

North Bay-Mattawa Source Protection Area

Source Protection Plan

As approved March 5, 2015

Effective Date July 1, 2015

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

Additional copies of the Plan, Assessment Report and Explanatory Document may be obtained from:
North Bay-Mattawa Conservation Authority
15 Janey Avenue, North Bay, Ontario P1C 1N1
P: 705-474-5420 E: dwsp.comments@nbmca.on.ca

This document was prepared on behalf of the North Bay-Mattawa Source Protection Committee under the Clean Water Act, 2006 (Ontario Regulation 287/07) with funding from the Government of Ontario.

Components of the Source Protection Plan

In addition to this document, which is primarily a compilation of policies, the Source Protection Plan (SP Plan) includes three other documents all revised from their original versions and approved in 2015:

[Terms of Reference](http://actforcleanwater.ca/index.php?page=terms-of-reference-2) (http://actforcleanwater.ca/index.php?page=terms-of-reference-2)

[Assessment Report](http://actforcleanwater.ca/index.php?page=UpdatedAR) (http://actforcleanwater.ca/index.php?page=UpdatedAR)

[Explanatory Document](http://actforcleanwater.ca/index.php?page=source-protection-plan) (http://actforcleanwater.ca/index.php?page=source-protection-plan)

More information on these is provided in Chapter One of this document. The Terms of Reference outlines the scope of the project, identifying which drinking water systems will be included in the SP Plan. The Assessment Report summarizes the scientific understanding of the area with respect to the movement of water and the risks for contamination and/or depletion. The Explanatory Document provides the rationale for the policies and should be used to assist in the interpretation of the SP Plan.

In addition to being available for download at the links above, hardcopies are available for viewing at the North Bay-Mattawa Conservation Authority Office, 15 Janey Ave., North Bay, ON, P1C 1N1. (Telephone 705-474-5420).

You may also request an electronic copy.

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Map Projection & Datum: NAD83 UTM Zone 17N

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MAR - 5 2015

Jeff Celentano
Chair, North Bay-Mattawa Source
Protection Committee
15 Janey Avenue
North Bay, Ontario P1C 1N1

Brian Taylor
C.A.O., North Bay-Mattawa
Conservation Authority
15 Jayney Avenue
North Bay, Ontario P1C 1N1

Dear Mr. Celentano and Mr. Taylor:

It is a pleasure to inform you that the review of the updated terms of reference and source protection plan for the North Bay-Mattawa source protection area, developed under the Clean Water Act, 2006, has been completed. Pursuant to sections 10 and 29 of the Clean Water Act, I approve the updated terms of reference and source protection plan for the North Bay-Mattawa source protection area. In addition, I am pleased to note that Ontario Regulation 284/07 - Source Protection Areas and Regions, under the Clean Water Act, has been amended to reflect a slight expansion of the North Bay-Mattawa source protection area boundary to include the entire protection zone surrounding the Mattawa municipal wellhead.

I appreciate the efforts undertaken by the North Bay-Mattawa source protection committee and all stakeholders to assess and develop a plan to protect drinking water sources in your community. Thank you for all your hard work, leadership and commitment. The North Bay-Mattawa source protection plan will take effect on July 1, 2015. Please ensure that this date is clearly stated in the plan.

Under section 36 of the Clean Water Act, when a source protection plan is approved, an order must also be given that governs the review of the plan. Pursuant to clauses 36 (1) (c) and (d), and as an initial step in the development of detailed requirements to govern the plan's review, the source protection authority (the North Bay-Mattawa Conservation Authority) shall prepare and submit a workplan to the ministry. The workplan shall propose the detailed steps for the review of the plan, including which portions of the plan are to be reviewed, the timeframes for each step of the review, the consultation that would be undertaken as part of the review, and rationale for each step. The workplan shall be developed in consultation with the North Bay-Mattawa Source Protection Committee, participating municipalities of the source protection area, and the Ministry of the Environment and Climate Change.

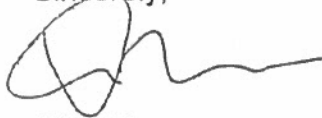
The development of the workplan must take into consideration any experience that has been gained from implementing the source protection plan and information from the first annual progress report on plan implementation (due May 1, 2018).

Please be sure to take into consideration the effectiveness of policies in the North Bay-Mattawa source protection plan that rely on education and outreach, the Municipal Act and Planning Act as an alternative approach to using the tools enabled under Part IV of the Clean Water Act, as well as the results of your research policy for Callander Bay. The workplan shall be submitted to the ministry no later than November 30, 2018. Once the workplan is submitted and reviewed by the ministry, and following any further consultation that the ministry considers advisable, a further order can be issued under section 36 that specifies more detailed requirements governing the content and timeframes that will govern the review of the North Bay-Mattawa source protection plan.

With your commitment, significant progress has been made in source protection and the Province looks forward to continuing to work with you and all stakeholders to protect drinking water.

Once again, thank you for your work to protect Ontario's source waters, and please accept my best wishes.

Sincerely,

A handwritten signature in black ink, appearing to be 'Glen Murray', with a stylized, flowing script.

Glen Murray
Minister

cc: Sue Lo, Assistant Deputy Minister, DWMD, Ministry of the Environment and Climate Change
Heather Malcolmson, Director (A), SPPB, Ministry of the Environment and Climate Change
Dave Mendicino, Chair, North Bay-Mattawa Conservation Authority
Sue Miller, Project Manager, North Bay-Mattawa Source Protection Authority

Letter of Submission to Source Protection Authority



January 30, 2015

Dave Mendicino, Chair
North Bay-Mattawa Source Protection Authority
15 Janey Ave.,
North Bay, ON P1C 1N1

Dear Dave Mendicino:

On behalf of the North Bay-Mattawa Source Protection Committee (SPC), we are pleased to submit to you the current version of the Source Protection Plan (SP Plan) for the North Bay-Mattawa Source Protection Area. It addresses comments from the Ministry of Environment and Climate Change (MOECC) following its review of versions submitted August 21 and then November 28, 2014.

The SP Plan is the culmination of scientific analysis, community consultation and extensive work and deliberation by the Source Protection Committee, the Policy Working Group and staff. The goal of the SP Plan is to manage or eliminate existing and future significant drinking water threat activities for the municipal drinking water systems of Callander, Mattawa, North Bay, Powassan and South River.

The original Proposed SP Plan was submitted to MOECC for review on August 20, 2012. It was subsequently revised based on Ministry recommendations and resubmitted August 21, 2014. Revisions included removing the Trout Creek well cluster, revising policies to utilize education and outreach instead of risk management, clarifying monitoring policies and streamlining requirements for ongoing annual reporting. Additional revisions were submitted on November 28, 2014 and final edits on January 30, 2015.

Revisions since August 2014 are largely changes in wording to clarify intent. Transition provisions have been deemed unnecessary and therefore removed. These changes were approved by the SPC on November 12, 2014 by Resolution 51-03, posted online on November 19, 2014 and municipalities notified. This current version ensures the implementation of policies in unorganized territories and specifies that the Village of South River will include the portion of Machar Twp that lies within the South River IPZ-1 when delivering the program required by policy WDS3.

It is the recommendation of the SPC that additional public consultation is not warranted. In that regard, we ask that the Source Protection Authority approve the submission of this Revised SP Plan to the Minister of Environment and Climate Change for review and approval.

Sincerely,

Jeff Celentano, Chair
North Bay-Mattawa Source Protection Committee

Chapter 1: Introduction



Water is critical to all aspects of our lives, so it is important that we ensure there are safe and reliable sources for all our uses – now and in the future.

Our drinking water comes from lakes, rivers, streams and underground sources (aquifers), all of which are linked in a watershed. It is critical to recognize that drinking water sources have a limited capacity and can be contaminated. Problems that develop due to overuse or contamination can be costly or even impossible to correct. We need to protect sources by managing the influences on them. And the best way to do that is through a plan, developed on a watershed basis -- because water flows across the political boundaries of cities and towns. The *Clean Water Act (2006)* provides the legislative framework for drinking water source protection in Ontario. The *Clean Water Act* and its regulations are administered by the Ministry of Environment and Climate Change (MOECC).

The objectives of Source Protection Plans are defined in legislation; specifically *O. Reg 287/07, Section 22 (1)* states the following:

“Every source protection plan shall set out the following as objectives of the plan:

- 1. To protect existing and future drinking water sources in the source protection area.*
- 2. To ensure that, for every area identified in an assessment report as an area where an activity is or would be a significant drinking water threat,*
 - I) the activity never becomes a significant drinking water threat, or*
 - II) if the activity is occurring when the source protection plan takes effect the activity ceases to be a significant drinking water threat. O. Reg. 246/10, s. 12.”*

The Source Protection Plan (SP Plan) is a combination of four key documents including the Terms of Reference (TOR), the Assessment Report (AR), the Explanatory Document and the SP Plan (policy document). The TOR outlines the scope of the local project and the AR summarizes the scientific understanding of the vulnerability of the drinking water sources. That understanding provides the basis for policies in the SP Plan.

1.1 Governance of the Source Protection Planning Process

Source Protection Authority (SP Authority)

While the Ministry of Environment and Climate Change (MOECC) administers the *Clean Water Act*, Conservation Authorities are contracted to deliver the source protection program on a watershed basis at the local level. Conservation Authorities were selected because they operate at the watershed scale, have experience protecting water resources, and their membership is comprised of municipalities, which ultimately are responsible for the safe operation and integrity of municipal water supplies.

The board of each Conservation Authority forms the basis of the Source Protection Authority with additional representation from municipalities that have territory within the Source Protection Area but are not members of the Conservation Authority. The Conservation Authority assists the Source Protection Authority in its responsibilities to:

- establish a Source Protection Committee (SPC) in accordance with the regulations;
- assist the SPC in exercising and performing the committee's powers and duties under the *Clean Water Act*;
- provide scientific, technical and administrative support and resources to the SPC;
- submit components of the SP Plan as completed by the SPC to the Director (Source Protection Programs Branch, MOECC) or the Minister of Environment and Climate Change, as appropriate, for review and approval; and to
- report annually to the Minister on the progress of implementation of the SP Plan.

Table 1-1: Source Protection Authority Members and the Municipalities Represented

Jurisdiction	Representative (at July 20, 2012)	Representative (at June 25, 2014)
Bonfield, Township of	Yvon Foisy	June Lagassie
Callander, Municipality of	Doug Brydges	<i>Same</i>
Calvin, Township of	Danielle Albright	<i>Same</i>
Chisholm, Township of	Cecil Reid	<i>Same</i>
East Ferris, Municipality of	Dan Corbeil	<i>Same</i>
Joly Township of	<i>None</i> (Sue Moss 2007-2010)	<i>None</i>
Machar Township	<i>None</i>	<i>None</i>
Mattawa, Town of	Nicolas Walters	<i>Same</i>
Mattawan Township	Carole Curran	<i>Same</i>
Papineau-Cameron Township	Alvina Neault	<i>Same</i>
Powassan, Municipality of	Gerry Giesler	<i>Same</i>
Nipissing, Township of	Pat Haufe	<i>Same</i>
North Bay, City of	Dave Mendicino (Chair)	<i>Same</i>
North Bay, City of	Mac Bain	Sarah Campbell
North Bay, City of	Tanya Vrebosch-Merry	Chris Mayne
South River, Village of	Jeffrey Dickerson	<i>Same</i>
Strong Township	Vi Montpetit	<i>Same</i>

July 20, 2012 - SP Authority approved submission of the Proposed SP Plan to MOECC for review following completion of consultation as required.

June 25, 2014 - SP Authority approved submission of the Revised SP Plan to MOECC for review following completion of consultation with affected stakeholders.

Source Protection Committee (SPC)

SP Planning is a collaborative process involving local residents and stakeholders in the development of policies that suit local conditions and needs. There are ten seats on the SPC representing the interests of the local municipalities, agricultural sector, commercial and industrial sectors, First Nations communities, and the general public. There are also two (non-voting) liaisons representing the Ministry

of the Environment and Climate Change (MOECC), and the North Bay-Parry Sound District Health Unit (NBPSDHU). The Chair of the Source Protection Committee is appointed by the Minister of the Environment and Climate Change.

The *Clean Water Act*, its regulations, Director's rules and guidance material created by the Province of Ontario direct and inform the SPC in development of the SP Plan. The committee structure is shown in Figure 1.1.

SPC Chair				
Municipal Representatives (3)	Economic Sector Representatives (3)	Public-at-large Representatives (3)	First Nations Representative (1)	Non-voting Liaisons (2)
3 Members	Commercial / Industrial Transportation Agriculture	3 Members at-large	May be appointed by Nipissing First Nation (Vacant)	Health Unit Ministry of the Environment

Figure 1.1: Source Protection Committee Structure

Table 1- 2: Source Protection Committee Members since the Committee was Established (as of January 30, 2015)

Member	Role / Representation	Term of Service
Jeff Celentano	Chair	July 30, 2014 to present
Barbara Groves	Chair	August 20, 2007 to August 19, 2013
John MacLachlan	Acting Chair	August 29, 2013 to July 30, 2014
Ian Kilgour	Municipal	December 10, 2007 to January 26, 2011
Beverley Hillier	Municipal	January 26, 2011 to present
George Onley	Municipal	December 10, 2007 to December 20, 2014
Kathy Parker	Municipal	December 10, 2007 to November 6, 2009
Laurier Therrien	Municipal	March 24, 2010 to July 16, 2010
Randy McLaren	Municipal	September 27, 2010 to present
George Stivrins	Commercial/Industrial	December 10, 2007 to present
Dennis MacDonald	Transportation	December 10, 2007 to present
Maurice Schlosser	Agricultural	December 10, 2007 to present
John MacLachlan	Public-at-large	*December 10, 2007 to present
Lucy Emmott	Public-at-large	December 10, 2007 to present
Roy Warriner	Public-at-large	December 10, 2007 to present

* Served portion of term as Acting Chair

Implementing Bodies

Each policy of the SP Plan names a specific agency or individual that is responsible for implementing the policy (Implementing Body) in the manner set out in Appendix A: Legal Effect of Policies on Existing Legislation. The majority of policies are designed to be implemented by a regulatory authority, such as a municipal council, provincial ministry, local board, or the Source Protection Authority. These bodies may require a person engaged in a significant threat activity to undertake certain actions. Some policies identify a corporation or agency as the 'person' engaged in the activity and also as the implementing body.

Individuals who own property in vulnerable areas should be aware of the SP Plan and its policies, even though they may not be the Implementing Body. Each individual should do his/her own due diligence to ensure he/she acts in accordance to these policies. This should include entering into discussions with an Implementing Body if the individual believes he/she is engaged in a significant threat activity.

1.2 Source Protection Area

The North Bay-Mattawa Source Protection Area is comprised of the jurisdiction of the North Bay-Mattawa Conservation Authority (NBMCA) plus the South River watershed, and covers approximately 4,000 km² (Fig 1.2).

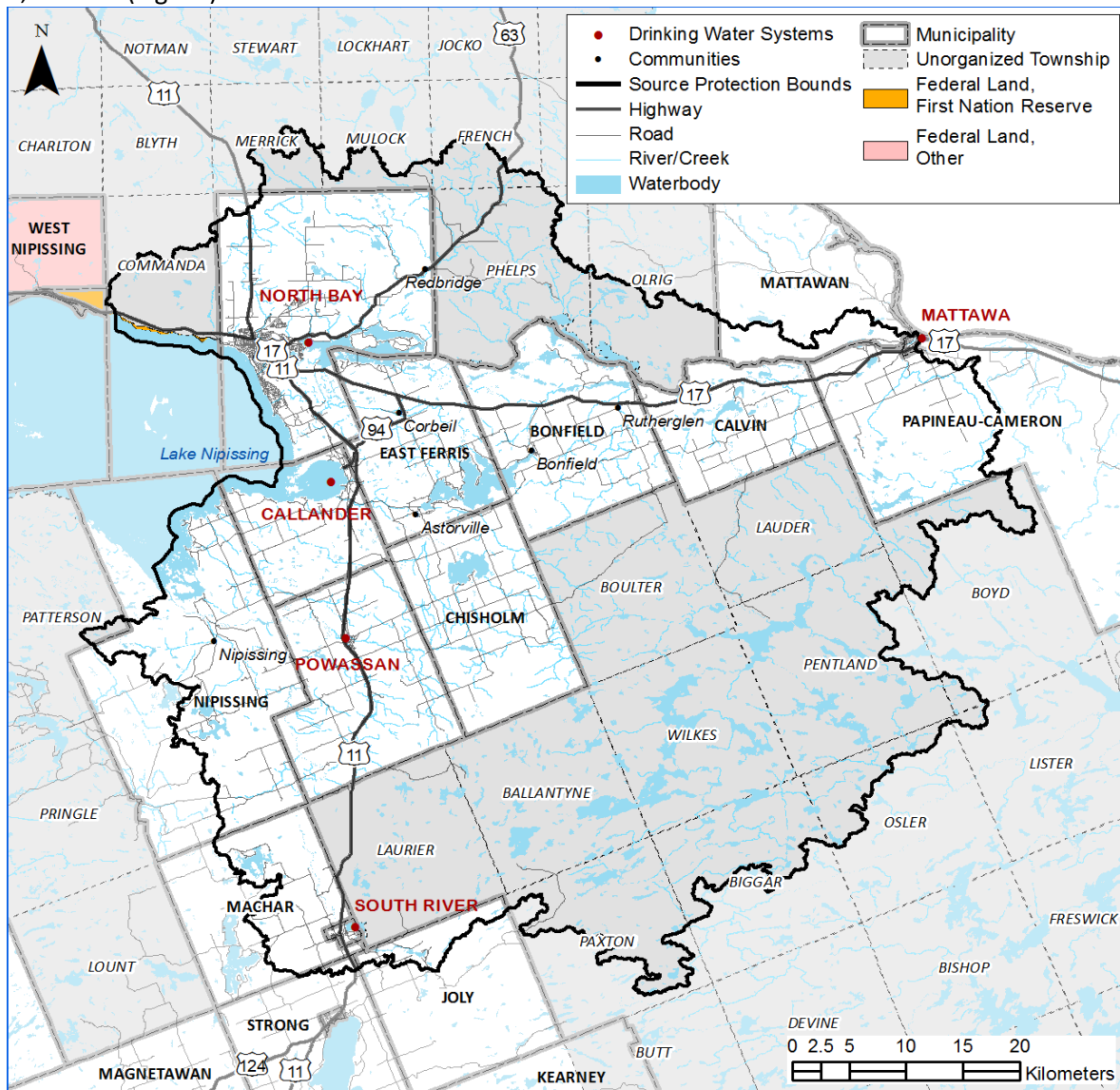


Figure 1.2 North Bay-Mattawa Source Protection Area

1.3 Prescribed Activities of the *Clean Water Act*

SP Plans must address specific activities that could pose a threat to drinking water sources. There are 21 activities prescribed in s.1.1 (1) O. Reg 287/07 of the *Clean Water Act*. The Assessment Report identifies which of these are existing or potential significant threat activities for each municipal drinking water source. Nineteen of the activities relate to water quality, two (#19 and #20) relate to water quantity.

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. O. Reg. 385/08, s. 3.

** Based on the technical studies prepared for the Assessment Report, no significant threats could occur for activities 5, 12, 19 or 20. Therefore, this plan does not include policies to address these activities.*

In addition, the Transportation of Hazardous Substances has been added as a Local Threat. Early in the consultation process it became evident that there was concern among residents of North Bay that hazardous substances transported along the highway or rail line adjacent to Trout Lake pose a risk to the source water for North Bay. The SPC made a formal request to add the Transportation of Hazardous Substances as a Local Threat. The Director (Source Protection Programs Branch, MOECC) provided approval and identified the relevant circumstances. As a Local Threat, it has been added to North Bay-Mattawa's prescribed activities that need to be addressed. This Local Threat was considered across the whole Source Protection Area, not just in North Bay where the concern was initiated. The Director's Approval letter is contained in Appendix G of the Assessment Report.

1.4 Components of the Source Protection Plan

The Source Protection Plan consists of four key documents:

- Terms of Reference
- Assessment Report
- Source Protection Plan (Policy Document)
- Explanatory Document

Terms of Reference

The Terms of Reference identifies which drinking water systems are to be included in the development of this SP Plan. The original Terms of Reference was approved by the Minister of Environment and Climate Change on May 1, 2009, and then subsequently amended in 2014 to remove the cluster of private wells in Trout Creek in the Municipality of Powassan. The drinking water systems included are listed in Table 1-3 and their locations are shown in Fig. 1.1.

The Terms of Reference is available for viewing at North Bay-Mattawa Conservation Authority office, or it may be downloaded from the following website: www.actforcleanwater.ca.

Table 1-3: Source Protection Area Terms of Reference Drinking Water Systems

Municipality	Drinking Water System	Source Water
Callander, Municipality of	Callander Water Treatment Plant	Surface Water – Callander Bay
Mattawa, Town of	Mattawa Well Supply	Groundwater – municipal wells
North Bay, City of	North Bay Water Treatment Plant	Surface Water – Trout Lake
Powassan, Municipality of	Powassan Well Supply	Groundwater – municipal wells
South River, Village of	South River Water Treatment Plant	Surface Water – South River

Assessment Report

The Assessment Report provides the scientific understanding that informs policy development. It includes a summary of the physical and human geography of the Source Protection Area (SP Area) and the detailed technical studies that analysed and mapped the vulnerable areas for each municipal supply. Wellhead Protection Areas (WHPAs) were established around groundwater systems and Intake Protection Zones (IPZs) around surface water intakes. All prescribed activities were considered to determine whether they could pose a significant threat in any vulnerable area. The SP Plan was then developed with policies to address each of those activities and achieve the objectives of source protection planning.

Each drinking water source was also assessed using a tiered water budget approach to determine its vulnerability to overuse. The water budget analysis concluded that there are currently no water quantity threats in the SP Area.

The first version of the Assessment Report for the North Bay-Mattawa Source Protection Area was approved by the Minister of Environment on May 30, 2011. It was subsequently updated to include the local threat of Transportation of Hazardous Substances (see section 1.6), and that version was approved on September 21, 2011 (posted on the Environmental Registry in January of 2012). It was again updated

in early 2014 to remove references to the cluster of private wells in Trout Creek, and to revise the number of incidents of significant threat activities following field verification. It was submitted to the Director (Source Protection Programs Branch, MOECC) for review on March 3, 2014 and is available for download at <http://actforcleanwater.ca/index.php?page=UpdatedAR> or in hardcopy at the North Bay-Mattawa Conservation Authority office at 15 Janey Ave, North Bay, ON P1C 1N1.

The Source Protection Plan (Policy Document)

Although the Terms of Reference and Assessment Report are part of the SP Plan, this document which contains the policies to address activities that could threaten drinking water is generally referred to as the SP Plan.

The SP Plan policies were developed by the Source Protection Committee (SPC) in collaboration with area stakeholders to protect drinking water sources from contamination. (Note that overuse was not a concern based on current water budget studies that compared usage to the quantity available.) A Policy Working Group (PWG) was formed in December 2010 to recommend appropriate policy approaches. Every affected Municipality had representation on the PWG either by a council member or staff (several of whom had planning expertise). Also included were the SPC Chair, representation from the Trout Lake Conservation Association (as a local group of stakeholders with a mandate to protect the major source of drinking water), and several NBMCA staff. A consulting planner was contracted to assist Source Protection staff in the initial development of the local policies. Concurrently, a series of roundtables were held to solicit input on policy direction from stakeholders and findings were shared with both the PWG and the SPC as they deliberated on ways to address each threat category.

The PWG solicited input related to policy development from various industries, reviewed technical research and background documents for each threat, and developed preliminary policy recommendations for the SPC's consideration. The PWG discussed and analyzed each policy option in terms of the suitability of its approach and its merits. The group then weighed various policy alternatives, considering financial implications and the availability of regulatory and non-regulatory tools and instruments. The following principles guided the evaluation of alternatives:

- Effectiveness (would the policy effectively protect sources of drinking water)
- Cost / Impact (would the policy be cost-effective and reasonable)
- Practicality (would the policy be practical and avoid regulatory duplication)

Explanatory Document

The Explanatory Document is a companion document to the SP Plan, which provides the Committee's rationale for each policy and has been arranged to reflect the SPC's decision process. When considering how to protect against various threats, the Committee could choose to either prohibit activities or allow them to be undertaken with mechanisms in place to manage the risks. Various strategies were available to manage the risks including such things as Risk Management Plans, Education and Outreach, or Specified Actions. There was substantial input from stakeholders regarding ways to address sources of phosphorus in the Callander Issue Contributing Area (ICA), so the ICA policies are discussed as a set. Financial considerations are summarized as well as the feedback received from roundtable discussions, pre-consultation with implementing bodies, and other public meetings and consultations.

1.5 Consultation

The North Bay-Mattawa Source Protection Committee (SPC) and SP Authority have an ongoing commitment to public consultation. This commitment is supported by provincial legislation in the *Clean Water Act* (2006) and Ontario Regulation 287/07. From the beginning, the SPC has taken an open and interactive approach to consultation with the public by offering a variety of opportunities and tools for input. The SPC's communication with municipalities, stakeholders, property owners, and First Nations has exceeded legislated requirements.

A full summary of consultation activities on the SP Plan, Assessment Report and Terms of Reference can be found in Appendix B: Record of Consultations & Notices.

1.6 Plan Implementation – Annual Report

The *Clean Water Act* requires that each Source Protection Authority prepare an annual progress report on the implementation of the SP Plan. Details are specified in S. 52 of *O. Reg. 287/07*. The Annual Report is a compilation of the information provided by implementing bodies regarding progress towards implementation of each policy. Monitoring Policies, included at the end of each policy group in Chapter 4 and summarized at the end of that chapter, direct what information the implementing bodies need to report to the SP Authority. In most cases, implementing bodies are required to provide their progress reports to the SP Authority by February 1st of each year. The SP Authority compiles an Annual Report for the SP Area. The Annual Report is then provided to the SP Committee prior to submission to the Minister no later than May 1st of that year.

