clean Water Act</i>. 	<ul style="list-style-type: none"> ✓ The <i>Clean Water Act</i> requires that the source protection plan address all ‘would be’ significant drinking water threats, regardless of their feasibility to occur in the Brockville Intake Protection Zone (IPZ). ✓ These land uses are not currently permitted in the IPZ by the City since the area is mainly residential neighbourhoods. ✓ These land uses do not and are unlikely to occur based on existing settlement pattern and physical characteristics on the area. ✓ The draft policy ideas would be effective and appropriate to maintain the status quo. ✓ There is no anticipated economic impact on the community.
BR.27-HR	IPZ 1 and 2 MOE	<p>In the case of proposals for the establishment, operation and maintenance of a sewage treatment system under Section 53 of the <i>Ontario Water Resources Act</i> within and immediately adjacent to Brockville IPZ 1 and IPZ 2, including:</p> <ul style="list-style-type: none"> a) Wastewater treatment facilities; b) Industrial sewage treatment facilities and outfalls; c) Stormwater management facilities; d) Sewage works associated with new land-based fish farms; e) On-site sewage systems; <p>where the proposal would be a moderate drinking water threat, MOE SHOULD:</p> <ul style="list-style-type: none"> a) CONSIDER the potential impact to drinking water sources of the proposed system; and b) As part of any approval, the MOE SHOULD INCLUDE terms and conditions that ensure that the drinking water 	<ul style="list-style-type: none"> ✓ Some of these activities <i>are associated</i> with land uses that are <i>not currently permitted</i> in the IPZ by the City or Township since the area consists mainly residential neighbourhoods. ✓ There are properties enumerated in the Brockville IPZ that extend beyond the boundaries of the IPZ and some are adjacent to watercourses that drain into the IPZ. This policy would address the risk to drinking water from the entire parcel rather than just that portion within the IPZ. ✓ It is appropriate to ensure that these activities are managed appropriately such that source water is protected, if they are permitted in the future.

Policy Reference Number	Location Implementing Body	Draft Policies for Provincial Ministries	Rationale
		<p>threat is managed appropriately and source water is protected. Items to consider include enhanced level of quality control for stormwater, strict monitoring requirements and annual reporting.</p> <ul style="list-style-type: none"> ✓ Discharge from these facilities are MODERATE and LOW drinking water threats In accordance with section 39(7)(b) of the <i>Clean Water Act</i>. 	
BR.28-M	MOE	<p>The Ministry of the Environment SHALL REPORT to Cataraqui Source Protection Authority by February 15 of each year on any applications received related to the land uses specified in policies BR.22-CW and BR.26-CW.</p> <ul style="list-style-type: none"> ✓ These activities are SIGNIFICANT drinking water threats. ✓ This policy is in accordance with <i>Clean Water Act</i> (S. 45). 	<ul style="list-style-type: none"> ✓ Section 22(2) of the <i>Clean Water Act</i> requires that the source protection plan contain policies governing the monitoring of activities that are or would be significant drinking water threats.
<i>Nutrient Management Act and Ontario Regulation 267/03</i>			✓
Area wide.2-SA	OMAFRA	<p>The Ontario Ministry of Agriculture, Food and Rural Affairs SHOULD AMEND Ontario Regulation 267/03 - General to require all farms in WHPAs and IPZs to prepare and follow nutrient management strategies and/or nutrient management plans, regardless of the value of farm nutrient units or the vulnerability score of the area. [Timeframe]</p>	<ul style="list-style-type: none"> ✓ Depending on local conditions and management practices any size agricultural operation could impact a drinking water source regardless of vulnerability scoring, so it is prudent to require due consideration for the areas directly contributing to municipal residential drinking water sources.

Policy Reference Number	Location Implementing Body	Draft Policies for Provincial Ministries	Rationale
BR.29-CW	IPZ 1 and 2 OMAFRA	<p>The Ontario Ministry of Agriculture, Food and Rural Affairs SHALL NOT APPROVE NASM Plans for the application, handling and storage of non-agricultural source material under Sections 15.2 and 28 of Ontario Regulation 267/03 – General for sites in Brockville IPZ 1 and IPZ 2,</p> <ul style="list-style-type: none"> ✓ These activities would be SIGNIFICANT drinking water threats. ✓ This policy is in accordance with section 39(7)(a) of the <i>Clean Water Act</i>. 	<ul style="list-style-type: none"> ✓ The <i>Clean Water Act</i> requires that the source protection plan address all ‘would be’ significant drinking water threats, regardless of their feasibility to occur in the Brockville Intake Protection Zone. ✓ There is no land within the Brockville IPZ on which NASM could be applied or stored. ✓ These draft policy ideas would be effective and appropriate to maintain the status quo. ✓ There is no anticipated economic impact on the community.
BR.30-HR	IPZ 1 and 2 OMAFRA	<p>The Ontario Ministry of Agriculture, Food and Rural Affairs SHOULD CONSIDER the potential impact of proposed NASM plans for properties immediately adjacent to Brockville IPZ 1 and IPZ 2 on drinking water sources through their review under Sections 15.2 and 28 of Ontario Regulation 267/03 – General, where the application, handling and storage of non-agricultural source material would be moderate or low drinking water threats.</p> <ul style="list-style-type: none"> ✓ This policy is in accordance with section 39(7)(b) of the <i>Clean Water Act</i>. 	<ul style="list-style-type: none"> ✓ There are properties enumerated in the Brockville IPZ that extend beyond the boundaries of the IPZ and some are adjacent to watercourses that drain into the IPZ. This policy would address the risk to drinking water from the entire parcel rather than just that portion within the IPZ.
BR.31-M	OMAFRA	<p>The Ontario Ministry of Agriculture, Food and Rural Affairs SHALL REPORT to Cataraqui Source Protection Authority by February 15 of each year on any applications received related to the land uses specified in policies BR.29-CW.</p> <ul style="list-style-type: none"> ✓ These activities are SIGNIFICANT drinking water threats. ✓ This policy is in accordance with <i>Clean Water Act</i> (S. 45). 	<ul style="list-style-type: none"> ✓ Section 22(2) of the <i>Clean Water Act</i> requires that the source protection plan contain policies governing the monitoring of activities that are or would be significant drinking water threats.

Policy Reference Number	Location Implementing Body	Draft Policies for Provincial Ministries	Rationale
Various legislation			
BR.32-SA	IPZ 1 MNR, MOE, OMAFRA	The Provincial ministries responsible for the review and approval of applications for caged aquaculture (e.g. Ministry of Natural Resources, Ministry of the Environment, Ministry of Agriculture, Food and Rural Affairs) SHOULD ENSURE that approvals for such proposals in Brockville IPZ 1 contain terms and conditions that ensure this MODERATE drinking water threat is managed appropriately such that source water is protected.	<ul style="list-style-type: none"> ✓ There are no commercial fish farms in Brockville IPZ. Based on discussions with aquaculture specialists with the provincial Ministry of Natural Resources and the Ministry of Agriculture, Food and Rural Affairs, cage operations are unlikely to occur in the Cataraqui Source Protection Area based on location requirements which cannot be met in the area including water depth, water temperature, proximity to navigation channels, and the need for protection from the elements (e.g. wind, waves, ice). ✓ Legislation governing aquaculture is complex; no one piece of legislation nor one agency governs. ✓ Several licensing requirements may be required, depending on the specifics of a given operation (e.g., aquaculture licence; licence to stock fish ; licence to collect fish from Ontario waters) ✓ These draft policy ideas would be effective and appropriate to maintain the status quo. ✓ There is no anticipated economic impact on the community.

Implementation Body: Cataraqui Source Protection Authority

The Cataraqui Source Protection Authority (CSPA) can play an integral part in coordinating the implementation of the Cataraqui Source Protection Plan, as well as specific education and incentive programs so that there is consistent messaging across the region.

Policy Reference Number	Location Implementing Body	Draft Policies for Cataraqui Source Protection Authority	Rationale
Area wide.3-CW	CSPA	<p>The Cataraqui Source Protection Authority, in consultation with the municipalities in the Cataraqui Source Protection Area and other organizations as appropriate, SHALL ESTABLISH a Drinking Water Source Protection education and outreach program directed to all landowners and business owners in all of the IPZs and WHPAs to raise awareness of drinking water threats and promote best management practices within [insert number] year of the source protection plan being approved.</p> <p>The Cataraqui Source Protection Authority SHOULD ADVISE all land and business owners of incentive program options that could be used to fund risk mitigation measures as part of a Drinking Water Source Protection education and outreach program.</p> <ul style="list-style-type: none"> ✓ These activities are SIGNIFICANT, MODERATE or LOW drinking water threats depending on the location. ✓ In accordance with Section 38 of the <i>Clean Water Act</i>. 	<ul style="list-style-type: none"> ✓ Discussions with a variety of stakeholders suggest that a region-wide program would provide consistent messaging to all of the vulnerable areas, and would be more cost-effective for municipalities than for each municipality to develop and implement its own program. ✓ Such a program could be more efficiently developed and implemented on a regional scale involving both IPZ and WHPAs ✓ Applicable to drinking water threats, such as sewage, fertilizer, pesticides, road salt, water softeners, DNAPLs and organic solvents. ✓ This policy approach is best managed at the CSPA-wide level since it is applicable throughout the area, and should be more economical on a larger scale. It cannot be ranked as highly effective or appropriate because community buy-in and uptake is not guaranteed. ✓ There may already be programs in place to address these drinking water threats. The CRCA could coordinate making landowners aware of program(s).
Area wide.4-CW	CSPA	<p>The Cataraqui Source Protection Authority SHOULD work with local farm organizations to establish an education and outreach program for all farm operators to promote best management practices; review, update or prepare Environmental Farm Plans; and to raise awareness of and reduce drinking water threats within [insert number] years of the source protection plan being approved.</p>	<ul style="list-style-type: none"> ✓ There are too few activities and threats in the WHPAs and IPZs for such an education or incentive program to be location specific. ✓ There are already programs in place to address a variety of drinking water threats. ✓ A regional body, such as the Cataraqui Source Protection Authority, could coordinate making landowners aware of program(s).

Policy Reference Number	Location Implementing Body	Draft Policies for Cataraqui Source Protection Authority	Rationale
Area wide.5-CW	CSPA	<p>The Cataraqui Source Protection Authority, in partnership with local marinas, fuel distributors, municipalities and neighbouring Conservation Authorities, SHOULD ESTABLISH an education and outreach program to advise marina operators, private fuel outlets and property owners with heating oil tanks in IPZ 1 and IPZ 2, what to do and who to contact “in case of a spill” within a specific vulnerable area within [insert number months/years] of the source protection plan being approved.</p> <p>The Source Water Protection Authority in partnership with local marinas, fuel distributors, municipalities and neighbouring Conservation Authorities, SHOULD also prepare an education and outreach program to educate fuel oil distributors and drivers about the vulnerable areas and adherence to basic filling precautions and encourage partnership for mutual aid in case of a spill. This strategic action should occur within [insert number months/years] of the approval of the source protection plan.</p> <ul style="list-style-type: none"> ✓ These activities are SIGNIFICANT, MODERATE or LOW drinking water threats depending on the location. ✓ In accordance with Section 38 of the <i>Clean Water Act</i>. 	<ul style="list-style-type: none"> ✓ One comment made at the roundtables was that the average person does not know what to do/who to call in the event of a spill. ✓ The Cataraqui Source Protection Authority, in partnership with local marinas, fuel distributors and neighbouring Conservation Authorities, should produce and distribute “in case of spill” stickers to marinas, and to property owners known to have home heating oil tanks and private fuel outlets. The stickers would include such information as a spill response number and spill procedures, particularly for the education of self-serve marinas, and an indication that the tank is located within a specific vulnerable area ✓ A quick response to a spill by a property owner would help to mitigate risk to drinking water. Since the majority of properties in the Brockville and Gananoque IPZs are heated using natural gas, such a policy would be most appropriate for WHPAs and IPZs that are not serviced by natural gas.
Area wide.6-CW	CSPA	<p>The Cataraqui Source Protection Authority, in consultation with the municipalities in the Cataraqui Source Protection Area and the Ministry of Transportation, SHOULD place signs along major roads when entering the IPZs and WHPAs to raise awareness of the need to protect drinking water sources and to remind emergency/spill response units of the sensitivity of the area.</p> <p>This strategic action should occur within [insert number months/years] of the approval of the source protection plan.</p> <ul style="list-style-type: none"> ✓ These activities constitute SIGNIFICANT, MODERATE 	<ul style="list-style-type: none"> ✓ The need to raise awareness among residents and visitors about the potential impact of certain activities on drinking water was raised at the roundtables. ✓ Signs could also play an important role in emergency and spill response efforts. ✓ Regional coordination is required to ensure consistent messaging throughout the area.

Policy Reference Number	Location Implementing Body	Draft Policies for Cataraqui Source Protection Authority	Rationale
		or LOW drinking water threats depending on the location.	
BR.33-SA	CSPA	<p>The Cataraqui Source Protection Authority SHOULD contact the New York Department of Environmental Conservation (Region 6) to update contact information, review notification procedures and provide Brockville IPZ information for inclusion in the Area Contingency Plan.</p> <p>This strategic action should occur within [insert number months/years] of the approval of the source protection plan.</p> <ul style="list-style-type: none"> ✓ Spills in the St. Lawrence River are MODERATE drinking water threats. 	<ul style="list-style-type: none"> ✓ According to NY DEC staff, the Region 6 Area Contingency Plan should include procedures about notifying Brockville of spills that could impact its drinking water, similar to the MOE Spills Action Centre Procedure Cards. They suggested that the procedures should be revisited to ensure accurate contact information, and requested a copy of the Brockville Intake Protection Zone map for inclusion in the Plan.
Area wide.7-M	CSPA	<p>The Cataraqui Source Protection Authority SHALL REPORT by February 15 of each year on the policies for which it is responsible.</p> <ul style="list-style-type: none"> ✓ This policy is in accordance with <i>Clean Water Act</i> (S. 45). 	<ul style="list-style-type: none"> ✓ Section 22(2) of the <i>Clean Water Act</i> requires that the source protection plan contain policies governing the monitoring of activities that are or would be significant drinking water threats.
BR.34-SA	CSPA	<p>The Cataraqui Source Protection Authority SHOULD provide the Lake Ontario-St. Lawrence River IPZ3 flow data with the MOE Spills Action Centre, St. Lawrence Seaway Management Corporation and Development Corporation, and the Coast Guard. This strategic action should occur within [insert number months/years] of the approval of the source protection plan.</p>	<ul style="list-style-type: none"> ✓

