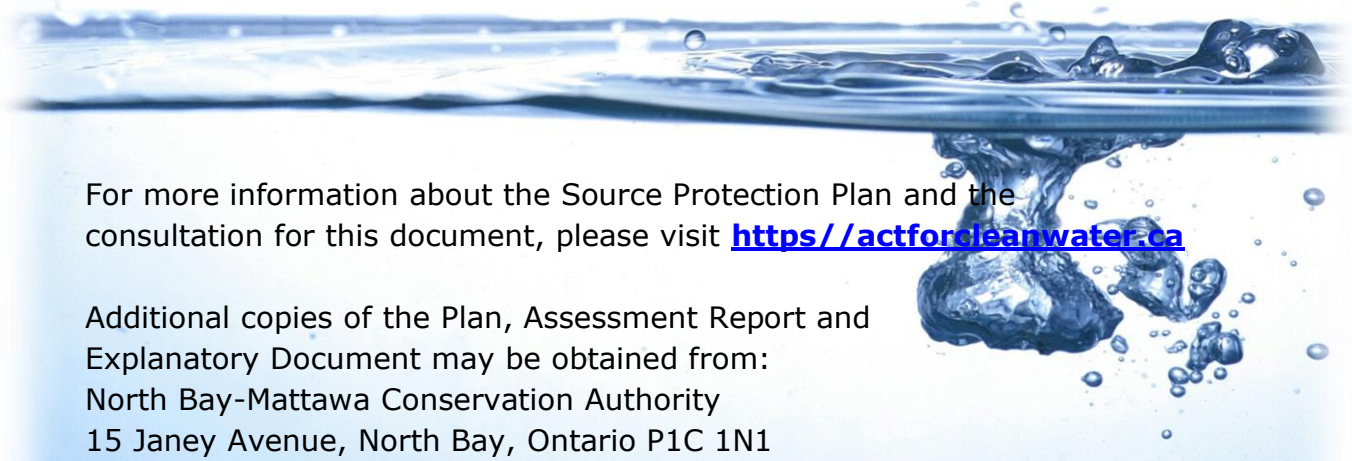
North Bay-Mattawa Source Protection Area

Drinking Water Source Protection Plan Explanatory Document

Companion to the North Bay-Mattawa Source Protection Plan

November 2026



For more information about the Source Protection Plan and the consultation for this document, please visit **https//actforcleanwater.ca**

Additional copies of the Plan, Assessment Report and Explanatory Document may be obtained from:
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This document has been prepared on behalf of the North Bay-Mattawa Source Protection Committee under the *Clean Water Act*, 2006 (Ontario Regulation 287/07)

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1.0 Introduction

The *Clean Water Act* is a major part of Ontario's commitment to ensure that every Ontarian has access to safe drinking water. Introduced by the Ontario Government in 2006, the Act along with four associated regulations, mandated four documents to be produced locally to form the Source Protection Plan (SP Plan):

1. A Terms of Reference (a work plan),
2. A science-based report that assessed and characterized the watersheds (Assessment Report),
3. A plan of action to address threats to drinking water based on the Assessment Report (i.e., SP Plan), and
4. An Explanatory Document to provide the rationale for each policy and verify that the SP Plan has met the requirements of the *Clean Water Act*.

The intent of the legislation is to ensure communities are able to protect their municipal drinking water supplies now and in the future from overuse and contamination by implementing an appropriate SP Plan. More details on how that is accomplished can be found in the SP Plan itself. Development of the SP Plan is the responsibility of a local multi-stakeholder Source Protection Committee (SPC).

2.0 Purpose of the Explanatory Document

To support a transparent decision-making process and aid future interpretation of policies, Ontario Regulation 287/07 Section 40 requires an Explanatory Document be prepared to provide all interested parties with information regarding what influenced policy decisions. This includes all comments received from Implementing Bodies (a body prescribed by the SP Plan to implement policy) and others during the various legislated phases of consultation. The goal of the Explanatory Document is to provide the SPC's rationale behind the development of each of the policies.

The Explanatory Document accompanies the SP Plan through its various stages of public consultation but is not itself subject to comments. If changes are made

to the SP Plan either through public consultation or by required amendment, the Explanatory Document must be updated accordingly. This version of the Explanatory Document accompanies the 2026 updated SP Plan.

3.0 Policy Development Process

Under the *Clean Water Act, 2006*, the North Bay-Mattawa Source Protection Committee (SPC or Committee) is required to develop policies for every area identified in the Assessment Report where certain activities could pose a significant threat to drinking water source. Those activities include the twenty-one prescribed activities as defined in O.Reg, 287/07 (see page 11) or local threat activities that were approved by the Director (Source Protection Programs Branch, Ministry of the Environment, Conservation and Parks). Policies must address all identified activities whether they currently exist in the vulnerable areas or not. The objective of the Source Protection Plan is to ensure that the threat that could be posed by any of these activities either never becomes significant or, if the activity is being engaged in, ceases to be significant. The Committee may also develop polices for threats of moderate or low risk.

Policy Working Group

A local Policy Working Group was formed to assist the SP Committee with policy development in 2010. Every municipality with a municipal water system participated, as well as municipalities in the Callander Issue Contributing Area (IPZ-ICA) and representatives of local stakeholders. In addition, a planning consultant was retained. The Policy Working Group reviewed technical research and background documents for each threat and developed preliminary recommendations for the SP Committee's consideration. The Terms of Reference for the Policy Working Group are included in Appendix A.

Guiding Principles

When developing the policies for the SP Plan, the Source Protection Committee (SPC) thoroughly weighed and evaluated different policy approaches and chose the most reasonable option to manage each significant drinking water threat. Financial implications, policy effectiveness, appropriate management of the threat, and the level of regulatory burden were all important considerations. When evaluating policy options, the Committee considered the following Guiding Principles:

1. Use of prescribed instruments is preferred over introduction of new measures.
2. Maximize accountability, effectiveness, efficiency and transparency in the preparation, consultation and implementation of Source Protection Plan policies through collaboration with municipalities and appropriate staff.
3. Select new policies and tools, where necessary, from policies and tools that have proven to be effective elsewhere.
4. Minimize duplication of work through effective liaison and information sharing with other SP Areas.
5. Recommend policies for monitoring and enforcement efforts that will minimize municipal fiscal, social and economic impacts to the maximum extent feasible.
6. Recommend policies that will minimize social and economic impacts on private landowners wherever possible.
7. Provide flexibility for municipalities, while maintaining consistency across municipal boundaries, by preparing a set of recommended model policies or "menu" of policy/approach choices, rather than prescribing a set of policies/approaches.

Financial Considerations

When drafting policies for the Source Protection Plan, financial considerations played an important role in determining which approach or policy tool would be used. These included financial capacity, costs, benefits, and future monitoring requirements for the Implementing Bodies and those engaged in significant threat activities.

The Source Protection Committee (SPC) specifically considered the implications of prohibition versus risk management. Despite the fact that both future and existing activities can be adequately managed using risk management plans, prohibition is usually simpler to implement and enforce. Therefore, where it was unlikely that anyone would be adversely affected by a prohibition, the Committee decided to use that approach; for example activities that did not currently exist and were unlikely to be undertaken in those areas.

Policy Tools

A summary of tools available to the Source Protection Committee for developing source protection polices is provided in Table 3-1 below. These tools range from what are sometimes called "hard" tools such as prohibition or the requirement

for risk management plans, which are readily enforceable under legislation, to "soft" tools such as education and outreach.

Table 3-1 Summary of Policy Tools

Tools	Explanation
Prohibition (Section 57 of the *Clean Water Act*) **NOT USED**	Certain activities can be prohibited in areas where the activities pose significant threats to drinking water using a tool in the *Clean Water Act, 2006.* Prohibition of existing activities is meant to be a "tool of last resort", meaning that the Committee may only do so if they are convinced no other method will adequately reduce the risk. This tool has not been used in this SP Plan.
Risk Management Plans (Section 58) **NOT USED**	Risk Management Plans are a tool in the *Clean Water Act*, which set out the responsibilities of a person engaged in a prescribed activity in an area where the threat to the drinking water source could be significant. Risk management plans are site specific, locally negotiated plans that consist of a series of risk management measures and operational practices that address the threat, reflecting current practices where appropriate. This tool has not been used in this SP Plan.
Restricted Land Use (Section 59) **NOT USED**	Restricted Land Use policies are complementary tools under the *Clean Water Act, 2006,* which are used when either s.58 Risk Management Plans or s.57 Prohibition of Activities applies. They do not eliminate a land use but ensure that activities in the designated area are assessed to ensure applications in the development review process are reviewed and any required risk management plan or prohibition is addressed before the municipality issues a building permit or grants planning approvals. This is a screening tool for municipalities when reviewing applications, to prevent the unintentional approval of activities. This tool has not been used in this SP Plan.
Prescribed Instrument	Provincial permits or environmental compliance approvals (ECAs) are required for certain regulated activities to minimize the risk of pollution. The terms of each permit or ECA are specific to the individual situation. Where an activity is already regulated by a prescribed instrument, a source protection plan policy may utilize the issuance or review process to ensure any threat to drinking water sources is adequately addressed.
Land Use Planning	These are policies that affect municipal land use planning decisions under the *Planning Act* and *Condominium Act*. Land Use Planning policies can address a threat activity by prohibiting its establishment through future implementation mechanisms, such as Official Plans, Zoning By-laws and Site Plan Controls.
Education and Outreach	Education and Outreach is considered to be a non-regulatory or "soft" tool. It is generally intended to complement policies that use other tools. If education and outreach is used as a stand-alone tool to address a significant drinking water threat, the Explanatory Document must clearly explain why the policy is sufficient to meet the standards of the *Clean Water Act*.
Specified Action	These are policies that request or require an action to be undertaken to address a threat in a vulnerable area. Only certain implementing bodies can be required to comply.

Tools	Explanation
Strategic Action	Strategic action policies are used to address areas where threats could be moderate or low, using tools other than prescribed instruments and land use planning. Because the threat is not significant implementation is not mandatory, but it is hoped that the implementing body will consider the policies in its decisions.

Stakeholder Workshops and Early Engagement

Prior to the development of policies for the SP Plan, workshops with roundtable discussions were held to engage local stakeholders in the planning process. Specific sessions targeted agriculture, municipal representatives, or the general public. Stakeholder input aided the SPC's selection of the approach to address each threat.

Pre-consultation

Pre-consultation on the draft source protection policies took place between June 2011 and March 2012. Those who would be responsible for implementing any policies (Implementing Bodies) were provided with the opportunity to give feedback to the SPC. Draft policies were circulated to municipalities, agencies, and Provincial Ministries. Throughout this period, meetings were held with staff from municipalities and presentations were made to all affected Municipal Councils. In addition, a workshop was held with the agricultural community to explain and review the content of the draft source protection policies. The SPC considered comments received during the pre - consultation period and revised policies as warranted.

Draft Plan Consultation

The Draft Proposed Source Protection Plan was posted for public review and comment from April 24 to May 31, 2012. During that period, affected persons and agencies were notified as per Sections 35 to 39 of O. Reg. 287/07. Two public meetings were held at different locations (Callander and North Bay) to provide opportunity for clarification and input. Following Draft Plan Consultation, the SPC met on June 5, 2012, and again on July 16, 2012, to consider comments received. Comments from some public agencies were received after June 5, 2012, and discussions were held subsequently to identify concerns and modify policies for SPC consideration.

Proposed Plan Consultation

The Proposed SP Plan was submitted to the Source Protection Authority (SPA) on July 18, 2012, for posting on July 20, 2012, and public consultation until

August 19, 2012. The requirements for consultation on the Proposed SP Plan are specified in s. 42 of O. Reg. 287/07. Notifications of the posting were emailed on July 20, 2012, to:

- the clerks of every Municipality,
- the Chief of Nipissing First Nation which is the only Band with reserve lands in the North Bay-Mattawa Source Protection Area, and
- every person who submitted written comments on the Draft Proposed SP Plan after being given notice of the Draft Plan posting in accordance with clause 41 (2) (c) O. Reg. 287/07.