Assuming the SP Plan is approved with an effective date in 2015, the first report would cover the period from the time the SP Plan takes effect to December 31, 2016 and be submitted to the Director (Ministry of Environment and Climate Change, Source Protection Programs Branch) by May 1, 2017.

Additionally, the Minister of Environment and Climate Change may require that the SP Plan undergo a review to update information on the location of any new municipal groundwater wells and drinking water intakes, the vulnerability scores of these new systems, and any emerging areas of concern.

Chapter 2: Policy Tables for Each Municipal System

For readers interested in a specific municipal water supply, this section provides tables summarizing which policies apply to each municipal system, the vulnerable area(s) affected, and the implementing body(ies) responsible. The Source Protection Plan's (SP Plan) policies are designed to achieve the objectives stated in Section 1.8: *where an activity is or would be ('could be') a significant threat to drinking water, it ceases to be or never becomes a significant threat*. The SP Plan policies apply only in the vulnerable areas that are listed in each policy. The vulnerable areas were identified in the Assessment Report.

An activity's threat level (significant, moderate or low) is determined by the vulnerability of the area and the circumstances under which it is occurring. The Assessment Report summarizes where the activities are or would be significant threats based on the *Clean Water Act* and *Technical Rules: Assessment Report*. In the North Bay-Mattawa Source Protection Area, the significant threats are limited to the most vulnerable areas around drinking water sources. For groundwater sources, these vulnerable areas are known as Wellhead Protection Areas (WHPAs). For surface water sources, they are known as Intake Protection Zones (IPZs).

The SP Plan policies apply to specific WHPAs (WHPA-A, WHPA-B, etc.) for the two municipal groundwater systems (Mattawa and Powassan), and specific IPZs (IPZ-1, IPZ-2, etc.) for the three municipal surface water systems (Callander, North Bay and South River). Maps of each system's vulnerable areas are provided in Figures 2.1 to 2.6. Schedule A: Additional Maps of Vulnerable Areas (A1-A4: Callander Issue Contributing Area by Municipality) is attached to provide higher detail regarding the Callander ICA. Mapping legends utilize a coloured scheme, so caution should be used if interpreting or reviewing black and white mapping images.

The most recently approved Assessment Report should be consulted to identify the official areas where policies apply, and it is recommended that implementing bodies obtain access to approved datasets for the vulnerable areas through the MOECC GIS Portal or through municipal GIS operations (such as City of North Bay GIS Portal or Blue Sky Net Municipal GIS).

Policies apply to specific vulnerable areas specified on the map figures and impact only those activities and circumstances that are significant. One moderate/low threat activity policy was included at the discretion of the Source Protection Committee. Policies may also reference specific circumstances under which a threat is significant, such as a volume or area of storage, a type of chemical/contaminant or pathogen, the grade at which the activity occurs, or others.

Vulnerable Area Policy Summaries – How to Read the SP Plan

Within this Chapter, readers can quickly reference mapping of the vulnerable areas and see which policy(ies) apply. Policies are organized in Chapter 4 according to individual activities or groups of similar activities.

An Implementing Body should reference Appendix A: Legal Effect of Policies on Existing Legislation in addition to the policy summary tables of Chapter 2 to determine which policies they are named to implement. An Implementing Body should also reference the monitoring policies that require reporting to the SP Authority by a certain time in order to complete the required Annual Report.

Individuals residing in or doing any activity in the vulnerable areas should reference the policy summary tables related to that specific vulnerable area to determine if a policy would affect their activity or land use. They should contact the Implementing Body if they believe they are or plan to be engaged in a significant threat activity.

2.1 Callander Policy Table (IPZ 1, 2)

Callander's Intake Protection Zones 1 and 2 are located in Callander Bay and include both urban and rural development along the east shore of the bay. Policies for this area are generally restrictive in nature to prevent the establishment of significant threat activities.

Table 2-1 shows which policies apply to IPZ-1 and 2. For IPZ-1 and IPZ-2, policies listed in Table 2-2: Policy Summary – Callander Issue Contributing Area also apply. Figure 2.1 shows the Callander Intake Protection Zones that were defined in the Assessment Report.

Table 2-1: Policy Summary – Callander Intake Protection Zone (IPZ)

Code	Policy Title (Shortened)	IPZ	Implementing Body
AIR1	Glycol Management Plans	1	Airport Authority
PST1	<i>Pesticide Act</i> Approvals to Contain Conditions	1	MOECC*
PST2	Land Use Prohibition – Pesticide Storage	1	Municipality
PST3	Municipal Pesticide Management Plan	1	Municipality
PST4	Education about Application of Pesticides	1,2	Municipality
SAL1	Land Use Prohibition – Road Salt Storage	1	Municipality
SEW1	Prescribed Instruments for Prohibition of New Sewage Works & Review of Existing	1, 2	MOECC
SEW2	Prescribed Instruments for Management of Sewage Works of Certain Types	1	MOECC
SMF1	Municipal Action to Prohibit Land Application of Nutrients	1, 2	Municipality
SMF2	Land Use Prohibition – Nutrient Handling & Storage & Livestock Activity	1, 2	Municipality
SNO1	Land Use Prohibition – Snow Storage Facilities	1	Municipality
SVA1	Signage for Vulnerable Areas	1,2	Municipality
THS1	Update Protocols for Spills Response	1	Municipality MOECC
WDS1	Prohibition and Management of Waste Disposal Sites under Part V of the EPA	1, 2	MOECC
WDS2	Land Use Prohibition of Waste Disposal Sites	1, 2	Municipality
WDS3	Education Hazardous Waste & PCBs	1	Municipality

*MOECC: Ministry of Environment and Climate Change

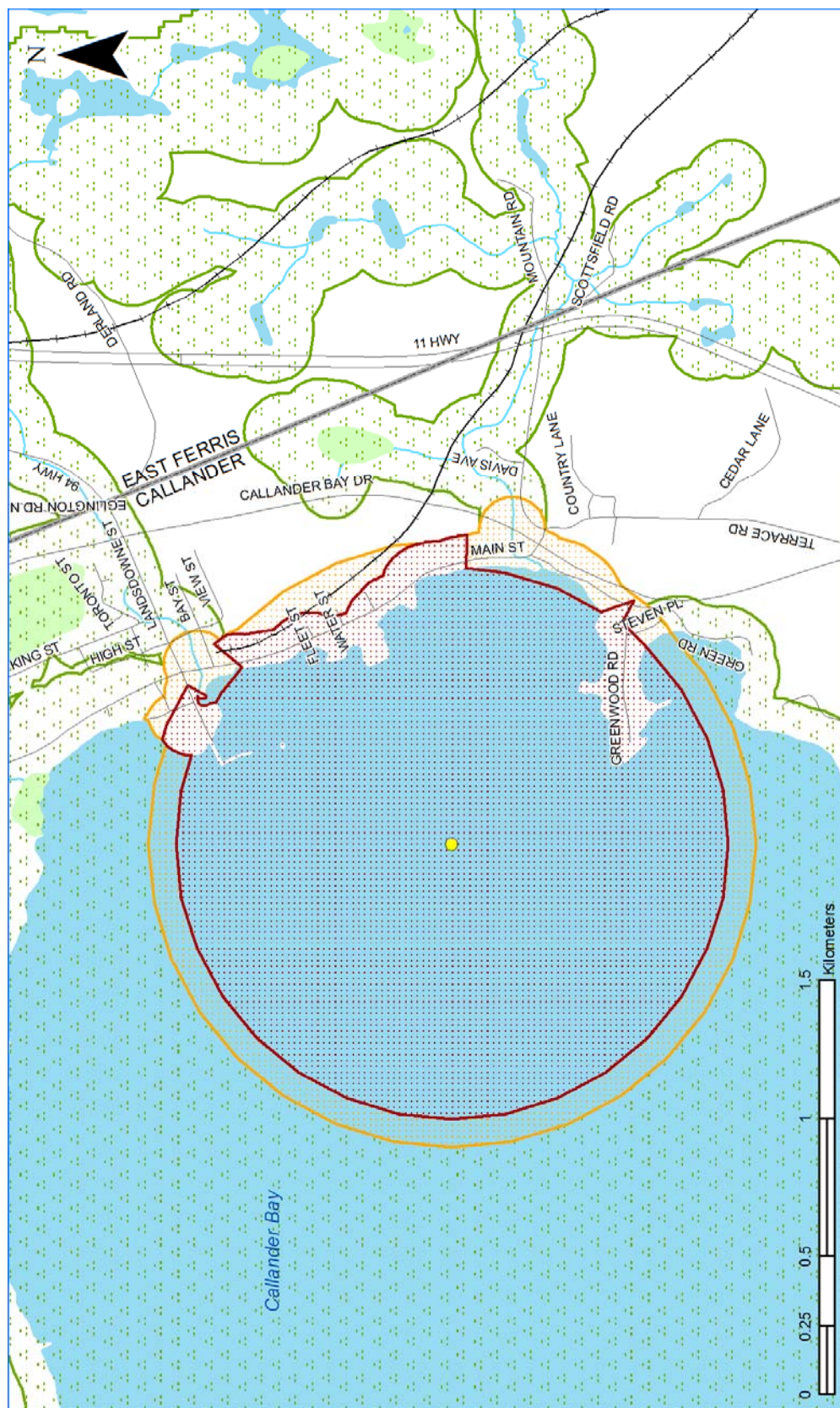
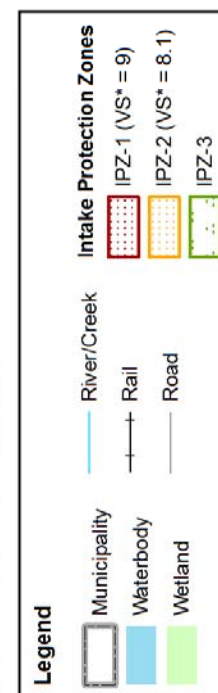


FIGURE 2.1
CALLANDER INTAKE
PROTECTION ZONES



*VS - Vulnerability Score
Note: See Schedule A for entire IPZ3 area.



2.2 Callander Issue Contributing Area (ICA) Policy Table

The Callander Issue Contributing Area includes the areas identified as Callander IPZ-1, 2, and 3. This area was delineated to address microcystin LR, a Drinking Water Issue related to phosphorus. All policies referenced in Table 2-2 address activities that have phosphorus as a circumstance. As well as policies specifically drafted for the ICA, SEW and WDS policies (sewage and waste disposal sites) are included because they address activities where phosphorus is a potential contaminant.

Table 2-2 shows which policies apply to the Callander Issue Contributing Area which includes IPZ 1, 2 and 3. See Table 2-1 for additional policies that apply to IPZ1 and 2. Figure 2.2 shows the entire ICA. For larger mapping detail, see Schedule A: Additional Maps of Vulnerable Areas.

Table 2-2: Policy Summary – Callander Issue Contributing Area (ICA)

Code	Policy Title (Shortened)	Implementing Body
ICA1	Education – Issue Contributing Area	Municipalities in ICA Conservation Authority
ICA2	<i>Nutrient Management Act</i> Tools to Implement Phosphorus Best Management in the ICA	OMAFRA*
ICA3	Governing Research in the Issue Contributing Area	Municipality of Callander Conservation Authority
ICA4	Monitor Issue in Callander ICA – Phosphorus	Municipality of Callander Conservation Authority
SEW1	Prescribed Instruments for Prohibition of New Sewage Works & Review of Existing	MOECC*
SEW2	Prescribed Instruments for Management of Sewage Works of Certain Types	MOECC
SEW3	Recognize the Implementation of the <i>Ontario Building Code</i> Mandatory Maintenance Inspection Program	Conservation Authority
WDS1	Prohibition and Management of Waste Disposal Sites under Part V of the EPA	MOECC
WDS2	Land Use Prohibition: Waste Disposal Sites	Municipality

*Acronyms for Implementing Bodies

MOECC: Ministry of Environment and Climate Change

OMAFRA: Ontario Ministry of Agriculture, Food and Rural Affairs

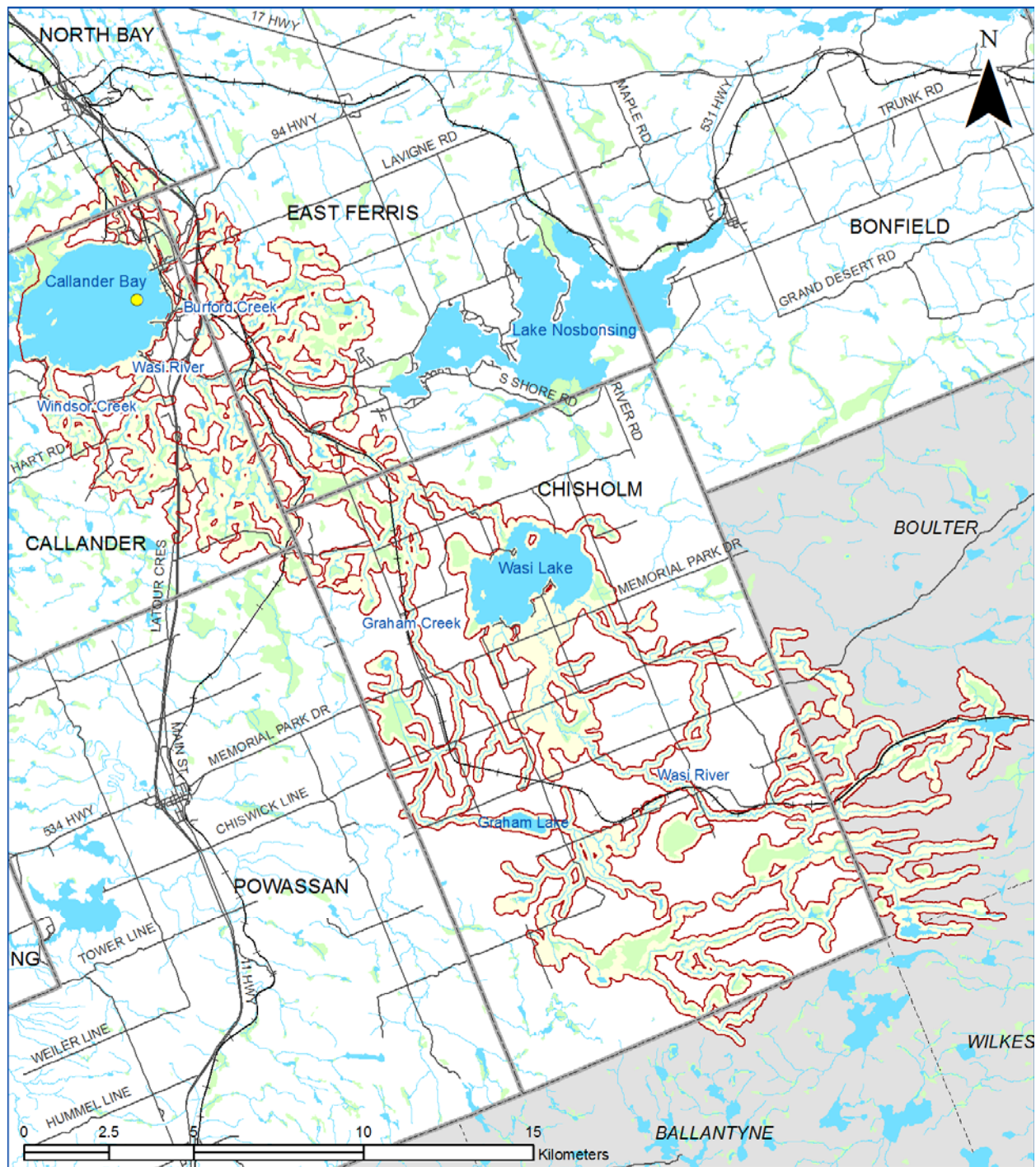
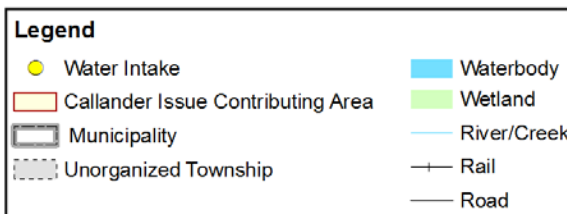


FIGURE 2.2
CALLANDER ISSUE
CONTRIBUTING AREA



2.3 Mattawa Policy Table (WHPAs A, B and C)

Mattawa's Wellhead Protection Area covers lands that are predominantly used for private residences. Most activities identified as significant threats are incompatible with the current zoning by-law, and are thus largely prohibited from use.

Table 2-3 shows which policies apply to WHPA-A, B and C for the Town of Mattawa's wells. Figure 2.3 shows the Wellhead Protection Areas for Mattawa that were defined in the Assessment Report.

Table 2-3: Policy Summary – Mattawa Wellhead Protection Area (WHPA)

Code	Policy Title (Shortened)	WHPA	Implementing Body
AIR1	Glycol Management Plans	A, B	Airport Authority
FUL1	Land Use Prohibition: Fuel Storage	A, B	Municipality
FUL2	Conditions for Approvals of Fuel Storage	A, B	MOECC* MNRF* MTO*
FUL3	Continue to Make Safety Information Available	A, B	TSSA*
FUL4	Education: Handling and Storage of Fuel	A, B	Municipality
HAZ1	Education: DNAPLs & Organic Solvents	A, B, C	Municipality
MAT1	Management of Significant Threats in Mattawan Township	C in Mattawan	MNRF
PST1	<i>Pesticide Act</i> Approvals to Contain Conditions	A, B	MOECC
PST2	Land Use Prohibition: Pesticide Storage	A, B	Municipality
PST3	Municipal Pesticide Management Plan	A, B	Municipality
PST4	Education about Application of Pesticides	A, B	Municipality
SAL1	Land Use Prohibition: Road Salt Storage	A, B	Municipality
SEW1	Prescribed Instruments for Prohibition of New Sewage Works & Review of Existing	A, B, C	MOECC
SEW2	Prescribed Instruments for Management of Sewage Works of Certain Types	A, B	MOECC
SEW3	Recognize the <i>Ontario Building Code</i> Mandatory Maintenance Inspection Program	A, B	Conservation Authority
SMF1	Municipal Action to Prohibit Land Application of Nutrients	A, B	Municipality
SMF2	Land Use Prohibition: Nutrient Handling & Storage & Livestock Activity	A, B	Municipality
SNO1	Land Use Prohibition: Snow Storage Facilities	A, B	Municipality
SVA1	Signage for Vulnerable Areas	A, B	Municipality
THS1	Update Protocols for Spills Response	A, B	Municipality MOECC
WDS1	Prohibition and Management of Waste Disposal Sites under Part V of the EPA	A, B, C	MOECC
WDS2	Land Use Prohibition of Waste Disposal Sites	A, B, C	Municipality
WDS3	Education Hazardous Waste & PCBs	A, B	Municipality

*Acronyms for Implementing Bodies

MNRF: Ministry of Natural Resources and Forestry

MTO: Ministry of Transportation

MOECC: Ministry of Environment and Climate Change

TSSA: Technical Standards and Safety Authority

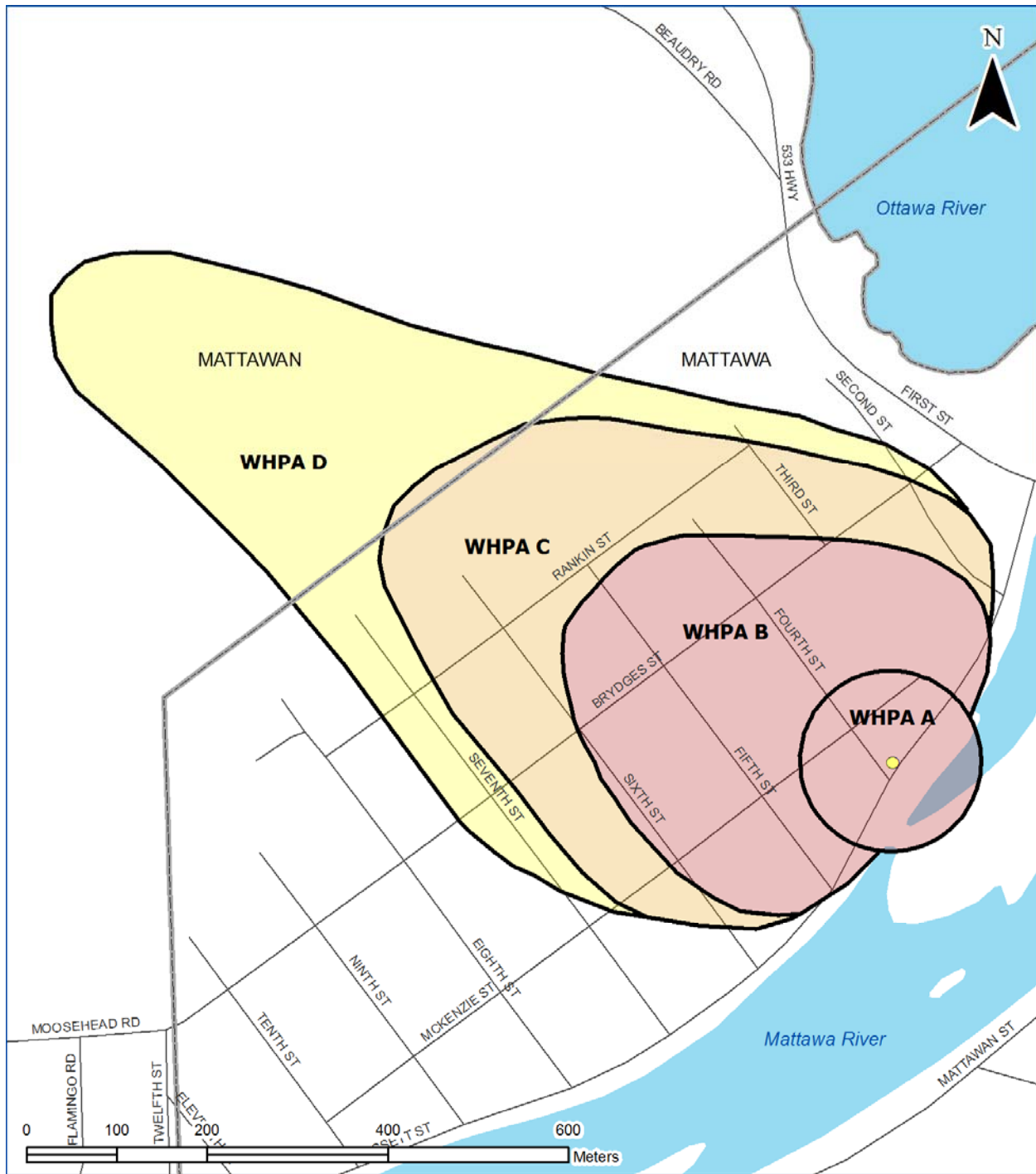
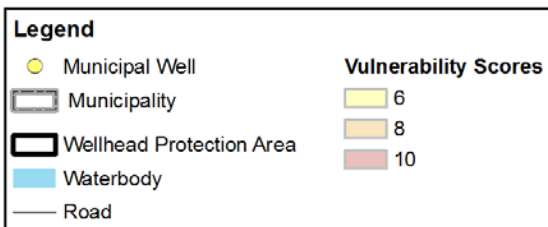


FIGURE 2.3

MATTAWA WELLHEAD PROTECTION AREAS



2.4 North Bay Policy Table (IPZ-1)

North Bay's drinking water supply comes from Trout Lake, which allows for a deep intake. The technical studies determined that the vulnerability of the intake was low, and was scored an "8". As a result, very few activities could be significant, which is why there are fewer policies for the North Bay Intake Protection Zone. A policy was written at the discretion of the Source Protection Committee for the moderate/low threat of Transportation of Hazardous Substances.

Table 2-4 shows which policies apply to IPZ-1. Figure 2.4 shows the Intake Protection Zones for North Bay that were defined in the Assessment Report. For larger mapping detail, see Schedule A: Additional Maps of Vulnerable Areas.