Implementation Bodies: Others

Policy Reference Number	Location Implementing Body	Draft Policies for Others	Rationale
Area wide.8-CW	All municipalities	<p>Where there is limited or no capacity at local wastewater treatment facilities in Cataraqui Source Protection Area, municipalities, SHOULD cooperatively</p> <ol style="list-style-type: none"> 1. manage the treatment or stabilization of hauled sewage at existing facilities; or 2. upgrade existing or build new facilities to handle demand <p>such that the land application of hauled sewage is no longer necessary.</p> <ul style="list-style-type: none"> ✓ Septage is associated with activities that are SIGNIFICANT, MODERATE or LOW drinking water threats depending on the location; ✓ This policy is in accordance with Section ### of the <i>Clean Water Act</i>. 	<ul style="list-style-type: none"> ✓ Since hauled sewage (untreated septage) is generated in all of the Cataraqui Source Protection Area municipalities where septic systems and holding tanks are permitted, a cooperative municipal or private centralized facility to treat or stabilize hauled sewage could benefit all residents, and reduce pressure on the Cataraqui Bay Wastewater Treatment Plant, which is the only municipal facility in the area that currently accepts hauled sewage. This plant is partly located in the Point Pleasant IPZ. ✓ This approach would be expected to have high start-up costs and then run on a cost-recovery system. ✓ It also supports section 1.6.4.1 of the Provincial Policy Statement.
Area wide.9-SA	TSSA	<p>The Technical Standards and Safety Authority (TSSA) SHOULD monitor the effectiveness of its fuel program as it relates to protecting drinking water sources and update the inspection and management of fuel handling and storage by considering the following:</p> <ul style="list-style-type: none"> • Inspection conducted by fuel suppliers should be more frequent than every ten years. • TSSA should promote the regular maintenance to be conducted by owners as per Section 13 of the Ontario Installation Code for Oil-burning Equipment so property owners are aware of this requirement. • Phase out indoor and outdoor single-walled steel tanks and replace with more leak resistant technology. <p>This strategic action should occur within [insert number]</p>	<ul style="list-style-type: none"> ✓

Policy Reference Number	Location Implementing Body	Draft Policies for Others	Rationale
		<p>[insert number months/years] of the approval of the source protection plan.</p> <ul style="list-style-type: none"> ✓ The handling and storage of fuel are SIGNIFICANT, MODERATE or LOW drinking water threats depending on the location. 	
Area wide.10-SA		<p>The marinas in the Cataraqui Source Protection Area SHOULD BE ENCOURAGED to participate in the Clean Marine Program, especially if they are located near a municipal intake.</p> <p>This strategic action should occur within [insert number months/years] of the approval of the source protection plan.</p> <ul style="list-style-type: none"> ✓ The handling and storage of fuel are MODERATE drinking water threats. 	<ul style="list-style-type: none"> ✓ The majority of IPZs in the CSPA contain at least one marina. Marinas are sources of multiple drinking water threats (e.g. fuel, septage) that, although not considered to be significant risks, are a concern for various stakeholders. New or continued participation in the existing voluntary Clean Marine program would be anticipated to reduce the risk to sources of drinking water.
Area-wide.11-CW	All municipalities	<p>The City of Brockville, Township of Elizabethtown-Kitley, and the United Counties of Leeds and Grenville, SHOULD ESTABLISH a Source Water Protection Area-wide incentive program to provide grants to help cover part of the cost of replacing underground storage tanks with above ground storage tanks for heating oil and private fuel outlets, and to construct/add secondary containment.</p> <p>This strategic action should occur within [insert number months/years] of the approval of the source protection plan.</p> <ul style="list-style-type: none"> ✓ The handling and storage of fuel are SIGNIFICANT, MODERATE or LOW drinking water threats depending on the location. 	<ul style="list-style-type: none"> ✓ This threat is best managed at the CSPA-wide level since it exists throughout the area, and should be more economical on a larger scale. Underground storage tanks especially private ones tend to have the highest incidence of leaks. If there is an incentive program and it is felt that the current minimum standard is not sufficient then it is appropriate to exceed that standard. Secondary containment was a popular idea at the roundtables. ✓ Such a program could be source protection area –wide.

Policy Reference Number	Location Implementing Body	Draft Policies for Others	Rationale
Area wide.12-SA		<p>The [insert name of body] in cooperation with [insert name of body] SHOULD undertake a research project to determine the best method for disposing of water softener backwash in the hydrogeologic and climatic setting of the Cataraqui Source Protection Area/Eastern Ontario.</p> <p>This strategic action should occur within [insert number months/years] of the approval of the source protection plan.</p> <ul style="list-style-type: none"> ✓ Discharge from water softeners is a SIGNIFICANT, MODERATE or LOW drinking water threats depending on the location. 	<ul style="list-style-type: none"> ✓ A local research project would ensure that the most effective disposal method is being used for water softener backwash.

Attachment 2. Draft policies for the James W. King Intake Protection Zone (May 5, 2011)

A. Context

The James W. King water treatment plant in the Town of Gananoque draws water from the St. Lawrence River. The intake pipe is located about 396 m offshore at a depth of 6 m. The water is treated and distributed to the 5200 residents and businesses in Gananoque.

Intake Protection Zone 1

The majority of intake protection zone 1 (IPZ 1) consists of the St. Lawrence River. It includes a number of island residential properties which are serviced by either septic systems or holding tanks, and by ground water or shore wells.

On the mainland, IPZ 1 consists of approximately one-third estate residential properties (serviced by either septic systems or holding tanks, and by ground water or shore wells) and open space (e.g. parkland). There are also some residential properties that are on full municipal services. It includes the Town's water treatment plant and marina, and the docks of a private company.

Intake Protection Zone 2

Similar to IPZ 1, about half of IPZ 2 consists of the St. Lawrence River, and includes a number of island residential properties which are serviced by either septic systems or holding tanks, and by ground water or shore wells. A portion of one livestock farm is located in the far upstream reach of IPZ 2.

Within the Town of Gananoque, IPZ 2 consists mainly of residential properties that are on full municipal services. The majority of commercial development is located along King Street East and in the Lowertown Area. There are brownfield properties along the western shore of the Gananoque River.

The Lowertown Area includes commercial properties, vacant brownfield properties and parking lots. The Town's vision for this area is to "create a vibrant, year-round, mixed-use Lowertown neighborhood on an active waterfront where people live, work and play" (Gananoque Lowertown Study Master Plan and Implementation Strategy, December 2005). The vision and principles of the Master Plan are reflected in the Town of Gananoque Official Plan and proposed Development Permit By-law. This master plan has implications for the drinking water source protection initiative in that the land uses and activities envisioned for the area are not anticipated to be associated with significant drinking water threats.

Drinking Water Issues

There were no drinking water issues identified for the Gananoque IPZ in the Draft Amended Proposed Assessment Report (April 2011).

Drinking Water Threats

The latest available information for the Draft Amended Proposed Assessment Report (April 2011) includes a count of properties in the IPZ on which existing activities are associated with drinking water threats. One parcel of land was enumerated on which there are agricultural activities ranked as significant drinking water threats. The balance of the enumerated activities in the IPZ are ranked as moderate (166) or low (12) drinking water threats.

The most common enumerated moderate and low-ranked drinking water threats in the Gananoque IPZ relate to:

- On-site sewage (septic) systems
- The transportation, handling and storage of fuel (mainly for heating purposes)
- Road salt application

The source protection plan must include policies to address significant drinking water threats, and it will also include policies to address moderate and low drinking water threats. The significant threat policies must address existing activities and those that ‘would be’ significant if they were to occur in the future.

The Cataraqui Source Protection Committee determined where drinking water threats should be prohibited and where management should be sufficient to address the risk to drinking water sources.

B. Policy Format

The draft policies are assigned a code so that they can be tracked throughout the development of the source protection plan, where policy “VA.x.– LE” would mean:

- VA Vulnerable area (The code for the James W. King intake protection zone is JK.)
- x Sequential number assigned to policies
- LE Legal effect

The legal effect of the draft policies is coded as follows:

- CW The implementing body is required to conform/comply with significant threat policies. This means they are obligated to comply with the policies.
- HR The implementing body is required to have regard for the policy when making a decision under the *Planning Act* or *Condominium Act*, or when making a decision to issue, create or amend a Provincial prescribed instrument. This means that they have to carefully consider the policies, and be prepared to provide a rationale if they choose not to comply with them.
- SA Strategic action policies are not legally-binding on public bodies.
- M Monitoring policies are required for activities that are or would be significant drinking water threats. They must be implemented by the public body designated in the source protection plan.

The draft policies presented below have been grouped by implementing body, drinking water threat(s) and policy tool type as appropriate. A rationale is provided for the draft policies. Please note that the rationale will evolve based on input received from stakeholders.

C. Application of Policies

The draft policies in this document would apply to James W. King IPZ 1 and/or IPZ 2, as indicated in the text of each policy. The boundaries of IPZ 1 and IPZ 2 are illustrated on the following map. [insert map for pre-consultation] Policies that may be applicable area-wide are identified as such.

Implementation Bodies: Town of Gananoque and Township of Leeds and the Thousand Islands

The Town of Gananoque and Township of Leeds and the Thousand Islands will be the main municipal implementation bodies of the Cataraqui Source Protection Plan for the James W. King IPZ.

Policy Reference Number	Location Implementing Body	Draft Policies for Town of Gananoque, Township of Leeds and the Thousand Islands	Rationale
Part IV of the Clean Water Act			
JK.1-CW	IPZ 2 Leeds & 1000 Islands	<p>The Township of Leeds and the Thousand Islands SHALL PROHIBIT:</p> <ul style="list-style-type: none"> • the storage and land application of agricultural source material <p>in the James W. King IPZ 2.</p> <ul style="list-style-type: none"> ✓ These activities constitute SIGNIFICANT drinking water threats. ✓ This policy is in accordance with the <i>Clean Water Act</i>, Part IV (S. 57(1)) 	<ul style="list-style-type: none"> ✓ There is land in IPZ 2 that is used for agricultural purposes, however, agricultural source material is not stored or applied to land within this area. ✓ These draft policies would be effective and appropriate to maintain the status quo. ✓ There is no anticipated economic impact on the landowners nor the community.
JK.2-CW	IPZ 2 Leeds & 1000 Islands	<p>The Township of Leeds and the Thousand Islands SHALL REQUIRE a risk management plan for livestock to be kept (specifically grazing and pasturing, outdoor confinement areas and barnyards) in the James W. King IPZ 2 in the event that these activities are not phased-in under Ontario Regulation 267/03 - General. The risk management plan would be based on the requirements of this regulation and best management practices, and address, at minimum, the following measures:</p> <ul style="list-style-type: none"> • establishment of adequate depth naturalized buffer, • fence placement • timing of livestock presence • landowner transfer clause <ul style="list-style-type: none"> ✓ This activity is a SIGNIFICANT drinking water threat. 	<ul style="list-style-type: none"> ✓ The landowners are agreeable to an agreement that would see livestock kept out of the IPZ in the spring and fall, but permitted in summer to manage vegetation. The livestock are fenced out of the St. Lawrence River.

Policy Reference Number	Location Implementing Body	Draft Policies for Town of Gananoque, Township of Leeds and the Thousand Islands	Rationale
		<ul style="list-style-type: none"> ✓ This policy is in accordance with the <i>Clean Water Act</i>, Part IV (S. 58). 	
JK.3-CW	IPZ 2 Leeds & 1000 Islands	<p>The following land uses SHALL BE RESTRICTED in James W. King IPZ 2 under section 59 of the <i>Clean Water Act</i>:</p> <ul style="list-style-type: none"> • farms in the Township of Leeds and the Thousand Islands. <p>such that</p> <ul style="list-style-type: none"> • A person shall not make an application under the <i>Planning Act</i> for the purpose of using land for the land use at any location within James W. King IPZ 2; and • A person shall not construct or change the use of a building at any location within James W. King IPZ 2, if the building will be used in connection with the land use, <p>unless the risk management official issues a notice to the person indicating that:</p> <ul style="list-style-type: none"> • The proposed activity for which the land is to be used is neither prohibited under section 57 of the <i>Clean Water Act</i> nor is a risk management plan required under section 58 of the <i>Act</i>, or • That a risk management plan under section 58 of the <i>Act</i> is required for the proposed activity, and that the plan has been agreed to or established under section 58 of the <i>Act</i>. 	<ul style="list-style-type: none"> ✓ The “restricted land uses” policy tool (section 59 of the <i>Clean Water Act</i>) is used to flag land uses that are or may be associated with the activities that are prohibited under section 57 of the CWA or that require a risk management plan under section 58 of the CWA.

Policy Reference Number	Location Implementing Body	Draft Policies for Town of Gananoque, Township of Leeds and the Thousand Islands	Rationale
Planning Act (Land use planning)			
JK.4-CW	IPZ 1 and 2 Gananoque Leeds & 1000 Islands	<p>Through its Official Plan and Zoning By-law, the Town of Gananoque and Township of Leeds and the Thousand Islands SHALL CONTINUE TO PROHIBIT the following land uses in the specified areas of the James W. King intake protection zone:</p> <ul style="list-style-type: none"> a) Waste disposal sites of the following types: mine tailing impoundment structures; municipal, industrial, commercial, or petroleum refining waste landfills; and storage of PCB, hazardous or liquid industrial wastes in IPZ 1 b) Waste disposal sites for the application of hauled sewage to land in IPZ1 and IPZ 2 c) Wastewater treatment facilities and by-passes in IPZ 1 and IPZ 2 d) Pesticide storage associated with retail sales, extermination, manufacturing, processing and wholesale in IPZ 1 e) Contractor’s yards (for snow removal), and public works/maintenance yards where road salt and/or snow is stored in IPZ 1 f) Snow storage areas/snow dumps in IPZ 1 g) Airports in IPZ 1 h) Agriculture in IPZ 1 and IPZ 2 (in Gananoque only) <ul style="list-style-type: none"> ✓ These land uses are associated with activities that would be SIGNIFICANT drinking water threats. ✓ This policy is in accordance with of the <i>Clean Water Act</i> (S. 39(1)(a) and/or 40 and 42) 	<ul style="list-style-type: none"> ✓ The <i>Clean Water Act</i> requires that the source protection plan address all ‘would be’ significant drinking water threats, regardless of their feasibility to occur in the James W. King Intake Protection Zone (IPZ). ✓ These land uses are generally not currently permitted in the IPZ 1 or 2 by the Town and Township: the area consists mainly of residential neighbourhoods. ✓ These land uses do not and are unlikely to occur based on existing settlement pattern and physical characteristics on the area. ✓ The draft policies would be effective and appropriate to maintain the status quo. ✓ There is no anticipated economic impact on the community. ✓ Provides land use planning policy that complements restrictions in draft policies JK.22-CW and JK.26-CW.