The SPA received comments and forwarded these as part of the submission of the Proposed SP Plan to the Minister of Environment on August 20, 2012 (see below). On September 26, 2012, the SPA considered comments received and submitted its own in a letter to the Minister of Environment, Jim Bradley on September 27, 2012.

Proposed Plan Submission, Review and Revision (2014)

On August 20, 2012, the Proposed SP Plan was submitted to the Minister of Environment as per s.25 of the *Clean Water Act* and s. 44 of O. Reg. 287/07 along with all comments received. Following receipt of comments from MOE reviewers in October 2013, the SPC revised and held 30-day consultations on the Terms of Reference, the Assessment Report and the Source Protection Plan. The latter was submitted to the Director of the Ministry of Environment and Climate Change on August 21, 2014, subsequently revised and resubmitted November 28, 2014, after advising Municipalities of the changes.

Note: The Ministry of Environment (MOE) and Ministry of Environment and Climate Change (MOECC) are former names for the Ministry of Environment, Conservation and Parks (MECP).

SP Plan Update (2026)

The Source Protection Authority submitted a work plan for section 36 updates to the SP Plan on November 30, 2018. The Minister Subsequently issued an amended section 36 Minister's Order on May 4, 2019. The Ministry of Environment, Conservation and Parks was provided preliminary draft copies of the Updated SP Plan as part of early engagement and prior to consultation with other agencies.

The updates to the SP Plan and Assessment Report were prepared as per the Minister's amended Order under section 36 of the *Clean Water Act, 2006* and

per the 2021 Technical Rules. Notable changes to the Assessment Report include revised Intake Protection Zone boundaries with refined wetland and watercourse mapping data. Notable changes to the Source Protection Plan reflect the changes to Prescribed Threat Activity subcategories and the vulnerability score or percent impervious surface area thresholds that would constitute a significant threat. Additionally, where vulnerable areas were previously identified with subsections, such as WHPA-B1, or any IPZ-2a, this nomenclature has been simplified such that the policies now refer to their full vulnerable area and vulnerability score at which the threat would be significant.

Pre-consultation on the draft revised source protection policies took place between May and July 2023 and February and March 2024. Those who would be responsible for implementing any policies (Implementing Bodies) were provided with the opportunity to give feedback to the SPC. Revised policies were circulated to municipalities, agencies, and Provincial Ministries. Throughout this period, meetings were held with staff from municipalities and presentations were made to all affected Municipal Councils. The SPC considered comments received during the pre‐consultation period and revised policies as warranted.

The Revised Source Protection Plan was posted for public review and comment from May 8 to June 13, 2024. During that period, affected persons and agencies were notified as per Sections 35 to 39 of O. Reg. 287/07. Two public meetings were held at the North Bay-Mattawa Conservation Authority office in North Bay to provide opportunity for clarification and input. Following Public Consultation, the SPC met to consider comments received. Further amendments were required and Public Consultation is to be held in January-February 2026.

Subsequent Workplan was submitted to MECP on July 30, 2026.

4.0 Policy Rationale

This section provides a record of the decision-making process and summarizes the key factors affecting the Source Protection Committee's (SPC) policy decisions. All comments received during pre-consultation on individual policies and during the subsequent consultation on the Draft Source Protection Plan were considered. In addition, comments received during consultation on the Proposed SP Plan have been acknowledged and responses included as appropriate.

In early versions of the Explanatory Document this section was organized to reflect the SPC's decision process as it considered groups of related threat activities. In general, the SPC first decided whether to prohibit or manage an activity, and then considered which tool(s) would be most appropriate to ensure that the threat would never become or would cease to be significant. Prohibition was only used for activities that were believed not to exist in the affected areas. Where possible, prohibition was accomplished using Land Use Planning tools. For activities governed by the issuance of prescribed instruments, policies require the agency responsible to review existing approvals and verify that conditions in both existing and new approvals are adequate to ensure the threat is not significant. For some activities, the issuance of new approvals will be prohibited.

The original Proposed SP Plan, as submitted to the Minister for review in August 2012, included limited use of Part IV powers of the *Clean Water Act*. Section 57 was used to prohibit certain activities and section 58 to require risk management plans for other activities should they ever be established. These would have required the establishment of a Risk Management Office to implement and enforce them. The 2015 and current versions of the SP Plan have used alternate approaches.

Part IV powers were originally included in the Proposed SP Plan for the following:

- the Transition policy (TST1) would have enabled the continuance of activities established prior to a change in allowable land uses (note that municipal land use planning powers cannot prohibit existing activities)

- significant threat activities in the portion of the South River IPZ-1 in Township of Laurier, which lacks municipal organization, were to be prohibited and the prohibition enforced by the Crown;
- management of the risk posed by establishment of a gas station in Trout Creek; and
- use of DNAPLs and/or organic solvents where the threat would be significant (except in Mattawan Twp.)

In October 2013, the Municipality of Powassan was advised that the Minister of Environment had granted the Municipality's request to have the cluster of private wells in Trout Creek removed from the Source Protection Planning program. Trout Creek was then removed from the Terms of Reference, Assessment Report and SP Plan. That reduced the need for Part IV policies because one of the most challenging decisions for the Committee had been how to safely allow a gas station to operate within the highly vulnerable boundaries of Trout Creek. Municipalities were consulted and they all supported the removal of the remaining Part IV policies. Alternate strategies were developed in consultation with personnel from MOE's Source Protection Programs Branch.

On the following pages is a list of the prescribed threat activities and several tables, which demonstrate how the SP Plan Policies address these threats.

- Table 4.1 summarizes how all prescribed threat activities that could be significant in any of the wellhead protection areas (WHPAs) or intake protection zones (IPZs) have been addressed;
- Table 4.2 deals specifically with threat activities related to the release of phosphorus in the Callander Issue Contributing Area (IPZ-ICA);
- Table 4.3 summarizes a number of policies which were needed to address special circumstances of affected areas or to address the local threat from transportation of hazardous substances, and finally
- Table 4.4 directs readers to the location of the rationale for each policy within the Explanatory Document.

For each significant threat activity listed in O.Reg. 287/07 or identified in the Assessment Report, several pieces of information are provided:

- consolidated grouping of the threats;
- policy approach to either manage the activity (M) or prohibit it (P);
- tool chosen: Prescribed Instrument (PI), Land Use Planning (LUP), Specified Action (SA), Education and Outreach (E&O); and
- policy code and title.

Then, each group of threat activities is considered and the rationale for the policy approach is provided including details pertinent to the development of the policy.

Prohibited Activities and Managed Activities (Sections 4.1 and 4.2)

Following the summary tables, Section 4.1 addresses the prohibited prescribed threat activities and presents the policies according to the tool(s) used. Section 4.2 addresses the managed threat activities, including some prescribed threats and the local threat from transportation of hazardous materials. Again, the policies are grouped according to the tool used.

Callander Issue Contributing Area Policies (Section 4.3)

A drinking water issue is an existing water quality problem that has been trending upward over time at the surface water intake or groundwater well. Microcystin LR was identified as an issue in Callander Bay using the methodology prescribed under the *Clean Water Act*. Microcystin LR is a toxin sometimes produced by cyanobacteria (also known as blue-green algae) and is listed as a parameter in the Ontario Drinking Water Quality Standards. High levels of phosphorous tend to promote cyanobacteria, some of which produce microcystin LR; therefore, the presence of phosphorous is associated with this issue. As such, all anthropogenic sources of phosphorus (a key contributing factor to the growth of blue-green algae) within the areas of the watershed that potentially contribute water to the intake are considered significant drinking water threats. Policies intended to address phosphorus loading related to production of microcystin in the contributing area for the Callander intake are discussed in Section 4.3. Although some overlap exists with policies common to IPZ-1s of similar vulnerability, policies for the Callander Issue Contributing Area (IPZ-ICA) required special attention because of the extensiveness of the area affected. Discussion and deliberation by the SPC, and consultation with stakeholders were substantial.

Special Considerations (Section 4.4)

Section 4.4 describes policies developed to address special circumstances of specific locations. For example, municipalities will be responsible for implementing many of the policies, but the unorganized Township of Laurier lacks any municipal management structure other than through participation on the Central Almaguin Planning Board. It also has no Official Plan. Therefore, land use planning approaches that rely on a municipal structure were considered unlikely to be implemented. This is the only Source Protection Area

in the province with such circumstances. The affected properties are few and are currently undeveloped. The original approach would prohibit all prescribed activities that would pose a significant threat. Responsibility for program implementation would fall to the Crown according to sections 49 and 50 of the *Clean Water Act*. Policy LAU1, which addresses significant threats for the IPZ-1 for the South River intake located in Township of Laurier, is discussed in Section 4.4.

In a somewhat similar situation, a small portion of the WHPA-C for Mattawa (approximately 0.3 ha) lies on Crown Land within the Municipality of Mattawan. The number of significant threat activities in the WHPA-C are few, and the Municipality would have no other responsibilities in the SP Plan. Policy MAT1 deals specifically with threat activities that might occur on that property. It requires the Ministry of Natural Resources, as the current owner, to consider the threat to drinking water posed by specified activities when making decisions regarding management of the lands and permitted uses.

A desire to raise public awareness of all vulnerable areas resulted in a policy for signage (SVA1). Feedback from the Ministry of Transportation during consultation in 2012 suggested a consistent province-wide signage program be implemented. A strategic action policy, SVA1 is included to comply with a broader provincial program.

Prescribed Threat Activities

The following is the list of the prescribed threat activities from s. 1.1(1) O. Reg. 287/07:

1. The establishment, operation or maintenance of a waste disposal site within the meaning of Part V of the *Environmental Protection Act*.
2. The establishment, operation or maintenance of a system that collects, stores, transmits, treats or disposes of sewage.
3. The application of agricultural source material to land.
4. The storage of agricultural source material.
5. The management of agricultural source material.
6. The application of non-agricultural source material to land.
7. The handling and storage of non-agricultural source material.
8. The application of commercial fertilizer to land.
9. The handling and storage of commercial fertilizer.
10. The application of pesticide to land.
11. The handling and storage of pesticide.

12. The application of road salt.
13. The handling and storage of road salt.
14. The storage of snow.
15. The handling and storage of fuel.
16. The handling and storage of a dense non-aqueous phase liquid.
17. The handling and storage of an organic solvent.
18. The management of runoff that contains chemicals used in the de-icing of aircraft.
19. An activity that takes water from an aquifer or a surface water body without returning the water taken to the same aquifer or surface water body.
20. An activity that reduces the recharge of an aquifer.
21. The use of land as livestock grazing or pasturing land, an outdoor confinement area or a farm-animal yard.
22. The establishment and operation of a liquid hydrocarbon pipeline. O. Reg. 385/08, s. 3; O. Reg. 206/18, s. 1.

The Assessment Report determined that the prescribed threat activities for water quantity (19 and 20) do not pose a significant threat in the North Bay-Mattawa SP Area. Additionally, for the vulnerable areas where their vulnerability score is sufficient for de-icing facilities at a national or regional airport to be a significant threat, there is currently no airport, and given the existing land uses and proximity to the Jack Garland Airport, there is no reasonable prospect that such airport and de-icing facility that would pose a significant threat in the future (see also SP Plan Section 4.4.1). Therefore, no policies are contained in the SP Plan for these activities.

In order to determine whether a prescribed threat activity is subject to a policy, one must refer to the Ministry of the Environment, Conservation and Parks' **Tables of Drinking Water Quality Threats (MECP, 2021)**. A copy of the Tables may be accessed from https://www.ontario.ca/page/2021-technical-rules-under-clean-water-act. The policies included in the Updated 2024 SP Plan and listed in the following tables have been updated to reflect the MECP's 2021 Technical Rules under the *Clean Water Act Part XII.2 Prescribed Threats Categories, Sub-Categories and Circumstances*.