Table 2-4: Policy Summary – North Bay Intake Protection Zone (IPZ)

Code	Policy Title (Shortened)	IPZ	Implementing Body
SEW1	Prescribed Instruments for Prohibition of New Sewage Works & Review of Existing	1	MOECC*
SEW2	Prescribed Instruments for Management of Sewage Works of Certain Types	1	MOECC
SMF1	Municipal Action to Prohibit Land Application of Nutrients	1	Municipality
SMF2	Land Use Prohibition: Nutrient Handling & Storage & Livestock Activity	1	Municipality
SVA1	Signage for Vulnerable Areas	1	Municipality
THS2	Update Protocols for Spills Response (Mod/Low)	1	Municipality MOECC
WDS1	Prohibition and Management of Waste Disposal Sites under Part V of the EPA	1	MOECC
WDS2	Land Use Prohibition of Waste Disposal Sites	1	Municipality

*MOECC: Ministry of Environment and Climate Change

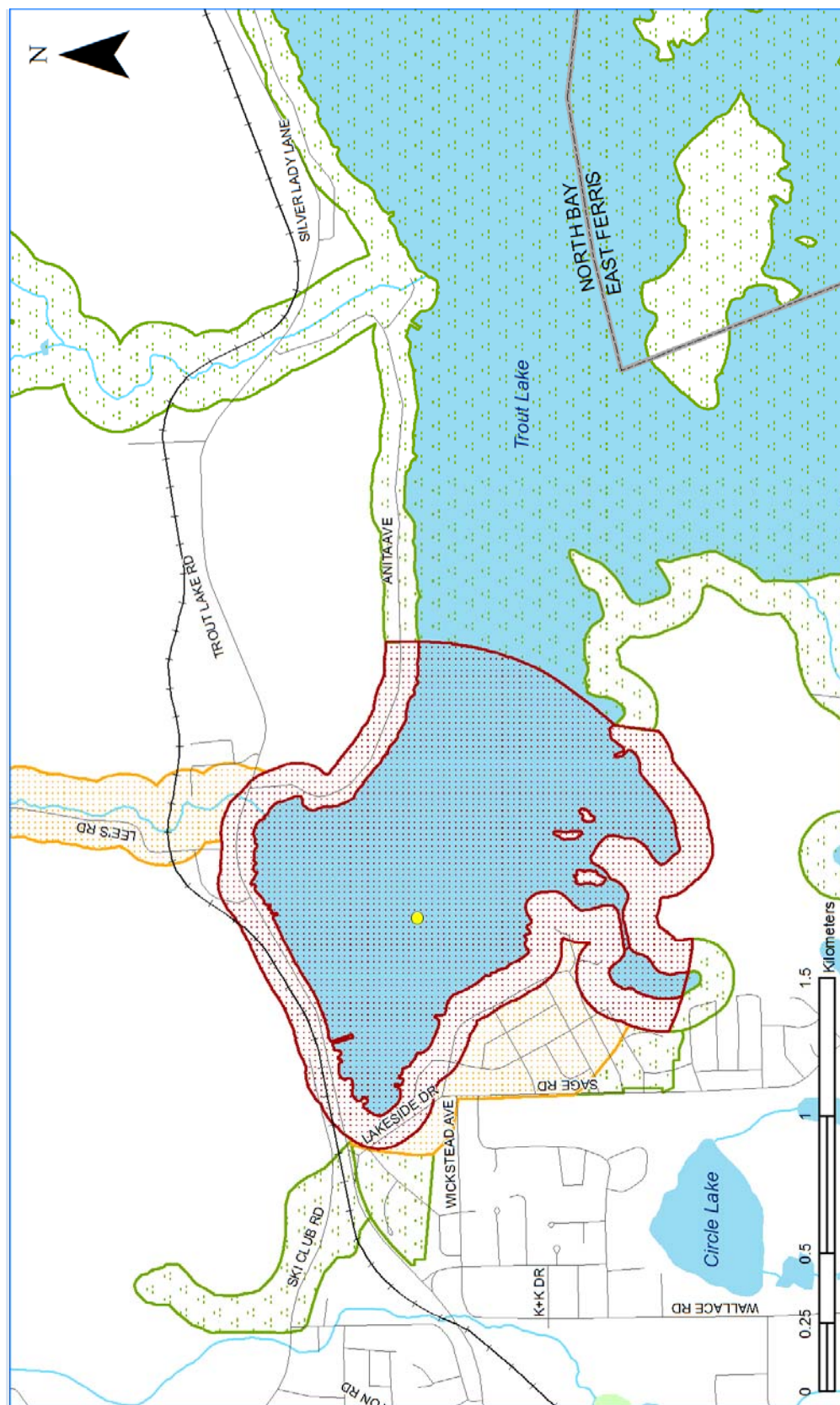


FIGURE 2.4

**CITY OF NORTH BAY
INTAKE PROTECTION ZONES**

*VS - Vulnerability Score
Note: See Schedule A for entire IPZ3 area.



2.5 Powassan Policy Table (WHPAs A, B and C)

Powassan's Wellhead Protection Area (WHPA) covers mostly open space and a segment of Highway 11. There are two private residences within WHPA-A. The local zoning by-law would not currently permit many of the land uses associated with significant threat activities.

The following table shows which policies apply in the Wellhead Protection Area. Figure 2.5 shows the Powassan Wellhead Protection Areas that were defined in the Assessment Report (AR).

Table 2.5: Policy Summary – Powassan Wellhead Protection Area (WHPA)

Code	Policy Title	WHPA	Implementing Body
AIR1	Glycol Management Plans	A, B1	Airport Authority
FUL1	Land Use Prohibition: Fuel Storage	A, B1	Municipality
FUL2	Conditions for Approvals of Fuel Storage	A, B1	MOECC* MNRF* MTO*
FUL3	Continue to Make Safety Information Available	A, B1	TSSA*
FUL4	Education: Handling and Storage of Fuel	A, B1	Municipality
HAZ1	Education: DNAPLs & Organic Solvents	A, B, C	Municipality
PST1	<i>Pesticide Act</i> Approvals to Contain Conditions	A, B1	MOECC
PST2	Land Use Prohibition: Pesticide Storage	A, B1	Municipality
PST3	Municipal Pesticide Management Plan	A, B1	Municipality
PST4	Education about Application of Pesticides	A, B1	Municipality
SAL1	Land Use Prohibition: Road Salt Storage	A, B1	Municipality
SEW1	Prescribed Instruments for Prohibition of New Sewage Works & Review of Existing	A, B1, B2, B4, C1	MOECC
SEW2	Prescribed Instruments for Management of Sewage Works of Certain Types	A, B1	MOECC
SEW3	Recognize the <i>Ontario Building Code</i> Mandatory Maintenance Inspection Program	A, B1	Conservation Authority
SMF1	Municipal Action to Prohibit Land Application of Nutrients	A, B1	Municipality
SMF2	Land Use Prohibition: Nutrient Handling & Storage & Livestock Activity	A, B1	Municipality
SNO1	Land Use Prohibition: Snow Storage Facilities	A, B1	Municipality
SVA1	Signage for Vulnerable Areas	A, B1	MTO Municipality
THS1	Update Protocols for Spills Response	A, B1	Municipality MOECC
WDS1	Prohibition and Management of Waste Disposal Sites under Part V of the EPA	A, B1, B2, B4, C1	MOECC
WDS2	Land Use Prohibition of Waste Disposal Sites	A, B1, B2, B4, C1	Municipality
WDS3	Education Hazardous Waste & PCBs	A, B1	Municipality

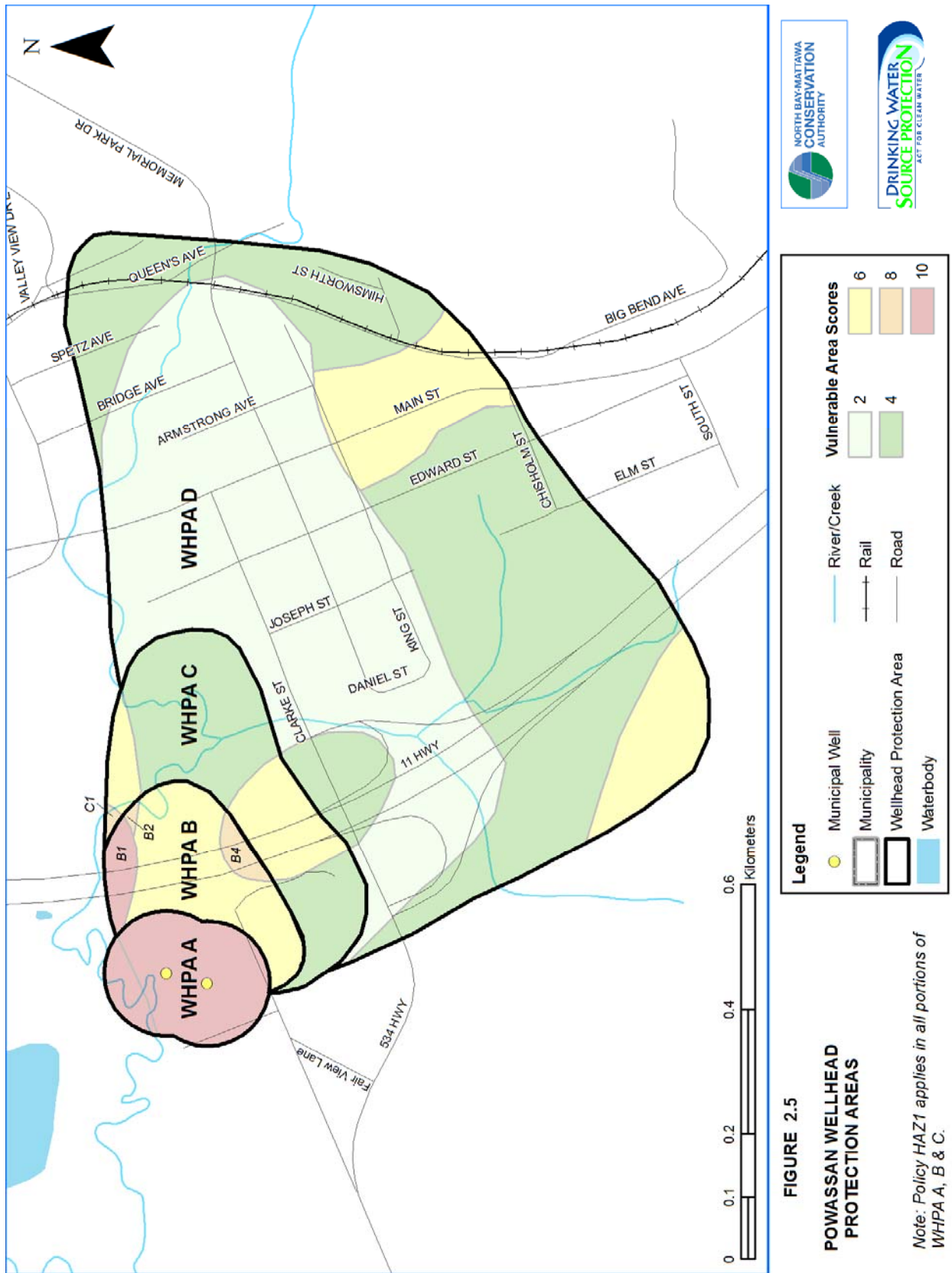
*Acronyms for Implementing Bodies

MNRF: Ministry of Natural Resources and Forestry

MTO: Ministry of Transportation

MOECC: Ministry of Environment and Climate Change

TSSA: Technical Standards and Safety Authority



2.6 South River Policy Table (IPZ-1)

South River's Intake Protection Zone 1 includes area within the Village of South River, Machar Township, and Laurier Township. The latter lacks municipal organization. The following table should be referenced to determine which policies apply to IPZ-1. The implementing body and the specific IPZ are also identified. A map of the vulnerable areas is provided as Figure 2.6 for reference.

Table 2.6: Policy Summary – South River Intake Protection Zone (IPZ)

Code	Policy Title (Shortened)	IPZ	Implementing Body
AIR1	Glycol Management Plans	1	Airport Authority
LAU1	Education about Threat Activities in Laurier	1 in Laurier	Village of South River
PST1	<i>Pesticide Act</i> Approvals to Contain Conditions	1	MOECC***
PST2	Land Use Prohibition: Pesticide Storage	1*	Municipality
PST3	Municipal Pesticide Management Plan	1*	Municipality
PST4	Education about Application of Pesticides	1	Municipality
SAL1	Land Use Prohibition: Road Salt Storage	1*	Municipality
SEW1	Prescribed Instruments for Prohibition of New Sewage Works & Review of Existing	1	MOECC
SEW2	Prescribed Instruments for Management of Sewage Works of Certain Types	1	MOECC
SMF1	Municipal Action to Prohibit Land Application of Nutrients	1*	Municipality
SMF2	Land Use Prohibition: Nutrient Handling & Storage & Livestock Activity	1*	Municipality
SNO1	Land Use Prohibition: Snow Storage Facilities	1*	Municipality
SVA1	Signage for Vulnerable Areas	1	MTO*** Municipality
THS1	Update Protocols for Spills Response	1**	Municipality MOECC
WDS1	Prohibition and Management of Waste Disposal Sites under Part V of the EPA	1	MOECC
WDS2	Land Use Prohibition of Waste Disposal Sites	1*	Municipality
WDS3	Education Hazardous Waste & PCBs	1	Municipality

* As noted in each policy, these policies do not apply in the portions of IPZ-1 that fall within Laurier Township.

** Portions of the policy that specify responsibilities of a Municipality are not applicable in Laurier Township.

***Acronyms for Implementing Bodies

MOECC: Ministry of Environment and Climate Change

MTO: Ministry of Transportation

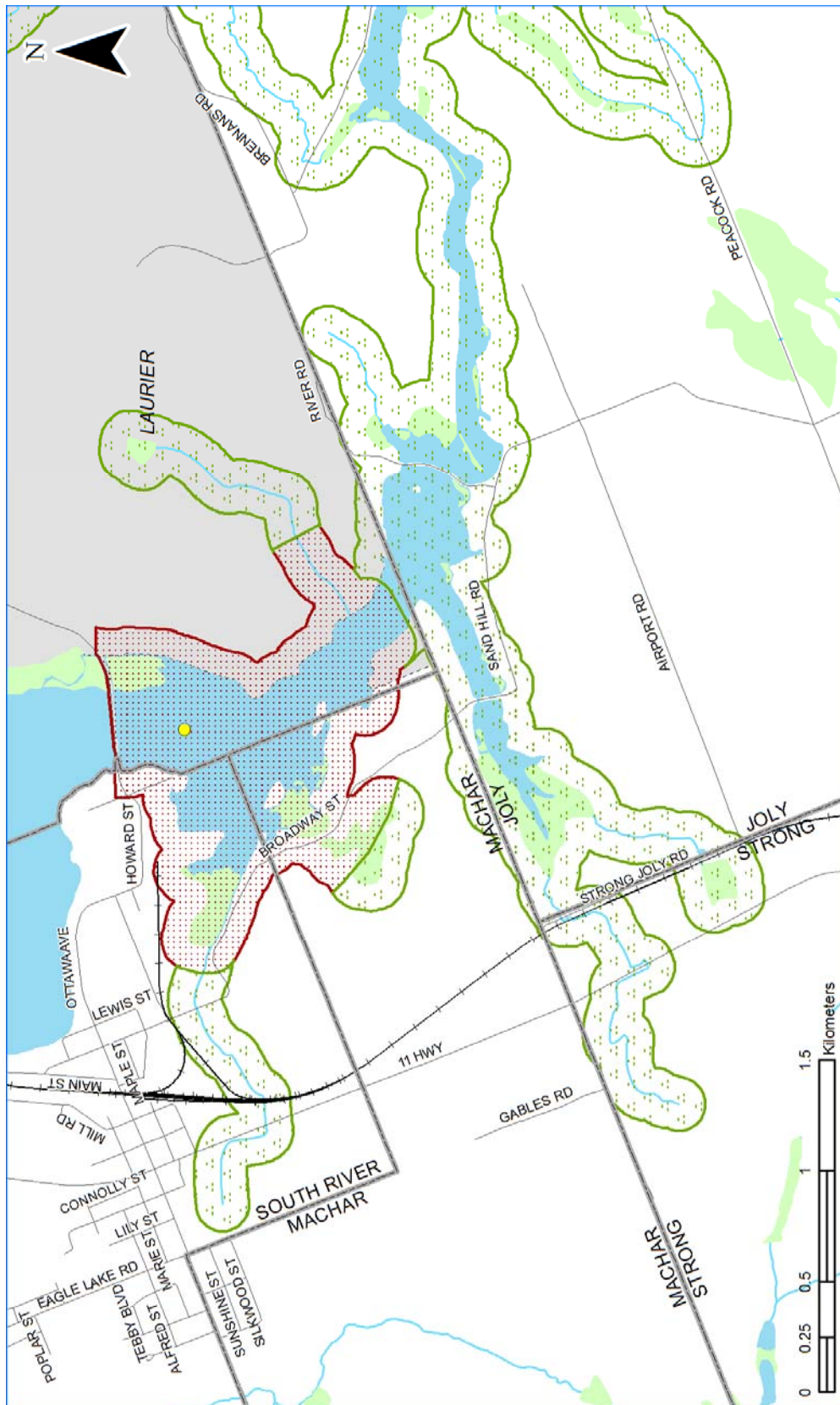


FIGURE 2.6

**SOUTH RIVER INTAKE
PROTECTION ZONES**

*VS - Vulnerability Score
Note: See Schedule A for entire IPZ3 area.



Chapter 3: Policy Tools

The goal of a Source Protection Plan (SP Plan) is to manage or eliminate existing and future activities that could be significant drinking water threats. In most cases, property owners are able to manage significant threats to reduce the risk, which safely allows the activity to continue. The *Clean Water Act* provides several policy tools to accomplish this goal, including:

- Land Use Planning
- Prescribed Instruments
- Part IV Tools: Prohibition, Risk Management Plans and Restricted Land Uses
- Incentives
- Education and Outreach
- Specified Actions
- Other Approaches

Land Use Planning

Municipalities can use zoning by-laws and official plans to direct new development that could pose a threat to drinking water away from vulnerable areas to more appropriate locations. For example, the Municipality could use land use planning to ban waste disposal sites or chemical storage facilities from areas near municipal wells, or upstream of a river intake. Land use planning policies can be general or specific (e.g. prohibit all commercial uses in a specified area or only specific commercial uses). Since land use planning is part of the normal operations of a Municipality, this tool is used frequently within this SP Plan and the Municipality is required to comply.

Policies that use Land Use Planning all come into effect on the Effective Date of the SP Plan. Therefore any prohibition must start being enforced immediately. As soon as possible following approval of the SP Plan, the Municipality should pass appropriate by-laws as per section 34(1) of the *Planning Act* to enforce policies that use land use planning. All such policies in this plan are prohibitions. Required updates to official plans as per section 26 of the *Planning Act* to recognize these changes may be made either at the next scheduled official plan update or sooner if the Municipality so chooses. Because the prohibited activities are limited and none were occurring at the time of preparation of the SP Plan, no provisions are included for grandfathered uses or applications in process.

Prescribed Instruments

A “Prescribed Instrument” refers to a permit or other legal document issued by the provincial government that specifies the conditions under which an activity may take place. General Regulation (O. Reg 287/07 – section 1.0.1) lists specific prescribed instruments relevant to source protection planning.

Those instruments are enabled under the following Ontario Legislation:

Environmental Protection Act

- Approvals for the use, operation, establishment, alteration, enlargement or extension of waste disposal sites or waste management systems
- Approvals issued for
 - i. the use, operation, establishment, alteration, enlargement or extension of waste disposal sites or waste management systems, or

- ii. the establishment, alteration, extension or replacement of new or existing sewage works
- Renewable energy approvals

Ontario Water Resources Act

- Permits to take water
- Approvals to establish, alter, extend or replace new or existing sewage works

Pesticides Act

- Pesticide permits for land exterminations, structural exterminations and water exterminations

Safe Drinking Water Act

- Drinking water works permits
- Municipal drinking water licences

Aggregate Resources Act

- Site plans included in applications for licenses
- Licenses to remove aggregate from pits or quarries
- Site plans accompanying applications for wayside permits
- Wayside permits to operate pits or quarries
- Site plans included in applications for aggregate permits
- Aggregate permits to excavate aggregate or topsoil

Nutrient Management Act

- Nutrient Management Strategies and Plans
- Non-Agricultural Source Material (NASM) Plans

These instruments contain provisions to protect human health and/or the environment, which can be amended to protect source water. For example, the *Nutrient Management Act* requires farms (under certain circumstances) to prepare a Nutrient Management Plan (NMP) or Nutrient Management Strategy (NMS). A policy could specify that the Ontario Ministry of Agriculture, Food and Rural Affairs should review the NMP/NMS to ensure that it is sufficient to protect sources of drinking water.

Regulatory duplication is avoided by designating that a threat can be managed using an existing instrument, which allows threat activities to be managed within a familiar framework. The Source Protection Committee identified some situations where other policy tools were required to address significant drinking water threats in order to fill identified gaps in the existing regulations or to intervene earlier in the process to protect the source water from existing activities.

Specified Actions

“Specified Actions” is a policy tool that directs a public body or organization to take certain steps to achieve the objectives of a SP Plan. Such policies must identify the body or organization that will be undertaking the action, the restrictions or actions that are necessary, and may provide some details on how this action may be undertaken. Examples include establishment of stewardship programs, promotion of best management practices, pilot programs to investigate new approaches to protect source water and research initiatives. Municipalities can be directed to enact by-laws using their powers under the *Municipal Act*. For example, municipalities have the authority to enact by-laws for specific matters within their jurisdiction.

Education and Outreach

Education and outreach is an important component of source water protection to inform either the general public or a specific group regarding some aspects of protecting source water. Information should be provided in such a way that individuals are both more aware of the threats to source water and are equipped to take action. Education/outreach may help the public understand why certain policies apply within their area. A well-planned education/outreach campaign can increase the effectiveness of other policy tools. Education/outreach policies can be required to be implemented by any public body, or can be delegated or shared between organizations.

Part IV Powers (Sections 57, 58 and 59 of the Clean Water Act)

Part IV of the *Clean Water Act* provides new tools to regulate drinking water threats through either prohibition or management of activities as described in sections 57, 58 and 59. Policies using these tools must be enforced by a Risk Management Official. **This SP Plan does not use Part IV Powers.**

Prohibition (S. 57)

Prohibition under Part IV of the *Clean Water Act* is a tool to prevent significant threat activities from occurring in vulnerable areas. Although this tool is not used in this SP Plan, this Plan does prohibit some activities using other approaches such as land use planning or specified actions.

Risk Management Plans (S. 58)

A Risk Management Plan is a site-specific agreement between the local Risk Management Official (RMO) and a person engaged in an activity(ies). A Risk Management Plan can be written to address all designated threats on a property and only applies to the portion of the property where the threat is significant. In addition to imposing new conditions, a Risk Management Plan may recognize existing practices that decrease the risk of contamination.

Restricted Land Uses (S. 59)

Restricted Land Uses is a policy tool that complements either a S.57 Prohibition or a S.58 requirement for Risk Management Plans. By specifying a land use in the vulnerable area for the purpose of Section 59 (restricted land uses), municipal staff are alerted to refer applications for certain types of development to the Risk Management Official for review. The intention is to alert applicants of potential requirements or restrictions early in the development process.

The use of the term “Restricted Land Uses” is different in the *Clean Water Act* than the usage in the *Planning Act*.

Incentive Programs

Source Protection Committees may request that financial incentives be offered to persons engaged in an activity in order to achieve the objectives of the SP Plan. Such programs can be used as a complementary policy for all threats or a specific threat. **No policies in this SP Plan request incentive programs.**

Chapter 4 – Source Protection Plan Policies

Policy Coding

Policy codes and titles refer to the list of Prescribed Activities (Section 1.3):

Table 4-1: Policy Coding

Code	Activity or Concept Addressed in Policy Group
AIR	Management of Aircraft De-Icing Chemicals (Activity 18)
FUL	Fuel (Activity 15)
HAZ	DNAPLs and Organic Solvents (Activities 16 &17)
ICA	Issue Contributing Area Policies (Activities with Phosphorus Contribution as a circumstance)
LAU	Laurier Township (Unorganized Territory) (Activities 3, 4, 6, 7, 8, 9, 10, 11, 13, 14 & 21)
MAT	Policy Respecting Lands in Mattawan Township (Activities 1, 2, 16)
PST	Pesticides (Activities 10 & 11)
SAL	Road Salt (Activities 13)
SEW	Sewage (Activity 2)
SMF	Agricultural Source Materials, Non-Agricultural Source Materials and Fertilizers (Activities 3, 4, 6, 7, 8, 9, & 21)
SNO	Snow (Activity 14)
SVA	Signage of Vulnerable Areas
THS	Transportation of Hazardous Substances (Local Threat)
WDS	Waste Disposal Sites (Activity 1)

Policy Code Example SAL1: **SAL** is the policy code for the Road Salt policy group. **1** refers to the first policy in this policy group.

Policies

Most policy sections include background information to provide some rationale and to indicate the type of circumstances under which an activity could pose a significant threat. Additional information is provided in the Assessment Report and specific circumstances are listed in MOECC's Tables of Drinking Water Threats.

All policies are prefaced by an intent statement that summarizes the goals of the policy. The intent statements are provided for interpretive purposes and are not legally binding.

The policies of the Source Protection Plan (SP Plan), along with the Legal Effect statements in Appendix A, are the legally binding portions of this SP Plan. The policy portion of the SP Plan is found under the italicized "Policy" heading.

Monitoring Policies

The SP Plan carries a requirement for the SP Authority to report annually on the progress of the Plan. Monitoring Policies set out requirements for the various implementing bodies to provide annual or event-based reports to the SP Authority that will assist in the creation of the Annual Report. Monitoring Policies are summarised in a table at the end of each policy code section.

Monitoring Policy Code Example M01 – PA: **M01** is the first monitoring policy in the SP Plan. **PA** stands for *Planning Act*.

Legal Effect of Source Protection Plan Policies

The SP Plan policies have one of three types of legal effect:

- “Must conform/comply with” policies,
- “Have regard to” policies, and
- “Non-legally binding” policies.

The following explains which policies fall under each legal effect provision.

Appendix A: Appendix A in the back of this SP Plan contains lists of the different legal effects by tool. For example a prescribed instrument decision that must conform with a SP Plan policy would be found on list C. The legal effect lists are summarized below.

Must Conform/Comply

- The *Clean Water Act* requires municipalities, local boards, or source protection authorities to comply with any obligations imposed on them to address a significant drinking water threat/condition, regardless of the particular tool or approach used in the policy (see List E).
- The Act requires decisions under the *Planning Act and Condominium Act* to conform with significant threat/condition policies (see List A).
- The Act requires decisions related to Prescribed Instruments to conform with significant threat/condition policies (see List C).
- The *Clean Water Act* requires municipalities to ensure persons carrying out significant threat activities conform with Part IV policies (see Lists G, H and I).
- The SP Plan must designate a public body to carry out monitoring required by the *Clean Water Act* and these public bodies must conform to the obligations set out in the monitoring policies (see List F).

