



STAFF REPORT

File No. SPC Report-24/11

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To: Source Protection Committee

From: Andrew Doiron, Source Protection Planning Coordinator

RE: Optional Source Protection Plan Content

There are several components of the Source Protection Plan that can be included at the discretion of the Source Protection Committee. Below is a discussion of these components, and ideas for how we may go about addressing these items should the Committee choose to do so.

1) Monitoring Policies for Moderate and Low Threats (Mandatory Content “Where Advisable”)

The *Clean Water Act* [S. 22(2)5] requires that the Source Protection Plan include monitoring policies to address moderate and low threats to ensure that they do not become significant “where advisable”. An example of this situation would be where a threat circumstance for a given activity refers to a quantity stored of a given substance: where an increase in quantity would raise the activity from a moderate to a significant threat, it might be considered “advisable” to monitor stored quantities of the given substance. This requirement has been discussed at previous meetings, and it was generally agreed that the lack of data on moderate and low threats (see item 2b below) would preclude any attention to these threats in the TCC Source Protection Plans. Therefore, no monitoring policies for moderate and low threats will be included in the TCC Source Protection Plans.

2) Optional Content of Source Protection Plan

There are several optional components of the Source Protection Plan that can be included at the discretion of the Committee. In general, Part IV tools (Prohibition, Risk Management Plans, and Restricted Land Uses) cannot be used to address these threats, and the Committee is limited to land use planning approaches and Section 26 (i.e. “other”) policy tools (i.e. education and outreach, incentive programs, “specify actions” policies, etc).

a) Policies for Conditions

Policies can be developed to address drinking water conditions (i.e. contaminated sites). No conditions that are significant drinking water threats have been identified in the Assessment Reports for the TCC Source Protection Region. Four conditions that are moderate or low threats were identified in the Assessment Reports. These are summarized in the table below.

System	Vulnerable Area	Description of Condition	Evidence of Off-Site Impact	Vulnerability Score	Hazard Score	Risk Score	Threat Level
Norwood	WHPA-C	Former Bulk Fuel Storage Facility	No	8	6	48	Low
Campbellford	IPZ-1	Former Industrial Property	No	10	6	60	Moderate
Fenelon Falls	IPZ-1	Former Wood Tar Site	No	9	6	54	Low
Lindsay	IPZ-2	Former Industrial Property	No	9	6	54	Low

All of these conditions would become significant threats if they were found to have off-site impacts (i.e. this would increase the hazard score of the conditions to 10 and, thus, increase the risk score to >80). In light of this, it may be advisable to monitor the conditions to ensure that they do not continue to have impacts off-site.

Recommendation 24-11a: Consider developing a monitoring policy to ensure that the moderate and low conditions identified in the Assessment Report do not become significant drinking water threats in the future.

b) Policies for Activities that are Moderate and Low Threats

Policies can be included in the Source Protection Plan to address activities that are moderate and low threats. The threats assessment focused on significant threats, but some information on moderate and low threats is available from the threats assessments data provided by GENIVAR. There is no moderate or low threats data available from the XCG threats assessments. Further, the available data on moderate and low threats has not been confirmed through landowner contact and may be subject to error.

Recommendation 24-11b: Given time constraints and the lack of good data on moderate and low threats, do not include moderate and low threats policies in this round of source protection planning.

c) Incentive and Education Programs for Drinking Water Systems not in the Terms of Reference

It is also an option to include incentive and education programs for drinking water systems that were not identified in the Terms of Reference. This includes private systems and non-residential municipal drinking water systems (e.g. campgrounds, schools, and other public buildings). The Assessment Reports identify about 365 of these systems (though it is expected that there are significantly more) and about 21 systems that serve First Nations communities.

Recommendation 24-11c: Given time constraints and the known inaccuracy of databases documenting private systems and non-residential systems in the TCC SPR, do not include incentive and education programs for drinking water systems not identified in the Terms of Reference, with the exception of First Nations communities.

Authorize staff to develop relevant *draft* policies encouraging the extension of existing education and outreach programs, or those established through significant drinking water threat policies into First Nations communities.

d) Transport Corridors

Another option is to include policies that address transport corridors. Specifically, the *Act* refers to policies that “[specify] the actions to be taken by persons or bodies to update spill prevention and spill contingency plans or emergency response plans for the purpose of protecting existing drinking water sources with respect to spills that occur within a [vulnerable area] along [public roads], railway lines, or shipping lanes.” Various industries are required to have emergency response plans under the *Environmental Protection Act*, and municipalities are required to have emergency plans under the *Emergency Management and Civil Protection Act*.

Some policy options include:

- 1) Request that municipalities and industries incorporate information regarding the location of vulnerable areas into their emergency response plans, as they relate to spills along public roads, railway lines, or shipping lanes.
- 2) Require all businesses not required to prepare emergency plans develop spill prevention plans and update them at a regular frequency.
- 3) Ensure that plans include chemical inventories; the storage locations of chemicals and fuels; procedures to address incorporating changes to operations; employee training; and appropriate contact information.
- 4) Requesting that the Source Protection Authority provide the MOE Spills Action Centre with mapping of vulnerable areas to assist in spill response.

Recommendation 24-11d: Authorize staff to develop *draft* policies based on the above options for inclusion in the Source Protection Plan to address spill response along transport corridors.

e) Transport Pathways

The Committee has the option of including Policies that address transport pathways. These 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, tile drains, stormwater drains,). These policies can ensure that any drinking water threat near a transport pathway ceases to be a significant threat, or that the transport pathway ceases to endanger the water supply. Since these features are not activities in and of themselves, 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).

Some examples of policies to address transport pathways include:

- 1) Ensure that new municipal infrastructure that are transport pathways is constructed by qualified professionals and conforms with best management practices geared towards the protection of the water supply
- 2) Policies to identify additional transport pathways not identified in the Assessment Reports
- 3) Supporting the ongoing stewardship programs for the decommissioning of wells in vulnerable areas (i.e. decommissioning wells is an applicable project for the ODWSP – policy G-3 is to this effect)
- 4) Policies to ensure that wells are appropriately decommissioned (i.e. per the requirements O. Reg. 903 (Wells) under the *Ontario Water Resources Act*)
- 5) Policies to ensure that existing non-compliant wells are upgraded to satisfy O. Reg. 903

Recommendation 24-11e: Authorize staff to develop *draft* policies based on the above options for inclusion in the Source Protection Plan to address transport pathways located in vulnerable areas.

f) Climate Change Data Collection

The Committee has the option of including policies that specify actions for persons or bodies regarding the collection of climate data related to climate change (i.e. precipitation, stream flow, temperature, evapotranspiration, and solar radiation). These data are currently being collected to some degree by a variety of agencies across the province.

Some examples of policies to address climate change data collection include:

- 1) A policy encouraging Environment Canada and the Ontario Ministries of the Environment and Natural Resources to collect climate change data on an ongoing basis with a focus on the potential impact on vulnerable areas and drinking water supplies.
- 2) A policy encouraging Provincial funding for local agencies for the ongoing collection of climate change data.
- 3) A policy supporting any other regional collaborations related to the collection of climate change data.

Recommendation 24-11f: Authorize staff to develop *draft* policies based on the above options for inclusion in the Source Protection Plan to address climate change data collection as it relates to the protection of municipal drinking water systems.