Policy Reference Number	Location Implementing Body	Draft Policies for Town of Gananoque, Township of Leeds and the Thousand Islands	Rationale
JK.5-CW	IPZ 1 and 2 Gananoque Leeds & 1000 Islands	<p>Through its Official Plan and Zoning By-law, the Town of Gananoque and the Township of Leeds and the Thousand Islands SHALL CONTINUE TO direct industrial land uses to lands designated Employment Lands and Industrial Areas, respectively.</p> <p>The Town of Gananoque SHALL also CONTINUE TO require buildings and structures associated with industrial land uses to be connected to the municipal sanitary sewer in accordance with the Town of Gananoque Sewer Use By-law.</p> <ul style="list-style-type: none"> ✓ Industrial land uses that have independent sewage works that discharge to surface water would be SIGNIFICANT drinking water threats. ✓ This policy is in accordance with of the <i>Clean Water Act</i> (S. 39(1)(a) and/or 40 and 42) 	✓ Same as above.
JK.6-M	IPZ 1 and 2 Gananoque Leeds & 1000 Islands	<p>The Town of Gananoque and the Township of Leeds and the Thousand Islands SHALL REPORT TO the Cataraqui Source Protection Authority by February 15 of each year on any <i>Planning Act</i> applications received related to the land uses specified in policies JK.4-CW and JK.5-CW.</p> <ul style="list-style-type: none"> ✓ All the land uses referenced, or activities associated with those land uses, are SIGNIFICANT drinking water threats. ✓ This policy is in accordance with <i>Clean Water Act</i> (S. 45). 	✓ Section 22(2) of the <i>Clean Water Act</i> requires that the source protection plan contain policies governing the monitoring of activities that are or would be significant drinking water threats.
JK.7-HR	IPZ 1 and 2 Gananoque	When reviewing applications made under the <i>Planning Act</i> for the following land uses, the Town of Gananoque and the Township of Leeds and the Thousand Islands SHOULD	✓ Gas stations and marinas, although not associated with significant drinking water threats, are concerns for local stakeholders. If these land uses are located near an intake

Policy Reference Number	Location Implementing Body	Draft Policies for Town of Gananoque, Township of Leeds and the Thousand Islands	Rationale
	Leeds & 1000 Islands	<p>REQUIRE applicants, as a condition of approval, to conduct studies of the potential impact of the land uses on source water:</p> <ul style="list-style-type: none"> a) Bulk Plants and Fuel Distributors in IPZ 1 and IPZ 2 b) Gas stations and automotive service stations in IPZ 1 and IPZ 2 c) Marinas in IPZ 1 and IPZ 2 d) Businesses that store large quantities of commercial fertilizer and/or pesticides in IPZ 1 and IPZ 2 e) Waste disposal sites (with the exception of those for the application of hauled sewage to land which are prohibited) in IPZ 2 f) Contractor's yards (for snow removal), and public works/maintenance yards where road salt and/or snow is stored in - IPZ 2 g) Snow storage areas/snow dumps - IPZ 2 h) Airports - IPZ 2 <p>And, if any of the listed land uses are approved, the municipality SHALL IMPLEMENT site plan control agreements to apply Best Management Practices to manage the drinking water threats associated with the land uses (e.g. connection to sanitary sewer, spill containment design features; Transportation Association of Canada BMPs), and to require the preparation of spill contingency and emergency response plans.</p> <ul style="list-style-type: none"> ✓ All these land uses constitute MODERATE drinking water threats. ✓ This policy is in accordance with section 39(1)(b) of the <i>Clean Water Act</i> (S. 39(1)(b)). 	<p>there is a perceived or real threat to the source water.</p> <ul style="list-style-type: none"> ✓ The waste disposal, snow removal contractor, municipal works/maintenance yard, snow dump and airport land uses are not currently permitted in the IPZ by the Town and Township since the area consists mainly residential neighbourhoods. ✓ These land uses do not and are unlikely to occur based on existing settlement pattern and physical characteristics on the area. ✓ The draft policies would be effective and appropriate to maintain the status quo. ✓ There is no anticipated economic impact on the community. ✓ If these land uses are contemplated, requiring these actions for new development can easily be incorporated into the site plan control process, and should or may be required through other means as well (such as <i>Technical Standards and Safety Act</i>). ✓ Water and chemicals used to suppress fires can contaminate sources of drinking water whether it is surface or groundwater. ✓ The spill contingency and emergency response plans may be required under other legislation, in which case the municipality should ensure that the plans satisfy requirements to protect source water.

Policy Reference Number	Location Implementing Body	Draft Policies for Town of Gananoque, Township of Leeds and the Thousand Islands	Rationale
JK.8-HR	IPZ 1 and 2 Gananoque	<p>Through application of the site plan control process of the <i>Planning Act</i>, the Town of Gananoque SHOULD REQUIRE designated snow storage areas on new development in IPZ 1 and IPZ 2 that take into consideration the sensitivity of the vulnerable area. This can be addressed as part of a stormwater management report.</p> <ul style="list-style-type: none"> ✓ This is a MODERATE drinking water threat. ✓ This policy is in accordance with the <i>Clean Water Act</i> (S. 39(1)(b)). 	<ul style="list-style-type: none"> ✓ Requiring designated snow storage areas for new development can easily be incorporated into the site plan control process, however, it is difficult to enforce. ✓ The purpose of requiring designated snow storage areas for new development is to ensure that the snow does not impede the functioning of the site's stormwater management facility, and that the meltwater from the snow is treated before being discharged to the Gananoque River or to the St. Lawrence River, where it would pose risk to source water.
JK.9-HR	IPZ 1 and 2 Gananoque	<p>Through its official plan and development guidance documents under the <i>Planning Act</i>, the Town of Gananoque SHOULD REQUIRE the preparation, and implementation where appropriate, of a stormwater management report for:</p> <ul style="list-style-type: none"> a) Urban infill development in IPZ 1 and 2; and b) Redevelopment of properties where there is a lack of stormwater management controls in IPZ 1 and 2. <ul style="list-style-type: none"> ✓ Stormwater is a MODERATE drinking water threat. ✓ This policy is in accordance with the <i>Clean Water Act</i> (S. 39(1)(b)). 	<ul style="list-style-type: none"> ✓ Stormwater runoff is not a significant drinking water threat in the James W. King IPZ because the drainage areas in the IPZ are small and there are no stormwater management facilities, specifically ponds, in the IPZ. However, depending on the location of outfalls there could still be risk to source water. ✓ This policy idea would be effective if done right. It would treat everyone the same; however those affected may challenge the requirement. It could be expensive depending on the location. For some it would be a cost of doing business.
JK.10-SA	IPZ 1 and 2 Gananoque	<p>The Town of Gananoque should screen land uses/activities that make use of DNAPLs and organic solvents so that when there is an application made under the <i>Planning Act</i>, or for a building permit, the municipality can ENCOURAGE the proponent to consider the use of best management practices when land uses/activities involve the use of DNAPLs or organic solvents.</p> <ul style="list-style-type: none"> ✓ The handling and storage of DNAPLs and organic 	<ul style="list-style-type: none"> ✓ In Gananoque, it would be in the best interest of the municipality to manage or monitor these types of land uses within and outside the IPZ since they could impact their sources of drinking water through the sanitary and storm sewer networks.

Policy Reference Number	Location Implementing Body	Draft Policies for Town of Gananoque, Township of Leeds and the Thousand Islands	Rationale
		solvents is a MODERATE drinking water threat.	
Sewage system maintenance inspection program			
JK.11-SA	IPZ 1 and 2 Gananoque Leeds & 1000 Islands	<p>The Town of Gananoque and Township of Leeds and the Thousand Islands, in conjunction with their respective Principal Authority (Leeds, Grenville and Lanark District Health Unit), SHOULD ESTABLISH a sewage system maintenance inspection program in areas that are considered to be vulnerable based on existing study information and need, starting with the Brockville Intake Protection Zone (IPZ 1 and IPZ 2). [action by date]</p> <ul style="list-style-type: none"> ✓ On-site sewage systems pose a MODERATE drinking water threat; ✓ This policy can be implemented through the Ontario Building Code (as amended O.Reg. 315/10) 	<ul style="list-style-type: none"> ✓ KFL&A Public Health has indicated that they should coordinate such a program with municipalities since the health units are generally involved with existing septic maintenance inspection programs. KFL&A Health Unit has begun to develop septic system educational material in response to their current program needs and the anticipated maintenance inspection programs. It is assumed that a similar approach would be advocated by the Leeds, Grenville and Lanark District Health Unit. ✓ A framework for these inspections has been amended to the Ontario Building Code and an appendix has been added to the Code to guide how these inspections are to be undertaken.
JK.12-SA	IPZ 1 and 2 Gananoque Leeds & 1000 Islands	<p>The Town of Gananoque and Township of Leeds and the Thousand Islands, in conjunction with their respective Principal Authority (Leeds, Grenville and Lanark District Health Unit), SHOULD DEVELOP an education and awareness program directed to landowners in IPZ 1 and IPZ 2 to assist them with the proper operation and maintenance of their on-site sewage systems, and to inform them of the benefits of well maintained systems. [action by date]</p> <ul style="list-style-type: none"> ✓ On-site sewage systems pose a MODERATE drinking water threat. 	<ul style="list-style-type: none"> ✓ Same as above.

Policy Reference Number	Location Implementing Body	Draft Policies for Town of Gananoque, Township of Leeds and the Thousand Islands	Rationale
Area wide.1-?	IPZ 1 and 2 Gananoque Leeds & 1000 Islands	<p>The Town of Gananoque and Township of Leeds and the Thousand Islands, in conjunction with their respective Principal Authority (Leeds, Grenville and Lanark District Health Unit), SHOULD ESTABLISH an incentive program to provide grants to help cover part of the cost of repairs or replacements required as a result of the proposed on-site sewage (septic) system maintenance inspection program within [insert number months/years] of the source protection plan being approved.</p> <p>✓ These activities are SIGNIFICANT, MODERATE or LOW drinking water threats depending on the location.</p>	<p>✓ Such a program could be source protection area –wide.</p>
JK.13-SA	IPZ 1 and 2 Gananoque Leeds & 1000 Islands	<p>The Town of Gananoque and Township of Leeds and the Thousand Islands, in conjunction with their respective Principal Authority (Leeds, Grenville and Lanark District Health Unit), SHOULD encourage business operators that haul septage by barge from island and waterfront properties to develop and circulate/post a pump-out schedule to provide consistent service options for landowners of these properties and to minimize the effort and cost of mobilizing the necessary marine equipment.</p> <p>This strategic action should be completed prior to the implementation of the proposed sewage system maintenance inspection program for the IPZ.</p> <p>✓ This activity is linked to on-site sewage systems which are MODERATE drinking water threats.</p>	<p>✓ This was an issue raised by participants at some of the community roundtables. Such a policy could make it easier for island owners to have their tanks pumped on a regular basis, and reduce the risk to drinking water associated with these systems.</p> <p>✓ This will be particularly important in support of any sewage system maintenance inspection program that might be implemented for the IPZ and other properties along the St. Lawrence River.</p> <p>✓ Pumping operators should support this as it will provide more effective time management for them</p>

Policy Reference Number	Location Implementing Body	Draft Policies for Town of Gananoque, Township of Leeds and the Thousand Islands	Rationale
Municipal operations / Other policies			
JK.14-SA	IPZ 1 and 2 Gananoque Leeds & 1000 Islands	<p>The Town of Gananoque and Township of Leeds and the Thousand Islands SHOULD ESTABLISH an education program directed to landowners in IPZ 1 and IPZ 2 to raise awareness of local hazardous waste collection days and opportunities for household products. [action by date].</p> <ul style="list-style-type: none"> ✓ This policy addresses drinking water threats related to waste disposal sites and the handling and storage of DNAPLs and organic solvents. 	<ul style="list-style-type: none"> ✓ Although there are no existing waste disposal sites in the James W. King IPZ, this policy idea would benefit the drinking water sources of other communities to which waste is sent, and would also address sewage-related threats by encouraging residents to properly dispose of waste products.
JK.15-SA	IPZ 1 and 2 Gananoque	<p>The Town of Gananoque, SHOULD ENCOURAGE existing marinas in IPZ 1 and IPZ 2 to develop new or update existing spill prevention and spill contingency plans to address the topic of wastewater spills in the event of sewage pumping station overflow or spills within [insert number] years of the approval of the source protection plan.</p> <ul style="list-style-type: none"> ✓ The handling and storage of fuel is a MODERATE drinking water threat. 	<ul style="list-style-type: none"> ✓ Marinas, although not associated with significant drinking water threats, are concerns for local stakeholders. ✓ Wastewater (sewage) spills from sewage pumping station overfills or spills could result in impaired water quality depending on the location and volume of material spilled.
JK.16-SA	IPZ 1 and 2 Gananoque	<p>The Town of Gananoque SHOULD DEVELOP a strategy to address local water quality issues that have been linked to untreated stormwater runoff by within two years of the approval of the source protection plan, and implement it as funding is available. Such a strategy could include matters such as mapping existing stormsewers, catchbasins and outfalls, and monitoring water quality, so that treatment can be incorporate at the right location(s); and ensuring that road reconstruction projects include appropriate storm runoff controls.</p>	<ul style="list-style-type: none"> ✓ There are water quality issues linked to stormwater runoff in a location near the intake. The proposed actions could help to identify the source and address appropriately, particularly if funding was made available. ✓ General ideas raised at roundtable; discussed with Town staff.

Policy Reference Number	Location Implementing Body	Draft Policies for Town of Gananoque, Township of Leeds and the Thousand Islands	Rationale
JK.17-SA	IPZ 1 and 2 Gananoque	<p>The Town of Gananoque SHOULD ESTABLISH fertilizer-free buffer zones along surface water on municipal properties in IPZ 1 and IPZ 2. An action plan should be developed within two years of the source protection plan being approved.</p> <ul style="list-style-type: none"> ✓ Fertilizer runoff or release is a MODERATE drinking water threat. 	<ul style="list-style-type: none"> ✓ This provides the municipalities the opportunity to lead by example, and could result in reduced maintenance costs. ✓ Runoff picks up pollutants such as excess fertilizer and pesticides as it flows over the ground and carries them to local waterways such as the Gananoque River and the St. Lawrence River. Too much fertilizer (phosphorus in particular) can result in eutrophication and algae blooms. (excess nutrients = excessive plant/algae growth = low dissolved oxygen) = bad tasting and smelling water.
JK.18-SA	IPZ 1 and 2 Gananoque	<p>The Town of Gananoque SHOULD TAKE ACTION to reduce road salt and other contaminants entering surface water in IPZ 1 and IPZ 2 by:</p> <ul style="list-style-type: none"> • Cleaning catch basins on a schedule sufficient to prevent flushing of road salts and other contaminants; • Performing annual spring street sweeping. <ul style="list-style-type: none"> ✓ Stormwater runoff is a MODERATE drinking water threat. 	<ul style="list-style-type: none"> ✓ This provides the municipalities the opportunity to lead by example, and could result in reduced maintenance costs.
JK.19-SA	IPZ 1 and 2 Gananoque	<p>The Town of Gananoque SHOULD REVIEW AND UPDATE its salt management plan to account for the vulnerability of the IPZ 1 and 2 within [insert number months/years] of the source protection plan being approved.</p> <p>Specific actions that should be included in the plans to address the risk of road salt effects on source water include: [insert actions]</p> <ul style="list-style-type: none"> ✓ The application, handling and storage of road salt are 	<ul style="list-style-type: none"> ✓ This provides the municipalities the opportunity to lead by example, and could result in reduced maintenance costs. ✓ More than half of the road salt applied to roads is transported in surface runoff, the rest infiltrates through soil into the groundwater. This is most noticeable in urbanized areas and along major roadways. In 1997, the properties along County Road 2 west of Brockville were connected to the City’s water supply because past road salting operations contaminated the groundwater that supplied their wells.

Policy Reference Number	Location Implementing Body	Draft Policies for Town of Gananoque, Township of Leeds and the Thousand Islands	Rationale
		<p>MODERATE drinking water threats. Snow storage is a SIGNIFICANT and MODERATE drinking water threat in IPZ 1 and 2 respectively.</p>	
JK.20-SA	<p>IPZ 1 Gananoque</p>	<p>The Town of Gananoque SHOULD ERECT SIGNAGE at the boat ramp located adjacent to the Gananoque Marina to make people aware of the nearby intake and to indicate reasonable actions to take to keep the St Lawrence River clean for all water users within [insert number months/years] of the source protection plan being approved.</p> <p>Signage should indicate:</p> <ul style="list-style-type: none"> • What specifics are appropriate: care with gas and oil; sewage • No mooring and using anchors (scouring can cause turbidity) 	<ul style="list-style-type: none"> ✓ The need to raise awareness among residents and visitors about the potential impact of certain activities on drinking water was raised at the roundtables. ✓ Awareness of the intake may be low.
JK.21-SA	<p>IPZ 1 and 2 Gananoque Leeds & 1000 Islands Leeds and Grenville</p>	<p>The Town of Gananoque, Township of Leeds and the Thousand Islands, and United Counties of Leeds and Grenville SHOULD ENSURE that their Emergency Management Plans include the following for IPZ 1 and IPZ 2:</p> <ul style="list-style-type: none"> • GIS mapping of IPZ 1 and 2; • Requirements to contain water and chemicals used to suppress fires; • Response to spills from septic haulage; • Other? • <p>This action should occur within [insert number months/years] of the source protection plan being approved.</p>	<ul style="list-style-type: none"> ✓ Raised at the Sydenham roundtable. Private well contamination occurred as a result of firefighting measures in the past. Based on the topography of the area (Sydenham is in a bowl), this is something that could happen again, and affect the intake. ✓ <i>Emergency Management and Civil Protection Act</i> requires municipalities to prepare Emergency programs and emergency plans

Implementation Bodies: Provincial Ministries

There are a number of Provincial ministries that have a role to play in implementing the Cataraqui Source Protection Plan. These include: the Ministry of the Environment, Ministry of Natural Resources, Ontario Ministry of Agriculture, Food and Rural Affairs, and the Ministry of Transportation.