Have Regard To

- The Act requires decisions under the *Planning Act and Condominium Act, 1998* to have regard to moderate and low threat/condition policies (see List B).
- The Act requires decisions related to prescribed instruments to have regard to moderate and low threat/condition policies (see List D).

Non-legally Binding

Some policies, while important to achieving the SP Plan's objectives, are not given legal effect by the *Clean Water Act*. These include:

- Significant, moderate and low threat/condition policies to be implemented by bodies other than municipalities, local boards or source protection authorities and which do not rely on Part IV, prescribed instrument or *Planning Act* tools.
- Other permitted policies governing:
 - i) Incentive programs and education & outreach programs, including for systems not in the Terms of Reference.
 - ii) The update of spills prevention, contingency or response plans along highways, railways or shipping lanes.
 - iii) Climate conditions data collection.
 - iv) Transport pathways in WHPA or IPZ.
- Optional monitoring policies governing:
 - i) Moderate/low threats in areas where the threat could never become significant (see List J).
 - ii) Monitoring of other permissible plan policies (e.g., updates to spills prevention plans) (see List J).

Policies

AIR: Management of Aircraft De-Icing Chemicals

AIR1: Glycol Management Plans

Background

Under certain circumstances, the de-icing of aircraft is required for the safety of flight. Two chemicals used are considered threats to drinking water: Dioxane-1,4 and Ethylene Glycol. Airports with de-icing facilities must have adequate containment to capture runoff of waste water and chemicals, and compliance with this and other requirements is to be documented in a glycol management plan. Only the largest class of airport (National) would be equipped for de-icing operations. North Bay's Jack Garland Airport has de-icing facilities and runways within an IPZ-3, but the threat is not identified as significant. This policy addresses the possibility of the establishment of airports with de-icing facilities in vulnerable areas where the threat would be significant.

Intent

To ensure that a glycol management plan is in place to manage runoff from de-icing operations or a spill. Where the operator/authority is a Municipality, the Municipality shall comply with this policy.

Policy

Prior to the installation or operation of any de-icing facility to be located where the threat could be significant, the airport authority/operator should have in place an appropriate glycol management plan. Said plan should manage the risk posed by runoff from de-icing operations or a spill. The authority/operator should also have in place an emergency response plan to ensure continued protection of the environment in the event of an emergency.

Where the operator/authority is a Municipality, the Municipality shall comply with this policy.

The airport authority/operator should provide notice to the Source Protection Authority when a glycol management plan has been prepared in the areas where this policy applies. This policy shall come into effect on the effective date of the Source Protection Plan and shall apply in the following vulnerable areas:

- Callander IPZ-1;
- Powassan WHPA-A and B1;
- Mattawa WHPA-A and B;
- South River IPZ-1.

Table 4-2: Monitoring Policy for AIR Policy

Code of Associated Policy	Monitoring Policy Code	Monitoring Policy
AIR1	M12-SPA	If and when the Source Protection Authority (SP Authority) becomes aware of a facility which can provide chemical de-icing of aircraft where the threat would be significant, the SP Authority shall request that the airport authority/operator provide a copy of the required glycol management plan. The SP Authority may request that, prior to its submission, said plan be reviewed by an independent third party for compliance with this policy.

FUL: Handling and Storage of Fuel

Background

The main consideration relating to the handling and storage of fuel is to prevent spills. Fuel threats include the handling of liquid fuel in relation to its storage and the storage of liquid fuel. The types of storage facilities affected are defined in Ontario Regulation 213/01 (Fuel Oil) and Ontario Regulation 217/01 (Liquid Fuels). Both regulations are made under the *Technical Standards and Safety Act, 2000*. Although not covered under the *Technical Standards and Safety Act* (TSSA), these policies include facilities where fuel is manufactured or refined.

The types of fuel storage facilities include:

- bulk plants or facilities where it is manufactured or refined;
- permanent or mobile retail outlets;
- marinas;
- cardlocks/keylocks;
- private outlets (e.g. public works yard, contractor yard);
- farms; and
- fuel oil tanks for heating purposes.

The types of fuels include diesel, used oil when used as a fuel, kerosene and hydrocarbon fuels (e.g. gasoline). A significant threat occurs in the vulnerable areas where fuel is stored

- in a facility below grade or partially below grade in quantities of 250 L or more, or
- in a facility above grade in quantities of 2500 L or more.

FUL1: Land Use Prohibition: Handling and Storage of Fuel

Intent

To prohibit land uses which involve the handling or storage of fuel in relation to its manufacturing, refining, or storage for retail sale where the threat could be significant, including:

- the handling of liquid fuels and fuel oil in a quantity exceeding 2500 Litres (L).
- the storage of liquid fuels and fuel oil in a quantity of 250 L or more for any facility partially or completely below grade; and
- the storage of liquid fuels and fuel oil in a quantity of 2500 L or more for any facility located above grade.

The Municipality shall comply with the required prohibition. Note that the threat posed by the handling or storage of fuel oil intended for heating is addressed by FUL4.

Policy

When the Source Protection Plan takes effect, the Municipality shall prohibit the use of land for a gas bar, marina, automobile service station, cardlock/keylock facility, private outlet, farm, refinery, bulk plant and any commercial or industrial land use involving the handling and storage of fuel other than for heating at the location where the threat would be significant.

A Municipality's official plan and zoning by-law in effect for the vulnerable areas shall be reviewed and amended, as necessary, as required under Section 26 of the *Planning Act* to conform to this prohibition.

This policy shall apply in the following vulnerable areas:

- Mattawa WHPA-A and B;
- Powassan WHPA-A and B1.

FUL2: Management of Threat Posed by Fuel Storage as a Condition of Other Approvals

Background

Fuel handling and storage can be a component of other land uses that would not be regulated by municipalities in a zoning by-law. Prescribed instruments may permit fuel storage for equipment, generators or other systems on specific sites. For example: municipal drinking water systems are required to have backup power generation which frequently involves the storage of fuel. Such facilities operate under conditions specified within their required approvals. Significant threats include:

- the handling of liquid fuels and fuel oil in a quantity exceeding 2500 Litres (L);
- the storage of liquid fuels and fuel oil in a quantity of 250 L or more for any facility partially or completely below grade; and
- the storage of liquid fuels and fuel oil in a quantity of 2500 L or more for any facility located above grade.

Intent

To require conditions on prescribed instruments to manage significant threats posed to sources of drinking water by the handling and storage of fuel.

Policy

A prescribed instrument that is of a type listed below, issued where the threat from the handling and storage of fuel could be significant, shall contain conditions to manage the threat. A review of existing instruments and their conditions to manage these threats shall be completed within three years of the date the Source Protection Plan takes effect, or by a time determined by a Director as defined in the associated Act or Regulation, based on a prioritized review of prescribed instruments that govern the handling and storage of fuel in association with the named instruments.

This policy shall apply in the following vulnerable areas:

- Mattawa WHPA-A and B;
- Powassan WHPA-A and B1.

The prescribed instruments for this policy include:

1. *Aggregate Resources Act*: Section 8 site plans included in applications for licenses.
2. *Aggregate Resources Act*: Sections 11 and 13 licenses to remove aggregate from pits or quarries.
3. *Aggregate Resources Act*: Section 25 site plans accompanying applications for wayside permits.
4. *Aggregate Resources Act*: Section 30 wayside permits to operate pits or quarries.
5. *Aggregate Resources Act*: Section 36 site plans included in applications for aggregate permits.
6. *Aggregate Resources Act*: Section 34 aggregate permits to excavate aggregate or topsoil.

7. *Environmental Protection Act*: Section 39 for the use, operation, establishment, alteration, enlargement or extension of a waste disposal site.
8. *Safe Drinking Water Act*: Section 40 with respect to drinking water works permits issued by the Director.
9. *Safe Drinking Water Act*: Section 44 with respect to the municipal drinking water licences issued by the Director.

FUL3: Maintenance of Safety Information for Public by TSSA

Intent

To encourage the Technical Standards & Safety Authority (TSSA) to maintain information on its website that could be used for an education and outreach program relating to the handling and storage of fuel.

Policy

When the Source Protection Plan takes effect, the Technical Standards & Safety Authority should continue to maintain information on its website related to safe handling and storage of fuels, to support the education and outreach required by Policy FUL4 in Mattawa WHPA-A & B, and Powassan WHPA-A & B1.

FUL4: Education: Handling and Storage of Fuel

Background

This policy applies to the handling and storage of liquid fuel and fuel oil tanks. The amounts and circumstances are the same as listed in FUL1 and FUL2 (and repeated in the policy wording below). This policy is primarily directed toward the use of fuel oil for heat, but also includes other handling and storage of fuel. It is important to note that “below grade”, as defined in the *Clean Water Act*, includes tanks stored within basements of a structure.

Intent

To provide information on the safe handling and storage of fuel, proper installation and maintenance of equipment, and how to recognize and respond to a spill.

Policy

Where there could be a significant threat from the handling of liquid fuels and fuel oil in a quantity exceeding 2500 L, the storage of liquid fuel in tanks of 250 L or greater that are located partially, or completely below grade, and tanks greater than 2500 L for any facility located above grade, the Municipality, in association with appropriate partners, shall plan and deliver an education and outreach program within one year of the date the Source Protection Plan takes effect.

The program shall be designed to ensure those involved in the handling and storage of fuel, including but not limited to the owner/operator of the facility, are aware of the risks posed to source water, how to reduce those risks, and how to recognize and respond to a spill.

The program shall be made available and updated as necessary on an ongoing basis as is deemed appropriate by the Municipality. Further, the program may be delivered more broadly at the discretion of a municipal council.

The policy shall apply in the following vulnerable areas:

- Mattawa WHPA-A and B;
- Powassan WHPA-A and B1;

Table 4-3: Monitoring Policies for FUL Policies

Code of Associated Policy	Monitoring Policy Code	Monitoring Policy
FUL1	M01-PA	By February 1 st of the year after an amendment has come into effect for an official plan or zoning by-law, the Municipality shall provide written notice to the SP Authority, including a copy of the amended planning documents.
FUL2	M08-ECA	By February 1 st of the year following the year in which the Ontario Ministry named as the implementing body is required to comply with the associated threat policy, that Ministry shall report to the SP Authority confirming implementation of the policy and how that has been accomplished.
FUL3	M13-TSF	By March 1 st of each year, the SP Authority shall review the TSSA website for compliance with policy FUL3 and may request that the TSSA provide additional information if needed to implement FUL4.
FUL4	M03-EO	By February 1 st of the year after the Municipality is required to prepare and deliver an education and outreach program in accordance with FUL4, HAZ1, WDS3, PST4 and every fifth anniversary thereafter, the Municipality shall provide a report to the Source Protection Authority indicating how the program has been delivered and that it continues to be available.

HAZ: Threats from the Handling and Storage of Dense Non-Aqueous Phase Liquids (DNAPLs) and Organic Solvents

HAZ1: Education DNAPLs and Organic Solvents

Intent

To reduce the threat posed by DNAPLs and organic solvents by informing users of proper handling and disposal of such chemicals including manufactured products containing them. Municipalities may choose to implement the policy as part of a broader program to encourage proper handling and disposal of hazardous goods (see also WDS3: Education Hazardous Waste and PCBs).

Policy

Where there could be a threat from the existing or future handling or storage of DNAPLs or organic solvents, the Municipality, in association with appropriate partners, shall plan and deliver an education and outreach program designed to ensure those involved in such activities are aware of the risks posed to source water, how to reduce those, and how to recognize and respond to a spill.

The program shall be designed within two years of the date the Source Protection Plan takes effect and delivered if the activity is occurring where the threat would be significant. Further, the program shall be made available on an ongoing basis and updated as is deemed appropriate by the Municipality. The program shall be delivered to all persons that could be engaged in the activity of handling and storage of a DNAPLs or organic solvents where the threats could be significant in the following vulnerable areas:

- Mattawa WHPA-A, B and C (except for areas in Mattawan Township);
- Powassan WHPA-A, B and C;

Additionally the policy may be more broadly delivered to a whole Municipality or any part of the Source Protection Area, at the discretion of a municipal council.

Table 4-4: Monitoring Policy for HAZ Policy

Code of Associated Policy	Monitoring Policy Code	Monitoring Policy
HAZ1	M03-EO	By February 1 st of the year after the Municipality is required to prepare and deliver an education and outreach program in accordance with FUL4, HAZ1, WDS3, PST4, and every fifth anniversary thereafter, the Municipality shall provide a report to the Source Protection Authority indicating how the program has been delivered and that it continues to be available.

ICA: Phosphorus Activities in Callander Issue Contributing Area (ICA)

The drinking water system intake in Callander Bay has been identified as being in an area where microcystin LR (a toxin that may be produced by blue-green algae) could occur. Blue green algae occurrences are related to phosphorus contributions. Within the Callander ICA, activities that have any circumstance with phosphorus listed as a contaminant are considered significant threats. These activities include:

- The establishment, operation or maintenance of a waste disposal site within the meaning of Part V of the *Environmental Protection Act*.
- The establishment, operation or maintenance of a system that collects, stores, transmits, treats or disposes of sewage.
- The application of agricultural source material (ASM) to land.
- The storage of agricultural source material (ASM).
- The application of non-agricultural source material (NASM).
- The handling and storage of non-agricultural source material.
- The application of commercial fertilizer to land.
- The handling and storage of commercial fertilizer.
- The use of land as livestock grazing or pasturing land, an outdoor confinement area or a farm-animal yard.

High levels of phosphorus can contribute to the development of blue green algal blooms. Some blue green algae can produce the toxin microcystin LR, which can contaminate drinking water sources.

Note that several of these activities are addressed by policies in other sections (see Table 2.2).

ICA1: Education – Issue Contributing Area

Intent

To reduce phosphorus loadings to waterways and to increase the amount of phosphorus which is bound in plant material and soil by educating people on appropriate strategies or best management practices and encouraging change in behaviours toward implementation of those strategies.

Policy

Where the threat from the following activities could be significant in the areas delineated as the Callander Issue Contributing Area, an education and outreach program shall be implemented to address:

- The application of agricultural source material
- The storage of agricultural source material
- The application of non-agricultural source material
- The handling and storage of non-agricultural source material
- The application of commercial fertilizer
- The handling and storage of commercial fertilizer
- The use of land as livestock grazing or pasturing land, an outdoor confinement area or farm-animal yard. O. Reg. 385/08, s. 3.
- The establishment, operation or maintenance of a system that collects, stores, transmits, treats or disposes of sewage.

The Municipalities shall plan and deliver an education and outreach program designed to result in persons engaged in the above activities and other residents and/or property owners taking the necessary actions to prevent and reduce phosphorus contributions to waterways in the following ways:

1. Identifying sources of phosphorus on the property;
2. Engaging in best management practices for reducing the erosion of stream banks, which should include consideration of vegetated buffers or naturalized shoreline areas which may be implemented independent of local Site Plan Control by-laws;
3. Engaging in best management practices for sediment removal, removal of soil-bound nutrients and soluble nutrients from overland and shallow subsurface flow;
4. Engaging in best management practices for the application of agricultural source material, commercial fertilizer, and non-agricultural source material;
5. Engaging in best management practices for management or handling of agricultural source material generated by grazing, pasturing, maintaining in yards or confining farm animals;
6. Engaging in best management practices for the storage of agricultural and non-agricultural source material and commercial fertilizer;
7. Establishing a vegetated buffer strip on the property; and
8. Fostering the improvement of aquatic habitats.

The education and outreach program should be delivered consistently throughout the five municipalities within the Issue Contributing Area within two years of the date the Source Protection Plan takes effect and shall be updated as necessary and made available on an ongoing basis.

The education and outreach program shall identify the desired actions and/or behaviours, as well as the goals, timeline, deliverables, and desired outcomes of the program; and include a process for measuring the outcomes. The program plan shall identify the benefits of engaging in the desired behaviors, as well as the barriers, and incorporate a variety of strategies and tools to overcome the barriers. The program shall take into consideration the principles of social marketing as a strategy for fostering the desired behaviours and actions.

In the Townships of Ballantyne, Bolter and Wilkes (which lack municipal organization), the Conservation Authority shall collaborate with ICA municipalities to implement this policy.

Additionally the policy may be more broadly released to a whole Municipality or any part of the Source Protection Area, at the discretion of a municipal council.

ICA2: *Nutrient Management Act* Tools to Implement Phosphorus Best Management in Issue Contributing Area

Intent

To recognize that agricultural operations of a certain size or production, or ones completing a physical expansion of buildings, must prepare and implement specific *Nutrient Management Act* instruments. As a part of those instruments, significant threat activities will be addressed by considering how phosphorus is managed on the property and the plan or strategy should address ways to reduce contributions of phosphorus to the drinking water sources.

Policy

In the Callander Issue Contributing Area, where the threat could be significant, the following existing and future activities are designated for the purpose of specifying certain conditions to be placed on a *Nutrient Management Act* instrument:

- The application of agricultural source material
- The storage of agricultural source material
- The application of non-agricultural source material
- The handling and storage of non-agricultural source material
- The application of commercial fertilizer
- The use of land as an outdoor confinement area or farm-animal yard.

Where the threat from any of the activities listed above would be significant and a Nutrient Management Plan, Nutrient Management Strategy, and/or Non-Agricultural Source Materials Plan is required, the instrument should include appropriate terms and conditions that demonstrate that best management practices related to limiting and/or attenuating phosphorus have been implemented in the plan or strategy to meet the objectives of the Source Protection Plan (SP Plan). All existing instruments shall be updated within two years of the date the SP Plan takes effect to demonstrate that best management practices related to limiting and/or attenuating phosphorus have been implemented in the plan or strategy to meet the objectives of the SP Plan.

ICA3: Governing Research in the Issue Contributing Area

Intent

To improve knowledge and understanding of the pertinent factors related to phosphorus loading, phosphorus attenuation and water quality in the Issue Contributing Area.

Policy

The North Bay-Mattawa Conservation Authority, in partnership with the Municipality of Callander and in consultation with the other named municipalities, shall establish a working committee within one year of the date the Source Protection Plan (SP Plan) takes effect. This working committee will prioritize research regarding threat activities in the Callander Issue Contributing Area to accomplish the following research outcomes:

1. verify relative contributions of phosphorus from specific activities and in relation to subzones within the Issue Contributing Area;
2. improve understanding of attenuation mechanisms and their relative significance;
3. target areas of concern for future work using data gathered in the monitoring of the issue and other available watershed research; and
4. identify best management practices that could be implemented to meet the objectives of the SP Plan.

The following activities shall be researched to improve knowledge and understanding of the pertinent factors related to phosphorus loading, attenuation and water quality as they were identified in the North Bay-Mattawa Source Protection Area Assessment Report:

- The establishment, operation or maintenance of a waste disposal site within the meaning of Part V of the *Environmental Protection Act*.
- The application of agricultural source material
- The storage of agricultural source material
- The application of non-agricultural source material
- The handling and storage of non-agricultural source material
- The application of commercial fertilizer to land.
- The handling and storage of commercial fertilizer
- The use of land as livestock grazing or pasturing land, an outdoor confinement area or farm-animal yard. O.Reg. 385/08, s. 3.
- The establishment, operation or maintenance of a system that collects, stores, transmits, treats or disposes of sewage.

In addition to the Municipality of Callander, the following municipalities having jurisdiction over lands in the Issue Contributing Area shall be included in the working committee in an advisory capacity: Chisholm Township, Municipality of East Ferris, City of North Bay, and the Municipality of Powassan. Responsibility for implementation of this policy shall rest with the Municipality of Callander.

ICA4: Monitor Issue in Callander ICA – Phosphorus Contribution Related to Microcystin LR

Intent

Require ongoing data collection to inform the design and implementation of programs required by other policies.

Policy

When the Source Protection Plan (SP Plan) comes into effect, the North Bay-Mattawa Conservation Authority, with the support of the Municipality of Callander, shall undertake an ongoing program of water quality monitoring annually in the Callander Issue Contributing Area. At a minimum, the program should monitor phosphorus or a surrogate, and may also monitor conditions that can either contribute to the development of blue green algae or to the attenuation of phosphorus. Annual reporting shall focus on reporting trends in the subwatersheds, and shall give consideration to the potential relationships between phosphorus loading and the policies that have been implemented under the SP Plan.

Table 4-5: Monitoring Policies for ICA Policies

Code of Associated Policy	Monitoring Policy Code	Monitoring Policy
ICA1	M04-EO	By February 1 st of the year after the Municipalities are required to begin delivering an education and outreach program in accordance with ICA1 and each year thereafter, the Municipalities shall provide a report to the Source Protection Authority indicating actions taken to implement the policy. The report shall address the goal(s) of the education program, the strategies used to achieve the goal(s), timeline, deliverables, outcome and an evaluation of the effectiveness of the program. The report shall also highlight any known changes in behaviours as a result of the education program that have contributed to the protection of the drinking water source. The education program and annual reporting shall continue until monitoring and research, in accordance with ICA3 and ICA4, indicates that no further improvement to water quality is likely to be achieved by additional adoption of best management practices within the ICA.
ICA2	M08-ECA	By February 1 st of the year following the year in which the Ontario Ministry named as the implementing body is required to comply with the associated threat policy, that Ministry shall report to the SP Authority confirming implementation of the policy and how that has been accomplished.
ICA3, ICA4	M10-CAI	By February 1 st of each year, the North Bay-Mattawa Conservation Authority, in collaboration with the Municipality of Callander, shall provide a report to the SP Authority on the activities and findings regarding the research and/or monitoring undertaken with respect to the drinking water issue. Expectations for the upcoming period may also be included.

LAU: Township of Laurier (Unorganized Territory)

LAU1: Education about Threat Activities in Laurier Township

Intent

To use an education and outreach approach to manage significant threat activities in the Township of Laurier that would be addressed with land use planning tools if there were municipal organization.

Policy

An education and outreach program shall be delivered by the Village of South River to property owners in the Laurier Township portion of the South River IPZ-1 to create awareness of the threat that may be posed and encourage responsible action if engaging in any of the following activities:

- The application of agricultural source material to land.
- The storage of agricultural source material.
- The application of non-agricultural source material to land.
- The handling and storage of non-agricultural source material.
- The application of commercial fertilizer to land.
- The handling and storage of commercial fertilizer.
- The application of pesticide to land.
- The handling and storage of pesticide.
- The handling and storage of road salt.
- The storage of snow.
- The use of land as livestock grazing or pasturing land, an outdoor confinement area or a farm-animal yard. O. Reg. 385/08, s. 3.
- The storage of hazardous waste or liquid industrial waste

The program shall be delivered within one year of the effective date of the plan and continue to be available. Should the area in question come under the jurisdiction of an organized Municipality, the responsibilities for implementation of this policy shall be transferred to that Municipality.

Table 4-6: Monitoring Policy for LAU Policy

Code of Associated Policy	Monitoring Policy Code	Monitoring Policy
LAU1	M05-EO	By February 1 st of the year after the Municipality is required to deliver an education and outreach program as per LAU1, the Village of South River (or the organized Municipality that has jurisdiction) shall provide a report to the Source Protection Authority indicating that the program has been delivered and shall continue to be available.

MAT: Policy Respecting Lands in Mattawan Township

MAT1: Management of Threats in Mattawan Township

Background

A small portion of the wellhead protection area for the Town of Mattawa's drinking water system is within the Township of Mattawan. As Crown Land, it is administered by the Ministry of Natural Resources and Forestry (MNRF). The only prescribed activity that could pose a threat in this area is the handling and storage of dense non-aqueous phase liquids (DNAPLs). Such threats are to be managed by MNRF exercising discretion in permitting activities on said lands. Note that the policy wording flags other activities which could threaten drinking water, but those are addressed by Prescribed Instrument policies SEW1 and WDS1.

Intent

To manage significant threats related to the handling or storage of dense non-aqueous phase liquids (DNAPLs) that could occur in the WHPA-C for Mattawa's drinking water source in lands that are part of Mattawan Township and currently designated as Crown Land, and to ensure awareness of MNRF to the vulnerability of the area to other named activities.

Policy

When the Source Protection Plan takes effect, the Ministry of Natural Resources and Forestry (MNRF) shall consider the vulnerability of lands in Mattawa WHPA-C to threats posed from the following activities:

- The handling or storage of a dense non-aqueous phase liquid,
- Landfilling (municipal waste) AND landfilling (solid non-hazardous industrial or commercial),
- Liquid industrial waste injection into a well,
- Storage of sewage (e.g. treatment plant tanks).

Further, MNRF shall consult with the Source Protection Authority when making decisions regarding activities or uses permitted on said lands when the potential for use of DNAPLs or products containing them could reasonably be expected to occur.

Table 4-7: Monitoring Policies for MAT Policy

Code of Associated Policy	Monitoring Policy Code	Monitoring Policy
MAT1	M09-MNRF	By February 1 st of each year, the Ministry of Natural Resources and Forestry shall, if activities involving or reasonably expected to involve the handling or storage of dense non-aqueous phase liquids have been undertaken or permitted on the lands identified in Policy MAT1, report to the SP Authority describing what consideration was given to the vulnerability of the area in relation to the significant threat.

PST: Pesticides

Background

Pesticides are typically chemicals but could be organisms that are used to control pests, such as weeds, insects and fungi. All of the pesticides considered through the drinking water source protection initiative are chemicals. The application of pesticides to land, as well as the handling and storage of pesticides, is most commonly associated with agricultural, recreational, public works and retail land uses. The application of pesticides to land is now significantly restricted by the *Cosmetic Pesticides Ban Act* (2008), which amended the Pesticides Act to prohibit the use and sale of pesticides that may be used for cosmetic purposes.

The following table demonstrates the circumstances under which various pesticides could be significant threats to drinking water. The vulnerability score of the wellhead or intake would also be a factor.