Table 4 -1 Policy Approach, Tools & Title for All Prescribed Threat Activities Defined by O. Reg. 287/07

Threat Ref. # from s. 1.1 (1) O. Reg. 287/07	Prescribed Threat (consolidated)	M/P	Tool	Policy Code	Policy Title
#1	Establishment, operation or maintenance of a waste disposal site within the meaning of Part V of the *Environmental Protection Act*.	P	PI	WDS1	Prohibition and Management of Waste Disposal Sites under Part V of the *Environmental Protection Act*
		P	LUP	WDS2	Land Use Prohibition: Waste Disposal Sites
		M	E&O	WDS3	Education: Hazardous Waste and PCBs
#2	The establishment, operation or maintenance of a system that collects, stores, transmits, treats or disposes of sewage	P / M	PI	SEW1	Prescribed Instruments: Prohibition of New Sewage Works and Review of Existing Sewage Works of Certain Types
		M	PI	SEW2	Prescribed Instruments: Management of Sewage Works of Certain Types
		M	SA	SEW3	Recognize the *Ontario Building Code* Mandatory Maintenance Inspection Program
#3 #6 #8	Application of agricultural source material, non-agricultural source material and commercial fertilizer to land	P	SA	SMF3	Municipal Action: Prohibit Application of Commercial Fertilizer to Land

Threat Ref. # from s. 1.1 (1) O. Reg. 287/07	Prescribed Threat (consolidated)	M/P	Tool	Policy Code	Policy Title
#4 #7 #9 #21	Storage of agricultural source material; handling and storage of non-agricultural source material and commercial fertilizer; use of land as livestock grazing or pasturing land, an outdoor confinement area or farm-animal yard	P	LUP	SMF2	Land Use Prohibition: Nutrient Handling & Storage and Livestock Activity
#3 #5 #21	The Management and application of agricultural source material to land and use of land as livestock grazing or pasturing land	M	E&O	SMF4	Education: Management & Application of ASM and Livestock Grazing Activity
#6 #7	Handling and storage or application of non-agricultural source material to land	P	PI	SMF1	Management of Threat Posed by Certain Nutrients as a Condition of Other Approvals
#10 #11	Application of pesticides to land Handling and storage of pesticides	M	PI	PST1	Pesticide Approvals to Consider Source Water
		P	LUP	PST2	Land Use Prohibition: Pesticide Storage
		M / P	SA	PST3	Municipal Pesticide Management Plan
		M	SA	PST4	Education: Application of Pesticides
#12	Application of road salt	M M	SA E&O	SAL1 SAL2	Salt Management Plan Education: Road Salt Application
#13	Handling and Storage of Road Salt	M	E&O	SAL3	Education: Road Salt Storage & Handling

Threat Ref. # from s. 1.1 (1) O. Reg. 287/07	Prescribed Threat (consolidated)	M/P	Tool	Policy Code	Policy Title
#14	The storage of snow	P M	LUP E&O	SNO1 SNO2	Land Use Prohibition: Consolidated Snow Storage Facilities Education: Snow Storage
#15	Handling and storage of fuel	P	LUP	FUL1	Land Use Prohibition: Handling and Storage of Fuel
		M	PI	FUL2	Management of Threat as a Condition of Other Approvals: Handling and Storage of Fuel
		M	SA	FUL3	Maintenance of Safety Information for Public by TSSA
		M	E&O	FUL4	Education: Handling and Storage of Fuel
#16 #17	Handling and storage of dense non-aqueous phase liquids (DNAPLs) and/or organic solvents	M	E&O	HAZ3	Education: DNAPLs
		M	E&O	HAZ4	Education: Organic Solvents
		M	LUP	HAZ1	Land Use Screening: DNAPLs
		M	LUP	HAZ2	Land Use Screening: Organic Solvents
#22	Liquid Hydrocarbon Pipeline	M	SA	PIP1	Pipeline Planning to Consider Source Water
		M	SA	PIP2	Pipeline Design, Operation, and Maintenance
		M	SA	PIP3	Pipeline Notification
		M	SA	PIP4	Pipeline Technical Work Costs
		M	E&O	PIP5	Education: Liquid Hydrocarbon Pipeline
		M	SA	PIP6	Mapping for Pipeline Emergency Planning
#18 #19 #20	Assessment Report determined that these prescribed threat activities do not and cannot pose a significant threat: The management of runoff that contains chemicals used in the de-icing of aircraft An activity that takes water from an aquifer or a surface water body without returning the water taken to the same aquifer or surface water body; An activity that reduces the recharge of an aquifer.				

Abbreviation Key:

E&O – Education & Outreach P – Prohibit M – Manage
PI – Prescribed Instrument LUP – Land Use Planning SA – Specified Action

Table 4- 2: Policy Approach, Tools & Title for Specific Threat Activities Related to Phosphorus in the Callander Issue Contributing Area (IPZ-ICA)

Threat Ref. # from s. 1.1 (1) O.Reg. 287/07	**Prescribed Threat (consolidated)**	**M/P**	**Tool**	**Policy Code**	**Policy Title**
#2 #3 #4 #6 #7 #8 #9 #21	Establishment, operation or maintenance of a system that collects, stores, transmits, treats or disposes of sewage; Application & storage of agricultural source material; Application, handing and storage of non-agricultural source material; Application, handling and storage of commercial fertilizer; Use of land as livestock grazing or pasturing land, an outdoor confinement area or farm-animal yard	M	E&O	ICA1	Education: Issue Contributing Area
#3 #4 #6 #7 #8 #9 #21	Application & storage of agricultural source material; Application, handing and storage of non-agricultural source material; Application, handling and storage of commercial fertilizer; Use of land as livestock grazing or pasturing land, an outdoor confinement area or farm-animal yard	M	PI	ICA2	*Nutrient Management Act* Tools to Implement Phosphorus Best Management in Issue Contributing Area
#2 #3 #4 #6 #7 #8 #9 #21	Establishment, operation or maintenance of a system that collects, stores, transmits, treats or disposes of sewage; Application & storage of agricultural source material; Application, handing and storage of non-agricultural source material; Application, handling and storage of commercial fertilizer; Use of land as livestock grazing or pasturing land, an outdoor confinement area or farm-animal yard	M	SA	ICA3	Governing Research in the Issue Contributing Area
N/A	Threat Issue: Phosphorus	M	SA	ICA4	Monitor Issue in Callander IPZ-ICA –

Threat Ref. # from s. 1.1 (1) O.Reg. 287/07	Prescribed Threat (consolidated)	M/P	Tool	Policy Code	Policy Title
					Phosphorus contribution related to microcystin LR

Table 4-3: Policy Approach, Tools & Title for Other Threat Activities

Threat Ref. # from s. 1.1 (1) O. Reg. 287/07	Prescribed Threat (consolidated)	M/P	Tool	Policy Code	Policy Title
#1 #3 #4 #5 #6 #7 #8 #9 #10 #11 #12 #13 #14 #15 #16 #21	Establishment, operation or maintenance of a waste disposal site within the meaning of Part V of the *Environmental Protection Act*; Application, storage & management of agricultural source material; Application, handing and storage of non-agricultural source material; Application, handling and storage of commercial fertilizer; Application, handing and storage of pesticide; Application, handling and storage of road salt; Storage of snow; Handling and storage of fuel; Handling and storage of dense non-aqueous phase liquid. Use of land as livestock grazing or pasturing land, an outdoor confinement area or farm-animal yard	M	SA E&O	LAU1	Education: Threat Activities in Township of Laurier
#1 #16	Establishment, operation or maintenance of a waste disposal site within the meaning of Part V of the *Environmental Protection Act*; Handling and storage of a dense non-aqueous phase liquid (DNAPL)	M	SA	MAT1	Management of Significant Threats in the Municipality of Mattawan
6Local Threat Approved by MECP: Transportation of Hazardous Substances	Transportation of 2500L or greater of sulphuric acid, sodium hydroxide, any quantity of septage.	M	E&O SA	THS1	Awareness of Vulnerable Areas and Response to Spills of Hazardous Substances
	Moderate Threat: Transportation of 2500L or greater of ammonium nitrate, sulphuric acid, sodium hydroxide, copper,	M	E&O SA	THS2	Awareness of Vulnerable Areas and Response to

Threat Ref. # from s. 1.1 (1) O. Reg. 287/07	Prescribed Threat (consolidated)	M/P	Tool	Policy Code	Policy Title
	liquid fuel, any quantity of septage. Low Threat: Transportation of 2,500L or greater of methanol, formaldehyde; transportation of greater than 250L, but less than 2,500 L of liquid fuel				Spills of Hazardous Substances (MOD/LOW Threats)
#1-22	All Prescribed Threats	M	SA	SVA1	Signage of Vulnerable Areas
		M	SA	TPW1	Provide Notice of Transport Pathway

Table 4-4: Location of Each Policy Rationale in Explanatory Document

Policy ID	Policy Title	Location of Policy Rationale in Explanatory Document
FUL1	Land Use Prohibition: Handling and Storage of Fuel	Section 4.1.2 Land Use Planning
FUL2	Management of Threat as a Condition of Other Approvals: Handling and Storage of Fuel	Section 4.2.1 Prescribed Instruments
FUL3	Maintenance of Safety Information for Public by TSSA	Section 4.2.4 Specified Action
FUL4	Education: Handling and Storage of Fuel	Section 4.2.3 Education and Outreach
HAZ1	Land Use Screening: DNAPLs	Section 4.2.1 Prescribed Instruments
HAZ2	Land Use Screening: Organic Solvents	Section 4.2.1 Prescribed Instruments
HAZ3	Education: DNAPLs	Section 4.2.3 Education and Outreach
HAZ4	Education: Organic Solvents	Section 4.2.3 Education and Outreach
ICA1	Education: Issue Contributing Area	Section 4.3 Issue Contributing Area
ICA2	Nutrient Management Act Tools to Implement Phosphorus Best Management in Issue Contributing Area	Section 4.3 Issue Contributing Area
ICA3	Governing Research in the Issue Contributing Area	Section 4.3 Issue Contributing Area

Policy ID	Policy Title	Location of Policy Rationale in Explanatory Document
ICA4	Monitor Issue in Callander Issue Contributing Area – Phosphorus contributed to Microcystin LR	Section 4.3, Issue Contributing Area
LAU1	Education: Threat Activities in Township of Laurier	Section 4.4 Special Consideration
MAT1	Management of Significant Threats in Mattawan Township	Section 4.4 Special Consideration
PIP1	Pipeline Planning to Consider Source Water	Section 4.2.4 Specify Action
PIP2	Pipeline Design, Operation, and Maintenance	Section 4.2.4 Specify Action
PIP3	Pipeline Notification	Section 4.2.4 Specify Action
PIP4	Pipeline Technical Work Costs	Section 4.2.4 Specify Action
PIP5	Education: Liquid Hydrocarbon Pipeline	Section 4.2.3 Education and Outreach
PIP6	Mapping for Pipeline Emergency Planning	Section 4.2.4 Specify Action
PST1	Pesticides Act Approvals to Consider Source Water	Section 4.2.1 Prescribed Instruments
PST2	Land Use Prohibition: Pesticide Storage	Section 4.1.2 Land Use Planning
PST3	Municipal Pesticide Management Plan	Section 4.1.3 Specify Action (prohibit) Section 4.2.4 Specify Action (manage)
PST4	Education: Application of Pesticides	Section 4.2.3 Education and Outreach
SAL1	Salt Management Plan – Provincial Highways	Section 4.2.4 Specify Action
SAL2	Salt Management Plan – Municipal Roads	Section 4.2.4 Specify Action
SAL3	Education: Road Salt Application (Future)	Section 4.2.3 Education and Outreach
SAL4	Education: Road Salt Handling and Storage (existing)	Section 4.2.3 Education and Outreach
SEW1	Prescribed Instruments: Prohibition of New Sewage Works and Review of Existing Sewage Works of Certain types	Section 4.1.1 Prescribed Instruments Section 4.2.1 Prescribed Instruments
SEW2	Prescribed Instruments: Management of Sewage Works of Certain Types	Section 4.2.1 Prescribed Instruments
SEW3	Consolidated Linear Infrastructure Environmental Compliance Approval (CLI-ECA)	Section 4.2.1 Prescribed Instruments
SEW4	Recognize the Ontario Building Code Mandatory Maintenance Inspection Program	Section 4.2.4 Specify Action
SEW5	Stormwater Management Works on the Environmental Activity and Sector Registry	Section 4.2.1 Prescribed Instruments
SMF1	Management of Threat Posed from the Handling, Storage, and Application of Non-Agricultural Source	Section 4.1.1 Prescribed Instruments