Policy Reference Number	Location Implementing Body	Draft Policies for Provincial Ministries	Rationale
<i>Environmental Protection Act</i>			
JK.22-CW	IPZ 1 and 2 MOE	<p>The Ministry of the Environment (MOE) SHALL NOT APPROVE applications for the establishment, operation and maintenance of new waste disposal sites within the meaning of Part V of the <i>Environmental Protection Act</i> under section 39 of the EPA involving the following activities in the specified areas of the James W. King intake protection zone:</p> <ul style="list-style-type: none"> a) The application of hauled sewage to land in IPZ 1 and IPZ 2; b) The application of non-agricultural source material to land in IPZ 1 and IPZ 2; c) The storage of mine tailings in an impoundment structure on the surface in IPZ 1; d) Landfills (for municipal, industrial, commercial, petroleum refining waste) with fill areas greater than 10 ha in IPZ 1; e) Storage of hazardous or liquid industrial wastes in IPZ 1. <ul style="list-style-type: none"> ✓ These activities, in the zones indicated, constitute SIGNIFICANT drinking water threats; ✓ This policy is in accordance with section 39(7)(a) of the <i>Clean Water Act</i> 	<ul style="list-style-type: none"> ✓ The <i>Clean Water Act</i> requires that the source protection plan address all ‘would be’ significant drinking water threats, regardless of their feasibility to occur in the James W. King Intake Protection Zone (IPZ). ✓ These land uses are not currently permitted in the IPZ by the Town and Township since the area consists mainly residential neighbourhoods. ✓ These land uses do not and are unlikely to occur based on existing settlement pattern and physical characteristics on the area. ✓ The draft policy ideas would be effective and appropriate to maintain the status quo. ✓ There is no anticipated economic impact on the community.

Policy Reference Number	Location Implementing Body	Draft Policies for Provincial Ministries	Rationale
JK.23-HR	IPZ 1 and 2 MOE	<p>The MOE, in the case of applications for new waste disposal sites that would be moderate drinking water threats:</p> <ul style="list-style-type: none"> a) SHOULD CONSIDER the potential impact to source water of such sites on properties within and immediately adjacent to IPZ 1 and IPZ 2; and b) As part of any approval, the MOE SHOULD REQUIRE annual reporting to the Ministry on any records kept in accordance with certificates of approval approved under Section 39 of the <i>Environmental Protection Act</i> so that the Ministry can verify that source water is protected. <p>This policy applies to the following types of waste disposal sites:</p> <ul style="list-style-type: none"> a) mine tailing impoundment structures; b) municipal, industrial, commercial, or petroleum refining waste landfills; c) Landfills or injection into wells for hazardous or liquid industrial waste d) and storage of PCB, hazardous or liquid industrial wastes. <ul style="list-style-type: none"> ✓ These activities, in the zones indicated, constitute MODERATE drinking water threats; ✓ This policy is in accordance with section 39(7)(b) of the <i>Clean Water Act</i>. 	<ul style="list-style-type: none"> ✓ These land uses are not currently permitted in the IPZ by the Town and Township since the area consists mainly residential neighbourhoods. ✓ These land uses do not and are unlikely to occur based on existing settlement pattern and physical characteristics on the area. ✓ There are properties enumerated in the James W. King IPZ that extend beyond the boundaries of the IPZ and some are adjacent to watercourses that drain into the IPZ. This policy would address the risk to drinking water from the entire parcel rather than just that portion within the IPZ. ✓ The draft policy ideas would be effective and appropriate to maintain the status quo. ✓ There is no anticipated economic impact on the community.
JK.24-SA	IPZ 1 and 2 MOE	<p>The MOE SHOULD REQUIRE businesses that haul septage on the St. Lawrence River in IPZ 1 and IPZ 2 to prepare or update spill contingency plans as part of their licenses/certificates of approval under section 27 of the <i>Environmental Protection Act</i> to ensure that source water is protected. This strategic action should be completed prior to the implementation of the proposed sewage system maintenance inspection program for the IPZ.</p>	<ul style="list-style-type: none"> ✓ Hauled sewage from the islands and waterfront properties along the St. Lawrence River is transported over the Gananoque and Brockville intake and through the IPZs to local marinas or private docks for road transport. As such this activity is a risk to these drinking water sources. This will be particularly important in support of any sewage system maintenance inspection program that might be

Policy Reference Number	Location Implementing Body	Draft Policies for Provincial Ministries	Rationale
		<ul style="list-style-type: none"> ✓ This activity is linked to on-site sewage systems which are MODERATE drinking water threats; ✓ This policy is in accordance with section 26(6) of Ontario Regulation 287/07 (as amended). 	implemented for the IPZ and other properties along the St. Lawrence River.
JK.25-SA	MOE	The MOE Spills Action Centre SHOULD review and update contact information and Procedure Cards, based on the IPZ delineations to ensure that drinking water sources will be protected in the event of a spill. This strategic action should occur within [insert number months/years] of the approval of the source protection plan.	✓
Ontario Water Resources Act			
JK.26-CW	IPZ 1 and 2 MOE	<p>The Ministry of the Environment SHALL NOT APPROVE applications for the establishment, operation and maintenance of a system that collects, stores, transmits, treats or disposes of sewage under Section 53 of the <i>Ontario Water Resources Act</i> in James W. King IPZ 1 and IPZ 2, in relation to the following activities:</p> <ul style="list-style-type: none"> a) Wastewater treatment facilities; and b) Industrial sewage treatment facilities and outfalls. <ul style="list-style-type: none"> ✓ Discharge from these facilities would be SIGNIFICANT drinking water threats. ✓ This policy is in accordance with section 39(7)(a) of the <i>Clean Water Act</i>. 	<ul style="list-style-type: none"> ✓ The <i>Clean Water Act</i> requires that the source protection plan address all ‘would be’ significant drinking water threats, regardless of their feasibility to occur in the James W. King Intake Protection Zone (IPZ). ✓ These land uses are not currently permitted in the IPZ by the Town and Township since the area is mainly residential neighbourhoods. ✓ These land uses do not and are unlikely to occur based on existing settlement pattern and physical characteristics on the area. ✓ The draft policy ideas would be effective and appropriate to maintain the status quo. ✓ There is no anticipated economic impact on the community.

Policy Reference Number	Location Implementing Body	Draft Policies for Provincial Ministries	Rationale
JK.27-HR	IPZ 1 and 2 MOE	<p>In the case of proposals for the establishment, operation and maintenance of a sewage treatment system under Section 53 of the <i>Ontario Water Resources Act</i> within and immediately adjacent to the James W. King IPZ 1 and IPZ 2, including:</p> <ul style="list-style-type: none"> a) Wastewater treatment facilities; b) Industrial sewage treatment facilities and outfalls; c) Stormwater management facilities; d) Sewage works associated with new land-based fish farms; e) On-site sewage systems; <p>where the proposal would be a moderate drinking water threat, MOE SHOULD:</p> <ul style="list-style-type: none"> a) CONSIDER the potential impact to drinking water sources of the proposed system; and b) As part of any approval, the MOE SHOULD INCLUDE terms and conditions that ensure that the drinking water threat is managed appropriately and source water is protected. Items to consider include enhanced level of quality control for stormwater, strict monitoring requirements and annual reporting. <p>✓ Discharge from these facilities are MODERATE and LOW drinking water threats In accordance with section 39(7)(b) of the <i>Clean Water Act</i>.</p>	<ul style="list-style-type: none"> ✓ Some of these activities <i>are associated</i> with land uses that <i>are not currently permitted</i> in the IPZ by the Town or Township since the area consists mainly residential neighbourhoods. ✓ There are properties enumerated in the James W. King IPZ that extend beyond the boundaries of the IPZ and some are adjacent to watercourses that drain into the IPZ. This policy would address the risk to drinking water from the entire parcel rather than just that portion within the IPZ. ✓ It is appropriate to ensure that these activities are managed appropriately such that source water is protected, if they are permitted in the future.
JK.28-M	MOE	The Ministry of the Environment SHALL REPORT to Cataraqui Source Protection Authority by February 15 of each year on any applications received related to the land uses specified in policies JK.22-CW and JK.26-CW.	<ul style="list-style-type: none"> ✓ Section 22(2) of the <i>Clean Water Act</i> requires that the source protection plan contain policies governing the monitoring of activities that are or would be significant drinking water threats.

Policy Reference Number	Location Implementing Body	Draft Policies for Provincial Ministries	Rationale
		<ul style="list-style-type: none"> ✓ These activities are SIGNIFICANT drinking water threats. ✓ This policy is in accordance with <i>Clean Water Act</i> (S. 45). 	
Nutrient Management Act and Ontario Regulation 267/03			✓
Area wide.2-SA	OMAFRA	<p>The Ontario Ministry of Agriculture, Food and Rural Affairs SHOULD AMEND Ontario Regulation 267/03 - General to require all farms in WHPAs and IPZs to prepare and follow nutrient management strategies and/or nutrient management plans, regardless of the value of farm nutrient units or the vulnerability score of the area. [Timeframe]</p>	<ul style="list-style-type: none"> ✓ Depending on local conditions and management practices any size agricultural operation could impact a drinking water source regardless of vulnerability scoring, so it is prudent to require due consideration for the areas directly contributing to municipal residential drinking water sources.
JK.29-CW	IPZ 1 and 2 OMAFRA	<p>The Ontario Ministry of Agriculture, Food and Rural Affairs SHALL NOT APPROVE NASM Plans for the application, handling and storage of non-agricultural source material under Sections 15.2 and 28 of Ontario Regulation 267/03 – General for sites in the James W. King IPZ 1 and IPZ 2,</p> <ul style="list-style-type: none"> ✓ These activities would be SIGNIFICANT drinking water threats. ✓ This policy is in accordance with section 39(7)(a) of the <i>Clean Water Act</i>. 	<ul style="list-style-type: none"> ✓ The <i>Clean Water Act</i> requires that the source protection plan address all ‘would be’ significant drinking water threats, regardless of their feasibility to occur in the James W. King Intake Protection Zone. ✓ There is no land within the James W. King IPZ on which NASM could be applied or stored. ✓ These draft policy ideas would be effective and appropriate to maintain the status quo. ✓ There is no anticipated economic impact on the community.
JK.30-HR	IPZ 1 and 2 OMAFRA	<p>The Ontario Ministry of Agriculture, Food and Rural Affairs SHOULD CONSIDER the potential impact of proposed NASM plans for properties immediately adjacent to James W. King IPZ 1 and IPZ 2 on drinking water sources through their review under Sections 15.2 and 28 of Ontario Regulation 267/03 – General, where the application, handling and storage of non-agricultural source material would be moderate or low drinking water threats.</p>	<ul style="list-style-type: none"> ✓ There are properties enumerated in the James W. King IPZ that extend beyond the boundaries of the IPZ and some are adjacent to watercourses that drain into the IPZ. This policy would address the risk to drinking water from the entire parcel rather than just that portion within the IPZ.

Policy Reference Number	Location Implementing Body	Draft Policies for Provincial Ministries	Rationale
		<ul style="list-style-type: none"> ✓ This policy is in accordance with section 39(7)(b) of the <i>Clean Water Act</i>. 	
JK.31-M	OMAFRA	<p>The Ontario Ministry of Agriculture, Food and Rural Affairs SHALL REPORT to Cataraqui Source Protection Authority by February 15 of each year on any applications received related to the land uses specified in policies JK.29-CW.</p> <ul style="list-style-type: none"> ✓ These activities are SIGNIFICANT drinking water threats. ✓ This policy is in accordance with <i>Clean Water Act</i> (S. 45). 	<ul style="list-style-type: none"> ✓ Section 22(2) of the <i>Clean Water Act</i> requires that the source protection plan contain policies governing the monitoring of activities that are or would be significant drinking water threats.
Various legislation			
JK.32-SA	IPZ 1 MNR, MOE, OMAFRA	<p>The Provincial ministries responsible for the review and approval of applications for caged aquaculture (e.g. Ministry of Natural Resources, Ministry of the Environment, Ministry of Agriculture, Food and Rural Affairs) SHOULD ENSURE that approvals for such proposals in James W. King IPZ 1 contain terms and conditions that ensure this MODERATE drinking water threat is managed appropriately such that source water is protected.</p>	<ul style="list-style-type: none"> ✓ There are no commercial fish farms in the James W. King IPZ. Based on discussions with aquaculture specialists with the provincial Ministry of Natural Resources and the Ministry of Agriculture, Food and Rural Affairs, cage operations are unlikely to occur in the Cataraqui Source Protection Area based on location requirements which cannot be met in the area including water depth, water temperature, proximity to navigation channels, and the need for protection from the elements (e.g. wind, waves, ice). ✓ Legislation governing aquaculture is complex; no one piece of legislation nor one agency governs. ✓ Several licensing requirements may be required, depending on the specifics of a given operation (e.g., aquaculture licence; licence to stock fish ; licence to collect fish from Ontario waters) ✓ These draft policy ideas would be effective and

Policy Reference Number	Location Implementing Body	Draft Policies for Provincial Ministries	Rationale
			<p>appropriate to maintain the status quo.</p> <ul style="list-style-type: none"> ✓ There is no anticipated economic impact on the community.

Implementation Body: Cataraqi Source Protection Authority

The Cataraqi Source Protection Authority (CSPA) can play an integral part in coordinating the implementation of the Cataraqi Source Protection Plan, as well as specific education and incentive programs so that there is consistent messaging across the region.