Table 4-8: Circumstances Whereby Pesticide Application Could Be Significant

Pesticide	Land Area of Application (ha)		
	Less than 1	1 to 10	Greater than 10
Atrazine		X	X
Dicamba		X	X
Dichlorophenoxy Acetic Acid (2, 4-D)		X	X
Dichloropropene 1,3		X	X
MCPA (2-methyl-4-chlorophenoxyacetic acid)	X	X	X
MCPB (4-(4-chloro-2-methylphenox) butanoic acid)		X	X
Mecoprop	X	X	X
Metalaxyl		X	X
Metolachlor or s-Metolachlor			X
Pendimethalin		X	X
Glyphosate			X

PST1: Pesticide Approvals to Consider Source Water

Intent

To require conditions on permits issued for the application of pesticides, such as aerial spraying, that would ensure the activity does not pose a significant threat to drinking water sources.

Policy

Where the application of pesticide to land could be a significant threat, the Ministry of the Environment and Climate Change shall not issue any permits under the *Pesticide Act* and O. Reg. 63/09 unless said permit contains conditions that ensure that pesticide application is not, or does not become, a significant drinking water threat. Instruments that exist when the Source Protection Plan (SP Plan) takes effect shall be reviewed within three years of the date the SP Plan takes effect and amended as necessary.

The Director, as defined in the *Pesticides Act* or its Regulations, may determine another implementation date based on a prioritized review of permits that govern significant drinking water threat activities.

This policy shall apply in the following vulnerable areas:

- Callander IPZ-1 and 2;
- Mattawa WHPA-A and B;
- Powassan WHPA-A and B1; and
- South River IPZ-1.

PST2: Land Use Prohibition – Pesticide Storage

Background

Depending on the vulnerability score of the intake or wellhead, the following circumstances for the storage of pesticides could be significant threats to source waters:

1. The storage of pesticides in quantities of 250 kg to 2,500 kg for Mecoprop and for MCPA (2-methyl-4-chlorophenoxyacetic acid).
2. The storage of pesticides in quantities exceeding 2,500 kg for:
 - Atrazine
 - Dicamba
 - Metalaxyl
 - Dichloro-propene 1,3
 - Mecoprop
 - MCPB (4-(4-chloro-2-methylphenox) butanoic acid)
 - MCPA (2-methyl-4-chlorophenoxyacetic acid)
 - Dichlorophenoxy Acetic Acid (2, 4-D)
 - Metolachlor or s-Metolachlor
 - Pendimethalin

Intent

To prohibit the storage of pesticides by excluding it from lists of permitted uses in the vulnerable areas. The Municipality shall comply with the required prohibition.

Policy

When the Source Protection Plan takes effect, the Municipality shall prohibit the establishment of any land use involving the storage of pesticides that would pose a significant threat including retail sale, manufacturing, processing, and wholesaling.

The Municipality's official plan and zoning by-law in effect for the vulnerable areas shall be reviewed and amended, as necessary, as required under Section 26 of the *Planning Act*, to implement this policy.

The policy applies in the following vulnerable areas:

- Callander IPZ-1;
- Mattawa WHPA-A and B;
- Powassan WHPA-A and B1; and
- South River IPZ-1, with the exception of lands in Laurier Township (which are subject to LAU1).

PST3: Municipal Pesticide Management Plan

Intent

To require the Municipality to prepare a plan for its own use of pesticides where threats could be significant. If the Municipality chooses to avoid such activities, the plan could be that pesticides shall not be applied or stored under circumstances where the threat could be significant.

Policy

Within three years of the date the Source Protection Plan takes effect, the Municipality shall develop a pesticide management plan for municipal properties to ensure that the application or storage of pesticides does not pose a significant drinking water threat. This plan may provide direction to minimize the use (volume, area of application, application rate and frequency) of pesticides, target reductions and suggest alternatives to their use where possible.

The policy applies to the following vulnerable areas:

- Callander IPZ-1 and 2;
- Mattawa WHPA-A and B;
- Powassan WHPA-A and B1; and
- South River IPZ-1 with the exception of lands in Laurier Township (which are subject to LAU1).

PST4: Education about Application of Pesticides

Intent

To reduce the threat posed by the application of pesticides by informing users of safe application of pesticides that are not covered by the prescribed instrument policy PST1, or the Municipal Management Plan covered by PST3. Municipalities may choose to implement the policy as part of a broader program to encourage safe application of pesticides.

Policy

Where there could be a significant threat from the application of pesticides, the Municipality, in association with appropriate partners, shall plan and deliver an education and outreach program within one year of the date the Source Protection Plan takes effect.

The program shall be designed to ensure those involved in the application of pesticides are aware of the risks posed to source water and how to reduce those risks.

The program shall be made available and updated as necessary on an ongoing basis as is deemed appropriate by the Municipality. Further, the program may be delivered more broadly at the discretion of a municipal council.

The policy shall apply in the following vulnerable areas:

- Callander IPZ-1 and 2;
- Mattawa WHPA-A and B;
- Powassan WHPA-A and B1; and
- South River IPZ-1 with the exception of lands in Laurier Township (which are subject to LAU1).

Table 4-9: Monitoring Policies for PST Policies

Code of Associated Policy	Monitoring Policy Code	Monitoring Policy
PST1	M08-ECA	By February 1 st of the year following the year in which the Ontario Ministry named as the implementing body is required to comply with the associated threat policy, that Ministry shall report to the SP Authority confirming implementation of the policy and how that has been accomplished.
PST2	M01-PA	By February 1 st of the year after an amendment has come into effect for an official plan or zoning by-law, the Municipality shall provide written notice to the SP Authority, including a copy of the amended planning documents.
PST3	M02-MUN	By February 1 st of each year the Municipality shall provide a report to the SP Authority that details the annual progress on all specify action policies for which it is responsible that have not previously been reported as fully implemented.
PST4	M03-EO	By February 1 st of the year after the Municipality is required to prepare and deliver an education and outreach program in accordance with FUL4, HAZ1, WDS3, PST4 and every fifth anniversary thereafter the Municipality shall provide a report to the Source Protection Authority indicating how the program has been delivered and that it continues to be available.

SAL: Handling and Storage of Road Salt

Background

Road salt may pose a drinking water threat when the product contains sodium and/or chloride. The most commonly used products to maintain roads and pedestrian areas are sodium chloride and calcium chloride because they are effective and inexpensive. The handling and storage of road salt could be a significant threat where greater than 5,000 tonnes are stored uncovered and/or exposed to runoff. Because of the limited proportion of paved surfaces when this Source Protection Plan was prepared, there was no vulnerable area where the application of road salt would pose a significant threat. Therefore, policies developed address only the threats that could be posed by handling and storage.

SAL1: Land Use Prohibition – Road Salt Storage

Intent

To prevent private operations from establishing road salt storage facilities within the vulnerable areas where the threat could be significant.

Policy

When the Source Protection Plan takes effect, the Municipality shall prohibit the future establishment of a salt storage facility in vulnerable areas listed below where the threat from the storage of road salt could be significant. A municipal official plan and zoning by-law in effect for the vulnerable areas shall be reviewed and amended, as necessary, as required under Section 26 of the Planning Act to implement this prohibition.

The areas where the establishment of a facility providing the storage of salt in amounts greater than 5,000 tonnes that is either uncovered or exposed to runoff could pose a significant threat are:

- Callander IPZ-1;
- Mattawa WHPA-A and B;
- Powassan WHPA-A and B1; and
- South River IPZ-1 with the exception of lands in Laurier Township (which are subject to LAU1).

Table 4-10: Monitoring Policies for SAL Policy

Code of Associated Policy	Monitoring Policy Code	Monitoring Policy
SAL1	M01-PA	By February 1 st of the year after an amendment has come into effect for an official plan or zoning by-law, the Municipality shall provide written notice to the SP Authority, including a copy of the amended planning documents.

SEW: Establishment, Operation or Maintenance of a System that Collects, Stores, Transmits, Treats or Disposes of Sewage

Background

The establishment, operation or maintenance of a sewage system that collects, stores, transmits, treats or disposes of sewage is a prescribed drinking water threat. Sewage systems are categorized as either large or small based on a design flow relative to 10,000 L/day. Threat circumstances for large systems include the following activities:

- Combined sewer discharge from a storm water outlet to surface water,
- Sewage treatment plant bypass discharge to surface water,
- Discharge of storm water from a storm water retention pond,
- Industrial effluent discharges,
- Sanitary sewers and related pipes,
- Sewage treatment plant effluent discharges (includes lagoons), and
- Storage of sewage (e.g. treatment plant tanks).

Large systems (with a design flow greater than 10,000 L/day), are required by the *Ontario Water Resources Act* to have and operate in accordance with an environmental compliance approval issued under the *Environmental Protection Act*. Schools, campgrounds, larger businesses and municipal systems are common examples.

Approvals for small systems (with a design flow less than or equal to 10,000 L/day) are issued under the Ontario Building Code and administered, in this Source Protection Area, by the North Bay-Mattawa Conservation Authority. These systems come in a variety of forms including earth pit privies, privy vaults, greywater systems, cesspools, leaching bed systems and associated treatment units, and holding tanks. Leaching bed systems with septic tanks or holding tanks are the systems most commonly used.

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

Intent

To prevent the establishment of certain sewage works which pose an elevated risk of contamination to the source waters based on their design or likelihood to contribute raw, untreated sewage to source water by prohibiting their approval. Existing approvals shall be reviewed to ensure that the threat is appropriately managed.

Policy

The Ministry of Environment and Climate Change shall not issue an Environmental Compliance Approval for future activities where the threat from the establishment, operation or maintenance of a sewage works issued under the *Environmental Protection Act* would be significant.

For Environmental Compliance Approvals that exist in areas where the threats are significant for sewage works, the Ministry of Environment and Climate Change shall review their terms within three years of the date the Source Protection Plan takes effect and amend as necessary to ensure that the terms of each approval adequately addresses the threats to source water.

The Director as defined in the *Environmental Protection Act* or its Regulations may determine another implementation date based on a prioritized review Environmental Compliance Approvals that govern significant drinking water threat activities.

This policy shall apply for the named activities and threat subcategories in the following vulnerable areas:

Combined sewer discharge from a stormwater outlet to surface water AND sewage treatment plant bypass discharge to surface water:

- Callander IPZ-1 and 2;
- North Bay IPZ-1; and
- South River IPZ-1.

Industrial effluent discharges:

- Callander IPZ-1, 2 and Issue Contributing Area (ICA only if related to a circumstance containing phosphorus);
- North Bay IPZ-1; and
- South River IPZ-1.

Sewage treatment plant effluent discharges (includes lagoons):

- Callander IPZ-1 and 2;
- Mattawa WHPA-A and B;
- North Bay IPZ-1;
- Powassan WHPA-A and B1; and
- South River IPZ-1.

Storage of sewage (e.g. treatment plant tanks):

- Callander IPZ-1;
- Mattawa WHPA-A, B and C;
- Powassan WHPA-A, B1/B2/B4 and C1; and
- South River IPZ-1.

SEW2: Prescribed Instruments for Management of Sewage Works of Certain Types

Background

Certain existing sewage works were identified in the completion of the Assessment Report that are part of the normal function of communities in the Source Protection Area. Examples include sewer systems in Mattawa and Callander, large sewage systems (frequently for commercial, institutional and residential uses), and the municipal sewage lagoons for Callander.

Intent

Existing procedures regarding issuance of approvals should undergo review and should be revised as warranted to be consistent with the objectives of source protection planning. It is expected that the Ministry of Environment and Climate Change (MOECC) procedures will include provisions to ensure adequate monitoring for compliance with the terms of the prescribed instruments issued.

Policy

The Ministry of the Environment and Climate Change shall ensure that for future Environmental Compliance Approvals for the establishment of sewage works issued under the *Environmental Protection Act*, that the design of such facilities appropriately manages the threats to source waters and may consider the MOECC Design Guidelines for Sewage Works, 2008 and as amended.

For Environmental Compliance Approvals that exist where the threats could be significant for sewage works, the Ministry of Environment and Climate Change shall review their terms within three years of the date the Source Protection Plan takes effect and amend as necessary to ensure that the terms of each approval adequately addresses the threats to source water. The Director, as defined in the *Environmental Protection Act* or its Regulations, may determine another implementation date based on a prioritized review of Environmental Compliance Approvals that govern significant drinking water threat activities.

This policy shall apply for the named activities and threat subcategories in the following vulnerable areas:

Discharge of Stormwater from a Stormwater Retention Pond:

- Callander IPZ-1 and 2;
- Mattawa WHPA-A and B;
- North Bay IPZ-1;
- Powassan WHPA-A and B1; and
- South River IPZ-1.

Sanitary Sewers and Related Pipes:

- Callander Issue Contributing Area (ICA only if related to a circumstance containing phosphorus);
- Mattawa WHPA-A and B (has existing); and
- Powassan WHPA-A and B1;

Large Septic Systems and Septic System Holding Tanks:

- Callander Issue Contributing Area (ICA only if related to a circumstance containing phosphorus);
- Mattawa WHPA-A and B; and
- Powassan WHPA-A and B1;

Sewage Treatment Plant Effluent Discharges (includes lagoons):

- Callander Issue Contributing Area (ICA only if related to a circumstance containing phosphorus)

SEW3: Recognize the Ontario Building Code Mandatory Maintenance Inspection Program

Background

A septic system or holding tank subject to the Ontario Building Code could be a significant threat to drinking water:

1. In Wellhead Protection Areas with a vulnerability score of 10, due to the potential of pathogens to contaminate source water.
2. In the Callander Issue Contributing Area due to the potential release of phosphorus from the septic systems or holding tank.

Intent

To recognize the Ontario Building Code requirements for mandatory maintenance inspections as a tool to meet the objectives of the Source Protection Plan.

Policy

For all future and existing septic systems that could be significant threats and that are subject to the requirements of the Ontario Building Code, a mandatory maintenance inspection program shall be implemented by the principal authority as defined by the Ontario Building Code.

This policy shall apply to the following vulnerable areas:

- Callander Issue Contributing Area
- Mattawa WHPA-A, and B;
- Powassan WHPA-A, and B1;

Table 4-11: Monitoring Policies for SEW Policies

Code of Associated Policy(ies)	Monitoring Policy Code	Monitoring Policy
SEW1 SEW2	M08-ECA	By February 1 st of the year following the year in which the Ontario Ministry named as the implementing body is required to comply with the associated threat policy, that Ministry shall report to the SP Authority confirming implementation of the policy and how that has been accomplished.
SEW3	M11-CAS	By February 1 st of each year, the principal authority defined by the <i>Ontario Building Code</i> shall prepare a progress report for the SP Authority to, at minimum, confirm that the program is being implemented and report the number of any outstanding orders. The report may also include the numbers of inspections completed, failed systems identified, and new systems constructed either as a result of new construction or replaced as a result of a failed septic system in the subject areas.

SMF: Source Materials and Fertilizers

Background

Policies in this section address the following prescribed activities:

- The application of agricultural source material (ASM) to land.
- The storage of agricultural source material (ASM).
- The application of non-agricultural source material (NASM) to land.
- The handling and storage of non-agricultural source material (NASM).
- The application of commercial fertilizer to land.
- The handling and storage of commercial fertilizer.
- The use of land as livestock grazing or pasturing land, an outdoor confinement area or a farm-animal yard.

Agricultural Source Material (ASM): According to Ontario Regulation 267/03 (General) under the *Nutrient Management Act*, ASMs include the following materials that may be produced on a farm:

- Manure produced by farm animals, including bedding materials;
- Runoff from farm-animal yards and manure storages;
- Wash water that has not been mixed with human body waste (e.g. from the milking centre);
- Organic materials produced by intermediate operations that process the above materials (e.g. mushroom compost);
- Anaerobic digestion output that does not include sewage biosolids or human body waste (anaerobic digestion is a process used to decompose organic matter by bacteria in an oxygen limited environment); and
- Regulated compost (which contains dead farm animals).

ASM can be stored in a permanent nutrient storage facility or on a temporary field nutrient storage site. The primary consideration for reducing or eliminating the threat to drinking water in the application and storage of ASM is to ensure nitrogen, phosphorus and pathogens do not enter the drinking water supply.

Non-Agricultural Source Material (NASM): According to Ontario Regulation 267/03 (General) under the *Nutrient Management Act*, NASMs include the following materials that are intended to be applied to land as nutrients but that are not produced on a farm:

- Pulp and paper biosolids;
- sewage biosolids;
- Anaerobic digestion output where less than 50% of the total material is on-farm anaerobic digestion materials (anaerobic digestion is a process used to decompose organic matter by bacteria in an oxygen-limited environment); and
- Any other material that is not from an agricultural source and that is capable of being applied to land as a nutrient (such as materials from dairy product or animal food manufacturing).

NASM that will be applied to fields on a farm can be stored in a permanent nutrient storage facility, or on a temporary field nutrient storage site.

Commercial Fertilizer: Nitrogen and phosphorus are macronutrients required by plants and common components of commercial fertilizers (nitrogen usually as nitrate). Nitrate applied to land, under certain circumstances, has been known to contaminate groundwater making it unsuitable for consumption by infants. As well, both phosphorus and nitrate can contribute to excessive growth of algae in surface

waters. Therefore care needs to be taken with the handling, storage, and application to land of commercial fertilizers.

Land Used for Livestock: The use of land for livestock grazing or pasturing, an outdoor confinement area or a farm animal yard: Ontario Regulation 267/03 made pursuant to the *Nutrient Management Act* defines outdoor confinement areas as follows:

- It is composed of fences, pens, corrals or similar structures;
- It may contain a shelter to protect the animals from the wind or another shelter with a roof of an area of less than 20 square metres;
- It has permanent or portable feeding or watering equipment;
- The animals are fed or watered at the enclosure;
- The animals may or may not have access to other buildings or structures for shelter, feeding or watering; and
- Grazing and foraging provides less than 50 per cent of dry matter intake.

Farm animal yards are outdoor livestock areas lined with concrete other than those meeting the definition of an outdoor confinement area. Food and water are not provided in farm-animal yards. They are generally used as outdoor exercise areas or holding areas for when barns are being cleaned out, usually in association with a barn/covered structure. Ontario grazing systems involve a concentration of up to two to three animals per acre during the grazing season, often on a rotational basis.

SMF1: Municipal Action to Prohibit Land Application of Nutrients

Intent

The application of source materials and fertilizers in the vulnerable areas are not considered land uses and therefore cannot be prohibited using land use planning tools. Application under circumstances that would constitute a significant threat is to be prohibited through local tools. The Municipality shall comply with the required prohibition.

Policy

The application of agricultural source material, non-agricultural source material, or commercial fertilizer to land shall be prohibited by the Municipality where the threat from such activities could be significant in the areas where the policy applies. The prohibition, using a regulatory tool deemed appropriate and enforceable by the Municipality, shall take effect no later than one year from the date the Source Protection Plan takes effect and shall apply to all existing and future activities.

The policy shall apply for the named activities in the following vulnerable areas:

The application of agricultural source material to land AND the application of non-agricultural source material to land:

- Callander IPZ-1 and 2;
- Mattawa WHPA-A and B;
- North Bay IPZ-1;
- Powassan WHPA-A and B1; and
- South River IPZ-1 with the exception of lands in Laurier Township (which are subject to LAU1).

The application of commercial fertilizer to land:

- Callander IPZ1;
- Mattawa WHPA-A and B;
- Powassan WHPA-A and B1; and
- South River IPZ-1 with the exception of lands in Laurier Township (which are subject to LAU1).

SMF2: Land Use Prohibition – Nutrient Handling & Storage and Livestock Activity

Intent

To use municipal planning tools to prevent the establishment of a storage facility or livestock grazing area in the vulnerable areas since these activities are also considered land uses. The Municipality shall comply with the required prohibition.

Policy

When the Source Protection Plan takes effect the Municipality shall prohibit the future uses of land as listed below where the threat from such uses would be significant in the areas where this policy applies. A Municipality's official plan and zoning by-law in effect for the vulnerable areas shall be reviewed and amended, as necessary, as required under Section 26 of the *Planning Act*, to implement this prohibition.

The uses to be prohibited include:

1. The storage of agricultural source material.
2. The handling and storage of non-agricultural source material.
3. The handling and storage of commercial fertilizer.
4. The use of land as livestock grazing or pasturing land, an outdoor confinement area or farm-animal yard.

The policy applies in the following vulnerable areas:

- Callander IPZ-1 and 2;
- Mattawa WHPA-A and B;
- North Bay IPZ-1;
- Powassan WHPA-A and B1; and
- South River IPZ-1 with the exception of lands in Laurier Township (which are subject to LAU1).

Table 4-12: Monitoring Policies for SMF Policies

Code of Associated Policy	Monitoring Policy Code	Monitoring Policy
SMF1	M02-MUN	By February 1 st of each year the Municipality shall provide a report to the SP Authority that details the annual progress on all specify action policies for which it is responsible that have not previously been reported as fully implemented.

Code of Associated Policy	Monitoring Policy Code	Monitoring Policy
SMF2	M01-PA	By February 1 st of the year after an amendment has come into effect for an official plan or zoning by-law, the Municipality shall provide written notice to the SP Authority, including a copy of the amended planning documents.

SNO: Storage of Snow

SNO1: Land Use Prohibition – Consolidated Snow Storage Facilities

Background

The storage of snow could be a significant threat where the vulnerability score of the listed areas and the following circumstances are combined:

- above grade where the snow storage area will exceed 1 hectare [2.47 acres]
- below grade where the snow storage area will exceed 100 m² [1,076 ft²]

The circumstances related to the storage of snow relate to chemicals or contaminants which may be contained in the snow and released as it melts.

The associated risk is greater as the volume of snow increases with a wider catchment area, or where the snow is trucked in from other locations.

Intent

To prevent the establishment of snow storage facilities within the vulnerable areas where the threat would be significant. The Municipality shall comply with the required prohibition. This is not intended to restrict piling of snow accumulated from snowfalls on a property or along a roadway.

Policy

When the Source Protection Plan takes effect, the Municipality or shall prohibit the future use of land as a snow storage facility or snow dump (areas where snow is likely to be transported from offsite) in vulnerable areas where the threat from their establishment could be significant.

An official plan and zoning by-law in effect for the vulnerable areas shall be reviewed and amended, as necessary, as required under Section 26 of the *Planning Act* to implement this prohibition.

The policy applies in the following vulnerable areas:

- Callander IPZ-1;
- Mattawa WHPA-A and B;
- Powassan WHPA-A and B1; and
- South River IPZ-1 with the exception of lands in Laurier Township (which are subject to LAU1).

Table 4-13: Monitoring Policy for SNO Policy

Code of Associated Policy	Monitoring Policy Code	Monitoring Policy
SNO1	M01-PA	By February 1 st of the year after an amendment has come into effect for an official plan or zoning by-law, the Municipality shall provide written notice to the SP Authority, including a copy of the amended planning documents.

SVA: Signage of Vulnerable Areas

SVA1: Signage of Vulnerable Areas

Intent

To install signs at the borders of vulnerable areas to increase public awareness of the potential risks to source water and encourage timely and appropriate response to a spill.

Policy

In accordance with Section 22 (7) of the *Clean Water Act*, the Ministry of Transportation, in collaboration with the Ministry of the Environment and Climate Change as well as in consultation with Source Protection Authorities (SP Authorities), should design a sign to the appropriate provincial standards, to identify the locations of Wellhead Protection Areas and Intake Protection Zones. The Ministry of Transportation should manufacture, install and maintain the signs along Provincial Highways within a Wellhead Protection Area with a vulnerability score of 10, and/or within an Intake Protection Zone with a vulnerability score of 8 or higher.

Municipalities may install additional signs at locations of their choice and will be responsible for the purchase, installation and maintenance of them. The signs should be consistent with those designed by the Ministry of Transportation and should be placed, at a minimum, where municipal arterial roads are located within a Wellhead Protection Area with a vulnerability score of 10, and/or an Intake Protection Zone with a vulnerability score of 8 or higher.

The above policies should be implemented as part of an overall Education and Outreach plan within the Source Protection Area. This policy, in conjunction with additional Education and Outreach policies, should be implemented within two years after the effective date of the Plan.

Table 4-14: Monitoring Policies for SVA Policy

Code of Associated Policy	Monitoring Policy Code	Monitoring Policy
SVA1	M14-MTO	By February 1 st of each year following the required date for implementation of SVA1, the Ministry of Transportation shall, provide to the SP Authority a summary report for the preceding calendar year regarding the number and location of signs installed along provincial highways within vulnerable areas (i.e. Wellhead Protection Areas and Intake Protection Zones) within the Source Protection Area.
SVA1	M15-MUN	By February 1 st of the year following the date for implementation of SVA1, the Municipality shall provide a report to the SP Authority specifying details of progress for installation of signage until all intended signs are installed; and every fifth year thereafter, the Municipality shall report by February 1, on the state of the signage and any maintenance undertaken. Municipalities that decide not to install signage shall, by February 1 st of the year following the date for implementation of SVA1, report that decision to the SP Authority and may provide details of any other efforts made to raise awareness of vulnerable areas.

THS: Local Threat – Transportation of Hazardous Substances

THS1: Awareness of Vulnerable Areas and Response to Spills of Hazardous Substances

Background

The threat posed by the transportation of hazardous substances has been identified as a local threat to drinking water. It is not a prescribed activity. Policies below to address the threat focus on improving emergency preparedness to respond to a spill. Installation of signage identifying vulnerable areas as per policy SVA1 may also enhance timely response to a spill and appropriate action.

Intent

To ensure emergency spill responders are aware of the locations of vulnerable areas. To improve emergency response times in the event of a spill. To include the Source Protection Authority in the response plan.

Policy

The following existing and future circumstances are designated for the implementation of a local significant threat activity policy:

1. The transportation of 2500 L or greater of sulphuric acid.
2. The transportation of 2500 L or greater of sodium hydroxide.
3. The transportation of any quantity of septage.

