



**STAFF REPORT**

*File No. SPC Report-25/11*

**Date:** November 9, 2011  
**To:** Source Protection Committee  
**From:** Andrew Doiron, Source Protection Planning Coordinator  
**RE:** Draft Policies for Optional Source Protection Plan Content

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There are provisions in the *Clean Water Act* that allow the Source Protection Committee the option of developing policies related to aspects source protection that may not be specially addressed by significant threat policies. The Committee has directed staff to develop draft wordings for several of these optional components of the Source Protection Plan.

**Recommendation 25-11:** Consider the draft policies below for inclusion in the Source Protection Plan.

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**Extension of Incentive and Education Programs to First Nations Communities** (Recommendation 24-11c)

The *Clean Water Act* includes a provision that allows policies in the Source Protection Plan to address education and outreach programs for drinking water systems that are not included in the Terms of Reference. This following draft policy makes use of that provision.

**Intent:** Encourage the extension of education and outreach programs related to significant drinking water threats into First Nations communities. This includes existing education and outreach programs and those programs established specifically for the purpose of drinking water source protection.

**Rationale:** There are many drinking water systems not addressed by the draft source protection policies for the Region. This includes private systems, non-residential and non-municipal drinking water systems, and systems that serve First Nations communities. There are a large number of non-residential and non-municipal systems in the Region<sup>1</sup>, but the existing provincial database used to account for them is not comprehensive. It was felt by the Source Protection Committee that it would not be practical to approach education and outreach for such a large number of widely distributed systems that are not fully accounted for. The accounting of drinking water systems that serve First Nation communities, however, is thought to be comprehensive, and it is felt that the smaller number and more concentrated

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<sup>1</sup> The Assessment Reports identify about 365 "other" drinking water systems, but it has been pointed out that the Drinking Water Information System (DWIS) database used to generate this estimate does not account for all of the existing systems

nature of these systems make expanding education programs developed for significant threats an efficient approach to protect these drinking water sources.

**Policy Text:** Source Protection Authorities in the Trent Conservation Coalition Source Protection Region are encouraged to extend existing education and outreach programs related to significant drinking water threats into First Nations communities.

### **Transportation Corridors** (Recommendation 24-11d)

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The *Clean Water Act* includes a provision that allows policies in the Source Protection Plan to address the updating of spill prevention/contingency plans or emergency response plans to protect drinking water sources with respect to spills that occur in vulnerable areas along public roads, railway lines, or shipping lanes. The following draft policy makes use of that provision.

**Intent:** Require municipalities to update existing emergency response and/or spill contingency plans to address the potential for a spill along a transport corridor within a vulnerable area that could impact a drinking water source.

**Rationale:**

- There are many transport corridors that pass through vulnerable areas:
  - Arterial roads (*i.e.* county roads & main city roads) (82km)
  - Provincial Highways (7km)
  - 400-Series highways (Trenton, Brighton, Colborne) (3.7km)
- Transport corridors are not addressed by significant threat policies
- Municipalities are required to have emergency plans under the *Emergency Management and Civil Protection Act* (*i.e.* this policy works within existing emergency response frameworks to increase the amount of protection for municipal drinking water sources).

**Policy Text:** [“Transportation corridor” will be defined in the definitions section of the Source Protection Plan as follows: “a highway as defined in subsection 1 (1) of the *Highway Traffic Act*, a railway line, or a shipping lane” (*i.e.* the applicable corridors per the General regulation)]

Where a transportation corridor passes through a vulnerable area where a spill could impact a municipal drinking water system:

**The Municipality will:**

- (1) Incorporate information regarding the location of the vulnerable area into their local emergency response plans and/or spill contingency plans.
- (2) Update their emergency response plans to address a potential spill along a transportation corridor. Emergency response plans must include:
  - (a) Specific procedures for responding to a spill related to these transport corridors;
  - (b) A communications protocol; and

- (c) The location of available spill response materials
- (3) Conduct annual practice exercises and/or emergency response scenarios for the procedures required by (2) (a).
  - (4) Provide a summary to the Source Protection Authority of any updates to emergency response plans and/or spill contingency plans within one year.
  - (5) Review and update the emergency response plans annually.

**The Source Protection Authority will:**

- (1) Provide mapping of vulnerable areas to the Spills Action Centre to assist in spill response.

**Transport Pathways** (Recommendation 24-11e)

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Transport pathways are features of the landscape that provide the potential for contaminants to quickly reach an intake or aquifer by short-circuiting the natural flow of water (e.g. wells, excavations, tile drains, stormwater drains). These are defined by the General regulation made under the *Clean Water Act* as “a condition of land resulting from human activity that increases the vulnerability of a raw water supply of a drinking water system [in the Terms of Reference]”. The following policies are written in accordance with Section 27 (1) (b) of the General Regulation, which allows policies to be developed to “ensure that the transport pathway ceases to endanger the raw water supply of a drinking water system...”