Policy Reference Number	Location Implementing Body	Draft Policies for Cataraqi Source Protection Authority	Rationale
Area wide.3-CW	CSPA	<p>The Cataraqi Source Protection Authority, in consultation with the municipalities in the Cataraqi Source Protection Area and other organizations as appropriate, SHALL ESTABLISH a Drinking Water Source Protection education and outreach program directed to all landowners and business owners in all of the IPZs and WHPAs to raise awareness of drinking water threats and promote best management practices within [insert number] year of the source protection plan being approved.</p> <p>The Cataraqi Source Protection Authority SHOULD ADVISE all land and business owners of incentive program options that could be used to fund risk mitigation measures as part of a Drinking Water Source Protection education and outreach program.</p> <ul style="list-style-type: none"> ✓ These activities are SIGNIFICANT, MODERATE or LOW drinking water threats depending on the location. 	<ul style="list-style-type: none"> ✓ Discussions with a variety of stakeholders suggest that a region-wide program would provide consistent messaging to all of the vulnerable areas, and would be more cost-effective for municipalities than for each municipality to develop and implement its own program. ✓ Such a program could be more efficiently developed and implemented on a regional scale involving both IPZ and WHPAs ✓ Applicable to drinking water threats, such as sewage, fertilizer, pesticides, road salt, water softeners, DNAPLs and organic solvents. ✓ This policy approach is best managed at the CSPA-wide level since it is applicable throughout the area, and should be more economical on a larger scale. It cannot be ranked as highly effective or appropriate because community buy-in and uptake is not guaranteed. ✓ There may already be programs in place to address these

Policy Reference Number	Location Implementing Body	Draft Policies for Cataraqui Source Protection Authority	Rationale
		<p>✓ In accordance with Section 38 of the <i>Clean Water Act</i>.</p>	<p>drinking water threats. The CRCA could coordinate making landowners aware of program(s).</p>
Area wide.4-CW	CSPA	<p>The Cataraqui Source Protection Authority SHOULD work with local farm organizations to establish an education and outreach program for all farm operators to promote best management practices; review, update or prepare Environmental Farm Plans; and to raise awareness of and reduce drinking water threats within [insert number] years of the source protection plan being approved.</p>	<ul style="list-style-type: none"> ✓ There are too few activities and threats in the WHPAs and IPZs for such an education or incentive program to be location specific. ✓ There are already programs in place to address a variety of drinking water threats. ✓ A regional body, such as the Cataraqui Source Protection Authority, could coordinate making landowners aware of program(s).
Area wide.5-CW	CSPA	<p>The Cataraqui Source Protection Authority, in partnership with local marinas, fuel distributors, municipalities and neighbouring Conservation Authorities, SHOULD ESTABLISH an education and outreach program to advise marina operators, private fuel outlets and property owners with heating oil tanks in IPZ 1 and IPZ 2, what to do and who to contact “in case of a spill” within a specific vulnerable area within [insert number months/years] of the source protection plan being approved.</p> <p>The Source Water Protection Authority in partnership with local marinas, fuel distributors, municipalities and neighbouring Conservation Authorities, SHOULD also prepare an education and outreach program to educate fuel oil distributors and drivers about the vulnerable areas and adherence to basic filling precautions and encourage partnership for mutual aid in case of a spill. This strategic action should occur within [insert number months/years] of the approval of the source protection plan.</p> <p>✓ These activities are SIGNIFICANT, MODERATE or</p>	<ul style="list-style-type: none"> ✓ One comment made at the roundtables was that the average person does not know what to do/who to call in the event of a spill. ✓ The Cataraqui Source Protection Authority, in partnership with local marinas, fuel distributors and neighbouring Conservation Authorities, should produce and distribute “in case of spill” stickers to marinas, and to property owners known to have home heating oil tanks and private fuel outlets. The stickers would include such information as a spill response number and spill procedures, particularly for the education of self-serve marinas, and an indication that the tank is located within a specific vulnerable area ✓ A quick response to a spill by a property owner would help to mitigate risk to drinking water. Since the majority of properties in the Brockville and Gananoque IPZs are heated using natural gas, such a policy would be most appropriate for WHPAs and IPZs that are not serviced by natural gas.

Policy Reference Number	Location Implementing Body	Draft Policies for Cataraqui Source Protection Authority	Rationale
		<p>LOW drinking water threats depending on the location.</p> <ul style="list-style-type: none"> ✓ In accordance with Section 38 of the <i>Clean Water Act</i>. 	
Area wide.6-CW	CSPA	<p>The Cataraqui Source Protection Authority, in consultation with the municipalities in the Cataraqui Source Protection Area and the Ministry of Transportation, SHOULD place signs along major roads when entering the IPZs and WHPAs to raise awareness of the need to protect drinking water sources and to remind emergency/spill response units of the sensitivity of the area.</p> <p>This strategic action should occur within [insert number months/years] of the approval of the source protection plan.</p> <ul style="list-style-type: none"> ✓ These activities constitute SIGNIFICANT, MODERATE or LOW drinking water threats depending on the location. 	<ul style="list-style-type: none"> ✓ The need to raise awareness among residents and visitors about the potential impact of certain activities on drinking water was raised at the roundtables. ✓ Signs could also play an important role in emergency and spill response efforts. ✓ Regional coordination is required to ensure consistent messaging throughout the area.
Area wide.7-M	CSPA	<p>The Cataraqui Source Protection Authority SHALL REPORT by February 15 of each year on the policies for which it is responsible.</p> <ul style="list-style-type: none"> ✓ This policy is in accordance with <i>Clean Water Act</i> (S. 45). 	<ul style="list-style-type: none"> ✓ Section 22(2) of the <i>Clean Water Act</i> requires that the source protection plan contain policies governing the monitoring of activities that are or would be significant drinking water threats.
JK.33-SA	CSPA	<p>The Cataraqui Source Protection Authority SHOULD provide the Lake Ontario-St. Lawrence River IPZ3 flow data with the MOE Spills Action Centre, St. Lawrence Seaway Management Corporation and Development Corporation, and the Coast Guard. This strategic action should occur within [insert number months/years] of the approval of the source protection plan.</p>	<ul style="list-style-type: none"> ✓

Implementation Bodies: Others

Policy Reference Number	Location Implementing Body	Draft Policies for Others	Rationale
Area wide.8-CW	All municipalities	<p>Where there is limited or no capacity at local wastewater treatment facilities in Cataraqui Source Protection Area, municipalities, SHOULD cooperatively</p> <ol style="list-style-type: none"> 1. manage the treatment or stabilization of hauled sewage at existing facilities; or 2. upgrade existing or build new facilities to handle demand <p>such that the land application of hauled sewage is no longer necessary.</p> <ul style="list-style-type: none"> ✓ Septage is associated with activities that are SIGNIFICANT, MODERATE or LOW drinking water threats depending on the location; ✓ This policy is in accordance with Section ### of the <i>Clean Water Act</i>. 	<ul style="list-style-type: none"> ✓ Since hauled sewage (untreated septage) is generated in all of the Cataraqui Source Protection Area municipalities where septic systems and holding tanks are permitted, a cooperative municipal or private centralized facility to treat or stabilize hauled sewage could benefit all residents, and reduce pressure on the Cataraqui Bay Wastewater Treatment Plant, which is the only municipal facility in the area that currently accepts hauled sewage. This plant is partly located in the Point Pleasant IPZ. ✓ This approach would be expected to have high start-up costs and then run on a cost-recovery system. ✓ It also supports section 1.6.4.1 of the Provincial Policy Statement.
Area wide.9-SA	TSSA	<p>The Technical Standards and Safety Authority (TSSA) SHOULD monitor the effectiveness of its fuel program as it relates to protecting drinking water sources and update the inspection and management of fuel handling and storage by considering the following:</p> <ul style="list-style-type: none"> • Inspection conducted by fuel suppliers should be more frequent than every ten years. • TSSA should promote the regular maintenance to be conducted by owners as per Section 13 of the Ontario Installation Code for Oil-burning Equipment so property 	<ul style="list-style-type: none"> ✓

Policy Reference Number	Location Implementing Body	Draft Policies for Others	Rationale
		<p>owners are aware of this requirement.</p> <ul style="list-style-type: none"> Phase out indoor and outdoor single-walled steel tanks and replace with more leak resistant technology. <p>This strategic action should occur within [insert number months/years] of the approval of the source protection plan.</p> <ul style="list-style-type: none"> ✓ The handling and storage of fuel are SIGNIFICANT, MODERATE or LOW drinking water threats depending on the location. 	
Area wide.10-SA		<p>The marinas in the Cataraqui Source Protection Area SHOULD BE ENCOURAGED to participate in the Clean Marine Program, especially if they are located near a municipal intake.</p> <p>This strategic action should occur within [insert number months/years] of the approval of the source protection plan.</p> <ul style="list-style-type: none"> ✓ The handling and storage of fuel are MODERATE drinking water threats. 	<ul style="list-style-type: none"> ✓ The majority of IPZs in the CSPA contain at least one marina. Marinas are sources of multiple drinking water threats (e.g. fuel, septage) that, although not considered to be significant risks, are a concern for various stakeholders. New or continued participation in the existing voluntary Clean Marine program would be anticipated to reduce the risk to sources of drinking water.
Area-wide.11-CW	All municipalities	<p>The Town of Gananoque, Township of Leeds and the Thousand Islands, and the United Counties of Leeds and Grenville, SHOULD ESTABLISH a Source Water Protection Area-wide incentive program to provide grants to help cover part of the cost of replacing underground storage tanks with above ground storage tanks for heating oil and private fuel outlets, and to construct/add secondary containment.</p> <p>This strategic action should occur within [insert number months/years] of the approval of the source protection plan.</p>	<ul style="list-style-type: none"> ✓ This threat is best managed at the CSPA-wide level since it exists throughout the area, and should be more economical on a larger scale. Underground storage tanks especially private ones tend to have the highest incidence of leaks. If there is an incentive program and it is felt that the current minimum standard is not sufficient then it is appropriate to exceed that standard. Secondary containment was a popular idea at the roundtables. ✓ Such a program could be source protection area –wide.

Policy Reference Number	Location Implementing Body	Draft Policies for Others	Rationale
		<ul style="list-style-type: none"> ✓ The handling and storage of fuel are SIGNIFICANT, MODERATE or LOW drinking water threats depending on the location. 	
Area wide.12-SA		<p>The [insert name of body] in cooperation with [insert name of body] SHOULD undertake a research project to determine the best method for disposing of water softener backwash in the hydrogeologic and climatic setting of the Cataraqui Source Protection Area/Eastern Ontario.</p> <p>This strategic action should occur within [insert number months/years] of the approval of the source protection plan.</p> <ul style="list-style-type: none"> ✓ Discharge from water softeners is a SIGNIFICANT, MODERATE or LOW drinking water threats depending on the location. 	<ul style="list-style-type: none"> ✓ A local research project would ensure that the most effective disposal method is being used for water softener backwash.

Attachment 3. Draft policies for the Sydenham Intake Protection Zone (May 5, 2011)

A. Context

The Sydenham water treatment plant in the Township of South Frontenac draws water from Sydenham Lake. The plant is operated by Utilities Kingston on behalf of the Township. The intake pipe is located about 128 m offshore at a depth of 7 m. The water is treated and distributed to residents and businesses in Sydenham (population 940). As of 2008, just over half the buildings are connected to the village's water supply. The rest continue to be serviced by private groundwater wells. The entire village and surrounding area are serviced by private septic systems or holding tanks.

Intake Protection Zone 1

The majority of intake protection zone (IPZ 1) consists of Sydenham Lake. On the mainland, IPZ 1 consists mainly of shoreline residential properties which are serviced by groundwater or shore wells. Approximately one quarter of IPZ 1 consists of commercial development, municipal buildings and parks/recreation land (water connection made or available).

Intake Protection Zone 2

Intake protection zone 2 encompasses a portion of the Village of Sydenham, including residential properties, some commercial properties and two schools. Much of IPZ 2 consists of active or abandoned farmland.

Intake Protection Zone 3

The majority of IPZ 3 consists of Sydenham Lake and the upstream waterbodies. On the mainland, IPZ 3 consists mostly of shoreline residential properties with some farmland and vacant properties (woodland, wetland, Canadian Shield). All habitable buildings would be serviced by septic system or holding tank, and by groundwater or shore wells.

Drinking Water Issues

There were no drinking water issues listed for the Sydenham IPZ in the Draft Amended Proposed Assessment Report (April 2011) for which further study is required.

Drinking Water Threats

The latest available information for the Draft Amended Proposed Assessment Report (April 2011) includes a count of properties in the IPZ on which existing activities are associated with drinking water threats. Three parcels of land were enumerated on which there are agricultural activities ranked as significant drinking water threats. The balance of the enumerated activities in the IPZ are ranked as moderate (168) or low (5) drinking water threats.

The most common enumerated moderate and low-ranked drinking water threats in the Sydenham IPZ relate to:

- On-site sewage (septic) systems
- The transportation, handling and storage of fuel (mainly for heating purposes)
- Road salt application

The source protection plan must include policies to address significant drinking water threats, and it will also include policies to address moderate and low drinking water threats. The significant threat policies must address existing activities and those that ‘would be’ significant if they were to occur in the future.

The Cataraqui Source Protection Committee determined where drinking water threats should be prohibited and where management should be sufficient to address the risk to drinking water sources.

B. Policy Format

The draft policies are assigned a code so that they can be tracked throughout the development of the source protection plan, where policy “VA.x.– LE” would mean:

- VA Vulnerable area (The code for the Sydenham intake protection zone is SD.)
- x Sequential number assigned to policies
- LE Legal effect

The legal effect of the draft policies is coded as follows:

- CW The implementing body is required to conform/comply with significant threat policies. This means they are obligated to comply with the policies.
- HR The implementing body is required to have regard for the policy when making a decision under the *Planning Act* or *Condominium Act*, or when making a decision to issue, create or amend a Provincial prescribed instrument. This means that they have to carefully consider the policies, and be prepared to provide a rationale if they choose not to comply with them.
- SA Strategic action policies are not legally-binding on public bodies.
- M Monitoring policies are required for activities that are or would be significant drinking water threats. They must be implemented by the public body designated in the source protection plan.

The draft policies presented below have been grouped by implementing body, drinking water threat(s) and policy tool type as appropriate. A rationale is provided for the draft policies. Please note that the rationale will evolve based on input received from stakeholders.

C. Application of Policies

The draft policies in this document would apply to Sydenham IPZ 1, IPZ 2 and/or IPZ 3a, as indicated in the text of each policy. The boundaries of IPZ 1, IPZ 2 and IPZ 3a are illustrated on the following map. [insert map for pre-consultation] Policies that may be applicable area-wide are identified as such.

Implementation Bodies: Township of South Frontenac

The Township of South Frontenac will be the main municipal implementation body of the Cataraqui Source Protection Plan for the Sydenham IPZ.

Policy Reference Number	Location Implementing Body	Draft Policies for Township of South Frontenac	Rationale
Part IV of the <i>Clean Water Act</i>			
SD.1-CW	IPZ 1 South Frontenac	<p>The Township of South Frontenac SHALL PROHIBIT</p> <ul style="list-style-type: none"> • the storage and land application of agricultural source material; and • Livestock from being kept (specifically grazing and pasturing, outdoor confinement areas and barnyards) <p>in Sydenham IPZ 1.</p> <ul style="list-style-type: none"> ✓ These activities constitute SIGNIFICANT drinking water threats. ✓ This policy is in accordance with the <i>Clean Water Act</i>, Part IV (S. 57(1)) 	<ul style="list-style-type: none"> ✓ There is land in IPZ 1 that could potentially be used for agricultural purposes, however, agricultural source material is not stored or applied to land within this area. ✓ These draft policies would be effective and appropriate to maintain the status quo. ✓ There is no anticipated economic impact on the landowners nor the community.
SD.2-CW	IPZ 2 South Frontenac	<p>The Township of South Frontenac SHALL REQUIRE a risk management plan for</p> <ul style="list-style-type: none"> • the storage and land application of agricultural source material; and • livestock from being kept (specifically grazing and pasturing, outdoor confinement areas and barnyards) <p>in Sydenham IPZ 2 in the event that these activities are not phased-in under Ontario Regulation 267/03 - General. The risk management plan would be based on the requirements of this regulation and best management practices.</p>	<ul style="list-style-type: none"> ✓ Existing risk management on agricultural land in IPZ 2 ranges from no known plans to nutrient management strategies and environmental farm plans. ✓ A risk management plan would need to consider future landowners of these properties.