Within one year of the date the Source Protection Plan (SP Plan) takes effect, the Municipality shall recognize a spill as an emergency situation in the emergency response plan for the Municipality that could occur as a result of the circumstances listed above. Further, the vulnerable areas to which this policy applies shall be included as schedule(s) to the emergency response plan. When the emergency response team of the Municipality identifies that a spill has occurred in the vulnerable area, the Source Protection Authority via the Conservation Authority shall be notified in the same way that other emergency response partners are contacted.

Within one year of the date the SP Plan takes effect, the Ministry of Environment and Climate Change Spills Action Centre should review and update contact information, Procedure Cards and other information based on the areas to which this policy applies to ensure that drinking water sources will be protected in the event of a spill as a result of the circumstances listed above.

This policy shall apply in the following vulnerable areas:

- Callander IPZ-1;
- Mattawa WHPA-A and B;
- Powassan WHPA-A and B1; and
- South River IPZ-1 with the exception of lands in Laurier Township (which are subject to LAU1).

THS2: Awareness of Vulnerable Areas and Response to Spills of Hazardous Substances – MOD/LOW

Intent

To implement a policy in the North Bay IPZ-1, similar to THS1, where the threat is moderate or low.

Policy

The following existing circumstances occur in the North Bay Intake Protection Zone 1 (IPZ-1):

A. Moderate

1. The transportation of 2,500 L or greater of ammonium nitrate.
2. The transportation of 2,500 L or greater of sodium hydroxide.
3. The transportation of 2,500 L or greater of sulphuric acid.
4. The transportation of 2,500 L or greater of copper.
5. The transportation of 2,500 L or greater of liquid fuel.
6. The transportation of septage in any quantity.

B. Low

1. The transportation of 2,500 L or greater of formaldehyde.
2. The transportation of 2,500 L or greater of methanol.
3. The transportation of greater than 250 L but less than 2,500 L of liquid fuel.

Within one year of the date the Source Protection Plan (SP Plan) takes effect, the City of North Bay should recognize a spill as an emergency situation in an emergency response plan for the City, which could occur as a result of the circumstances named above. Further, the North Bay IPZ-1 should be included as a schedule to the emergency response plan. When the City emergency response team identifies that a spill has occurred in the vulnerable area, the Source Protection Authority via the Conservation Authority should be notified in the same way that other emergency response partners are contacted.

Within one year of the date the SP Plan takes effect, the Ministry of Environment and Climate Change Spills Action Centre should review and update contact information and Procedure Cards based on the North Bay IPZ-1 to ensure that drinking water sources will be protected in the event of a spill as a result of a circumstance named above.

Table 4-15: Monitoring Policies for THS Policies

Code of Associated Policy	Monitoring Policy Code	Monitoring Policy
THS1	M06-ERP	By February 1 st of the year after the Municipality is required to update its emergency response plan in accordance with THS1, the Municipality shall notify the SP Authority that it has fulfilled its responsibilities.
THS1	M07-SAC	By February 1 st of the year after the Ministry of Environment and Climate Change Spills Action Centre (SAC) is required to comply with THS1, SAC shall provide a report to the SP Authority confirming that the required changes have been made and may include details on the changes.

WDS: Establishment, Operation or Maintenance of a Waste Disposal Site within the Meaning of Part V of the *Environmental Protection Act*

Background

The establishment, operation or maintenance of a waste disposal site within the meaning of Part V of the *Environmental Protection Act* includes the following threats:

- The application of untreated septage to land;
- Storage treatment and discharge of tailings from mines;
- Landfarming of petroleum refining waste
- Landfilling (hazardous waste);
- Landfilling (municipal waste);
- Landfilling (solid non-hazardous industrial or commercial waste);
- Liquid industrial waste injection into a well;
- PCB waste storage;
- Storage of hazardous waste or liquid industrial waste at disposal sites; and
- Storage of hazardous wastes described in clauses (p), (q), (r), (s), (t), or (u) of the definition of hazardous waste.

The *Environmental Protection Act* (EPA) provides a definition for a “waste disposal site” (R.S.O. 1990, c. E.19, Part V). In general terms, a waste disposal site is any land, building, structure in connection with the depositing, disposal, handling, storage, transfer, treatment or processing of waste. Operational activities associated with these sites are also included in the definition, for example a generator of waste is included in the definition of a waste disposal site. These waste generators can include small quantities of hazardous waste, empty hazardous waste containers, and cleanup materials from small spills. For complete definitions of the clauses please see Hazardous Waste Clauses under Key Definitions and Acronyms.

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

Intent

To prohibit the establishment of waste disposal sites using regulations and procedures under the *Environmental Protection Act*. To manage Environmental Compliance Approvals for existing sites by reviewing the Approvals to ensure effective best management.

Policy

The Ministry of the Environment and Climate Change shall not issue any Environmental Compliance Approvals for a future waste disposal site within the meaning of Part V of the *Environmental Protection Act* where the threat from the establishment, operation or maintenance of such a site could be significant.

For Environmental Compliance Approvals that exist in the areas where the threat could be significant for waste disposal sites within the meaning of Part V of the *Environmental Protection Act*, the Ministry of Environment and Climate Change shall review their terms within three years of the date the Source Protection Plan takes effect and amend the Approval as necessary to ensure that the terms of each Approval adequately addresses the threats to source water. The Director, as defined in the *Environmental Protection Act* or its Regulations, may determine another implementation date based on a prioritized review of Environmental Compliance Approvals that govern significant drinking water threat activities.

This policy applies for the named activities and threat subcategories in the following vulnerable areas:

Application of hauled sewage to land:

- Callander IPZ-1, IPZ-2, and Issue Contributing Area (ICA only if related to a circumstance containing phosphorus);
- Mattawa WHPA-A and B;
- North Bay IPZ-1;
- Powassan WHPA-A and B1; and
- South River IPZ-1.

Discharges from the storage and treatment of tailings from mines:

- Callander IPZ-1 and Issue Contributing Area (ICA only if related to a circumstance containing phosphorus);
- Mattawa WHPA-A and B;
- Powassan WHPA-A and B1; and
- South River IPZ-1.

Landfarming of petroleum refining waste AND landfilling (hazardous waste) AND storage of hazardous waste or liquid industrial waste:

- Callander IPZ-1;
- Mattawa WHPA-A and B;
- Powassan WHPA-A and B1; and
- South River IPZ-1.

Landfilling (municipal waste) AND landfilling (solid non-hazardous industrial or commercial):

- Callander IPZ-1;
- Mattawa WHPA-A, B and C;
- Powassan WHPA-A, B1/B2/B4 and C1; and
- South River IPZ-1.

Liquid industrial waste injection into a well:

- Mattawa WHPA-A, B and C; and
- Powassan WHPA-A, B1/B2/B4 and C1.

WDS2: Land Use Prohibition of Waste Disposal Sites

Intent

Require municipalities to use available tools to mirror the policy WDS1 prohibiting the establishment of waste disposal sites. The purpose is to bring attention to the prohibition early in an application process.

Policy

When the Source Protection Plan takes effect, the Municipality shall prohibit the future use of land as a landfill, mine tailings pond, an area designated to be injected with liquid industrial waste, or an area for landfarming of petroleum refining waste where the threat from the activity would be significant.

An official plan and zoning by-law in effect for the vulnerable areas shall be reviewed and amended, as necessary, as required under Section 26 of the *Planning Act* to implement this policy.

This policy applies to the named activities and threat subcategories in the following vulnerable areas:

Storage of tailings from mines:

- Callander IPZ-1 and Issue Contributing Area (ICA only if related to a circumstance containing phosphorus);
- Mattawa WHPA-A and B;
- Powassan WHPA-A and B1; and
- South River IPZ-1 with the exception of lands in Laurier Township (which are subject to LAU1).

Landfarming of petroleum refining waste AND landfilling (hazardous waste)

- Callander IPZ-1;
- Mattawa WHPA-A and B;
- Powassan WHPA-A and B1; and
- South River IPZ-1 with the exception of lands in Laurier Township (which are subject to LAU1).

Landfilling (municipal waste) AND landfilling (solid non-hazardous industrial or commercial):

- Callander IPZ-1;
- Mattawa WHPA-A, B and C;
- Powassan WHPA-A, B1/B2/B4 and C1; and
- South River IPZ-1 with the exception of lands in Laurier Township (which are subject to LAU1).

An area where liquid industrial waste is injected into a well:

- Mattawa WHPA-A, B and C; and
- Powassan WHPA-A, B1/B2/B4 and C1.

WDS3: Education Hazardous Waste and PCBs

Intent

To raise awareness of the threat posed to source water from hazardous or liquid industrial waste and polychlorinated biphenyls (PCBs). Municipalities may choose to implement the policy as part of a broader program to encourage proper storage and disposal of hazardous goods (see also HAZ1: Education DNAPLs and Organic Solvents).

Policy

Where there could be a threat from the existing or future storage of hazardous or liquid industrial waste, hazardous waste as defined in (p), (q), (r), (s), (t), or (u) of regulation 374 of the *Environmental Protection Act* (EPA) and polychlorinated biphenyls (PCBs), the Municipality shall plan and deliver an Education and Outreach program designed to ensure those involved in such activities are aware of the risks posed to source water, how to reduce those, and how to recognize and respond to a spill.

The program shall be delivered within two years of the date the Source Protection Plan takes effect and shall be made available and updated as necessary on an ongoing basis as is deemed appropriate by the Municipality. The program shall be delivered to all persons that could be engaged in the activity of storage of hazardous or liquid industrial waste, waste as defined in (p), (q), (r), (s), (t), or (u) of regulation 374 of the *Environmental Protection Act* (EPA) and PCBs where the threats could be significant.

This policy applies for the named activities and threat subcategories in the following vulnerable areas:

Storage of PCBs:

- Mattawa WHPA-A and B; and
- Powassan WHPA-A and B1.

Storage of hazardous waste or liquid industrial waste:

- Callander IPZ-1
- Mattawa WHPA-A and B;
- Powassan WHPA-A and B1; and
- South River IPZ-1.

Storage of wastes described in clauses (p), (q), (r), (s), (t) or (u) of the definition of hazardous waste (in Part V of the *Environmental Protection Act*):

- Mattawa WHPA-A and B; and
- Powassan WHPA-A and B1.

Additionally the program may be more broadly released to a whole Municipality or any part of the Source Protection Area, at the discretion of a municipal council.

Table 4-16: Monitoring Policies for WDS Policies

Code of Associated Policy	Monitoring Policy Code	Monitoring Policy
WDS1	M08-ECA	By February 1 st of the year following the year in which the Ontario ministry named as the implementing body is required to comply with the associated threat policy, that ministry shall report to the SP Authority confirming implementation of the policy and how that has been accomplished.
WDS2	M01-PA	By February 1 st of the year after an amendment has come into effect for an official plan or zoning by-law, the Municipality shall provide written notice to the SP Authority, including a copy of the amended planning documents.

Code of Associated Policy	Monitoring Policy Code	Monitoring Policy
WDS3	M03-EO	By February 1 st of the year after the Municipality is required to prepare and deliver an education and outreach program in accordance with FUL4, HAZ1, WDS3, and PST4 and every fifth anniversary thereafter, the Municipality shall provide a report to the Source Protection Authority indicating how the program has been delivered and that it continues to be available.

Monitoring Policies Summary

Monitoring Policies and their reference codes within the Source Protection Plan.

Table 4-17: Monitoring Policies Summary

Focus	Policy Code	Policy(ies) Addressed	Policy Wording
<i>Planning Act Tools</i>	M01-PA	FUL1 PST2 SAL1 SMF2 SNO1 WDS2	By February 1 st of the year after an amendment has come into effect for an official plan or zoning by-law, the Municipality shall provide written notice to the SP Authority, including a copy of the amended planning documents.
Specified Actions for Municipalities	M02-MUN	PST3 SMF1	By February 1 st of each year the Municipality shall provide a report to the SP Authority that details the annual progress on implementation of all specified action policies for which it is responsible.
Education & Outreach for Handling and Storage of Fuel, DNAPLS and Organic Solvents, Application of Pesticides, Hazardous Waste and PCBs	M03-EO	FUL4 HAZ1 PST4 WDS3	By February 1 st of the year after the Municipality is required to prepare and deliver an education and outreach program in accordance with FUL4, HAZ1, WDS3, and PST4 , and every fifth anniversary thereafter, the Municipality shall provide a report to the Source Protection Authority indicating how the program has been delivered and that it continues to be available.
Education and Outreach for Callander ICA	M04-EO	ICA1	By February 1 st of the year after the Municipalities are required to begin delivering an education and outreach program in accordance with ICA1 and each year thereafter, the Municipalities shall provide a report to the Source Protection Authority indicating actions taken to implement the policy. The report shall address the goal(s) of the education program, the strategies used to achieve the goal(s), timeline, deliverables, outcome and an evaluation of the effectiveness of the program. The report shall also highlight any known changes in behaviours as a result of the education program that have contributed to the protection of the drinking water source. The education program and annual reporting shall continue until monitoring and research, in accordance with ICA3 and ICA4, indicate that no further improvement to water quality is likely to be achieved by additional adoption of best management practices within the ICA.

Focus	Policy Code	Policy(ies) Addressed	Policy Wording
Education and Outreach for IPZ-1 in Laurier Twp.	M05-EO	LAU1	By February 1 st of the year after the Municipality is required to deliver an education and outreach program as per LAU1, the Village of South River (or the organized Municipality that has jurisdiction) shall provide a report to the Source Protection Authority indicating that the program has been delivered and shall continue to be available.
Municipal Emergency Response Plans	M06-ERP	THS1	By February 1 st of the year after the Municipality is required to update its emergency response plan in accordance with THS1, the Municipality shall notify the SP Authority that it has fulfilled its responsibilities.
Spills Action Centre Response Procedures	M07-SAC	THS1	By February 1 st of the year after the Ministry of Environment and Climate Change Spills Action Centre (SAC) is required to comply with THS1, SAC shall provide a report to the SP Authority confirming that the required changes have been made and may include details on the changes.
Environmental Compliance Approvals	M08-ECA	FUL2 ICA2 PST1 SEW1 SEW2 WDS1	By February 1 st of the year following the year in which the Ontario Ministry named as the implementing body is required to comply with the associated threat policy, that Ministry shall report to the SP Authority confirming implementation of the policy and how that has been accomplished.
Hazardous Materials Use on Crown Land in Mattawan (MNRF)	M09-MNRF	MAT1	By February 1 st of each year, the Ministry of Natural Resources and Forestry shall, if handling or storage of dense non-aqueous phase liquids has been undertaken on the lands identified in Policy MAT1, report to the SP Authority describing what consideration was given to the vulnerability of the area in relation to the significant threat.
Research and Monitoring of Water Quality Issue	M10-CAI	ICA3 ICA4	By February 1 st of each year, the North Bay-Mattawa Conservation Authority in collaboration with the named Municipality(ies) shall provide a report to the SP Authority on the activities and findings regarding the research and/or monitoring undertaken with respect to the drinking water issue. Expectations for the upcoming period may also be included.
Septic Maintenance Inspections by Principle Authority	M11-CAS	SEW3	By February 1 st of each year, the principal authority defined by the <i>Ontario Building Code</i> shall prepare a progress report for the SP Authority to, at minimum, confirm that the program is being implemented and report the number of any outstanding orders. The report may also include the numbers of inspections completed, failed systems identified, and new systems constructed either as a result of new construction or

Focus	Policy Code	Policy(ies) Addressed	Policy Wording
			replaced as a result of a failed septic system in the subject areas.
Glycol Management Plans	M12-SPA	AIR1	If and when the Source Protection Authority (SP Authority) becomes aware of a facility which can provide chemical de-icing of aircraft where the threat would be significant, the SP Authority shall request that the airport authority/operator provide a copy of the required glycol management plan. The SP Authority may request that, prior to its submission, said plan be reviewed by an independent third party for compliance with this policy.
SP Authority Verifying TSSA Makes Safety Info Available	M13-TSF	FUL3	By March 1 st of each year, the SP Authority shall review the TSSA website for compliance with policy FUL3 and may request that the TSSA provide additional information that is needed to implement FUL4.
Highway Signage (MTO)	M14-MTO	SVA1	By February 1 st of each year following the required date for implementation of SVA1, the Ministry of Transportation shall, provide to the SP Authority a summary report for the preceding calendar year regarding the number and location of signs installed along provincial highways within vulnerable areas (i.e. Wellhead Protection Areas and Intake Protection Zones) within the Source Protection Area.
Municipal Road Signage and Awareness of Vulnerable Areas	M15-MUN	SVA1	By February 1 st of the year following the date for implementation of SVA1, the Municipality shall provide a report to the SP Authority specifying details of progress for installation of signage until all intended signs are installed; and every fifth year thereafter, the Municipality shall report by February 1, on the state of the signage and any maintenance undertaken. Municipalities that decide not to install signage shall, by February 1 st of the year following the date for implementation of SVA1, report that decision to the SP Authority and may provide details of any other efforts made to raise awareness of vulnerable areas.

Key Definitions and Acronyms

Activity: is an action that has the potential to contaminate or deplete a source of drinking water.

Activities are prescribed in the Table of Drinking Water Threats, November 16, 2009, and as amended from time to time and in the Technical Rules: Assessment Report.

Agricultural Managed Land: managed land that is used for agricultural production purposes including areas of cropland, fallow land and improved pasture where agricultural source material (ASM), commercial fertilizer or non-agricultural source material (NASM) is applied or may be applied.

Agricultural Source Material: material used for land application of nutrients that originate from agricultural activities such as livestock operations. May include manure, livestock bedding, runoff water from animal yards or manure storage and compost (see *Nutrient Management Act*, 2002 for legal description).

The Assessment Report: within the context of the North Bay-Mattawa Source Protection Plan refers to the North Bay-Mattawa Assessment Report, as amended from time to time. The Assessment Report is a science based report generated locally for each Source Protection Area to comply with the *Clean Water Act*. The Report identifies the watersheds and the vulnerable areas within the Source Protection Area. Threats to the vulnerable areas were assessed and determined whether they pose a threat to designated systems.

Automobile Service Station: means a building or a clearly defined space on a lot where gasoline, oil, grease, anti-freeze, tires, tubes, tire accessories, electric light bulbs, spark plugs and batteries for motor vehicles are stored or kept for sale, or where motor vehicles may be oiled, greased or washed, or have their ignition adjusted, tires inflated or batteries charged or where only minor or running repairs essential to the actual operation of motor vehicles are executed or performed. For the purpose of this Source Protection Plan, an automobile service station may include a gas bar.

Bulk Plant: means a gasoline distribution facility equipped with one or more storage tanks but no floating roof storage tank, where gasoline is received and stored in bulk for subsequent shipment.

Cardlock/Keylock Facility: means an outlet not used by the general public where gasoline or diesel fuel is dispensed unsupervised.

Chemical Contaminant - a substance used in conjunction with, or associated with, a land use activity or a particular entity, and with the potential to adversely affect water quality.

Circumstance: The parameters under which a chemical contaminant or pathogen can become a drinking water threat, as assessed by the Ministry of the Environment and Climate Change in the *Tables of Drinking Water Threats*, November 16, 2009, and as amended from time to time. Circumstances are based on the Prescribed Activities of the *Clean Water Act* and the normal practices that relate to storage, handling, application, disposal and management of contaminants of concern.

Clean Water Act - the *Clean Water Act*, 2006 was passed to protect drinking water at the source. The Act requires the development of a watershed based Source Protection Plan.

Condition: A site where past activities have resulted in drinking water threats (historically contaminated sites).

Contaminant (pollutant): an undesirable substance that makes water unfit for a given use when found in sufficient concentration.

Contaminant of Concern: chemical or pathogen that is or may become a Drinking Water Threat as identified by the Ontario Ministry of Environment and Climate Change.

Dense Non-Aqueous Phase Liquid (DNAPL) - an organic chemical in concentrations greater than its aqueous solubility and more dense than water. Such a chemical will sink in groundwater and accumulate in aquifer depressions.

Designated System: a drinking water system that is included in a Terms of Reference, pursuant to resolution passed by a municipal council under subsection 8(3) of the proposed *Clean Water Act*.

Drinking Water: 1. Water intended for human consumption. 2. Water that is required by an Act, regulation, order, municipal by-law or other document issued under the authority of an Act, (a) to be potable, or (b) to meet or exceed the requirements of the prescribed drinking water quality standards.

Drinking Water Issue ('Issue'): a substantiated condition relating to the quality or quantity of water that interferes or is anticipated to soon interfere with the use of a drinking water source by a Municipality. As defined in Technical Rule 114 (Minister's Technical Rules, MOECC 2009 and as amended), regarding the quality of water in a vulnerable area: 1) The presence of a parameter in water at a surface water intake or well, at a concentration that may result in deterioration of the water quality or where there is a trend of increasing concentrations of a parameter. 2) The presence of a pathogen at a concentration that may result in deterioration of the water quality or there is a trend of increasing concentrations of the pathogen.

Drinking Water System: a system of works, excluding plumbing, that is established for the purpose of providing users of the system with drinking water and that includes, (a) anything used for the collection, production, treatment, storage, supply or distribution of water, (b) anything related to the management of residue from the treatment process or the management of the discharge of a substance into the natural environment from the treatment system, and (c) a well or intake that serves as the source or entry point of raw water supply for the system.

Drinking Water Threat ('Threat'): Has the same meaning as in the *Clean Water Act*. An existing activity, possible future activity or existing condition that results from a past activity, (a) that adversely affects or has the potential to adversely affect the quality or quantity of any water that is or may be used as a source of drinking water, or (b) that results in or has the potential to result in the raw water supply of an existing or planned drinking-water system failing to meet any standards prescribed by the regulations respecting the quality or quantity of water, and includes an activity or condition that is prescribed by the regulations as a drinking water threat.

Existing (threat): For the purposes of this Source Protection Plan, an existing threat is an activity that commences or has been engaged in at some time since January 1, 2003 in a vulnerable area before the plan takes effect, whether or not the activity was enumerated in the Assessment Report.

Farm: for the purposes of policy FUL 1 in this Source Protection Plan means a private outlet that consists of a tract of land, including all buildings, structures and appurtenances to the land, devoted to the production of crops or the raising of animals, and includes fish hatcheries, ranges and nurseries with growing operations.

Future (threat): For the purposes of this Source Protection Plan, a future threat is an activity that commences at a location in a vulnerable area on the day or on a day after the Source Protection Plan takes effect and does not meet the definition of “existing” as above.

Gas Bar: means the use of land, or building, or structure where vehicle fuel or lubricants are offered for sale, and an attendant is on duty during operating hours but where no provision is made for the repair or maintenance of vehicles. For the purpose of this definition, a gas bar may include a convenience store or restaurant as an accessory use, as defined by a zoning by-law of the Municipality.

Grade: means the average level of the soil surface in the area surrounding a facility or structure (as defined by the Ministry of the Environment and Climate Change in the Tables of Drinking Water Threats, November 16, 2009, and as amended from time to time).

Groundwater: the water below the water table contained in void spaces (pore spaces between rock and soil particles, or bedrock fractures). Water occurring in the zone of saturation in an aquifer or soil.

Hazardous Waste Clauses: below are the clauses p, q, r, s, t, and u of the definition of hazardous waste in O. Reg. 347:

- (p) waste that is a hazardous industrial waste, hazardous waste chemical, ignitable waste, corrosive waste, leachate toxic waste or reactive waste and that is produced in any month in an amount less than five kilograms or otherwise accumulated in an amount less than five kilograms,
- (q) waste that is an acute hazardous waste chemical and that is produced in any month in an amount less than one kilogram or otherwise accumulated in an amount less than one kilogram,
- (r) an empty container or the liner from an empty container that contained hazardous industrial waste, hazardous waste chemical, ignitable waste, corrosive waste, leachate toxic waste or reactive waste,
- (s) an empty container of less than twenty litres capacity or one or more liners weighing, in total, less than ten kilograms from empty containers, that contained acute hazardous waste chemical,
- (t) the residues or contaminated materials from the clean-up of a spill of less than five kilograms of waste that is a hazardous industrial waste, hazardous waste chemical, ignitable waste, corrosive waste, leachate toxic waste or reactive waste, or
- (u) the residues or contaminated materials from the clean-up of a spill of less than one kilogram of waste that is an acute hazardous waste chemical;

Highly Vulnerable Aquifer: an aquifer that can be easily changed or affected by contamination from both human activities and natural process as a result of: a) its intrinsic susceptibility, as a function of the thickness and permeability of overlying layers, or; b) by preferential pathways to the aquifer.

Implementing Body: can be a public body (a) a Municipality, local board or conservation authority, (b) a ministry, board, commission, agency or official of the Government of Ontario, or (c) a body prescribed by the regulations or an official of a body prescribed by the regulations or another person or group.

Intake Protection Zone (IPZ): an area that is related to a surface water intake and within which it is desirable to regulate or monitor drinking water threats. (O. Reg. 287/07)

Intrinsic Susceptibility: a measure of the natural protection of an aquifer from overlying layers with low permeability.

Intrinsic Susceptibility Index (ISI): a numerical indicator of an aquifer's intrinsic susceptibility to contamination expressed as a function of the thickness and permeability of overlying layers.

Issue Contributing Area (ICA): The area within a vulnerable area where activities, conditions that result from past activities, and naturally occurring conditions may contribute to the parameter or pathogen identified as a drinking water issue.

Land Use: a particular use of space at or near the earth's surface with associated activities, substances and events related to the particular land use designation.

Marina: means any premises at which gasoline or an associated product is dispensed for use as fuel for floating motorized watercraft. For the purpose of this Source Protection Plan, a marina may include a gas bar, as defined.