Policy ID	Policy Title	Location of Policy Rationale in Explanatory Document
	Material	
SMF2	Land Use Prohibition: Nutrient Handling & Storage and Livestock Activity	Section 4.1.2 Land Use Planning
SMF3	Municipal Action: Prohibit Application of Commercial Fertilizer to land	Section 4.1.3 Specify Action
SMF4	Education: Application of ASM and Livestock Grazing Activity	Section 4.2.3 Education and Outreach
SNO1	Land Use Prohibition: Consolidated Snow Storage Facilities	Section 4.1.2 Land Use Planning
SNO2	Education: Snow Storage	Section 4.2.3 Education and Outreach
SVA1	Signage of Vulnerable Areas	Section 4.2.4 Specify Action
THS1	Awareness of Vulnerable Areas and Response to Spills of Hazardous Substances	Section 4.2.4 Specify Action
THS2	Awareness of Vulnerable Areas and Response to Spills of Hazardous Substances - MOD/LOW	Section 4.2.4 Specify Action
TPW1	Provide Notice of Transport Pathway	Section 4.2.4 Specify Action
WDS1	Prohibition and Management of Waste Disposal Sites under Part V of the EPA	Section 4.1.1 Prescribed Instruments
WDS2	Land Use Prohibition: Waste Disposal Sites	Section 4.1.2 Land Use Planning
WDS3	Education: Hazardous Waste and PCBs	Section 4.2.3 Education and Outreach

4.1 Prohibition of Significant Threat Activities

There are a number of significant threat activities that can be prohibited in affected areas with minimal impact to stakeholders. This is because the affected areas are relatively small, and it is believed that no one is currently engaged in any of them. As well, the prohibition can be established simply and with minimal cost. Therefore, prohibition has been chosen to ensure that those activities never become significant threats. Depending on the nature of the activity and how it is regulated, prohibition can be achieved in various ways. These include:

- Prescribed Instruments (administered by the legislated agency),
- Land Use Planning (administered by the municipality), or
- Specified Action (an action that the SP Plan specifies must be completed by a designated body).

Prohibitions using Part IV Powers under the Clean Water Act must be enforced by a Risk Management Office; this approach is not used in this SP Plan.

4.1.1 Prescribed Instruments

Prescribed Instruments are used to manage the establishment and operation of waste disposal sites under Part V of the *Environmental Protection Act* (EPA), as well as sewage

works under Section 53 of the *Ontario Water Resources Act*. Policies SEW 1 and WDS1 are intended to prohibit the establishment of waste disposal sites and certain sewage works by preventing the issuance of environmental compliance approvals (formerly certificates of approval) for the activities identified in the following policies. The process of regulating activities using prescribed instruments scrutinizes activities at specific locations and imposes constraints to ensure that inherent risks are managed. In most cases, the SPC left the responsible agency with discretion in the issuance of the required Environmental Compliance Approvals. However, there are certain types of sewage works and waste disposal sites that will be prohibited through the following policies.

SEW1 Prescribed Instruments: Prohibition of New Sewage Works and Review of Existing Sewage Works of Certain Types

Changes to this policy since the 2015 SP Plan include revising the named activities, threat subcategories, and vulnerable areas in which the policy applies, in accordance with the circumstances outlined in the 2021 Technical Rules under the *Clean Water Act, 2006*.

SMF1 Management of Threat Posed by Certain Nutrients as a Condition of Other Approvals

This policy has been added to the Updated 2026 **SP Plan, separating activities related to the handling and storage of non-agricultural source material and the application of non-agricultural source material to land previously included in SMF1 in the 2015 SP Plan, which has been renumbered to SMF3.**

WDS1 Prohibition and Management of Waste Disposal Sites under Part V of the *EPA*

Only future waste disposal sites of specific types are prohibited, and these are listed in the policy text. Existing approvals shall be amended as necessary to ensure that their terms adequately address threats to source water. Changes to this policy since the 2015 SP Plan include revising the named activities, threat subcategories, and vulnerable areas in which the policy applies, in accordance with the circumstances outlined in the 2021 Technical Rules under the *Clean Water Act, 2006*.

4.1.2 Land Use Planning

Land use planning is a familiar tool for municipalities that enables them to prevent the establishment of certain activities by amending Official Plans and passing zoning by-laws. Although several municipalities expressed concerns during pre-consultation regarding potential costs, the financial implications to any municipality should be minimized by the timing of implementation. Municipalities are not required to enact the changes until the next required review of their official plan. Furthermore in 2013 all affected North Bay-Mattawa municipalities were provided funding by MOECC to support such costs.

In a few cases, activities that will be prohibited by a prescribed instrument must also be prohibited through land use planning. Some municipalities questioned the duplication. The purpose is to make the restrictions more widely known, especially during the development process. The details of official plans and by-laws are more readily accessible to the public than are principles applied to the issuance of Prescribed Instruments. This approach was recommended by MOECC.

The following is a list of the policies that use land use planning to prohibit the activities specified, along with summaries of details pertinent to their development.

FUL1 Land Use Prohibition: Handling and Storage of Fuel

This prohibition has expanded to include Callander and South River, in addition to Mattawa and Powassan and applies to specific types of fuel handling and storage. The activities do not currently exist in the areas affected. The circumstances of the prohibition vary depending on whether the facility is or would be above or below ground, and the amounts of fuel and/or fuel oil involved. In no case is an amount less than 250 L considered a significant threat. For the Callander and South River IPZ-1s, quantity would have to be 2,500 L or more to be considered a significant threat. Note that there is a specific exemption for fuel oil to be used for space heating. That threat is addressed by FUL4 using an education and outreach approach.

PST2 Land Use Prohibition: Pesticide Storage

This prohibition of pesticide storage applies only to fairly large quantities (amounts over 250 kg), whether stored as liquid or solid. The policy is no longer limited to a list of prescribed chemicals. There has been no change to the vulnerable areas to which this policy applies.

The Municipality of Powassan questioned the need for this policy prior to the 2015 SP Plan, stating that the concern is already addressed by other legislation. At the time that threat activities were enumerated in the Assessment Report, no occurrences of this activity were identified. However, some concern remains that the provincial ban on cosmetic use of pesticides does not necessarily address all possible uses that could pose a significant threat. Note that PST4 requires an education and outreach initiative to ensure that any remaining threats related to pesticides are addressed.

SMF2 Land Use Prohibition: Nutrient Handling & Storage and Livestock

A survey of land use planning documents in the SP Area indicated that these uses were already not permitted in the most vulnerable areas prior to the 2015 SP Plan. The SPC recognizes that the Municipality of Powassan implemented a by-law that prohibits grazing cattle within 200 m of the municipal wells to protect the chemical and bacteriological quality of the aquifer. This policy allows for long-term implementation of the prohibition.

The Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) initially expressed concern that portions of all WHPA-Bs would be included in the prohibition. Since existing land uses do not permit agriculture in the areas affected, agricultural activity would not be impacted by the policy.

Note that OMAFRA is a previous name of the Ministry of Agriculture, Food and Agribusiness (OMAFA).

There has been no change to this policy since the 2015 SP Plan. The relevant monitoring policies have been revised. While the policy had M02-MUN listed in the 2015 SP Plan, it was not meant to be included, as reflected in the Table of Monitoring Policies Summary (Table 4-17 of 2015 SP Plan and Table 5-1 of the Updated SP Plan).

SNO1 Land Use Prohibition: Consolidated Snow Storage Facilities

In some municipalities where accumulations of plowed snow can impede traffic or parking, snow is removed and consolidated in Snow Disposal Facilities). Melt water from large accumulations of snow may contain concentrations of chemicals that can contaminate water. This policy has been updated such that there is no longer a minimum area upon which the snow is stored for the activity to be considered a significant drinking water threat. No such facilities existed in vulnerable areas at the time of developing this policy. Piles of snow created along a roadway or within a property when clearing it are not a concern for this policy. This policy now applies to the North Bay IPZ-1.

WDS2 Waste Disposal Sites

During pre-consultation in 2011, the MOECC commented that, in addition to using Prescribed Instrument policies, it would also be prudent to require municipalities to prohibit these activities using land use planning (Operations Division comments to SPC November 24, 2011). The main intention of the resulting policy is to inform proponents of the prohibitions at an earlier stage of the development process. The Municipality of Powassan (March 14, 2012) expressed the opinion that this policy was not required because other legislation already addresses the concern. Although existing protocols for the issuance of Prescribed Instruments for waste disposal sites would be unlikely to allow this activity where the threat would be significant, policy WDS2 increases awareness of the prohibition early in the development process.

Subsequent to these discussions, during MOECC review of the Proposed SP Plan, it was determined that the wording of the prohibition in WDS2 might be too broad. Therefore, it was modified to specify intended activities rather than prohibiting all waste disposal sites as defined by Part V of the Environmental Protection Act.

This policy has been amended to reflect additional named activities and changes to vulnerable areas in which the activities are a significant drinking water threat, as outlined in the 2021 Technical Rules under the *Clean Water Act, 2006*.

4.1.3 Specified Actions

A third way to prohibit or manage an activity is to specify an action. This approach is an alternative to the use of either a prescribed instrument or land use planning tool when neither of these would apply.

PST3 Municipal Pesticide Management Plan

This policy prohibits storage and handling of pesticides under circumstances that could pose a significant threat. With the Updated SP Plan, this policy now applies to all pesticides, regardless of composition. It also requires a management approach to application and, as such, is also described in Section 4.2.4 Specify Action.

SMF3 Municipal Action: Prohibit Application of Commercial Fertilizer to Land

During pre-consultation prior to the 2015 SP Plan, one municipality questioned the need for this policy primarily based on the unlikelihood that the activity would occur and asked whether the municipality would be compensated for implementation. One other municipality similarly expressed concern over costs. The areas affected are small and it is expected that the prohibition could likely be implemented through a municipal by-law. Further, the nature of the circumstances required for a significant threat make it unlikely that enforcement would be required. Discussions considered the fact that the SPC or SPA could elect to provide example wording for a by-law to assist municipalities that lack such capacity in house. Subsequently, in 2013, MOECC provided funding to all local municipalities to support such costs.

This policy has been amended to apply only to the application of commercial fertilizer. Activities involving the application of agricultural source material (ASM) and non-agricultural source material (NASM) land are now included in new policies SMF1 and SMF4 (See section 4.1.1 (SMF1) and section 4.2.3 (SMF4)).

There are no existing farms in the vulnerable areas where this policy applies. Therefore, this policy is not expected to have an impact on existing agricultural activities.

4.2 Management of Significant Threat Activities

There are a number of significant threat activities which may already exist and can be safely managed. The policy approach chosen in each case depends on how the activity is or can be regulated.

4.2.1 Prescribed Instruments

When an activity is already regulated by a prescribed instrument, a policy may simply utilize that regulatory process. In establishing the terms of an environmental compliance approval (formerly certificate of approval), the inherent risks of the activity are considered and

addressed, including risks specific to the site / location. This ensures that the activity never becomes a significant threat. Since this process is already well established, there are no adverse impacts or significant financial implications anticipated. Proponents will have to answer additional questions in their application related to vulnerable areas. These policies include the following:

FUL2 Management of Threat as a Condition of Other Approvals: Handling and Storage of Fuel

Some activities, which operate under the terms of an environmental compliance approval, require storage of fuel on site, for example aggregate extraction. This policy ensures that the fuel storage component of the activity will be considered with respect to risks to source water. It affects both new and existing Certificates of Approval. This policy has been amended to include the Callander IPZ-1 and South River IPZ-1 vulnerable areas.