Policy Reference Number	Location Implementing Body	Draft Policies for Township of South Frontenac	Rationale
		<ul style="list-style-type: none"> ✓ This activity is a SIGNIFICANT drinking water threat. ✓ This policy is in accordance with the <i>Clean Water Act</i>, Part IV (S. 58). 	
SD.3-CW	IPZ 1 and 2 South Frontenac	<p>The following land uses SHALL BE RESTRICTED in Sydenham IPZ 1 and IPZ 2 under section 59 of the <i>Clean Water Act</i>:</p> <ul style="list-style-type: none"> • farms <p>such that</p> <ul style="list-style-type: none"> • A person shall not make an application under the <i>Planning Act</i> for the purpose of using land for the land use at any location within Sydenham IPZ 1 and IPZ 2; and • A person shall not construct or change the use of a building at any location within Sydenham IPZ 1 and IPZ 2, if the building will be used in connection with the land use, <p>unless the risk management official issues a notice to the person indicating that:</p> <ul style="list-style-type: none"> • The proposed activity for which the land is to be used is neither prohibited under section 57 of the <i>Clean Water Act</i> nor is a risk management plan required under section 58 of the <i>Act</i>, or • That a risk management plan under section 58 of the <i>Act</i> is required for the proposed activity, and that the plan has been agreed to or established under section 58 of the <i>Act</i>. 	<ul style="list-style-type: none"> ✓ The “restricted land uses” policy tool (section 59 of the <i>Clean Water Act</i>) is used to flag land uses that are or may be associated with the activities that are prohibited under section 57 of the CWA or that require a risk management plan under section 58 of the CWA.

Policy Reference Number	Location Implementing Body	Draft Policies for Township of South Frontenac	Rationale
Planning Act (Land use planning)			
SD.4-CW	IPZ 1 and 2 South Frontenac	<p>Through its Official Plan and Zoning By-law, the Township of South Frontenac SHALL CONTINUE TO PROHIBIT the following land uses in the specified areas of the Sydenham intake protection zone:</p> <ul style="list-style-type: none"> a) Waste disposal sites of the following types: mine tailing impoundment structures; municipal, industrial, commercial, or petroleum refining waste landfills; and storage of PCB, hazardous or liquid industrial wastes in IPZ 1 b) Waste disposal sites for the application of hauled sewage to land in IPZ1 and IPZ 2 c) Wastewater treatment facilities and by-passes in IPZ 1 and IPZ 2 d) Pesticide storage associated with retail sales, extermination, manufacturing, processing and wholesale in IPZ 1 e) Contractor’s yards (for snow removal), and public works/maintenance yards where road salt and/or snow is stored in IPZ 1 f) Snow storage areas/snow dumps in IPZ 1 g) Airports in IPZ 1 h) Agriculture in IPZ 1 <ul style="list-style-type: none"> ✓ These land uses are associated with activities that would be SIGNIFICANT drinking water threats. ✓ This policy is in accordance with of the <i>Clean Water Act</i> (S. 39(1)(a) and/or 40 and 42) 	<ul style="list-style-type: none"> ✓ The <i>Clean Water Act</i> requires that the source protection plan address all ‘would be’ significant drinking water threats, regardless of their feasibility to occur in the Sydenham Intake Protection Zone (IPZ). ✓ These land uses are generally not currently permitted in the IPZ 1 or 2 by the Township; however, the Official Plan policies for the Rural designation would need to be amended to clearly exclude of these land uses. ✓ These land uses do not and are unlikely to occur based on existing settlement pattern and physical characteristics on the area. ✓ The draft policies would be effective and appropriate to maintain the status quo. ✓ There is no anticipated economic impact on the community. ✓ Provides land use planning policy that complements restrictions in draft policies SD.22-CW and SD.26-CW.

Policy Reference Number	Location Implementing Body	Draft Policies for Township of South Frontenac	Rationale
SD.5-CW	IPZ 1 and 2 South Frontenac	<p>Through its Official Plan and Zoning By-law, the Township of South Frontenac SHALL CONTINUE TO direct industrial land uses to lands outside of IPZ 1 and IPZ 2 that are zoned for those activities.</p> <ul style="list-style-type: none"> ✓ Industrial land uses that have independent sewage works that discharge to surface water would be SIGNIFICANT drinking water threats. ✓ This policy is in accordance with of the <i>Clean Water Act</i> (S. 39(1)(a) and/or 40 and 42) 	✓ Same as above.
SD.6-M	IPZ 1 and 2 South Frontenac	<p>The Township of South Frontenac SHALL REPORT TO the Cataraqui Source Protection Authority by February 15 of each year on any <i>Planning Act</i> applications received related to the land uses specified in policies SD.4-CW and SD.5-CW.</p> <ul style="list-style-type: none"> ✓ All the land uses referenced, or activities associated with those land uses, are SIGNIFICANT drinking water threats. ✓ This policy is in accordance with <i>Clean Water Act</i> (S. 45). 	✓ Section 22(2) of the <i>Clean Water Act</i> requires that the source protection plan contain policies governing the monitoring of activities that are or would be significant drinking water threats.
SD.7-HR	IPZ 1 and 2 South Frontenac	<p>When reviewing applications made under the <i>Planning Act</i> for the following land uses, the Township of South Frontenac SHOULD REQUIRE applicants, as a condition of approval, to conduct studies of the potential impact of the land uses on source water:</p> <ol style="list-style-type: none"> a) Bulk Plants and Fuel Distributors in IPZ 1 and IPZ 2 b) Gas stations and automotive service stations in IPZ 1 and IPZ 2 c) Marinas in IPZ 1 and IPZ 2 	<ul style="list-style-type: none"> ✓ These activities are not generally permitted in the IPZ by the Township since the area consists mainly residential neighbourhoods. ✓ These land uses do not and are unlikely to occur based on existing settlement pattern and physical characteristics on the area. ✓ The draft policies would be effective and appropriate to maintain the status quo. ✓ There is no anticipated economic impact on the community.

Policy Reference Number	Location Implementing Body	Draft Policies for Township of South Frontenac	Rationale
		<p>d) Businesses that store large quantities of commercial fertilizer and/or pesticides in IPZ 1 and IPZ 2</p> <p>e) Waste disposal sites (with the exception of those for the application of hauled sewage to land which are prohibited) in IPZ 2</p> <p>f) Contractor’s yards (for snow removal), and public works/maintenance yards where road salt and/or snow is stored in - IPZ 2</p> <p>g) Snow storage areas/snow dumps - IPZ 2</p> <p>h) Airports - IPZ 2</p> <p>And, if any of the listed land uses are approved, the municipality SHALL IMPLEMENT site plan control agreements to apply Best Management Practices to manage the drinking water threats associated with the land uses (e.g. connection to sanitary sewer, spill containment design features; Transportation Association of Canada BMPs), and to require the preparation of spill contingency and emergency response plans.</p> <ul style="list-style-type: none"> ✓ All these land uses constitute MODERATE drinking water threats. ✓ This policy is in accordance with section 39(1)(b) of the <i>Clean Water Act</i> (S. 39(1)(b)). 	<ul style="list-style-type: none"> ✓ If these land uses are contemplated, requiring these actions for new development can easily be incorporated into the site plan control process, and should or may be required through other means as well (such as <i>Technical Standards and Safety Act</i>). ✓ Water and chemicals used to suppress fires can contaminate sources of drinking water whether it is surface or groundwater. ✓ The spill contingency and emergency response plans may be required under other legislation, in which case the municipality should ensure that the plans satisfy requirements to protect source water.
SD.8-HR	IPZ 1 and 2 South Frontenac	Through application of the site plan control process of the <i>Planning Act</i> , the Township of South Frontenac SHOULD REQUIRE designated snow storage areas on new development in IPZ 1 and IPZ 2 that take into consideration the sensitivity of the vulnerable area. This can be addressed as part of a stormwater management report.	<ul style="list-style-type: none"> ✓ Requiring designated snow storage areas for new development can easily be incorporated into the site plan control process, however, it is difficult to enforce. ✓ The purpose of requiring designated snow storage areas for new development is to ensure that the snow does not impede the functioning of the site’s stormwater management facility, and that the meltwater from the snow

Policy Reference Number	Location Implementing Body	Draft Policies for Township of South Frontenac	Rationale
		<ul style="list-style-type: none"> ✓ This is a MODERATE drinking water threat. ✓ This policy is in accordance with the <i>Clean Water Act</i> (S. 39(1)(b)). 	is treated before being discharged to Sydenham Lake, where it would pose a risk to source water.
SD.9-HR	IPZ 1 and 2 South Frontenac	<p>Through its official plan and development guidance documents under the <i>Planning Act</i>, the Township of South Frontenac SHOULD REQUIRE the preparation, and implementation where appropriate, of a stormwater management report for:</p> <ul style="list-style-type: none"> a) Urban infill development in IPZ 1 and 2; and b) Redevelopment of properties where there is a lack of stormwater management controls in IPZ 1 and 2. <ul style="list-style-type: none"> ✓ Stormwater is a MODERATE drinking water threat. ✓ This policy is in accordance with the <i>Clean Water Act</i> (S. 39(1)(b)). 	<ul style="list-style-type: none"> ✓ Stormwater runoff is not a significant drinking water threat in the Sydenham IPZ because the drainage areas in the IPZ are small and there are no stormwater management facilities, specifically ponds, in the IPZ. However, depending on the location of outfalls there could still be risk to source water. ✓ This policy idea would be effective if done right. It would treat everyone the same; however those affected may challenge the requirement. It could be expensive depending on the location. For some it would be a cost of doing business.
SD.10-SA	IPZ 1 and 2 South Frontenac	<p>The Township of South Frontenac should screen land uses/activities that make use of DNAPLs and organic solvents so that when there is an application made under the <i>Planning Act</i>, or for a building permit, the municipality can ENCOURAGE the proponent to consider the use of best management practices when land uses/activities involve the use of DNAPLs or organic solvents.</p> <ul style="list-style-type: none"> ✓ The handling and storage of DNAPLs and organic solvents is a MODERATE drinking water threat. 	<ul style="list-style-type: none"> ✓ In Sydenham, it would be in the best interest of the municipality to manage or monitor these types of land uses within and outside the IPZ since they could impact their sources of drinking water as they would be on on-site sewage systems.

Policy Reference Number	Location Implementing Body	Draft Policies for Township of South Frontenac	Rationale
Sewage system maintenance inspection program			
SD.11-SA	IPZ 1, 2 and 3a South Frontenac	<p>The Township of South Frontenac, in conjunction with its Principal Authority (Kingston, Frontenac, Lennox and Addington Public Health), SHOULD ESTABLISH a sewage system maintenance inspection program in areas that are considered to be vulnerable based on existing study information and need, starting with the Sydenham Intake Protection Zone (IPZ 1 and IPZ 2). [action by date]</p> <ul style="list-style-type: none"> ✓ On-site sewage systems pose a MODERATE drinking water threat; ✓ This policy can be implemented through the Ontario Building Code (as amended O.Reg. 315/10) 	<ul style="list-style-type: none"> ✓ KFL&A Public Health has indicated that they should coordinate such a program with municipalities since the health units are generally involved with existing septic maintenance inspection programs. KFL&A Health Unit has begun to develop septic system educational material in response to their current program needs and the anticipated maintenance inspection programs. ✓ A framework for these inspections has been amended to the Ontario Building Code and an appendix has been added to the Code to guide how these inspections are to be undertaken.
SD.12-SA	IPZ 1, 2 and 3a South Frontenac	<p>The Township of South Frontenac, in conjunction with its Principal Authority (Kingston, Frontenac, Lennox and Addington Public Health), SHOULD DEVELOP an education and awareness program directed to landowners in IPZ 1, IPZ 2 and IPZ 3a to assist them with the proper operation and maintenance of their on-site sewage systems, and to inform them of the benefits of well maintained systems. [action by date]</p> <ul style="list-style-type: none"> ✓ On-site sewage systems pose a MODERATE drinking water threat. 	<ul style="list-style-type: none"> ✓ Same as above.
Area wide.1-?	IPZ 1, 2 and 3a South Frontenac	<p>The Township of South Frontenac, in conjunction with its Principal Authority (Kingston, Frontenac, Lennox and Addington Public Health), SHOULD ESTABLISH an incentive program to provide grants to help cover part of the cost of repairs or replacements required as a result of the proposed on-site sewage (septic) system maintenance inspection program</p>	<ul style="list-style-type: none"> ✓ Such a program could be source protection area –wide.

Policy Reference Number	Location Implementing Body	Draft Policies for Township of South Frontenac	Rationale
		<p>within [insert number months/years] of the source protection plan being approved.</p> <ul style="list-style-type: none"> ✓ These activities are SIGNIFICANT, MODERATE or LOW drinking water threats depending on the location. 	
SD.13-SA	IPZ 1, 2 and 3a South Frontenac	<p>The Township of South Frontenac, in conjunction with its Principal Authority (Kingston, Frontenac, Lennox and Addington Public Health), SHOULD encourage business operators that haul septage by barge from island and waterfront properties to develop and circulate/post a pump-out schedule to provide consistent service options for landowners of these properties and to minimize the effort and cost of mobilizing the necessary marine equipment.</p> <p>This strategic action should be completed prior to the implementation of the proposed sewage system maintenance inspection program for the IPZ.</p> <ul style="list-style-type: none"> ✓ This activity is linked to on-site sewage systems which are MODERATE drinking water threats. 	<ul style="list-style-type: none"> ✓ This was an issue raised by participants at some of the community roundtables. Such a policy could make it easier for island owners to have their tanks pumped on a regular basis, and reduce the risk to drinking water associated with these systems. ✓ This will be particularly important in support of any sewage system maintenance inspection program that might be implemented for the IPZ and other properties on Sydenham Lake. ✓ Pumping operators should support this as it will provide more effective time management for them
Municipal operations / Other policies			
SD.14-SA	IPZ 1 and 2 South Frontenac	<p>The Township of South Frontenac SHOULD ESTABLISH an education program directed to landowners in IPZ 1 and IPZ 2 to raise awareness of local hazardous waste collection days and opportunities for household products. [action by date].</p> <ul style="list-style-type: none"> ✓ This policy addresses drinking water threats related to waste disposal sites and the handling and storage of DNAPLs and organic solvents. 	<ul style="list-style-type: none"> ✓ Although there are no existing waste disposal sites in the Sydenham IPZ, this policy idea would benefit the drinking water sources of other communities to which waste is sent, and would also address sewage-related threats by encouraging residents to properly dispose of waste products.