Municipal Residential System: all municipal drinking-water systems that serve or are planned to serve a major residential development (i.e. six or more private residences).

Municipal Well (Public or Community Well): a pumping well that serves five or more residences.

Naturalized Shoreline Area: means an area along a shoreline, stream, or other watercourse that remains in a natural, undeveloped state. These areas feature natural soil and bedrock conditions that may not be suitable for development of a vegetated buffer.

Non-Agricultural Source Materials: used to apply to land as nutrients that do not originate from agricultural activities. Includes pulp and paper biosolids, sewage biosolids, non-agricultural compost and any other material capable of being applied to land as a nutrient that is not from an agricultural source (see *Nutrient Management Act*, 2002 for legal description).

Nutrients: chemicals (particularly phosphorus) which stimulate the growth of aquatic plants; the nutrients act as fertilizers and contribute to heavy weed growth and algae blooms.

Official Plan: a land use policy document adopted by a Municipality to guide the wise and logical development of its area for the benefit of its citizens, implemented under S. 17 of the *Planning Act*.

Pathogen: an organism capable of producing disease.

Policy: A policy designed to guide current and future actions and decisions, and to achieve a desired goal or outcome. A policy may refer to the policy approaches or the measures that will be used to achieve it.

Policy Approach/Tool - the approach a threat policy uses to reduce the risk posed by a drinking water threat. The policy approaches provided in the *Clean Water Act* include: education and outreach activities; incentive programs; land use planning approaches (e.g., official plans, zoning by-laws, site plan controls); new or amended provincial instruments (e.g., Environmental Compliance Approval); Risk Management Plans; prohibition; and restricted land uses.

Private Outlet: means any premises, other than a retail outlet, where gasoline or an associated product is put into the fuel tanks of motor vehicles or floating motorized watercraft or into portable containers.

Public Body: means “a Municipality, local board or conservation authority, a ministry, board, commission, agency or official of the Government of Ontario, or a body prescribed by the regulations”. (*Clean Water Act* S. 2).

Refinery: has the same meaning as under the Technical Standards and Safety Authority’s Liquid Fuels Handling Code.

Significant Groundwater Recharge Area (SGRA): an area in which (a) there is a high volume of water moving from the surface into the ground and (b) groundwater serves either as source water or the water that supplies a cold water ecosystem such as a brook trout stream.

Significant Threat Policy (in some cases ‘policy’): defined in the *Clean Water Act* to mean: (a) a policy set out in a Source Protection Plan that, for an area identified in the assessment report as an area where an activity is or would be a significant drinking water threat, is intended to achieve an objective referred to in paragraph 2 of subsection 22 (2), or (b) a policy set out in a Source Protection Plan that, for an area identified in the assessment report as an area where a condition that results from a past activity is a significant drinking water threat, is intended to achieve the objective of ensuring that the condition ceases to be a significant drinking water threat.

Social Marketing: A systematic application of marketing, communications, education and other techniques designed to achieve and sustain specific behaviours in individuals or target groups for the social good. This approach is incorporated in the Source Protection Plan Education and Outreach policies.

Source Protection Area: those lands and waters that have been defined under Ontario Regulation 284/07 as the “study area” for an Assessment Report and a Source Protection Plan under the *Clean Water Act*.

Source Protection Authority: A Conservation Authority or other person or body that is required to exercise powers and duties under the *Clean Water Act*.

Source Protection Committee: a group of individuals who have been appointed under the *Clean Water Act* by a Source Protection Authority to coordinate Source Protection Planning activities for a Source Protection Area. The North Bay-Mattawa Source Protection Committee is composed of a provincially appointed Chair plus nine other members who were appointed from within the watershed by the North Bay-Mattawa Source Protection Authority. In addition, a seat is available for a representative of Nipissing First Nation.

Source Protection Plan: a document that is prepared by a Source Protection Committee under Section 22 of the “*Clean Water Act, 2006*” and O. Reg 287/07 to direct Source Protection activities in a Source Protection Area. Each Source Protection Plan is approved by the Minister of the Environment.

Source Water: untreated water in streams, rivers, lakes or underground aquifers which is used for the supply of raw water for drinking water systems (see raw water supply).

Source Water Protection: action taken to prevent the pollution and overuse of municipal drinking water sources, including groundwater, lakes, rivers and streams. Source water protection involves developing and implementing a plan to manage land uses and potential contaminants.

Surface Water: all water above the surface of the ground including, but not limited to, lakes, ponds, reservoirs, artificial impoundments, streams, rivers, springs, seeps and wetlands.

Terms of Reference: the work plan and budget, as approved by the Minister of Environment and Climate Change, for the preparation of an Assessment Report and Source Protection, as defined by the *Clean Water Act*. The Terms of Reference outlines the responsibilities assigned to the Source Protection Committee, Source Protection Authority, Conservation Authority and Member Municipalities in each Source Protection Area, in order to produce the Assessment Report and Source Protection Plan.

Threat Subcategory: A refinement of some Prescribed Activities, used to differentiate between activities such as waste disposal sites, and as they were listed in the Tables of Drinking Water Threats.

Vegetated Buffer: areas of planted or naturally occurring permanent vegetation - in the form of grass, herbaceous shrubs, trees or a workable combination of any of these – extending alongside watercourses, ponds, lakes or wetlands.

Vulnerable Area: areas related to a water supply source that are susceptible to contamination and for which it is desirable to regulate or monitor activities that may affect the water supply source. Vulnerable areas are (a) a significant groundwater recharge area, (b) a highly vulnerable aquifer, (c) a surface water intake protection zone, or (d) a wellhead protection area.

Vulnerability Score: is a score representing the susceptibility of an area to contamination. These scores are based on Technical Rules: *Clean Water Act, 2006*, where 10 is the most vulnerable and 2 is the least vulnerable. In a wellhead protection area, significant threats are possible where the score is greater than 8 (dense non-aqueous phase liquids can be significant elsewhere).

Wellhead Protection Area (WHPA): the surface and subsurface area surrounding a water well or well field that supplies a municipal residential system or other designated system through which contaminants are reasonably likely to move so as to eventually reach the well(s).

Acronyms

CWA:	<i>The Clean Water Act, 2006.</i>
MOECC:	Ministry of the Environment and Climate Change. Formerly known as the Ministry of Environment (MOE)
MNRF:	Ministry of Natural Resources and Forestry. Formerly known as the Ministry of Natural Resources (MNR)
MTO:	Ministry of Transportation
O.Reg:	Ontario Regulation (common short reference).
SP:	A continuous shorthand reference for “Source Protection,” used because of the frequency of the terminology throughout the program and documentation. (Area, Authority, Committee, Plan, policy, etc. are all terms that frequently are prefixed with SP).
SPC:	The Source Protection Committee (also SP Committee)
SP Plan:	The North Bay-Mattawa Source Protection Plan, this document.
TSSA:	The Technical Standards & Safety Authority.

Appendix A: Legal Effect of Policies on Existing Legislation

The following lists classify policies by presiding legislation and by policy approach.

List A - Significant threat policies that affect decisions under the *Planning Act* and *Condominium Act*, 1998

Clause 39 (1)(a), subsections 39 (2), (4) and (6), and sections 40 and 42 of the *Clean Water Act*, 2006 apply to the following policies:

- FUL1
- SAL1
- SNO1
- PST2
- SMF2
- WDS2

List B - Moderate and low threat policies that affect decisions under the *Planning Act* and *Condominium Act*, 1998

Subsection 39 (1) (b) of the *Clean Water Act*, 2006 applies to the following policies:

- No such policies are included in this Source Protection Plan (SP Plan).

List C - Significant threat policies that affect prescribed instrument decisions

Subsection 39 (6), clause 39 (7) (a), section 43 and subsection 44 (1) of the *Clean Water Act*, 2006 apply to the following policies:

- FUL2
- SEW1
- WDS1
- ICA2
- SEW2
- PST1

List D - Moderate and low threat policies that affect prescribed instrument decisions

Clause 39 (7) (b) of the *Clean Water Act*, 2006 applies to the following policies:

- No such policies are included in this SP Plan.

List E - Significant threat policies that impose obligations on municipalities, source protection authorities and local boards

Section 38 and subsection 39 (6) of the *Clean Water Act*, 2006 applies to the following policies:

- AIR1
- ICA3
- PST4
- WDS3
- FUL4
- ICA4
- SEW3
- THS1
- HAZ1
- LAU1
- SMF1
- ICA1
- PST3
- THS1

List F - Monitoring policies referred to in subsection 22 (2) of the *Clean Water Act*, 2006

Section 45 of the *Clean Water Act*, 2006 applies to the following policies:

- ICA4
- M01-PA
- M02-MUN
- M03-EO
- M04-EO
- M05-EO
- M06-ERP
- M07-SAC
- M08-ECA
- M09-MNR
- M10-CAI
- M11-CAS
- M12-SPA
- M13-TSF
- M14-MTO
- M15-MUN

List G - Policies related to section 57 of the *Clean Water Act*, 2006

The following policies relate to section 57 (prohibition) of the *Clean Water Act*.

- No such policies are included in this SP Plan.

List H - Policies related to section 58 of the *Clean Water Act*, 2006

The following policies relate to section 58 (Risk Management Plans) of the *Clean Water Act*.

- No such policies are included in this SP Plan.

List I - Policies related to section 59 of the *Clean Water Act*, 2006

The following policies relate to section 59 (restricted land use) of the *Clean Water Act*.

- No such policies are included in this SP Plan.

List J - Strategic Action policies

For the purposes of section 33 of Ontario Regulation 287/07, the following policies are identified as strategic action policies:

- FUL3
- SVA1
- THS2

List K - Significant threat policies that do not impose obligations on municipalities, source protection authorities and local boards

The following policies relate to non-legally binding commitments and address areas where threats could be significant under the *Clean Water Act*.

- AIR1
- FUL2
- FUL3
- MAT1
- THS1

Table A1-1: Prescribed Instruments which Apply to Source Protection Plan Policies in Lists C and D above
(ss 34(4) of O.Reg. 287/07)

Policy ID #	Legal Effect (conform with, have regard to)	<i>Aggregate Resources Act</i> - licenses, wayside permits, aggregate permits, and site plans	<i>Environmental Protection Act</i> - waste sites and systems	<i>Environmental Protection Act</i> - renewable energy approvals	<i>Nutrient Management Act</i> - nutrient management strategies	<i>Nutrient Management Act</i> - Nutrient management plans	<i>Nutrient Management Act</i> - NASM plans	<i>Ontario Water Resources Act</i> - permits to take water	<i>Ontario Water Resources Act</i> - sewage works	<i>Pesticides Act</i> - permits	<i>Safe Drinking Water Act</i> - permits, licences
FUL2	Conform with	X	X	X				X	X		X
ICA2	Conform with				X	X	X				
PST1	Conform with									X	
SEW1	Conform with		X ¹						X		
SEW2	Conform with		X ¹						X		
WDS1	Conform with		X						X		

¹Due to changes to the *Environmental Protection Act* that took effect during the preparation of the SP Plan, Environmental Compliance Approvals required under the *Ontario Water Resources Act* are now issued under the *Environmental Protection Act*.

Table A1-2: Policy Summary Matrix

The legal effect of policies is summarized herein and references Director's Lists A-K.

Policy ID #	Legal Effect (conform with, comply to, have regard to, non-binding)	Policy affects decisions under the <i>Planning Act</i> and <i>Condominium Act</i> , 1998 (Lists A and B)	Policy affects Prescribed Instrument decisions (Lists C and D)	Significant threat policies that impose obligations on municipalities, source protection authorities and local boards (List E)	Monitoring policies referred to in ss 22(2) of the CWA (List F)	Part IV Policies - Significant threat policies that are designated in the plan as requiring a Risk Management Plan, are prohibited under s. 57, or to which s. 59 of the CWA applies (Lists G, H, and I)	Strategic Action Policies (List J)	Significant threat policies which designate a body other than a Municipality, source protection authority or local board as responsible for implementing the policy (List K)
AIR1	Non-legally binding (Airport Authority)							X
AIR1	Comply with (Municipality)			X				
FUL1	Conform with	X						
FUL2	Conform with		X					
FUL3	Non-legally binding							X
FUL4	Comply with			X				
HAZ1	Comply with			X				
ICA1	Comply with			X				
ICA2	Conform with		X					
ICA3	Comply with			X				
ICA4	Comply with				X			
LAU1	Comply with			X				
MAT1	Non-legally binding							X
PST1	Comply with		X					
PST2	Conform with	X						
PST3	Comply with			X				
PST4	Comply with			X				
SAL1	Conform with	X						
SEW1	Conform with		X					
SEW2	Conform with		X					
SEW3	Comply with			X				
SMF1	Comply with			X				
SMF2	Conform with	X						
SNO1	Conform with	X						
SVA1	Non-legally binding						X	

Policy ID #	Legal Effect (conform with, comply to, have regard to, non-binding)	Policy affects decisions under the <i>Planning Act</i> and <i>Condominium Act</i> , 1998 (Lists A and B)	Policy affects Prescribed Instrument decisions (Lists C and D)	Significant threat policies that impose obligations on municipalities, source protection authorities and local boards (List E)	Monitoring policies referred to in ss 22(2) of the CWA (List F)	Part IV Policies - Significant threat policies that are designated in the plan as requiring a Risk Management Plan, are prohibited under s. 57, or to which s. 59 of the CWA applies (Lists G, H, and I)	Strategic Action Policies (List J)	Significant threat policies which designate a body other than a Municipality, source protection authority or local board as responsible for implementing the policy (List K)
THS1	Comply with (Municipality)			X				
THS1	Non-legally binding (Crown)							X
THS2	Non-legally binding						X	
WDS1	Conform with		X					
WDS2	Conform with	X						
WDS3	Conform with			X				
M01-PA	Comply with				X			
M02-MUN	Comply with				X			
M03-EO	Comply with				X			
M04-EO	Comply with				X			
M05-EO	Comply with				X			
M06-ERP	Comply with				X			
M07-SAC	Comply with				X			
M08-ECA	Comply with				X			
M09-MNR	Non-legally binding				X			
M10-CAI	Comply with				X			
M11-CAS	Comply with				X			
M12-SPA	Comply with				X			
M13-TSF	Comply with				X			
M14-MTO	Non-legally binding				X			
M15-MUN	Non-legally binding				X			

Appendix B: Record of Consultations & Notices

SUMMARY OF TERMS OF REFERENCE CONSULTATIONS

Section 2 of O. Reg 287/07, specifies the requirements for consultation with respect to the Terms of Reference (TOR) which received final approval from the Ministry of the Environment and Climate Change (MOECC) on May 11, 2009. It was subsequently amended in late 2013 and underwent additional consultation.

All municipal drinking water supplies were required to be included in the Terms of Reference, and municipalities had the opportunity to add systems that consisted of clusters of either private wells or intakes. Powassan Council passed a motion requesting the inclusion of the Trout Creek well cluster but later rescinded the motion and asked the Minister of Environment and Climate Change to allow Trout Creek to be withdrawn from the Source Protection Program. Following this request, the Minister of Environment and Climate Change ordered the removal of the Trout Creek well cluster from the Source Protection Plan (SP Plan). This required that the TOR be revised and that the public be provided the opportunity to review and comment. All property owners affected by the change were notified by mail and the amendment was posted on the internet on November 18, 2013 for public consultation. The Revised TOR was submitted to MOECC on January 9, 2014.

Consultation on the original Terms of Reference in 2008 is summarized below.

Notice of Commencement

Notice sent to Municipal Clerks/CAOs and Chief Nipissing First Nation	February 27, 2008
Municipal information sessions	April 27, 2008

Draft Terms of Reference

Notice and copy of Draft sent to Municipal Clerks	May 9, 2008
Chief Nipissing First Nation	May 28, 2009
Posted on www.nbmca.on.ca (news and DWSP)	May 2, 2008
Public Notice with invitation to comment:	
• Advertisement in the North Bay Nugget	May 2, 2008
• Advertisement in Almaguin News	May 7, 2008
Two Public Presentations and Consultations	May 22, 2008

Proposed Terms of Reference

Posted on www.nbmca.on.ca	July 4, 2008
Notice to Municipalities	July 17, 2008
Invitation for Public Comment	July 18, 2008 – August 16, 2008

Revised Proposed Terms of Reference (Approved May 2009)

Notice sent to Municipal Clerks/CAOs and Chief Nipissing First Nation	November 17, 2008
Revised Submission to MOECC	March 31, 2009
Approval of Terms of Reference	May 11, 2009

Revised Terms of Reference

Notice to Municipality of Powassan and

Trout Creek Residents

November 18, 2013

Notice to Municipal Clerks/CAOs

November 19, 2013

- City of North Bay, Municipality of Callander, Municipality of Powassan, Village of South River, Town of Mattawa, Chisholm and East Ferris.

Posted on www.actforcleanwater.ca

November 18, 2013 (30 days)

Submission to MOECC

January 9, 2014

SUMMARY OF ASSESSMENT REPORT CONSULTATIONS

Sections 15-17 of O. Reg 287/07 specify requirements for consultation for the Draft and Proposed versions of the Assessment Report. These include required notices, contents, stakeholders, and timelines for overall consultation periods and dates of acceptable public meetings. Full details and copies of notices are contained in the North Bay-Mattawa Assessment Report, which forms a part of this Source Protection Plan.

In addition to the required consultations for the Assessment Report which are outlined below, the Source Protection Committee engaged in a number of public meetings and consultations with community groups and municipalities from each of the study areas to gather local knowledge as well as report on findings of technical studies which formed the scientific basis of the Assessment Report.

A copy of the Draft, Proposed and Updated Assessment Report were made available at the North Bay-Mattawa Conservation Authority offices immediately after the posting online at www.actforcleanwater.ca.

Draft Assessment Report

Letters of Notice to the following groups:

July 26, 2010

- Nipissing First Nation
- City of North Bay, Municipality of Callander, Municipality of Powassan, Village of South River, Town of Mattawa, and the Townships of Papineau-Cameron, Bonfield, Calvin, Machar, Strong, Joly, Nipissing, Mattawan, Chisholm and East Ferris.
- A notice was distributed to:
 - 1700 addresses in the Callander Bay Issue Contributing Area
 - 300 addresses served by the Trout Creek post office which includes the Wellhead Protection Area A & B
 - two addresses within the Powassan WHPA-A

Public Notice

- North Bay Nugget August 3, 2010
- Almaguin News August 5, 2010
- Mattawa Recorder August 8, 2010

Public Meetings

- Callander Legion, Callander ON August 19, 2010 5pm – 8:30pm
- South River Friendly Circle, South River ON August 24, 2010 5pm – 8:30pm

Proposed Assessment Report

Posted on www.actforcleanwater.ca September 16, 2011 (30 days)

Notices were sent to the following groups: September 16, 2011

- Municipal Clerks/CAOs: City of North Bay, Municipality of Callander, Municipality of Powassan, Village of South River, Town of Mattawa, and the Townships of Papineau-Cameron, Bonfield, Calvin, Machar, Strong, Joly, Nipissing, Mattawan, Chisholm and East Ferris.
- Nipissing First Nations

Draft Updated Assessment Report (2011)

Posted on www.actforcleanwater.ca May 13, 2011 (30 days)

Notices were sent to the following groups: May 13, 2011

- Municipal Clerks/CAOs: City of North Bay, Municipality of Callander, Municipality of Powassan, Village of South River, Town of Mattawa, and the Townships of Papineau-Cameron, Bonfield, Calvin, Machar, Strong, Joly, Nipissing, Mattawan, Chisholm and East Ferris.
- Canadian National Railway
- Ministry of Transportation

Public Notice

- North Bay Nugget May 18, 2011
- Almaguin News May 19, 2011
- Mattawa Recorder May 22, 2011

Submission to MOECC June 17, 2011

Draft Updated Assessment Report (2014)

Notice to Trout Creek Residents November 18, 2013

Notice to Municipal Clerks/CAOs November 19, 2013

- City of North Bay, Municipality of Callander, Municipality of Powassan, Village of South River, Town of Mattawa, Chisholm and East Ferris.

Posted on www.actforcleanwater.ca January 17, 2014 (30 days)

Submission to the MOECC March 3, 2014

SUMMARY OF SOURCE PROTECTION PLAN CONSULTATION & NOTICES

Sections 19- 41 of Ontario Regulation 287/07 specify requirements for consultation for the Draft and Proposed versions of the Source Protection Plan. These include required notices, contents, stakeholders and timelines for overall consultation periods and public meetings.

Early Engagement

Although not a requirement of O.Reg 287/07, the North Bay-Mattawa Source Protection Committee engaged the community at a number of public meetings, met with stakeholder groups and made presentations to municipal councils in the Source Protection Area where significant threats had been identified. In addition to the engagement of the general public, three meetings were held with the agricultural community to inform and engage them in the process. The purpose of these discussions was to review the Source Protection Plan development process, review identified threats and seek input on policy development.

A Policy Working Group was also formed and met eight times between December 2010 to June 2011 to review threat summaries, provide input to policy concepts, review draft policies and make recommendations to the Source Protection Committee.

Policy Working Group members included: Barbara Groves (then SPC Chair), Nancy Barner (Powassan), Cecil Reid (Chisholm), Peter Bullock (Trout Lake Conservation Association), Beverley Hillier (North Bay), Sue Miller (NBMCA), Melissa Mohr (East Ferris), Paula Scott (NBMCA), Kristen Green (NBMCA), Glenn Tunnock (Consulting Planner), Micheline Mamone (Chisholm), Rob Pringle (NBMCA), Jeffrey Dickerson (South River), Wayne Belter (Mattawa), Robb Noon (Callander), Neil Gervais (MOECC Liaison Officer).

Notice of Commencement

When the Source Protection Committee began preparation of the Source Protection Plan the Committee gave notice to:

- the Clerk of each Municipality in the North Bay-Mattawa Source Protection Area;
- Chief Nipissing First Nation 10;
- North Almaguin Planning Board, Central Almaguin Planning Board, East Nipissing Planning Board;
- Residents of the Callander Issue Contributing Area, Powassan Wellhead Protection Area A, Mattawa Wellhead Protection Area A, B & C, as well as the Municipality of Mattawa who the Source Protection Committee believes could be engaging in one or more activities that are or would be significant drinking water threats according to the approved Assessment Report;
- Ministry of Transportation, Ontario Northland Railway, Canadian National Railway with respect to the inclusion of “transportation of hazardous substances” as a Local Threat in the Assessment Report.

Pre-Consultation

In accordance with Section 35-39 of O. Reg 287/07, notices of proposed policies were provided to persons/bodies which would be responsible for:

- Implementing a significant threat policy or monitoring policy;
- Issuing a prescribed instrument which would be affected by a policy;
- Making a decision under the *Planning Act* or the *Condominium Act, 1998*
- Complying with an obligation under a significant threat policy (specifically a Municipality, local board or source protection authority)
- Enforcing Part IV of the *Clean Water Act* where any land use is designated

Each notice contained draft wording of the proposed policy, a summary of the reasons for the proposed policy, a request for written comments and indicated that any comments would be considered in the development of the policy.

Notices were provided on November 7, 2011 to:

- Ministry of Agriculture and Rural Affairs
- Ministry of Community Safety and Correction Services
- Ministry of Consumer Services
- Ministry of Municipal Affairs and Housing
- Ministry of Natural Resources and Forestry
- Ministry of the Environment and Climate Change
- Ministry of Transportation
- Canadian National Railway
- Ontario Northland Railway
- North Bay-Mattawa Conservation Authority
- Technical Standards and Safety Association
- Municipality of Callander
- Township of Chisholm
- Municipality of East Ferris
- Township of Machar
- Town of Mattawa
- City of North Bay
- Municipality of Powassan
- Municipality of South River
- Central Almaguin Planning Board
- North Almaguin Planning Board

Draft Source Protection Plan

Section 41 of O. Reg 287/07 specifies the timing, format and content of notices and consultations related to the Draft SP Plan. In accordance with the specifications the SP Plan Consultation Plan includes the following:

Posting of the Draft SP Plan on www.actforcleanwater.ca

April 30, 2012 (30 days)

Copies of the Draft SP Plan were available for inspection from April 30 to May 31, 2012 at the following locations:

- North Bay-Mattawa Conservation Authority, 15 Janey Ave., North Bay;
- Municipal offices of Callander, Mattawa, North Bay, Powassan, South River ; and

Publication of Notice of Posting:

- | | |
|------------------------|----------------|
| • The North Bay Nugget | April 24, 2012 |
| • Almaguin News | April 26, 2012 |
| • Mattawa Recorder | April 29, 2012 |

Notices Provided on April 27, 2012 to:

- Clerks of the municipalities in the North Bay-Mattawa Source Protection Area:
 - Township of Bonfield
 - Municipality of Callander
 - Township of Chisholm
 - Township of East Ferris
 - Town of Mattawa
 - City of North Bay
 - Township of Papineau-Cameron
 - Municipality of Powassan
 - Village of South River
 - Township of Joly
 - Township of Machar
 - Township of Mattawan
 - Township of Nipissing
 - Township of Strong
- Chief Nipissing First Nation #10
- North Almaguin Planning Board, Central Almaguin Planning Board, East Nipissing Planning Board
- Individuals/bodies which the Source Protection Committee believes could be engaging in one or more activities that are or would be significant drinking water threats according to the approved Assessment Report. This includes the Municipality of Mattawa, residents of the Callander Issue Contributing Area (1,659), Powassan Wellhead Protection Area A (2) , and Mattawa Wellhead Protection Area A, B & C (116).
- All agencies/bodies which received a Notice of Proposed Policy during the Pre-Consultation phase of the SP Plan including:
 - Ministry of Agriculture and Rural Affairs
 - Ministry of Community Safety and Correction Services
 - Ministry of Consumer Services
 - Ministry of Municipal Affairs and Housing
 - Ministry of Natural Resources and Forestry
 - Ministry of the Environment and Climate Change
 - Ministry of Transportation
 - Canadian National Railway
 - Ontario Northland Railway

- North Bay-Mattawa Conservation Authority
- Technical Standards and Safety Association
- Municipality of Callander
- Township of Chisholm
- Municipality of East Ferris
- Township of Machar
- Town of Mattawa
- City of North Bay
- Municipality of Powassan
- Municipality of South River
- Central Almaguin Planning Board
- North Almaguin Planning Board

Public Meetings

Wednesday, May 9, 2012

Callander Legion Branch 445
345 Lansdowne St. Callander

Thursday, May 17, 2012

North Bay-Mattawa Conservation
Authority
15 Janey Ave, North Bay

The consultation period for the Draft Source Protection Plan closed May 31, 2012. The Source Protection Committee considered all comments submitted and made any revisions it deems appropriate to the Source Protection Plan.