HAZ1 Land Use Screening: DNAPLs

The former HAZ 1 policy has been renumbered to HAZ3.

This policy has been added to the 2025 SP Plan. The circumstances have been updated in the 2021 Technical Rules to list industries and activities that are associated with the threat of handling and storage of DNAPLs where it formerly listed specific chemicals. This policy has been added to reduce the threat of such activities in the development stage.

HAZ2 Land Use Screening: Organic Solvents

This policy has been added to the Updated 2024 SP Plan. This policy has been added to reduce the threat of such activities in the development stage, mirroring that of HAZ1.

PST1 Pesticide Approvals to Consider Source Water (formerly Municipal Action to Prohibit Application of Pesticides)

PST1 originally prohibited the application of pesticides where the threat would be significant. During pre-consultation for the 2015 SP Plan, comments from some municipalities questioned the need for this policy in light of other existing legislation (specifically the provincial ban on cosmetic use of pesticides) and expressed concerns over the costs of implementation. As well, the need for a prohibition was questioned in view of the management approach being used in other policies related to the application of pesticides. The Ministry of Environment and Climate Change (MOECC) advised that there is a prescribed instrument for the application of pesticides under the *Pesticide Act* and O. Reg. 63/09 which could be used to manage the application of pesticide to agricultural and commercial land where the threat would be significant. As a result, the policy was revised to reflect management of the threat. However, it should be noted that the prescribed instrument has very limited applicability.

SEW1 Prescribed Instruments: Prohibition of New Sewage Works and Review of Existing Sewage Works of Certain Types

Refer also to Section 4.1.1 Prohibition using Prescribed Instruments. Existing approvals need to be reviewed. The named activities, threat subcategories and vulnerable areas to which they apply have been amended to reflect the 2021 Technical Rules under the *Clean Water Act, 2006.*

SEW2 Prescribed Instruments: Management of Sewage Works of Certain Types

The named activities, threat subcategories and vulnerable areas to which they apply have been amended to reflect the 2021 Technical Rules under the *Clean Water Act, 2006.*.

4.2.2 Part IV Risk Management Plan Policies: *Removed* in 2014 Revisions

The *Clean Water Act, 2006* permits the use of Risk Management Plans as an option for addressing significant drinking water threat activities that are not subject to regulation through Prescribed Instruments. In the original version of the proposed SP Plan several policies were proposed to address a number of activities in case they were established before the plan took effect. It is believed that none of these activities are currently being undertaken, and therefore the Risk Management Plan policies are not required.

4.2.3 Education and Outreach Program

The goal of the education and outreach policies listed below is to foster behaviour that will effectively address existing threats related to the handling and storage of fuel (FUL4), DNAPLs (HAZ3) and organic solvents (HAZ2), the establishment, operation or maintenance of a waste disposal site (WDS3), and the application of pesticides (PST4). Note that the rationale for the education and outreach policy for Township of Laurier (LAU1) is found in section 4.4 Areas Requiring Special Consideration.

The SPC recognizes that municipalities will be responsible for the cost of developing and implementing the strategies and tools identified in the Education and Outreach Program. Although municipalities are named as Implementing Bodies, the North Bay-Mattawa Conservation Authority suggested that it would be available to assist if requested. It is expected that costs to individual municipalities may be reduced through collaboration. The following list provides a description of the applicable education and outreach policies.

FUL4 Education: Handling and Storage of Fuel (formerly Municipal Education about Maintenance and Inspection Requirements for Fuel Oil Tanks and Associated Heating Systems)

This is a case where a soft tool approach is being relied upon to address a significant threat. Many changes have taken place in recent years in the fuel oil service industry as well as in requirements by insurers that reduce the risk of leaks from fuel storage tanks and piping. Consumers generally recognize the importance

of maintaining their equipment but may not be aware of what is required. Policy FUL4 will ensure that all owners / operators of facilities in affected areas will be provided with information adequate to understand maintenance requirements, how to reduce the risk of a spill, and what to do if they detect leaks or other problems. TSSA currently provides such safety information on its website and makes it available to the public. Policy FUL4, a specified action policy, requires that TSSA continue to do so, providing the necessary support to municipalities who will be responsible for implementation of an Education and Outreach Program required by policy FUL4. Comments received on the Proposed SP Plan (August 17, 2012) from Ministry of Government and Consumer Services (MGCS) and TSSA expressed support for the initiative but requested that policy FUL3 be deleted from the SP Plan (see details in section 4.2.4 Specify Action).

This policy has been amended for the Updated 2025 SP Plan to include the Callander IPZ-1 and South River IPZ-1, except lands in Township of Laurier which are subject to LAU1. Policy text no longer refers to volume or storage location relative to grade.

HAZ3 Education: DNAPLs

The threat posed by relatively small amounts of DNAPLs comes mainly from improper disposal of waste following use of a product or attempted clean-up of a spill. There have already been substantial public education campaigns advising people of the importance of proper disposal of hazardous waste. It should be relatively inexpensive to deliver an appropriate education initiative to effectively address the threat posed and would be expected to include:

- information regarding the hazards posed by certain common products,
- advising of local provisions for hazardous waste disposal, and
- reminding residents of the vulnerability of their water

This policy was formerly HAZ1 and included education for both DNAPLs and Organic Solvents which are now covered by separate policies (See HAZ4). This policy refers only to DNAPLs. In accordance with 2021 Technical Rules under the *Clean Water Act, 2006*, the vulnerable areas to which this policy applies have been expanded to include Callander IPZ-1 and South River IPZ-1, except for lands in Township of Laurier that are subject to LAU1.

HAZ4 Education: Organic Solvents

The threat posed by relatively small amounts of organic solvents comes mainly from improper disposal of waste following use of a product or attempted clean-up of a spill. There have already been substantial public education campaigns advising people of the importance of proper disposal of hazardous waste. It should be relatively inexpensive to deliver an appropriate education initiative to effectively address the threat posed and would be expected to include:

- information regarding the hazards posed by certain common products,
- advising of local provisions for hazardous waste disposal, and
- reminding residents of the vulnerability of their water

This is a new policy for the Updated 2025 SP Plan. Education policies for organic solvents were formerly included in HAZ1 (now renumbered HAZ3).

PIP5 Education: Liquid Hydrocarbon Pipeline

This is a new policy to address a new prescribed threat: The establishment and operation of a liquid hydrocarbon pipeline under the 2021 Technical Rules under the *Clean Water Act, 2006*.

PST4: Education about Application of Pesticides

Policy PST4 addresses threats from the application of pesticides to land that are not addressed by a prescribed instrument under the *Pesticide Act* and O. Reg. 63/09, PST1, nor the Municipal Pesticide Management Plan policy, PST3, by using an education and outreach approach.

SAL2: Education: Road Salt Application

This policy is written to ensure that should the application of road salt become a significant drinking water threat (potentially though increased percent impervious land cover), that a policy would be in place to address the future significant threat. This policy would be relevant for land owners and snow clearing contractors.

SAL3: Education: Road Salt Storage and Handling

The policy formerly addressing the storage and handling of road salt (formerly SAL1) was a land use prohibition that applied only to storage of fairly large quantities of salt (greater than 5,000 tonnes) that is either uncovered or exposed to runoff. The 2021 Technical Rules under the *Clean Water Act* have been revised and the threat to drinking water could be significant with as little as 10 kg of road salt that is exposed to precipitation or runoff. This policy has been revised to be an education policy for all property owners and commercial outlets to follow best practices.

SNO2: Education: Snow Storage

This is a new policy that is meant to address the threat from on-site snow storage. The 2021 Technical Rules specify commercial and industrial land uses where snow melt water is not captured by a facility may be a significant drinking water threat.

WDS3: Education Hazardous Waste and PCBs

Policy WDS1 addresses threats from waste disposal sites through Environmental Compliance Approvals (ECAs). However, not all threats from waste disposal sites are addressed through ECAs. MOECC recommended adding an education and outreach policy to address these threats for the 2015 SP Plan. These threats included hazardous or liquid industrial waste and polychlorinated biphenyls (PCBs). Municipalities may choose to implement this policy as part of a broader program to encourage proper storage and disposal of hazardous goods (see HAZ3 and HAZ4 above).

The named activities and threat subcategories have been amended to reflect the 2021 Technical Rules under the *Clean Water Act, 2006* and no longer applies to the Callander IPZ-1 nor South River IPZ-1.

4.2.4 Specified Action

Where an activity is not regulated by a Prescribed Instrument and the municipality does not have appropriate authority through land use planning, the SP Plan can require that an Implementing Body take a specific action. The effect may or may not be legally binding. These policies include:

FUL3 Maintenance of Safety Information for Public by TSSA

This policy is intended to support education policy FUL4 by ensuring that appropriate information is readily available. The original approach required Technical Standards and Safety Authority (TSSA) to deliver an Education and Outreach Program, but pre-consultation feedback indicated that TSSA did not have the resources to do so at a reasonable cost, one reason being that they do not have any contact information for those who use fuel oil. However, TSSA does provide appropriate safety information on its website which would enable some other agency to compile the information and deliver an effective program.

Therefore, this policy requests TSSA to continue to provide information on its website related to safe handling and storage of fuel and maintenance of systems. Discussion with the Ministry of Government and Consumer Services (MGCS) and TSSA following consultation on the Draft SP Plan verified that TSSA was amenable to the current requirements of policy FUL3. However, in written comments submitted jointly by these agencies on August 17, 2012 during posting of the Proposed SP Plan, MGCS and TSSA recommended that FUL4 be deleted from the Plan along with the associated monitoring policy because the policy seeks no change to current or future activities. However, TSSA assured that it would continue to provide and keep current this information on its website. When this policy was developed, the SPC felt it important that municipalities, which were going to be required to deliver an education program to residents and operators, be assured that the information necessary would be readily accessible. This policy helps instill that confidence.

Since the policy would not be legally binding ("the Technical Safety and Standards Association should continue to maintain information on its website") and the monitoring of it would be done by the SP Authority, inclusion of it in the SP Plan should have minimal ramifications for TSSA but serves to recognize this important role and encourages that they continue the practice. MGCS and TSSA also included a list of activities through which they could assist in supporting source water initiatives "on a voluntary partnership basis" in the following ways:

- Municipalities and the SPC can request data from TSSA about licensed fuel storage and handling facilities with a specified address range, as per TSSA's privacy and access to information policy.

- MGCS and TSSA can work with MECP to provide colleges with source water awareness information that can be integrated into fuel technician training programs.
- TSSA can provide training/information sessions on fuel oil tanks to appropriately qualified individuals for a fee.
- TSSA can work with MECP to include source water safety information into current public education resources, such as TSSA's website and seasonal brochures.
- MGCS and TSSA can work with MECP and fuel industry associations to facilitate distribution of educational materials to fuel suppliers.

This policy has been amended to include Callander IPZ-1 and South River IPZ-1 in accordance with updates in the 2021 Technical Rules under the *Clean Water Act, 2006.*

PIP1 Pipeline Planning to Consider Source Water,
PIP2 Pipeline Design, Operation, and Maintenance,
PIP3 Pipeline Notification, and
PIP4 Pipeline Technical Work Costs

The establishment and operation of a liquid hydrocarbon pipeline is an activity that has been added to the list of prescribed drinking water threats for the 2021 Technical Rules under the *Clean Water Act, 2006*. The wording for policies PIP1, PIP2, PIP3, and PIP4 has been borrowed from the Lake Erie Source Protection Region, where these policies have been adopted by the Catfish Creek Source Protection Plan. Before their amendment/update's consultation period, Lake Erie SPR engaged pipeline regulators (Canada Energy Regulator, Ontario Energy Board, Technical Standards and Safety Authority (TSSA), and Impact Assessment Agency) and municipalities to develop the proposed policies for liquid hydrocarbon pipelines.