Policy Reference Number	Location Implementing Body	Draft Policies for Township of South Frontenac	Rationale
SD.15-SA	IPZ 1, 2 and 3a South Frontenac	<p>The Township of South Frontenac SHOULD ESTABLISH fertilizer-free buffer zones along surface water on municipal properties in IPZ 1, IPZ 2 and IPZ 3a. An action plan should be developed within two years of the source protection plan being approved.</p> <ul style="list-style-type: none"> ✓ Fertilizer runoff or release is a MODERATE drinking water threat. 	<ul style="list-style-type: none"> ✓ This provides the municipalities the opportunity to lead by example, and could result in reduced maintenance costs. ✓ Runoff picks up pollutants such as excess fertilizer and pesticides as it flows over the ground and carries them to local waterways such as Sydenham Lake. Too much fertilizer (phosphorus in particular) can result in eutrophication and algae blooms. (excess nutrients = excessive plant/algae growth = low dissolved oxygen) = bad tasting and smelling water.
SD.16-SA	IPZ 1 and 2 South Frontenac	<p>The Township of South Frontenac SHOULD TAKE ACTION to reduce road salt and other contaminants entering surface water in IPZ 1 and IPZ 2 by:</p> <ul style="list-style-type: none"> • Cleaning catch basins on a schedule sufficient to prevent flushing of road salts and other contaminants; • Performing annual spring street sweeping. <ul style="list-style-type: none"> ✓ Stormwater runoff is a MODERATE drinking water threat. 	<ul style="list-style-type: none"> ✓ This provides the municipalities the opportunity to lead by example, and could result in reduced maintenance costs.
SD.17-SA	IPZ 1 and 2 South Frontenac	<p>The Township of South Frontenac SHOULD PREPARE a salt management plan that takes into account for the vulnerability of the IPZ 1 and 2 within [insert number months/years] of the source protection plan being approved.</p> <p>Specific actions that should be included in the plans to address the risk of road salt effects on source water include: [insert actions]</p> <ul style="list-style-type: none"> ✓ The application, handling and storage of road salt are 	<ul style="list-style-type: none"> ✓ This provides the municipalities the opportunity to lead by example, and could result in reduced maintenance costs. ✓ Such a plan would formalize the best management practices employed by the Township. ✓ More than half of the road salt applied to roads is transported in surface runoff, the rest infiltrates through soil into the groundwater. This is most noticeable in urbanized areas and along major roadways. In 1997, the properties along County Road 2 west of Brockville were connected to the City's water supply because past road

Policy Reference Number	Location Implementing Body	Draft Policies for Township of South Frontenac	Rationale
		<p>MODERATE drinking water threats. Snow storage is a SIGNIFICANT and MODERATE drinking water threat in IPZ 1 and 2 respectively.</p>	<p>salting operations contaminated the groundwater that supplied their wells.</p>
SD.18-SA	<p>IPZ 1 and 2 South Frontenac</p>	<p>The Township of South Frontenac SHOULD ENSURE that their Emergency Management Plans include the following for IPZ 1 and IPZ 2:</p> <ul style="list-style-type: none"> • GIS mapping of IPZ 1 and 2; • Requirements to contain water and chemicals used to suppress fires; • Response to spills from septic haulage; • Other? • <p>This action should occur within [insert number months/years] of the source protection plan being approved.</p>	<p>✓ Raised at the Sydenham roundtable. Private well contamination occurred as a result of firefighting measures in the past. Based on the topography of the area (Sydenham is in a bowl), this is something that could happen again, and affect the intake.</p> <p>✓ <i>Emergency Management and Civil Protection Act</i> requires municipalities to prepare Emergency programs and emergency plans</p>
SD.19-SA	<p>IPZ 1 South Frontenac</p>	<p>The Township of South Frontenac SHOULD ERECT SIGNAGE at the Sydenham Lake boat ramp to make people aware of the nearby intake and to indicate reasonable actions to take to keep Sydenham Lake clean for all water users within [insert number months/years] of the source protection plan being approved.</p> <p>Signage should indicate:</p> <ul style="list-style-type: none"> • What specifics are appropriate: care with gas and oil; sewage • No mooring and using anchors (scouring can cause turbidity) 	<p>✓ The need to raise awareness among residents and visitors about the potential impact of certain activities on drinking water was raised at the roundtables.</p> <p>✓ Awareness of the intake may be low.</p>

Policy Reference Number	Location Implementing Body	Draft Policies for Township of South Frontenac	Rationale
SD.20-SA	IPZ 1, 2 and 3a South Frontenac	The Township of South Frontenac and the Sydenham Lake Association should develop a terms of reference to undertake a Lake Capacity Study within [insert number months/years] of the source protection plan being approved.	<ul style="list-style-type: none"> ✓ Raised at the roundtable as something needed for Sydenham Lake for water quality protection. ✓ From roundtable: Secure funding from Trillium Foundation for a Lake Capacity Study. Participants recommended that the Lake Association together with the Township take the necessary steps to develop the terms of reference for Lake Capacity Study and to apply for funding to undertake the study. It was noted that any kind of development needs to fit into lake capacity study. Expansion of commercial and residential activities needs to be monitored and analyzed to determine appropriateness. The Township could initiate changes to its Official Plan as warranted to address development.
SD.21-SA	IPZ 1, 2 and 3a South Frontenac	The Township of South Frontenac, in partnership with other agencies as appropriate, SHOULD undertake baseline inspections and monitoring of water conditions of Sydenham Lake from various activities and for seasonal variation to determine the potential impact on drinking water, over and above the requirements for testing at the water treatment plant under the <i>Safe Drinking Water Act</i> .	<ul style="list-style-type: none"> ✓ Roundtable participants would like to see more detailed baseline study at a micro level with scientific measures and use of GIS analysis. It was noted that the Sydenham High School has water monitoring equipment and could be contacted to work with the Lake Association, Township of South Frontenac and Cataraqui Region Conservation Authority to assist in baseline monitoring.

Implementation Bodies: Provincial Ministries

There are a number of Provincial ministries that have a role to play in implementing the Cataraqui Source Protection Plan. These include: the Ministry of the Environment, Ministry of Natural Resources, Ontario Ministry of Agriculture, Food and Rural Affairs, and the Ministry of Transportation.

Policy Reference Number	Location Implementing Body	Draft Policies for Provincial Ministries	Rationale
<i>Environmental Protection Act</i>			
SD.22-CW	IPZ 1 and 2 MOE	<p>The Ministry of the Environment (MOE) SHALL NOT APPROVE applications for the establishment, operation and maintenance of new waste disposal sites within the meaning of Part V of the <i>Environmental Protection Act</i> under section 39 of the EPA involving the following activities in the specified areas of the Sydenham intake protection zone:</p> <ul style="list-style-type: none"> a) The application of hauled sewage to land in IPZ 1 and IPZ 2; b) The application of non-agricultural source material to land in IPZ 1 and IPZ 2; c) The storage of mine tailings in an impoundment structure on the surface in IPZ 1; d) Landfills (for municipal, industrial, commercial, petroleum refining waste) with fill areas greater than 10 ha in IPZ 1; e) Storage of hazardous or liquid industrial wastes in IPZ 1. <ul style="list-style-type: none"> ✓ These activities, in the zones indicated, constitute SIGNIFICANT drinking water threats; ✓ This policy is in accordance with section 39(7)(a) of the <i>Clean Water Act</i> 	<ul style="list-style-type: none"> ✓ The <i>Clean Water Act</i> requires that the source protection plan address all ‘would be’ significant drinking water threats, regardless of their feasibility to occur in the Sydenham Intake Protection Zone (IPZ). ✓ These land uses are not currently permitted in the IPZ by the Township since the area consists mainly residential neighbourhoods. ✓ These land uses do not and are unlikely to occur based on existing settlement pattern and physical characteristics on the area. ✓ The draft policy ideas would be effective and appropriate to maintain the status quo. ✓ There is no anticipated economic impact on the community.

Policy Reference Number	Location Implementing Body	Draft Policies for Provincial Ministries	Rationale
SD.23-HR	IPZ 1, 2 and 3a MOE	<p>The MOE, in the case of applications for new waste disposal sites that would be moderate drinking water threats:</p> <ul style="list-style-type: none"> a) SHOULD CONSIDER the potential impact to source water of such sites on properties within and immediately adjacent to IPZ 1, IPZ 2 and IPZ 3a; and b) As part of any approval, the MOE SHOULD REQUIRE annual reporting to the Ministry on any records kept in accordance with certificates of approval approved under Section 39 of the <i>Environmental Protection Act</i> so that the Ministry can verify that source water is protected. <p>This policy applies to the following types of waste disposal sites:</p> <ul style="list-style-type: none"> a) mine tailing impoundment structures; b) municipal, industrial, commercial, or petroleum refining waste landfills; c) Landfills or injection into wells for hazardous or liquid industrial waste d) and storage of PCB, hazardous or liquid industrial wastes. <ul style="list-style-type: none"> ✓ These activities, in the zones indicated, constitute MODERATE drinking water threats; ✓ This policy is in accordance with section 39(7)(b) of the <i>Clean Water Act</i>. 	<ul style="list-style-type: none"> ✓ These land uses are not currently permitted in the IPZ by the Township since the area consists mainly residential neighbourhoods. ✓ These land uses do not and are unlikely to occur based on existing settlement pattern and physical characteristics on the area. ✓ There are properties enumerated in the Sydenham IPZ that extend beyond the boundaries of the IPZ and some are adjacent to watercourses that drain into the IPZ. This policy would address the risk to drinking water from the entire parcel rather than just that portion within the IPZ. ✓ The draft policy ideas would be effective and appropriate to maintain the status quo. ✓ There is no anticipated economic impact on the community.
SD.24-SA	IPZ 1, 2 and 3a MOE	<p>The MOE SHOULD REQUIRE businesses that haul septage on Sydenham in IPZ 1, IPZ 2 and IPZ 3a to prepare or update spill contingency plans as part of their licenses/certificates of approval under section 27 of the <i>Environmental Protection Act</i> to ensure that source water is protected. This strategic action should be completed prior to the implementation of the proposed sewage system maintenance inspection program for the IPZ.</p>	<ul style="list-style-type: none"> ✓ Hauled sewage transported from the islands and waterfront properties on Sydenham Lake is a risk to these drinking water sources. This will be particularly important in support of any sewage system maintenance inspection program that might be implemented for the IPZ.

Policy Reference Number	Location Implementing Body	Draft Policies for Provincial Ministries	Rationale
		<ul style="list-style-type: none"> ✓ This activity is linked to on-site sewage systems which are MODERATE drinking water threats; ✓ This policy is in accordance with section 26(6) of Ontario Regulation 287/07 (as amended). 	
SD.25-SA	MOE	The MOE Spills Action Centre SHOULD review and update contact information and Procedure Cards, based on the IPZ delineations to ensure that drinking water sources will be protected in the event of a spill. This strategic action should occur within [insert number months/years] of the approval of the source protection plan.	✓
Ontario Water Resources Act			
SD.26-CW	IPZ 1 and 2 MOE	<p>The Ministry of the Environment SHALL NOT APPROVE applications for the establishment, operation and maintenance of a system that collects, stores, transmits, treats or disposes of sewage under Section 53 of the <i>Ontario Water Resources Act</i> in Sydenham IPZ 1, IPZ 2 and IPZ 3a, in relation to the following activities:</p> <ul style="list-style-type: none"> a) Combined sewers; b) Wastewater treatment facilities; and c) Industrial sewage treatment facilities and outfalls. <ul style="list-style-type: none"> ✓ Discharge from these facilities would be SIGNIFICANT drinking water threats. ✓ This policy is in accordance with section 39(7)(a) of the <i>Clean Water Act</i>. 	<ul style="list-style-type: none"> ✓ The <i>Clean Water Act</i> requires that the source protection plan address all ‘would be’ significant drinking water threats, regardless of their feasibility to occur in the Sydenham Intake Protection Zone (IPZ). ✓ It is unlikely that new combined sewers would be proposed or permitted in Sydenham. ✓ Industrial uses do not and are unlikely to occur based on existing settlement pattern and physical characteristics on the area. ✓ Any future wastewater treatment plant proposed in Sydenham could be designed such that it would not be a significant drinking water threat. ✓ The draft policy ideas would be effective and appropriate to maintain the status quo. ✓ There is no anticipated economic impact on the community.

Policy Reference Number	Location Implementing Body	Draft Policies for Provincial Ministries	Rationale
SD.27-HR	IPZ 1, 2 and 3a MOE	<p>In the case of proposals for the establishment, operation and maintenance of a sewage treatment system under Section 53 of the <i>Ontario Water Resources Act</i> within and immediately adjacent to the Sydenham IPZ 1, IPZ 2 and IPZ 3a, including:</p> <ul style="list-style-type: none"> a) Wastewater treatment facilities; b) Industrial sewage treatment facilities and outfalls; c) Stormwater management facilities; d) Sewage works associated with new land-based fish farms; e) On-site sewage systems; <p>where the proposal would be a moderate drinking water threat, MOE SHOULD:</p> <ul style="list-style-type: none"> a) CONSIDER the potential impact to drinking water sources of the proposed system; and b) As part of any approval, the MOE SHOULD INCLUDE terms and conditions that ensure that the drinking water threat is managed appropriately and source water is protected. Items to consider include enhanced level of quality control for stormwater, strict monitoring requirements and annual reporting. <ul style="list-style-type: none"> ✓ Discharge from these facilities are MODERATE and LOW drinking water threats In accordance with section 39(7)(b) of the <i>Clean Water Act</i>. 	<ul style="list-style-type: none"> ✓ Some of these activities <i>are associated</i> with land uses that are <i>not currently permitted</i> in the IPZ by the Township since the area consists mainly residential neighbourhoods. ✓ There are properties enumerated in the Sydenham IPZ that extend beyond the boundaries of the IPZ and some that drain into the IPZ. This policy would address the risk to drinking water from the entire parcel rather than just that portion within the IPZ. ✓ It is appropriate to ensure that these activities are managed appropriately such that source water is protected, if they are permitted in the future.
SD.28-M	MOE	The Ministry of the Environment SHALL REPORT to Cataraqui Source Protection Authority by February 15 of each year on any applications received related to the land uses specified in policies SD.22-CW and SD.26-CW.	<ul style="list-style-type: none"> ✓ Section 22(2) of the <i>Clean Water Act</i> requires that the source protection plan contain policies governing the monitoring of activities that are or would be significant drinking water threats.

Policy Reference Number	Location Implementing Body	Draft Policies for Provincial Ministries	Rationale
		<ul style="list-style-type: none"> ✓ These activities are SIGNIFICANT drinking water threats. ✓ This policy is in accordance with <i>Clean Water Act</i> (S. 45). 	
Nutrient Management Act and Ontario Regulation 267/03			✓
Area wide.2-SA	OMAFRA	<p>The Ontario Ministry of Agriculture, Food and Rural Affairs SHOULD AMEND Ontario Regulation 267/03 - General to require all farms in WHPAs and IPZs to prepare and follow nutrient management strategies and/or nutrient management plans, regardless of the value of farm nutrient units or the vulnerability score of the area. [Timeframe]</p>	<ul style="list-style-type: none"> ✓ Depending on local conditions and management practices any size agricultural operation could impact a drinking water source regardless of vulnerability scoring, so it is prudent to require due consideration for the areas directly contributing to municipal residential drinking water sources.
SD.29-CW	IPZ 1 and 2 OMAFRA	<p>The Ontario Ministry of Agriculture, Food and Rural Affairs SHALL NOT APPROVE NASM Plans for the application, handling and storage of non-agricultural source material under Sections 15.2 and 28 of Ontario Regulation 267/03 – General for sites in the Sydenham IPZ 1 and IPZ 2,</p> <ul style="list-style-type: none"> ✓ These activities would be SIGNIFICANT drinking water threats. ✓ This policy is in accordance with section 39(7)(a) of the <i>Clean Water Act</i>. 	<ul style="list-style-type: none"> ✓ The <i>Clean Water Act</i> requires that the source protection plan address all ‘would be’ significant drinking water threats, regardless of their feasibility to occur in the Sydenham Intake Protection Zone. ✓ There is no land within the Sydenham IPZ on which NASM could be applied or stored. ✓ These draft policy ideas would be effective and appropriate to maintain the status quo. ✓ There is no anticipated economic impact on the community.
SD.30-HR	IPZ 1, 2 and 3a OMAFRA	<p>The Ontario Ministry of Agriculture, Food and Rural Affairs SHOULD CONSIDER the potential impact of proposed NASM plans for properties immediately adjacent to Sydenham IPZ 1, IPZ 2 and IPZ 3a on drinking water sources through their review under Sections 15.2 and 28 of Ontario Regulation 267/03 – General, where the application, handling and storage of non-agricultural source material would be moderate or low drinking water threats.</p>	<ul style="list-style-type: none"> ✓ There are properties enumerated in the Sydenham IPZ that extend beyond the boundaries of the IPZ and some that drain into the IPZ. This policy would address the risk to drinking water from the entire parcel rather than just that portion within the IPZ.