**Intent:** Require municipalities to ensure that the accounting of transport pathways within the “most vulnerable” parts of the vulnerable area (i.e. IPZ-1 or WHPA-A) is comprehensive; ensure that any new transport pathways constructed in these areas are done so in accordance with regulatory requirements; and ensure that abandoned wells are decommissioned in accordance with O. Reg. 903 (Wells).

**Rationale:**

- A contamination event near a transport pathway could result in an immediate impact on the water source.
- The documentation of the location of transport pathways in the Assessment Report may not be comprehensive.
- Stewardship staff has indicated that wells are often not decommissioned in accordance with the regulated requirements.
- Policies that address transport pathways are limited to the “other” tools (i.e. establishing stewardship programs, promoting best management practices, establishing pilot programs, governing research, or “specify actions” policies).
- S. 27(3) of the CWA already requires that municipalities report to the SPA regarding any “proposal to engage in an activity in a [WHPA or IPZ] that may result in a transport pathway...”

**Policy Text:** In the Intake Protection Zone 1 and/or Wellhead Protection Area A:

**The Municipality will:**

- (1) Confirm the location and nature of transport pathways that may endanger the raw water supply for the municipality, and report on any results that differ from the contents of the Assessment Report to the Source Protection Authority.
- (2) Ensure that any new and existing **transport pathways** that may endanger the municipal water supply are constructed in accordance with best management practices that minimize the potential for impacts to the water supply.
- (3) Ensure that **transport pathways** are decommissioned in accordance with best management practices that minimize the potential for impacts to the water supply.
- (4) Require that any abandoned wells are decommissioned in accordance with O. Reg. 903 (Wells).

For reference, the transport pathways identified within the IPZ-1 or WHPA-A are identified in the table below.

System	Municipality	Zone Type	Description
Lindsay	City of Kawartha Lakes	IPZ-1	Sewershed - delineated as part of IPZ-2 analysis - likely to impact IPZ-1
Woodfield	City of Kawartha Lakes	WHPA-A	Well - 30 metre radius
Blackstock	Scugog - Durham Region	WHPA-A	2 Wells - 30 metre radius
Greenbank	Scugog - Durham Region	WHPA-A	Well - 30 metre radius
Minden	Minden Hills	WHPA-A	Utility Corridors
Bobcaygeon	City of Kawartha Lakes	IPZ-1	Sewershed - delineated as part of IPZ-2 analysis - likely to impact IPZ-1
Crystal Springs	Otonabee-South Monaghan	WHPA-A	Well Cluster
Stirling	Stirling-Rawdon	WHPA-A	Sewershed - delineated for GUDI/ICA - point of interaction between SW&GW falls within WHPA-A
Peterborough	City of Peterborough	IPZ-1	Sewershed - delineated as part of IPZ-2 analysis - likely to impact IPZ-1
Campbellford	Trent Hills	IPZ-1	Sewershed - delineated as part of IPZ-2 analysis - likely to impact IPZ-1

## **Policies Related to the Collection of Climate Change Data** (Recommendation 24-11f)

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The following policies are written in accordance with Section 26 (5) of the General Regulation made under the *Clean Water Act* (O. Reg. 287/07), which allows policies to be developed to "... [specify] the actions to be taken by persons or bodies in the source protection area to ensure that data on the climate conditions in the area is gathered on an ongoing basis, including data related to precipitation, streamflow, temperature, evapotranspiration and solar radiation."

**Intent:** Encourage climate change data collection at both the federal and provincial level.

**Rationale:**

- Several findings of the Assessment Report have the potential to be affected by climate change (*e.g.* the extent of vulnerable areas and findings of the water budgets)
- Gauging the magnitude of these effects will require the ongoing collection of data related to climate conditions.
- Climate data is currently collected at national and provincial scales. However, there is no known effect to collect climate data that is specifically geared to predicting the impacts of climate change on the drinking water systems in the Source Protection Region.

**Policy Text:**

- (1) Environment Canada, the Ontario Ministry of the Environment, and the Ontario Ministry of Natural Resources are encouraged to collect climate change data on an ongoing basis with a focus on the potential impact on *vulnerable areas* as defined in Section 2 (1) of the *Clean Water Act* and on the drinking water supplies within those areas.
- (2) The Province of Ontario is encouraged to provide ongoing funding to local agencies with a mandate to collect climate data to expand existing climate change data collection programs to include a focus on the potential effects on municipal drinking water systems in the Trent Conservation Coalition Source Protection Region.