PIP6 Mapping for Pipeline Emergency Planning

The establishment and operation of a liquid hydrocarbon pipeline is an activity that has been added to the list of prescribed drinking water threats for the 2021 Technical Rules under the *Clean Water Act, 2006*. This policy entails the MECP sharing maps of vulnerable areas with the Spills Action Centre.

PST3 Municipal Pesticide Management Plan

In addition to the PST1 prohibition of the handling and storage of pesticides on municipal lands where the threat could be significant, this policy requires that affected municipalities develop a plan to ensure that their use of pesticides never poses a significant threat on municipal lands.

There have been no changes to this policy since the 2015 SP Plan.

SAL1 Salt Management Plan

The former SAL1 policy has been removed as there have been significant changes to the 2021 Technical Rules and it is no longer appropriate (see SAL3).

This policy is written to ensure that should the application of road salt become a significant drinking water threat (potentially though increased percent impervious land cover), that a policy would be in place to address the future significant threat. This policy would only apply where MTO or Municipalities apply road salt. See section 4.2.4 (SAL2) for other land uses.

SEW3 Consolidated Linear Infrastructure Environmental Compliance Approval (CLI ECA)

This is a new policy in the 2026 SP Plan. The Ministry of the Environment, Conservation, and Parks (MECP) recently introduced a streamlined process for Environmental Compliance Approvals that transfers approval authority from the MECP to municipalities for sewage collection and stormwater management system components, such as pipes, stormwater management ponds, and pumping stations. This replaces the previous Transfer of Review process.

SEW4 Recognize the *Ontario Building Code* Mandatory Maintenance Inspection Program (formerly Mandatory Maintenance Inspections of Onsite Sewage Systems)

Renumbered from SEW3. Amendments to the *Ontario Building Code*, which came into effect in 2011, require periodic maintenance inspections of on-site sewage systems in identified areas where they are identified as significant threat activities to ensure they are functioning properly. With this in place, the threat ceases to be significant. Policy SEW4 entrenches this requirement. The Principal Authority which oversees the regulation of on-site sewage systems may recoup costs through fees. Since this policy simply recognizes existing legislation, it has no direct financial impact.

For many years, other legislation has required that on-site sewage systems be functioning properly, but there was no program in place to regularly inspect them. Enforcement was largely complaints-based. These changes to the Ontario Building Code (OBC) attempt to ensure that drinking water sources subject to the *Clean Water Act* will be protected from malfunctioning onsite sewage systems. The Ontario Drinking Water Stewardship Program, funded by the Province of Ontario, provided substantial support for the replacement of faulty systems for several years, but applications exceeded available funding. During its deliberations, the SPC Members expressed concern for potential costs to low-income homeowners who may need to replace faulty systems.

Concerns over costs for the inspections and potential replacements were expressed by numerous affected residents and, in several cases, by their municipal representatives. It is a major concern of people living in the Callander Issue Contributing Area (ICA) who question the designation of all septic systems as significant threats simply because they could contribute phosphorus to water

courses. Some systems may be more than 40 km upstream of the municipal intake with a large lake midway between and/or extensive wetlands.

An inspection is required every five years and the cost is currently $300 per inspection. There have been no changes to this policy since the 2015 SP Plan, however the spatial extent of the Callander IPZ-ICA has changed with improved wetland mapping and therefore applies to more properties. See section 4.3 for additional information on the Callander IPZ-ICA.

SEW5 Stormwater Management Works on the Environmental Activity and Sector Registry

This is a new policy for the Updated 2026 SP Plan. This is a monitoring policy to manage existing and future threats from stormwater management works. The regulation requires the registrant to notify the SPA:

- Before they start the operation of the works where they are or would be a SDWT.
- After works are reassessed by the registrant and determined to be a SDWT following:
    - The registrant receiving notice of a proposed amendment or update to the source protection plan and once that amendment or update has been approved by the Minister.
    - Modifications to the works.

Stormwater management works that are eligible for EASR registration must be privately owned (e.g., commercial, industrial, institutional, or private residential developments) and cannot be municipally owned nor intended for future municipal assumption. The site's activities must be indoors, including all processing, repair, or maintenance of goods and materials being conducted inside a building to ensure stormwater is not contaminated by industrial activities. The system must treat only stormwater. No process water, cooling water, wash water nor sanitary sewage may enter the system. Examples of stormwater works that may qualify include detention or retention ponds, oil-grit separators, infiltration galleries, stormwater conveyance systems (ditches, swales, storm sewers) and treatment units designed for stormwater only.

Only successful registrations can be reported through this process. Where a SP Plan prohibits the establishment of new works that are a significant drinking water threat, they cannot be registered in EASR and are not tracked.

SMF4 Education: Application of ASM and Livestock Grazing Activity

This is a new policy for the Updated 2026 SP Plan, in accordance with the 2021 Technical Rules. Application of agricultural source material (ASM) was formerly prohibited in SMF1. This policy is intended to inform individuals involved with either the application of ASM to land or grazing of livestock are aware of the risks to drinking water supply and best management activities.

SVA1 Signage of Vulnerable Areas

This strategic action policy was created prior to the 2015 SP Plan in response to Ministry of Transportation (MTO) suggestions to implement a province-wide signage and education initiative to increase public awareness of vulnerable areas along roadways. MTO had been working with a committee representing all SPCs interested in such signage.

Policies THS1 and THS2 (see Section 4.2.2) originally included provisions for signage where the threat from transportation of hazardous substances could be significant. As such the signage requirements in THS1 would have been legally binding. Suggested wording provided by MTO that was directed broadly to all SPCs was not detailed enough for the local SPC to adopt. It would have required affected municipalities to install signage at their own cost meeting standards that had not yet been determined.

The nature and purpose of the policy were changed from specified action that would be implemented by municipalities to address a significant threat, to a strategic action to increase general awareness of drinking water source protection. That effectively changed the requirement for implementation to voluntary and successfully addressed the SPC's concerns.

This policy was amended for the updated 2026 SP Plan by specifying the vulnerable areas in which the policy applies.

THS1 Awareness of Vulnerable Areas and Response to Spills of Hazardous Substances, and
THS2 Awareness of Vulnerable Areas and Response to Spills of Hazardous Substances (Mod/Low)

The intention of policies THS1 and THS2 is to ensure emergency responders are aware of the locations of vulnerable areas and to improve emergency response times in the event of a spill. The former policy addresses significant threats, and the latter addresses moderate and low threats.

These policies originally included requirements for signage identifying vulnerable areas along roadways, but the Ministry of Transportation expressed concerns during both pre-consultation and after Draft SP Plan consultation. Discussions led to a revised approach and an additional new policy SVA1, which deals only with the objective of enhancing public awareness of vulnerable areas using signage as part of a province-wide public education initiative (see policy SVA1).

With regard to the remaining requirements in THS1 and THS2, through these policies, the MECP's Spills Action Centre is required to update the contact information and procedure cards to include Vulnerable Area mapping to ensure timely and informative notification of the responders. Municipalities are required to review and update their Emergency Response Plans to identify the vulnerable areas

within their jurisdictions. Municipal emergency services are often the first responders to events that may adversely impact a source of municipal drinking water. Therefore, Emergency Response Plans should also be updated to include maps that clearly identify the vulnerable areas and provide any additional information pertinent to addressing spills from septic haulage, highway accidents and railway derailments.

During policy development, the SPC representative of the Transportation sector suggested that including policies to address threats posed by rail transportation might create unwarranted public concern over an activity that is already highly regulated. A meeting was held in Sudbury on December 14, 2011, jointly with representatives of the Nickel District Source Protection Committee and both rail carriers, Canadian National (CN) and Ontario Northland, who operate in these jurisdictions. Rail carrier representatives described at length the regulatory requirements in place to ensure rail safety and the prevention of spills. As well, Ontario Northland stated that they have further self-imposed speed reductions in the vicinity of Trout Lake. An ongoing concern for source protection planning has always been the challenge posed by activities occurring on lands under federal jurisdiction. In view of the current regulatory regime as presented, the SPC considers that the threat from rail transportation is adequately addressed and the threat is not significant.

Following a truck spill of formaldehyde on May 21, 2012, in the contributing area of the North Bay intake (but where vulnerability is low), policies THS1 and THS2 were revised to require (or suggest, respectively) that Emergency Response Plans include notification of the North Bay-Mattawa Conservation Authority. This recognizes the Conservation Authority's expertise in source water protection locally, particularly its understanding of the vulnerability of the area with respect to specific substances.

There were no comments received during any period of consultation for the 2015 SP Plan regarding any concerns about the essential policy concepts requiring revision of Emergency Response Plans and procedures to recognize the vulnerability of such areas along roadways in the event of a spill.

However, the Trout Lake Conservation Association (TLCA) commented on the perceived inadequacy of the policy approaches to reduce the risk of spills along either the roadway or the rail corridor adjacent to Trout Lake. TLCA comments during plan development and consultation have included references to train derailments in the Trout Lake contributing area and a study commissioned by the City of North Bay in the 1990's. The latter concluded that much has been done to protect the quality of the source water for the City leaving the risk of a spill one of the most substantial risks remaining. The TLCA comments also included suggestions such as:

1. reduced speed limits,
2. better enforcement of existing speed limits,

3. possible construction of a barrier to direct a derailing train towards the tracks rather than the lake,
4. straighten out certain curves in the highway,
5. revise the Spills Response Plan to include enhanced communication,
6. prepare a list of chemicals of concern and compile information regarding their properties,
7. ensure contact phone numbers for affected residents in the event of an emergency are manned, and
8. consider establishing an alternate route for vehicles carrying highly hazardous substances that avoids the section of Hwy 11 in the vicinity Trout Lake.

At its meeting June 5, 2012, the SPC considered the TLCA's input but decided that, in view of the lack of any identified significant threats to the North Bay intake, the current policy approaches were adequate. The TLCA's suggestions were shared with City of North Bay staff.

There have been no further changes to the named threat activities nor the vulnerable areas to which these policies apply for the updated 2026 SP Plan.

TPW1 Provide Notice of Transport Pathway

This is a new policy for the Updated 2026 SP Plan, recognizing the provincial requirement for municipalities to provide notice of changes to transport pathways under the *Clean Water Act, 2006*.

4.3 Callander Issue Contributing Area Policies

The source water for the Municipality of Callander experiences periodic blue green algal blooms that sometimes produce the toxin Microcystin LR. Phosphorus is recognized as an important factor contributing to the proliferation of blue-green algae. Therefore, all activities in the Issue Contributing Area (IPZ-ICA) that could contribute phosphorus to the landscape are significant threats to drinking water. The phosphorus in itself would not be an issue, except that in water courses it is a factor in the production of cyanobacteria, and the cyanobacteria can produce the toxin microcystin LR. The area was delineated in the Assessment Report based on the total water contributing area using a 120 m setback from surface water bodies including all transport pathways. In presentations to stakeholders, the description of the area has frequently used the terminology "120 m setback from any watercourse". A 2022 update to the background map layers, such as wetlands, did result in changes to the mapped extent of the Callander IPZ-ICA. The area of the IPZ-ICA changed from a total of 149.13 km^2 in 2015 to a total of 172.77 km^2 in 2022. The East Nipissing/Parry Sound Federation of Agriculture has suggested that the ICA be delineated using the definition of watercourse in the Nutrient Management Act, but that would not be consistent with the Technical Rules under the *Clean Water Act*, 2006.

Phosphorus contributions could occur as a result of improperly functioning septic systems, the application, handling and storage of source materials, commercial fertilizers, and/or the generation of source material from farm grazing, pasturing, and outdoor confinement activities. These phosphorus sources are defined in circumstances and therefore must all be addressed in policy. Policy SEW3 requiring Mandatory Maintenance Inspections of onsite sewage systems will apply to all septic systems under the jurisdiction of the Ontario Building Code and was discussed previously in section 4.2.4.