Policy Reference Number	Location Implementing Body	Draft Policies for Provincial Ministries	Rationale
		<ul style="list-style-type: none"> ✓ This policy is in accordance with section 39(7)(b) of the <i>Clean Water Act</i>. 	
SD.31-M	OMAFRA	<p>The Ontario Ministry of Agriculture, Food and Rural Affairs SHALL REPORT to Cataraqui Source Protection Authority by February 15 of each year on any applications received related to the land uses specified in policies SD.29-CW.</p> <ul style="list-style-type: none"> ✓ These activities are SIGNIFICANT drinking water threats. ✓ This policy is in accordance with <i>Clean Water Act</i> (S. 45). 	<ul style="list-style-type: none"> ✓ Section 22(2) of the <i>Clean Water Act</i> requires that the source protection plan contain policies governing the monitoring of activities that are or would be significant drinking water threats.
Various legislation			
SD.32-SA	IPZ 1, 2 and 3a MNR, MOE, OMAFRA	<p>The Provincial ministries responsible for the review and approval of applications for caged aquaculture (e.g. Ministry of Natural Resources, Ministry of the Environment, Ministry of Agriculture, Food and Rural Affairs) SHOULD ENSURE that approvals for such proposals in Sydenham IPZ 1, IPZ 2 and IPZ 3a contain terms and conditions that ensure this MODERATE drinking water threat is managed appropriately such that source water is protected.</p>	<ul style="list-style-type: none"> ✓ There are no commercial fish farms in the Sydenham IPZ. Based on discussions with aquaculture specialists with the provincial Ministry of Natural Resources and the Ministry of Agriculture, Food and Rural Affairs, cage operations are unlikely to occur in the Cataraqui Source Protection Area based on location requirements which cannot be met in the area including water depth, water temperature, proximity to navigation channels, and the need for protection from the elements (e.g. wind, waves, ice). ✓ Legislation governing aquaculture is complex; no one piece of legislation nor one agency governs. ✓ Several licensing requirements may be required, depending on the specifics of a given operation (e.g., aquaculture licence; licence to stock fish ; licence to collect fish from Ontario waters) ✓ These draft policy ideas would be effective and appropriate to maintain the status quo. ✓ There is no anticipated economic impact on the community.

Implementation Body: Cataraqui Source Protection Authority

The Cataraqui Source Protection Authority (CSPA) can play an integral part in coordinating the implementation of the Cataraqui Source Protection Plan, as well as specific education and incentive programs so that there is consistent messaging across the region.

Policy Reference Number	Location Implementing Body	Draft Policies for Cataraqui Source Protection Authority	Rationale
Area wide.3-CW	CSPA	<p>The Cataraqui Source Protection Authority, in consultation with the municipalities in the Cataraqui Source Protection Area and other organizations as appropriate, SHALL ESTABLISH a Drinking Water Source Protection education and outreach program directed to all landowners and business owners in all of the IPZs and WHPAs to raise awareness of drinking water threats and promote best management practices within [insert number] year of the source protection plan being approved.</p> <p>The Cataraqui Source Protection Authority SHOULD ADVISE all land and business owners of incentive program options that could be used to fund risk mitigation measures as part of a Drinking Water Source Protection education and outreach program.</p> <ul style="list-style-type: none"> ✓ These activities are SIGNIFICANT, MODERATE or LOW drinking water threats depending on the location. ✓ In accordance with Section 38 of the <i>Clean Water Act</i>. 	<ul style="list-style-type: none"> ✓ Discussions with a variety of stakeholders suggest that a region-wide program would provide consistent messaging to all of the vulnerable areas, and would be more cost-effective for municipalities than for each municipality to develop and implement its own program. ✓ Such a program could be more efficiently developed and implemented on a regional scale involving both IPZ and WHPAs ✓ Applicable to drinking water threats, such as sewage, fertilizer, pesticides, road salt, water softeners, DNAPLs and organic solvents. ✓ This policy approach is best managed at the CSPA-wide level since it is applicable throughout the area, and should be more economical on a larger scale. It cannot be ranked as highly effective or appropriate because community buy-in and uptake is not guaranteed. ✓ There may already be programs in place to address these drinking water threats. The CRCA could coordinate making landowners aware of program(s).
Area wide.4-CW	CSPA	<p>The Cataraqui Source Protection Authority SHOULD work with local farm organizations to establish an education and outreach program for all farm operators to promote best management practices; review, update or prepare Environmental Farm Plans; and to raise awareness of and reduce drinking water threats within [insert number] years of the source protection plan being</p>	<ul style="list-style-type: none"> ✓ There are too few activities and threats in the WHPAs and IPZs for such an education or incentive program to be location specific. ✓ There are already programs in place to address a variety of drinking water threats. ✓ A regional body, such as the Cataraqui Source Protection

Policy Reference Number	Location Implementing Body	Draft Policies for Cataraqui Source Protection Authority	Rationale
		approved.	Authority, could coordinate making landowners aware of program(s).
Area wide.5-CW	CSPA	<p>The Cataraqui Source Protection Authority, in partnership with local marinas, fuel distributors, municipalities and neighbouring Conservation Authorities, SHOULD ESTABLISH an education and outreach program to advise marina operators, private fuel outlets and property owners with heating oil tanks in IPZ 1 and IPZ 2, what to do and who to contact “in case of a spill” within a specific vulnerable area within [insert number months/years] of the source protection plan being approved.</p> <p>The Source Water Protection Authority in partnership with local marinas, fuel distributors, municipalities and neighbouring Conservation Authorities, SHOULD also prepare an education and outreach program to educate fuel oil distributors and drivers about the vulnerable areas and adherence to basic filling precautions and encourage partnership for mutual aid in case of a spill. This strategic action should occur within [insert number months/years] of the approval of the source protection plan.</p> <ul style="list-style-type: none"> ✓ These activities are SIGNIFICANT, MODERATE or LOW drinking water threats depending on the location. ✓ In accordance with Section 38 of the <i>Clean Water Act</i>. 	<ul style="list-style-type: none"> ✓ One comment made at the roundtables was that the average person does not know what to do/who to call in the event of a spill. ✓ The Cataraqui Source Protection Authority, in partnership with local marinas, fuel distributors and neighbouring Conservation Authorities, should produce and distribute “in case of spill” stickers to marinas, and to property owners known to have home heating oil tanks and private fuel outlets. The stickers would include such information as a spill response number and spill procedures, particularly for the education of self-serve marinas, and an indication that the tank is located within a specific vulnerable area ✓ A quick response to a spill by a property owner would help to mitigate risk to drinking water. Such a policy is most appropriate for WHPAs and IPZs that are not serviced by natural gas.
Area wide.6-CW	CSPA	The Cataraqui Source Protection Authority, in consultation with the municipalities in the Cataraqui Source Protection Area and the Ministry of Transportation, SHOULD place signs along major roads when entering the IPZs and WHPAs to raise awareness of the need to protect drinking water sources and to remind emergency/spill response units of the sensitivity of the	<ul style="list-style-type: none"> ✓ The need to raise awareness among residents and visitors about the potential impact of certain activities on drinking water was raised at the roundtables. ✓ Signs could also play an important role in emergency and spill response efforts. ✓ Regional coordination is required to ensure consistent

Policy Reference Number	Location Implementing Body	Draft Policies for Cataraqui Source Protection Authority	Rationale
		<p>area.</p> <p>This strategic action should occur within [insert number months/years] of the approval of the source protection plan.</p> <ul style="list-style-type: none"> ✓ These activities constitute SIGNIFICANT, MODERATE or LOW drinking water threats depending on the location. 	<p>messaging throughout the area.</p>
Area wide.7-M	CSPA	<p>The Cataraqui Source Protection Authority SHALL REPORT by February 15 of each year on the policies for which it is responsible.</p> <ul style="list-style-type: none"> ✓ This policy is in accordance with <i>Clean Water Act</i> (S. 45). 	<ul style="list-style-type: none"> ✓ Section 22(2) of the <i>Clean Water Act</i> requires that the source protection plan contain policies governing the monitoring of activities that are or would be significant drinking water threats.

Implementation Bodies: Others

Policy Reference Number	Location Implementing Body	Draft Policies for Others	Rationale
Area wide.8-CW	All municipalities	<p>Where there is limited or no capacity at local wastewater treatment facilities in Cataraqui Source Protection Area, municipalities, SHOULD cooperatively</p> <ol style="list-style-type: none"> 1. manage the treatment or stabilization of hauled sewage at existing facilities; or 2. upgrade existing or build new facilities to handle demand <p>such that the land application of hauled sewage is no longer necessary.</p> <ul style="list-style-type: none"> ✓ Septage is associated with activities that are SIGNIFICANT, MODERATE or LOW drinking water threats depending on the location; ✓ This policy is in accordance with Section ### of the <i>Clean Water Act</i>. 	<ul style="list-style-type: none"> ✓ Since hauled sewage (untreated septage) is generated in all of the Cataraqui Source Protection Area municipalities where septic systems and holding tanks are permitted, a cooperative municipal or private centralized facility to treat or stabilize hauled sewage could benefit all residents, and reduce pressure on the Cataraqui Bay Wastewater Treatment Plant, which is the only municipal facility in the area that currently accepts hauled sewage. This plant is partly located in the Point Pleasant IPZ. ✓ This approach would be expected to have high start-up costs and then run on a cost-recovery system. ✓ It also supports section 1.6.4.1 of the Provincial Policy Statement.
Area wide.9-SA	TSSA	<p>The Technical Standards and Safety Authority (TSSA) SHOULD monitor the effectiveness of its fuel program as it relates to protecting drinking water sources and update the inspection and management of fuel handling and storage by considering the following:</p> <ul style="list-style-type: none"> • Inspection conducted by fuel suppliers should be more frequent than every ten years. • TSSA should promote the regular maintenance to be conducted by owners as per Section 13 of the Ontario Installation Code for Oil-burning Equipment so property 	<ul style="list-style-type: none"> ✓

Policy Reference Number	Location Implementing Body	Draft Policies for Others	Rationale
		<p>owners are aware of this requirement.</p> <ul style="list-style-type: none"> Phase out indoor and outdoor single-walled steel tanks and replace with more leak resistant technology. <p>This strategic action should occur within [insert number months/years] of the approval of the source protection plan.</p> <ul style="list-style-type: none"> ✓ The handling and storage of fuel are SIGNIFICANT, MODERATE or LOW drinking water threats depending on the location. 	
Area wide.10-SA		<p>The marinas in the Cataraqui Source Protection Area SHOULD BE ENCOURAGED to participate in the Clean Marine Program, especially if they are located near a municipal intake.</p> <p>This strategic action should occur within [insert number months/years] of the approval of the source protection plan.</p> <ul style="list-style-type: none"> ✓ The handling and storage of fuel are MODERATE drinking water threats. 	<ul style="list-style-type: none"> ✓ The majority of IPZs in the CSPA contain at least one marina. Marinas are sources of multiple drinking water threats (e.g. fuel, septage) that, although not considered to be significant risks, are a concern for various stakeholders. New or continued participation in the existing voluntary Clean Marine program would be anticipated to reduce the risk to sources of drinking water.
Area-wide.11-CW	All municipalities	<p>The Township of South Frontenac SHOULD ESTABLISH a Source Water Protection Area-wide incentive program to provide grants to help cover part of the cost of replacing underground storage tanks with above ground storage tanks for heating oil and private fuel outlets, and to construct/add secondary containment.</p> <p>This strategic action should occur within [insert number months/years] of the approval of the source protection plan.</p>	<ul style="list-style-type: none"> ✓ This threat is best managed at the CSPA-wide level since it exists throughout the area, and should be more economical on a larger scale. Underground storage tanks especially private ones tend to have the highest incidence of leaks. If there is an incentive program and it is felt that the current minimum standard is not sufficient then it is appropriate to exceed that standard. Secondary containment was a popular idea at the roundtables. ✓ Such a program could be source protection area –wide.

Policy Reference Number	Location Implementing Body	Draft Policies for Others	Rationale
		<ul style="list-style-type: none"> ✓ The handling and storage of fuel are SIGNIFICANT, MODERATE or LOW drinking water threats depending on the location. 	
Area wide.12-SA		<p>The [insert name of body] in cooperation with [insert name of body] SHOULD undertake a research project to determine the best method for disposing of water softener backwash in the hydrogeologic and climatic setting of the Cataraqui Source Protection Area/Eastern Ontario.</p> <p>This strategic action should occur within [insert number months/years] of the approval of the source protection plan.</p> <ul style="list-style-type: none"> ✓ Discharge from water softeners is a SIGNIFICANT, MODERATE or LOW drinking water threats depending on the location. 	<ul style="list-style-type: none"> ✓ A local research project would ensure that the most effective disposal method is being used for water softener backwash.

April 28, 2011

On behalf of the Ministries of Environment, Natural Resources and Agriculture, Food and Rural Affairs, I am pleased to inform you that the 2007 Canada-Ontario Agreement Respecting the Great Lakes Basin Ecosystem (COA) has been extended until June 24, 2012. As well, six new commitments have been made for the extension period to update and refresh the current Agreement, which relate to harmful pollutants, spills prevention and response, the development of a nearshore framework, stewardship activities, implementing binational cooperative monitoring programs, and an aquatic invasive species complete prevention plan.

The decision to extend the current COA and proceed with the proposed new commitments was based on input collected through engagement with the broader Great Lakes community (i.e., Aboriginal communities, municipalities, conservation authorities, academia, stakeholders and interest groups, etc.) on this policy proposal. As a result of this input, the proposed wording of the nearshore commitment was revised to reflect the broad interest expressed for engagement in the development of a nearshore framework. We want to assure you that other comments received will be considered as part of the implementation activities in support of the extension, as well as in preparing for a new COA.

A Decision Notice has been posted on the Environmental Registry (EBR #011-1929) and is available through the following link: <http://www.ebr.gov.on.ca/ERS-WEB-External/displaynoticecontent.do?noticeId=MTExnJMy&statusId=MTY5MDQ5&language=en>.

The COA establishes an action plan and clear roles and responsibilities between federal and provincial ministries. It also helps Canada deliver on its obligations under the Canada-U.S. Great Lakes Water Quality Agreement (GLWQA). The current COA was signed in June 2007 with an expiry of March 2010, but was extended until March 31, 2011 to accommodate the ongoing process to amend the GLWQA. This second extension allows Canada and Ontario to continue their important work to restore, protect and conserve the Great Lakes while the GLWQA amendment negotiations continue.

If you require any further information, please contact Ms. Carolyn O'Neill, Manager, Great Lakes Office, Ministry of the Environment, at 416-314-7833 or by e-mail at carolyn.oneill@ontario.ca.

I wish to thank the broader Great Lakes community for sharing their comments with us. With this COA extension, Ontario is pleased to celebrate 40 years of working together with Canada and other partners to protect, restore and conserve the Great Lakes and to have made significant progress over this time.

Sincerely,

John Wilkinson
Minister