An underlying principle for policy development in the Issue Contributing Area was to create policies that would be effective yet affordable, and that would apply equally to all persons engaging in activities. All activities identified as potentially contributing to phosphorus loading are managed rather than prohibited. The principal strategy for management is through Education and Outreach, Policy ICA1, advocating the implementation of best management practices. Delivery of the required program to residents is mandatory for the five municipalities that have territory within the IPZ-ICA, but there is no tool requiring residents comply with the recommended practices. Policy ICA2 utilizes the existing provisions of the *Nutrient Management Act* and requires inclusion of best management practices for managing phosphorus in the Nutrient Management Plans or strategies that result.

Concern was expressed by the local Federation of Agriculture as to whether the best management practices identified would be affordable and effective. However, the designation of a best management practice requires that it be cost effective. Policy ICA3 recognizes the lack of understanding of the fundamental sources and causes of phosphorus loading locally and addresses that through ongoing research. The final component, policy ICA4, calls for ongoing monitoring of phosphorus concentrations in the waterways to track effectiveness of the initiatives and acquiring a better understanding of the contributing factors in various areas within the subwatershed.

In its comments on the Proposed SP Plan (August 17, 2012), the East Nipissing/Parry Sound Federation of Agriculture expressed concern over the process for classification of agricultural use of phosphorus as a "significant drinking water threat". That designation was established in the Assessment Report, which was completed through a highly regulated technical protocol. Further, the Federation is of the opinion that "the link between microcystin, – blue-green algae – and agricultural phosphorus utilization is tenuous and not based on science." They question the findings of the Phosphorus Budget which assessed contributions from agricultural lands, parklands and golf courses at 14 %. The methodology is clearly explained in the report. The Federation contends that the incremental increase in phosphorus contributions, as compared to allowing the lands to revert to their natural state, is approximately 3 % and suggests therefore that the 14 % figure is misleading.

Included in the Draft SP Plan, was a policy (formerly ICA3) requiring the establishment of vegetated buffers along watercourses using site plan control. However, following consideration of comments received from various agencies and implementing bodies, the SPC decided to remove it from the SP Plan. The topic was discussed at the July 16, 2012,

meeting and factors affecting the decision are available in the minutes, principally within the Project Manager's Report.

ICA1 Education: Issue Contributing Area

This policy forms the foundation of the strategy to reduce phosphorus contributions in the ICA. It is intended to address the shortcomings in the applicability of *Nutrient Management Act* (NMA), which does not generally apply to small operations, and to recognize the fact that all landowners may have a role to play in reducing phosphorus entering waterways. It anticipates that all five municipalities that have territory within the IPZ-ICA will work collaboratively to create and deliver a common program to reduce phosphorus loadings into streams and to improve its retention on the landscape and attenuation in waterways. Since this is being used to correct an existing problem (i.e., a water quality issue), a very robust approach is needed to ensure effectiveness. It is far more rigorous than other education and outreach initiatives in this SP Plan.

About half of the North Bay-Mattawa Source Protection Committee members at the time of the policy development were or had been engaged in an agricultural activity. From their experience, they concluded that an education program that motivates those engaged in phosphorus producing activities to employ best management practices would achieve the goal of preventing and reducing phosphorus loading. Phosphorus is believed to be the most significant anthropogenic factor that would contribute to the proliferation of blue-green algae and the resulting production of microcystin LR in waterways of the Issue Contributing Area. SPC members want to see the policy apply to all persons engaging in the activities equally. They would have also liked to have identified the range of urban activities that also contribute to phosphorus loading.

Therefore, it is the goal of this Education and Outreach program to foster actions and/or behaviour that will effectively prevent, reduce or eliminate the threat from activities that may contribute to phosphorus loading to water courses.

Identification of both the barriers which prevent property owners from undertaking the necessary action, and the benefits to overcoming those barriers, will enable municipalities to identify the most appropriate tools and strategies for fostering the desired behavior. Numerous studies document that the dissemination of information alone often has little effect upon changing behaviour. As a consequence, programs that make use of information intensive approaches such as flyers have very little likelihood of generating the desired behaviour. An Education and Outreach Program that incorporates the principles of social marketing, identifies the barriers and benefits, and incorporates a number of social marketing tools and strategies specific to overcoming those barriers, has a greater chance of achieving success than a brochure or information-only education program.

Prior to adopting an approach relying on a public education program, the SPC carefully considered the alternative of a risk management approach. There was considerable concern expressed by the Agricultural Representative on the SPC that costs to property owners for risk management plans were not known and could be excessive. Despite the fact that costs could be minimized by prescribing details for an acceptable risk management plan (to

eliminate any costs for plan development), the substantial objection from the agricultural community including both Ontario Farm Environmental Coalition (OFEC) and the Ontario Federation of Agriculture (OFA) influenced the SPC's final decision. Therefore, the policy relies on an education program encouraging adoption of best management practices as outlined in publications produced in partnership with the OFA. These include A Phosphorus Primer: Best Management for Reducing Phosphorus from Agricultural Sources and Buffer Strips from the Best Management Practices series.

The eight objectives of the Education and Outreach Program are directed towards three areas for reduction of phosphorus impacts including:

- reduction of inputs from activities that contribute to phosphorus loading such as application of fertilizer and manure,
- reduction of inputs from historic additions of phosphorus, now bound mostly in soil, by minimizing erosion, and
- attenuation and incorporation of phosphorus already in water courses into the biota by improving aquatic habitat for fish and organisms that feed on algae.

OFEC was included in pre-consultation on the draft policies. All strategies identified are well recognized as effective; however, OFEC suggested that seven of the eight objectives listed in the policy should be removed leaving only the one related to identifying sources of anthropogenic (human) phosphorus. Further, OFEC stated that using best management practices developed for Ontario would be inappropriate for the Callander Bay sub watershed, and that research results from the Manitoba prairies were more relevant.

Follow up investigation into the scientific literature referenced by OFEC determined that two key factors were most important in characterizing agricultural lands on the prairies. One is large, uninterrupted expanses of extremely flat land, and the other is a rainfall regime with virtually all precipitation occurring in the spring followed by extensive drought during the growing season. This is not consistent with the conditions experienced locally in the Callander IPZ-ICA which receives on average two to three times as much precipitation distributed fairly regularly over the course of the year, mostly during the growing season. As well, farms in the Callander IPZ-ICA are small by comparison with a rolling landscape frequently separated by stands of forests. After considering these comments, the SPC opted to continue with the Education and Outreach policy as drafted.

Correspondence from OMAFRA following Draft SP Plan consultation informed the SPC that Risk Management is a preferred approach for many areas dealing with threats related to agricultural practices. This was considered by the SPC at its meeting July 16, 2012 and the choice of Education and Outreach as a key strategy was verified. Note that OMAFRA is a former name of the Ministry of Agriculture, Food, and Agribusiness (OMAFA).

Several meetings of the SPC were dominated by considerations of the policies for the ICA. The SPC recognizes that municipalities will be responsible for the cost of developing and implementing the strategies and tools identified in the Education and Outreach Program. The policy will require a coordinated effort to be successful. It is expected that there can be

some shared knowledge and cost savings achieved through collaboration between the five municipalities involved.

The Municipality of Powassan has very limited territory in the IPZ-ICA and expressed concern over being included. It is noted that some of this is active farmland. Therefore, the policy has not been amended to exclude Powassan, but it is expected that the allocation of program costs will consider all relevant factors including the relative extent of municipal territory, the contribution to the problem and the benefits to be derived. This was an unresolved concern of the Municipality of Powassan, but MOECC provided substantial funding to the Municipality in 2013 to cover the costs of SP Plan implementation.

In its comments on the Proposed SP Plan (August 17, 2012), the East Nipissing/Parry Sound Federation of Agriculture expressed support for the education and outreach program provided that it focus on cost-effective management practices for phosphorus, not simply a blanket list of best management practices. However, before a practice is recommended as a best management practice, its cost effectiveness is weighed. The efficacy of buffer strips in some situations was questioned. The SPC would agree that the minimal grassed buffers required by the *Nutrient Management Act* are of limited value in many situations. The OMAFRA publication on Buffer Strips provides more effective approaches to buffer strips based on objectives and will be used in the education and outreach program. Note that OMAFRA is a former name of the Ministry of Agriculture, Food, and Agribusiness (OMAFA).

Policy ICA1 addresses eight of the nine threat activities that have any circumstance with phosphorus listed as a contaminant. The remaining activity, the establishment, operation or maintenance of waste disposal sites, is covered through the WDS policies.

During final review by MOECC in January 2015, it was discovered that a small portion of the IPZ-ICA extended into three townships which lack municipal organization. The Conservation Authority has agreed to collaborate with the IPZ-ICA municipalities to implement policy ICA1 in the Townships of Ballantyne, Boulter and Wilkes.

New threat activities have been added to the policy and, reference to Ballantyne, Boulter, and Wilkes Townships have been removed.

ICA2 Nutrient Management Act Tools to Implement Phosphorus Best Management in ICA

This policy is intended to utilize the existing provisions of the *Nutrient Management Act* (NMA) to address contributions of phosphorus from the specified agricultural activities. The NMA requires that farmers develop plans and strategies to mitigate environmental threats related to agricultural practices if their operations fall under its jurisdiction. As such, the NMA should generally be adequate to meet the objectives of the Source Protection Plan if best management practices relating to phosphorus retention or reduction are included in the resulting Nutrient Management Plan or Strategy.

However there are few, if any, farms in the Callander Issue Contributing Area that are currently subject to the NMA. The need for a farm operation to comply with the NMA is

triggered either by changes to buildings that require a building permit or when the operations expand to the regulated level.

No adverse economic impacts or financial implications are anticipated from this policy because it relies on pre-existing legislation.

One shortcoming with this policy has been made evident. Pre-consultation comments from the Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) pointed out that the NMA does not address threats posed by grazing, pasturing or confinement of livestock and suggested using a Risk Management approach. This comment arrived after the SPC's last review of polices prior to posting the Draft 2015 SP Plan and was subsequently considered in revisions for the updated 2026 version. For the updated SP Plan, the Committee decided to continue with its established approach relying on education and outreach where no existing regulatory tool was available. The management of agricultural source material – discharge from aquaculture has been added, reflecting the 2021 Technical Rules as a possible source of phosphorus.

ICA3 Governing Research in Issue Contributing Area

Section 26.1 of O. Reg. 287/07 provides for policies that govern research; establish stewardship or pilot programs; specify and promote best management practices; or specify actions to be undertaken to implement the source protection plan or achieve the plan's objectives. There has been limited opportunity to date to complete research to confirm our understanding of the landscape and the factors contributing to phosphorus loading in the waterways of the Issue Contributing Area. Stakeholders and residents have provided anecdotal information characterizing area farms as applying minimal phosphorus to their croplands and pastures, and having very low density grazing. Many question the value of implementing best management practices to reduce phosphorus loading. Yet, water quality sampling indicates significant increases in phosphorus levels as streams pass through these lands. Research is required to direct effective implementation of the education and outreach initiatives as per policy ICA1. Some analysis can be conducted through GIS, but proper assessment will require some field work.

A comment received by email August 9, 2012 sent on behalf of Neil Gervais, Liaison Officer, of the Source Protections Programs Branch (SPPB) of the MOECC on the Proposed 2015 SP Plan informed the SPA of the option that Policy ICA3 could be removed from both the SP Plan and the Explanatory Document because it is not about addressing a significant threat directly. However, the findings of research conducted under ICA3 are integral to effective implementation of ICA1. Such research is needed to refine the approach, set priorities and establish targets. Baseline information is essential to measure the effectiveness of the Education and Outreach Program. Therefore, the recommendation of the SPA in its submission of comments (September 28, 2012) was to retain policy ICA3.

The North Bay-Mattawa Conservation Authority (NBMCA) and Municipalities will require a better understanding of the watershed and its residents to plan, cost and develop the

required Education and Outreach Program. In 2013, MOECC provided funding to support municipal actions to implement SP Plans. No other government funding is currently available for further research in this area. Grant programs are announced from time to time that could decrease costs to the municipalities and Conservation Authority. In the fall of 2014, the NBMCA was awarded a grant of $25,000 through the Great Lakes Guardian Community Fund to cover costs of sampling and analysis and provide some funds for trees and shrubs to plant along shorelines.

This policy has been revised for the Updated 2024 SP Plan, supplementing the listed research outcomes and remove the named activities for which the research should occur.

ICA4 Monitor Issue in Callander ICA – Phosphorus contribution related to Microcystin LR

Water quality data has been collected sporadically at locations within the IPZ-ICA for decades. In recent years, there has been a concerted effort to assess the phosphorus loading as it relates to the water quality of Callander Bay. Locations have been moved, removed and added, and protocols have been modified based on findings. A stable program would allow for trend analysis (increases or decreases in phosphorus levels), and identification of areas where further municipal or NBMCA programs would be beneficial. Sampling has been consistent since 2018 and parts of the program as it exists in 2026 are funded by provincial programs, and other local programs have been developed to support the ongoing monitoring of water quality. NBMCA shall continue to rely on partnerships and grants for the majority of program funding, however it shall also be prepared to maintain the program using other funds, including municipal sources from the groups that are part of the identified area. There have been no changes to this policy for the updated 2026 SP Plan.

4.4 Special Consideration

LAU1 Education: Threat Activities in Township of Laurier (Formerly S.57 Prohibition: Nutrient and Pesticide Application in Township of Laurier)

North Bay-Mattawa is the only Source Protection Area in Ontario with an unorganized or
unincorporated township where significant threats could occur. This policy strives to address the potential threats, which would otherwise be addressed through municipal land use planning tools. Early draft wording for the 2015 SP Plan attempted to require Township of Laurier to establish an official plan at least for the area where the threats could be significant (South River IPZ-1), and then pass related by-laws to enforce prohibitions. Comments received from MOECC reviewers during pre-consultation (prior to SP Plan approval in 2015) advised that the policy was unnecessary because the *Clean Water Act, 2006* would require the local planning board to comply with prohibitions in the SP Plan when the board makes planning decisions. Another draft considered using Risk Management Plans; however, the capacity for the local planning board to engage the services of a Risk Management Official to implement this policy would be problematic.

Given these considerations, and the fact that the area is mainly undeveloped land, the committee decided that an education and outreach program could adequately address potential threats. This program shall be delivered by the Village of South River and delivered to property owners in the Township of Laurier portion of the South River IPZ-1. The purpose of the program will be to create awareness of potential threat activities and to encourage responsible action if engaging in any of these threat activities. The Village of South River recommended that the implementing body of LAU1 should be revisited should the Township of Laurier become incorporated.

Incorporating changes in the 2021 Technical Rules, the management of agricultural source material, the handling and storage of fuel and the handling and storage of dense non-aqueous phase liquids (DNAPLs), as well as updating the full list of threat subcategories that would constitute a significant threat have been added to LAU1 in the updated 2026 SP Plan.

MAT1 Management of Significant Threats in the Municipality of Mattawan

During consultation on the Draft 2015 SP Plan, it was discovered by the Ministry of Municipal Affairs and Housing (MMAH) that a small portion of the WHPA-C for Mattawa (approximately 0.3 ha) extends into the Municipality of Mattawan. Because of the late discovery of the situation, the municipality had not been involved at all in the source protection planning process including any consultation on policy development. Investigation of the status of the property affected revealed that it is currently designated Crown Land. Further, the property in question is undeveloped and is unlikely to be developed as it consists of a rock knob faced by a cliff. The only activity that could pose a significant threat is the handling or storage of dense non-aqueous phase liquids (DNAPLs) in amounts greater than 25 L. Therefore, to address the possible threat, the SPC developed a policy specific to the portion of the vulnerable area in the Municipality of Mattawan. It requires the Ministry of Natural Resources (MNR), which oversees Crown Land, to consider the vulnerability of the area when making decisions regarding activities and uses that will be permitted. The associated monitoring policy only requires action by MNR if any significant threat activities are being undertaken on said lands. In which case, MNR would have to report to the SP Authority regarding what consideration was being given to the vulnerability of the area in relation to the significant threat.

Discussions with planning staff at Source Protection Programs Branch during consultation on the Proposed 2015 SP Plan considered alternative approaches such as relying on the other policies for similar threats, specifically policies WDS1, WDS2 (prohibition of the establishment of waste disposal sites), and the former HAZ1 (risk management plans for handling and storage of DNAPLs). However, the latter two policies would have to be implemented by the Municipality of Mattawan, which was otherwise uninvolved with this SP Plan. The Municipality would be challenged by implementation, since these policies require the services of a Risk Management Official. The other option considered was to have either the Municipality of Mattawan or the SPA responsible for delivering the education and outreach program

along with the Town of Mattawa (policy HAZ3). All things considered, including the fact that the parcel is Crown Land, it seemed most reasonable for the Ministry of Natural Resources to assume responsibility as proposed in MAT1.

The named activities that are included in this policy have been amended to reflect changes in the 2021 Technical Rules under the *Clean Water Act, 2006*. Any volume of DNAPLs is now a significant drinking water threat for the 2026 SP Plan.

5.0 Monitoring Policies

In order to ensure the effective implementation of the SP Plan, monitoring policies have been created for each policy. Most monitoring policies require the Implementing Body to report details of their accomplishments and steps taken to implement the policies to the Source Protection Authority annually. The Implementing Bodies may be asked to provide information on a one-time basis or annually depending on the policy. The monitoring policies are summarized in Table 5-1 below. A monitoring policy designed to monitor the implementation of ECAs does not apply to other provincial imstruments.

Table 5-1: Summary Monitoring Policies

Monitoring Policy ID	The Policy is Designed to Monitor Implementation of:	Affected Policy
M01-PA	Planning Act Tools	FUL1, HAZ1, HAZ2, PST2, SMF2, SNO1, WDS2
M02-MUN	Specified Actions for Municipalities	PST3, SAL2, SEW3, SMF3
M03-EO	Education & Outreach for Handling and Storage of Fuel, DNAPLS and Organic Solvents and Application of Pesticides, Hazardous Waste and PCBs	FUL4, HAZ3, HAZ4, PST4, SAL3, SAL4, SMF4, SNO2, WDS3
M04-EO	Education and Outreach for Callander ICA	ICA1
M05-EO	Education and Outreach for IPZ-1 in Township of Laurier	LAU1
M06-ERP	Municipal Emergency Response Plans	THS1, THS2
M07-SAC	Spills Action Centre Response Procedures	PIP6, THS1, THS2
M08-ECA	Environmental Compliance Approvals	SEW1, SEW2, WDS1
M09-MNR	Hazardous Materials Use on Crown Land in Mattawan (MNR)	MAT1
M10-CAI	Research and Monitoring of Water Quality Issue	ICA3, ICA4
M11-CAS	Septic Maintenance Inspections by Principal Authority	SEW4
M12-TSF	SP Authority Verifying TSSA Makes Safety Info Available	FUL3
M13-MTO	Salt Management Plan; Highway Signage (MTO)	SAL1, SVA1
M14-MUN	Municipal Road Signage and Awareness of Vulnerable Areas	SVA1
M15-SPA	Liquid Hydrocarbon Pipelines	PIP1, PIP2, PIP3, PIP4, PIP5
M16-MUN	Transport Pathways Notice	TPW1
M17-PI	Prescribed Instruments	FUL2, ICA2, PST1, SMF1

Monitoring Policy ID	The Policy is Designed to Monitor Implementation of:	Affected Policy
M18-EASR	Stormwater Management Works	SEW5

6.0 Climate Change Considerations

The Assessment Report contains a general summary, based on readily accessible information, of how the conclusions reached in the Assessment Report may be affected by climate change. These effects include increases in the size of vulnerable areas and increases in water quantity stress levels identified in the water budget. The water budget and water quantity components of the Assessment Report did not identify any threats to water quantity. In terms of water quality, an increase in air temperature and greater occurrence of extreme precipitation events could potentially degrade water quality.

The Assessment Report indicates that the effects of climate change on drinking water sources should be considered at a local level to give a better understanding of the conditions specific to the North Bay-Mattawa Source Protection Area. Collecting data for climate change must be undertaken in a comprehensive and collaborative way with all municipalities and other partners involved, for which there was insufficient time in the first round of Source Protection Plan development phase, given the priorities and mandatory components for these plans.

As of 2026, there remains limited hydroclimatological data collection in the North Bay-Mattawa Source Protection Area to assess baseline conditions and climate change impacts throughout the area. Water budgets and climate-related components of the Assessment Report were not updated for the 2026 SP Plan.

Appendix

A. Policy Working Group Terms of Reference (2015 SP Plan)

North Bay-Mattawa Source Protection Policy Working Group
Terms of Reference

This document has been prepared by the North Bay-Mattawa Source Protection Committee (SPC) to establish the purpose, terms and conditions for the Policy Working Group.

Preamble

The North Bay-Mattawa Source Protection Committee (SPC) is charged with the preparation of a Source Protection Plan under the *Clean Water Act* (2006). The goal of which is to protect existing and future sources of drinking water as specified in the Approved Terms of Reference (May 2009) for the North Bay-Mattawa Source Protection Area. Policies must address all significant threats identified in the Assessment Report (once approved).

Purpose

The purpose of the Policy Working Group is to support the SPC by drafting policies in accordance with the Terms and Conditions outlined below and as directed by the SPC, giving due consideration to stakeholder input.

Membership

SPC Chair Barbara Groves

Planners and Municipal Staff

- Glenn Tunnock (Consultant)
- Paula Scott (NBMCA)
- Beverley Hillier (North Bay)
- Melissa Mohr (East Ferris)
- Wayne Belter / Marc Mathon (Mattawa) - TBC

Trout Lake Conservation Association

- Peter Bullock / Anthony Falconi

Nipissing First Nation - TBC

Council Members

- Micheline Mamone (Chisholm)
- Jeffrey Dickerson (South River)
- Robb Noon (Callander)
- Nancy Barner (Powassan) / Nicky Kunkel (staff alternate)

NBMCA Source Protection Staff

- Project Manager Sue Miller
- SP Planner Robert Pringle
- Water Resources Specialist Kristen Green

Terms and Conditions

1. Meet monthly, or as required. As well five stakeholder roundtables are currently planned: three in February and two in May. Anticipated timeline for conceptual policy development is from December 2010 to June 2011. The PWG will meet again in September 2011 to review compilation of draft policies prior to submission to SPC.

2. Review available information including but not limited to
   a. Threat Discussion Papers
   b. Guiding Principles for Policy Development
   c. Feedback / direction from SPC
   d. Guidance documents from Ministry of Environment and Climate Change (MOECC)
   e. *Clean Water Act* (2006) and related regulations
   f. Input from stakeholders

3. Policy recommendations should represent consensus; where opinions of members conflict, alternative options with supporting rationale will be provided to SPC.

4. Participate in stakeholder consultations (roundtables)

5. Follow work plan as approved by SPC

6. Provide SPC with
   a. Monthly reports
   b. Draft policies for discussion
   c. Revised policies as directed
   d. Conceptual policies by June 1, 2011, which will subsequently be compiled by staff and presented to the SPC and stakeholders during fall 2011.

7. All public communication will be conducted through Program Communication staff to ensure consistency.

8. The working group shall be chaired by the Project Manager

9. Draft minutes will be circulated by email concurrently to PWG and SPC. PWG Members are requested to advise Project Manager or SP Planner of any proposed amendments as soon as possible, preferably prior to next meeting of SPC, the date of which will be included in email cover.