Proposed Source Protection Plan (2012)

The SPC posted the Proposed Source Protection Plan for consultation from July 20, 2012 until August 19, 2012. For this consultation period, the SPC:

- Published the Proposed Source Protection Plan on www.actforcleanwater.ca
- Posted a public notice on the internet of the posting of the Proposed SP Plan inviting the public to submit written comments on the plan within 30 days of the publication of the notice
- Provided notice on July 20, 2012 to:
 - Clerks of the municipalities in the North Bay-Mattawa Source Protection Area:
 - Township of Bonfield
 - Municipality of Callander
 - Township of Chisholm
 - Township of East Ferris
 - Town of Mattawa
 - City of North Bay
 - Township of Papineau-Cameron
 - Municipality of Powassan
 - Village of South River
 - Township of Joly
 - Township of Machar
 - Township of Mattawan
 - Township of Nipissing
 - Township of Strong

- Chief Nipissing First Nation #10
- Every person who submitted written comments on the Draft Source Protection Plan

Following the consultation period for the Proposed Source Protection Plan, the SPC submitted to the Source Protection Authority:

- The Proposed SP Plan
- The summary of any concerns that were raised by bands/municipalities during the preparation of the Proposed SP Plan and that were not resolved to the satisfaction of the bands and/or the municipalities any comments made with respect to the Proposed SP Plan to the Source Protection Authority.

The Proposed SP Plan was submitted to the Ministry of the Environment and Climate Change, together with any comments received on the Proposed SP Plan, on August 20, 2012.

Revised Source Protection Plan (2014)

The Revised Proposed Source Protection Plan was posted and available for public review and comment from June 27 until July 28, 2014. For this consultation the SPC:

- Published the Revised Source Protection Plan on www.actforcleanwater.ca
- Posted a public notice on the internet of the posting of the Proposed SP Plan inviting the public to submit written comments on the plan within 30 days of the publication of the notice
- Provided notice to:
 - Ministry of Transportation (June 25, 2014)
 - Clerks of the municipalities listed as implementing bodies in SP Plan policies (June 27, 2014)
 - Municipality of Callander
 - Township of Chisholm
 - Township of East Ferris
 - Town of Mattawa
 - City of North Bay
 - Municipality of Powassan
 - Village of South River
 - Township of Machar
 - Individuals who previously commented on Source Protection documents (July, 7, 2014)

Following the public consultation, the SPC submitted the Revised Source Protection Plan to the Source Protection Authority (SPA). The SPA submitted the Revised SP Plan to the Ministry of Environment and Climate Change on August 21, 2014. Subsequent revisions recommended by MOECC were approved by the Source Protection Committee on November 12, 2014 by Resolution 51-03, posted online on November 19, 2014 and all municipalities notified.

Appendix C: Changes as a Result of Pre-Consultation

The policies in the Draft Proposed Source Protection Plan were modified from their original drafting based on the comments received during pre-consultation with the implementing bodies.

Comments received were generally supportive of the intent behind the draft policies, though some comments or directives contravened the local development of policy and were discussed at the Committee level through the Draft Proposed consultation period.

Details about the comments received can be found in the Explanatory Document. Additionally, implementing bodies will note that considerable revisions have been made in terms of form, coding and layout of policies, though there is not a major difference in the intent of the policies as they were proposed.

Schedule A: Additional Maps of Vulnerable Areas

Callander Issue Contributing Area by Municipality:

- A-1 Municipality of Callander
- A-2 City of North Bay/Municipality of Powassan
- A-3 Chisholm Township and Townships lacking Municipal Organization
- A-4 Municipality of East Ferris

South River Intake Protection Zones by Municipality

- A-5 Village of South River, Township of Machar and Laurier Township

Large-Scale Maps

- A-6 Callander Intake Protection Zones showing subzones of IPZ-3
- A-7 City of North Bay Intake Protection Zone
- A-8 South River Intake Protection Zones



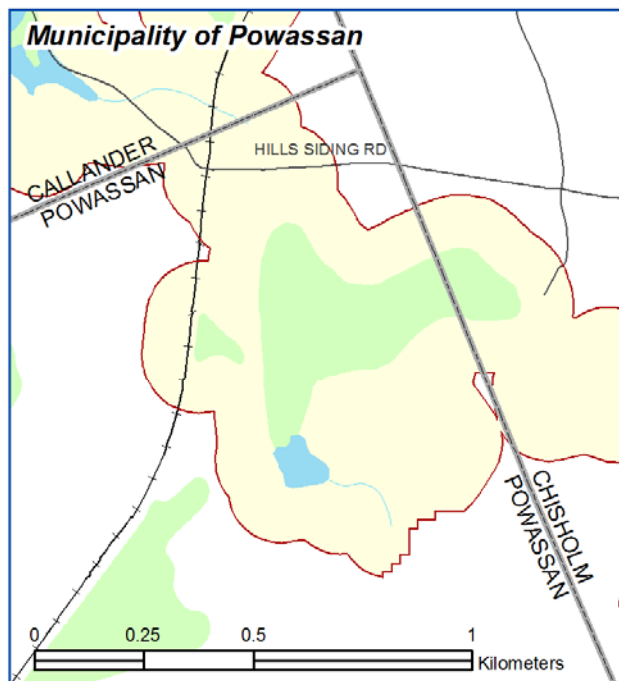
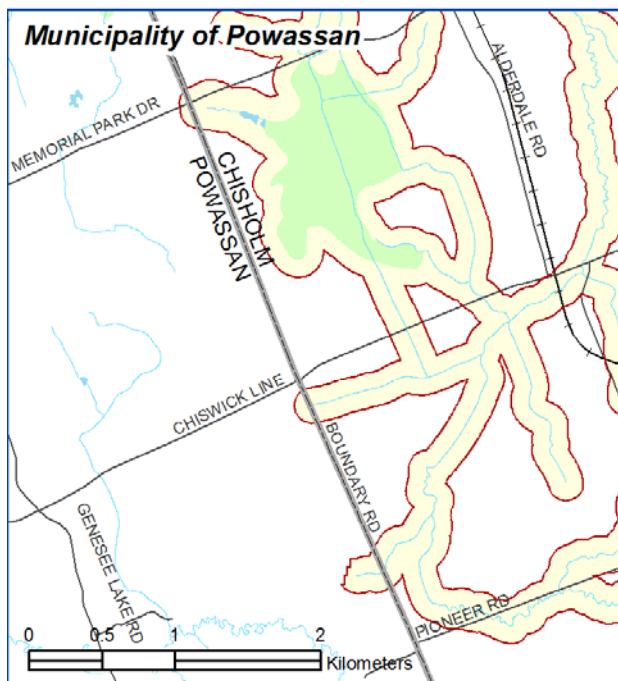
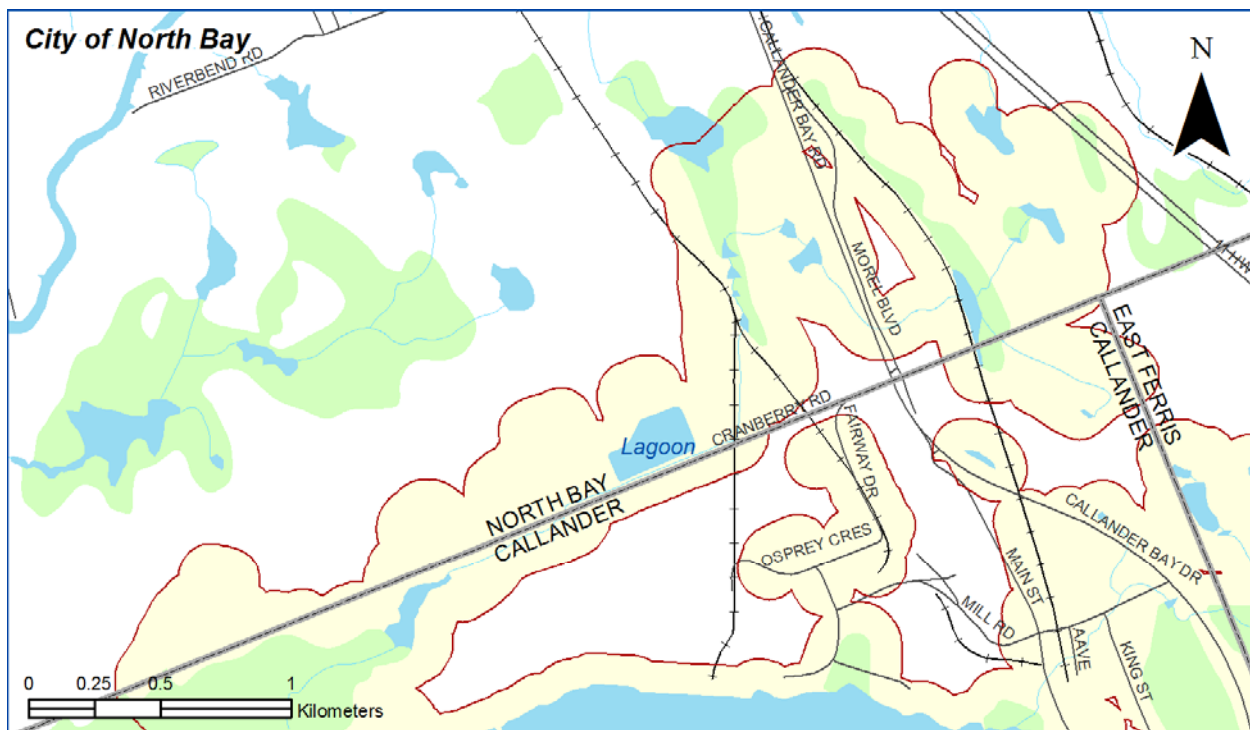
SCHEDULE A-1

Callander Issue
Contributing Area within the
MUNICIPALITY
OF CALLANDER

Legend

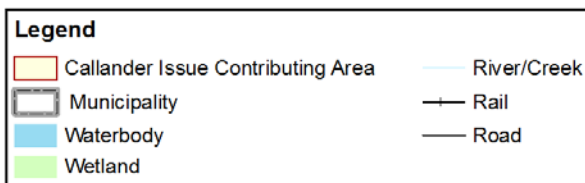
- Water Intake
- Callander Issue Contributing Area
- Municipality
- Waterbody
- Wetland
- River/Creek
- +— Rail
- Road

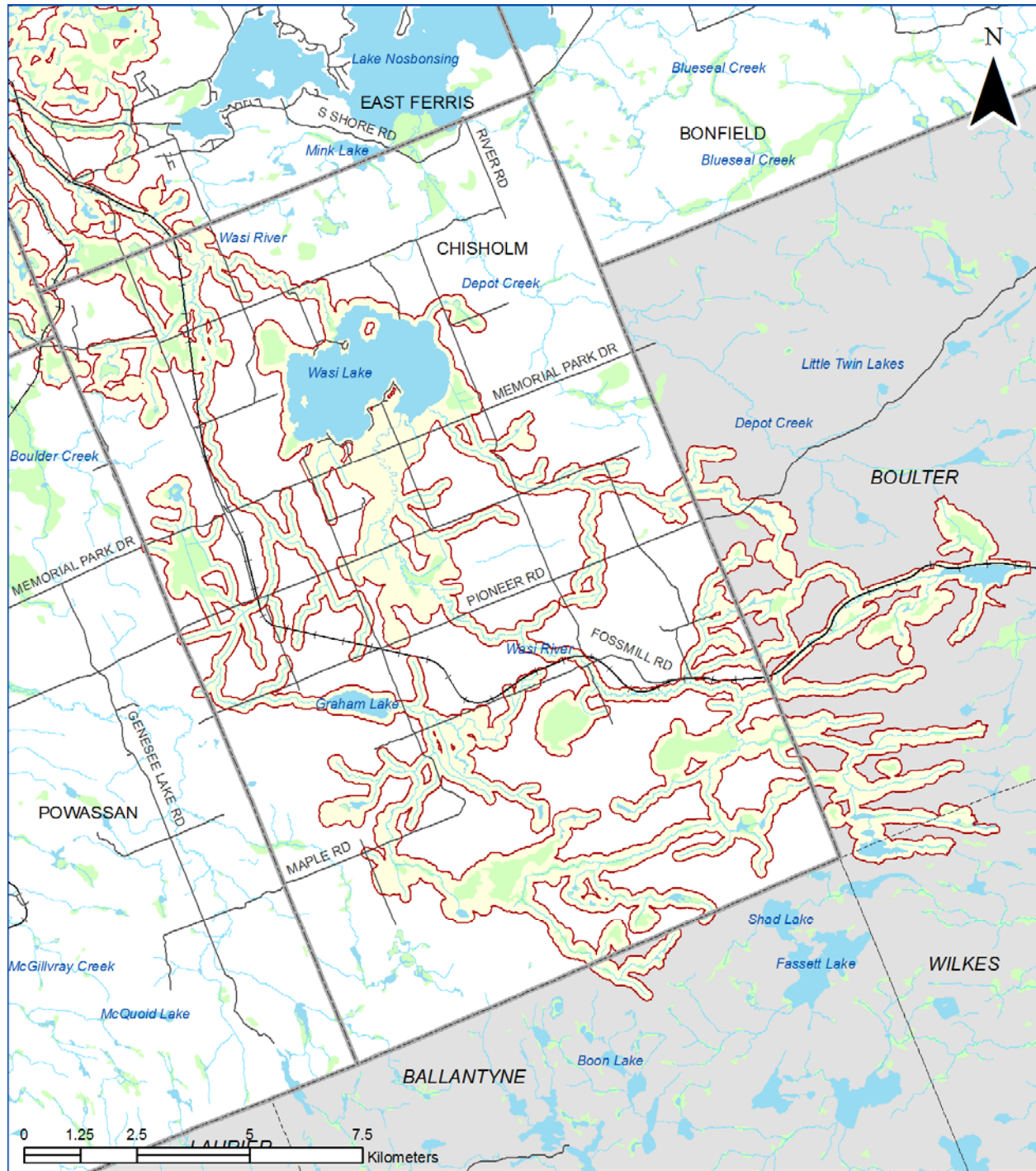




SCHEDULE A-2

Callander Issue
Contributing Area within the
CITY OF NORTH BAY/
MUNICIPALITY OF
POWASSAN





SCHEDULE A-3

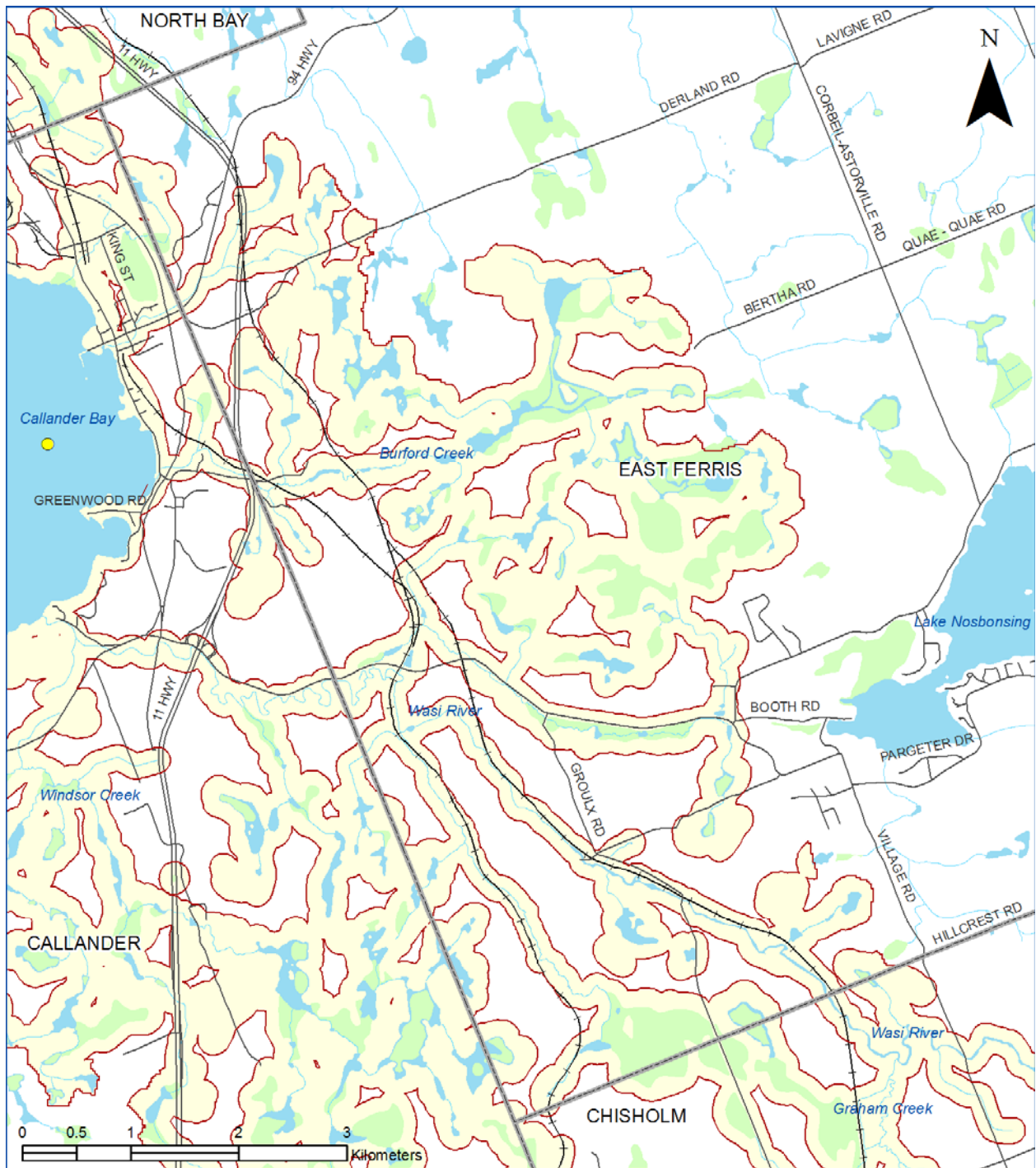
Callander Issue
Contributing Area within
CHISHOLM AND
UNORGANIZED TOWNSHIPS

Legend

- Callander Issue Contributing Area
- Municipality
- Unorganized Township
- Waterbody

- Wetland
- River/Creek
- Rail
- Road





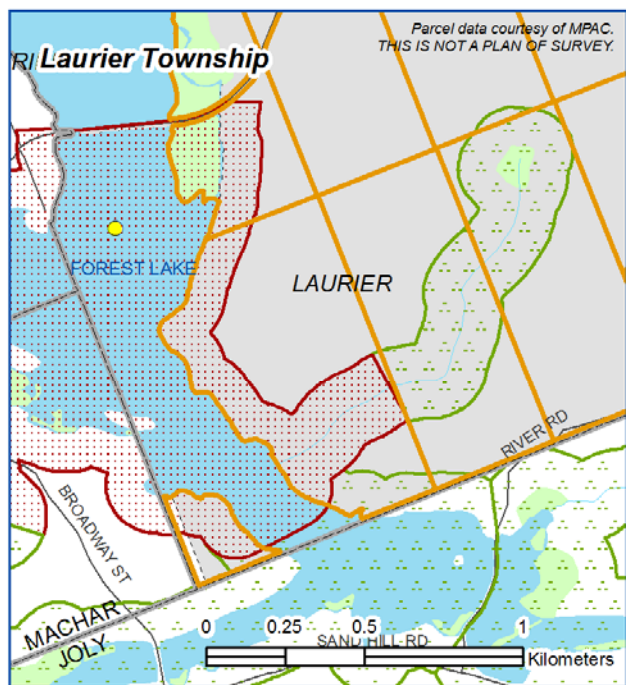
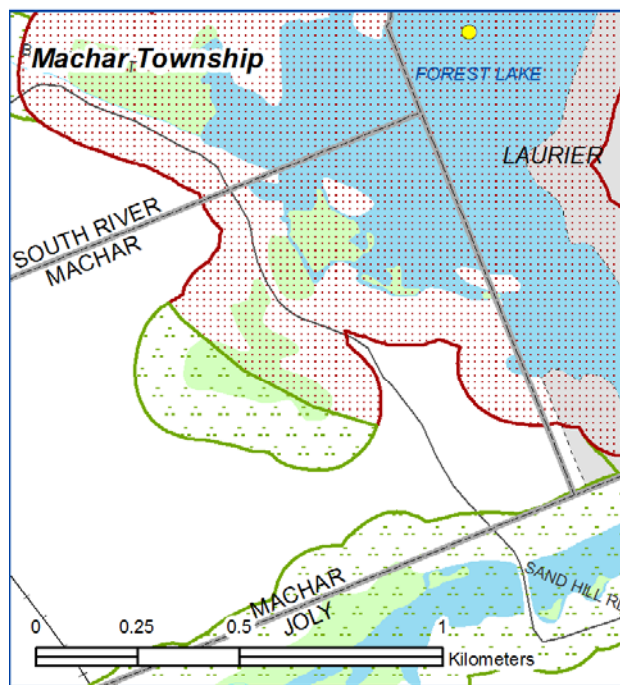
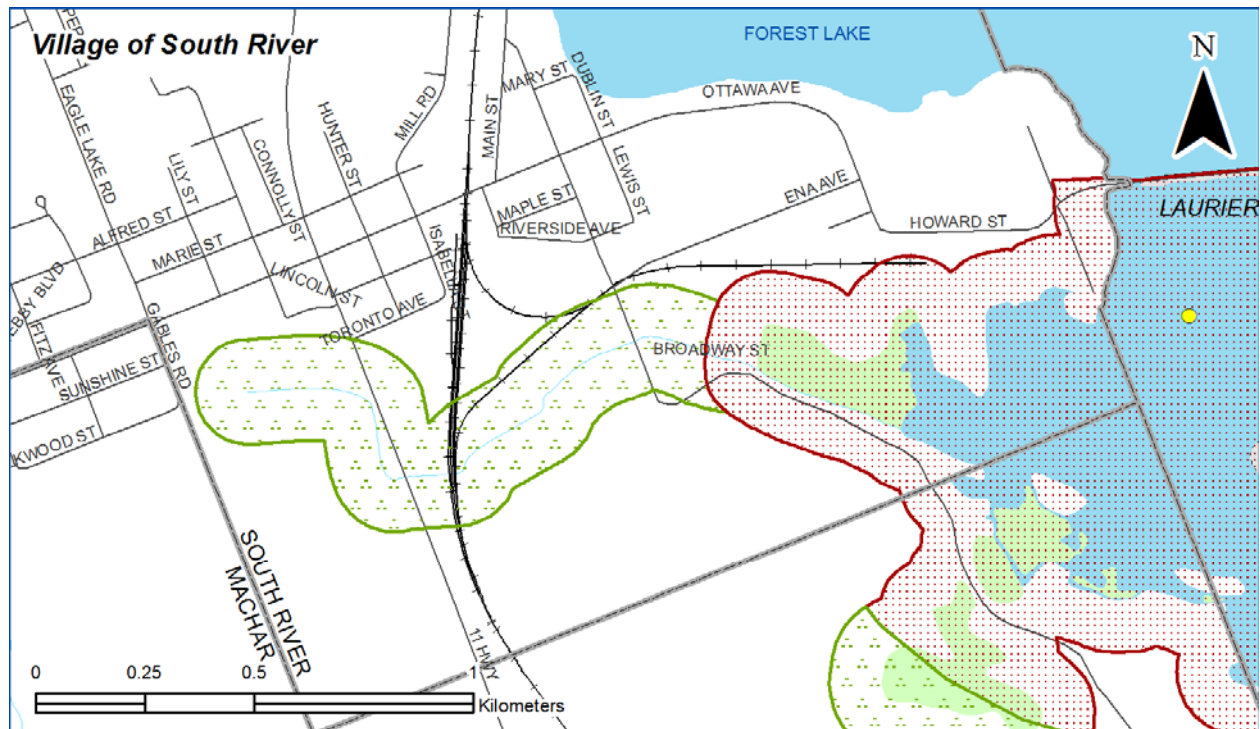
SCHEDULE A-4

Callander Issue
Contributing Area within the
MUNICIPALITY OF
EAST FERRIS

Legend

- | | |
|--|---|
| ● Water Intake | Wetland |
| Callander Issue Contributing Area | — River/Creek |
| Municipality | —+— Rail |
| Waterbody | — Road |





SCHEDULE A-5

South River Intake Protection Zones within the MUNICIPALITIES OF SOUTH RIVER & MACHAR/ UNORGANIZED TOWNSHIP OF LAURIER

Legend

- | | | |
|---|-------------|-------------------------------|
| ● South River Intake | Waterbody | Intake Protection Zone |
| ▭ Assessment Parcel within Laurier Township | Wetland | IPZ 1 |
| ▭ Municipality | River/Creek | IPZ 2 |
| ▭ Unorganized Township | Road | IPZ 3 |
| | Rail | |



Schedule A-6 Callander Intake Protection Zones

Legend

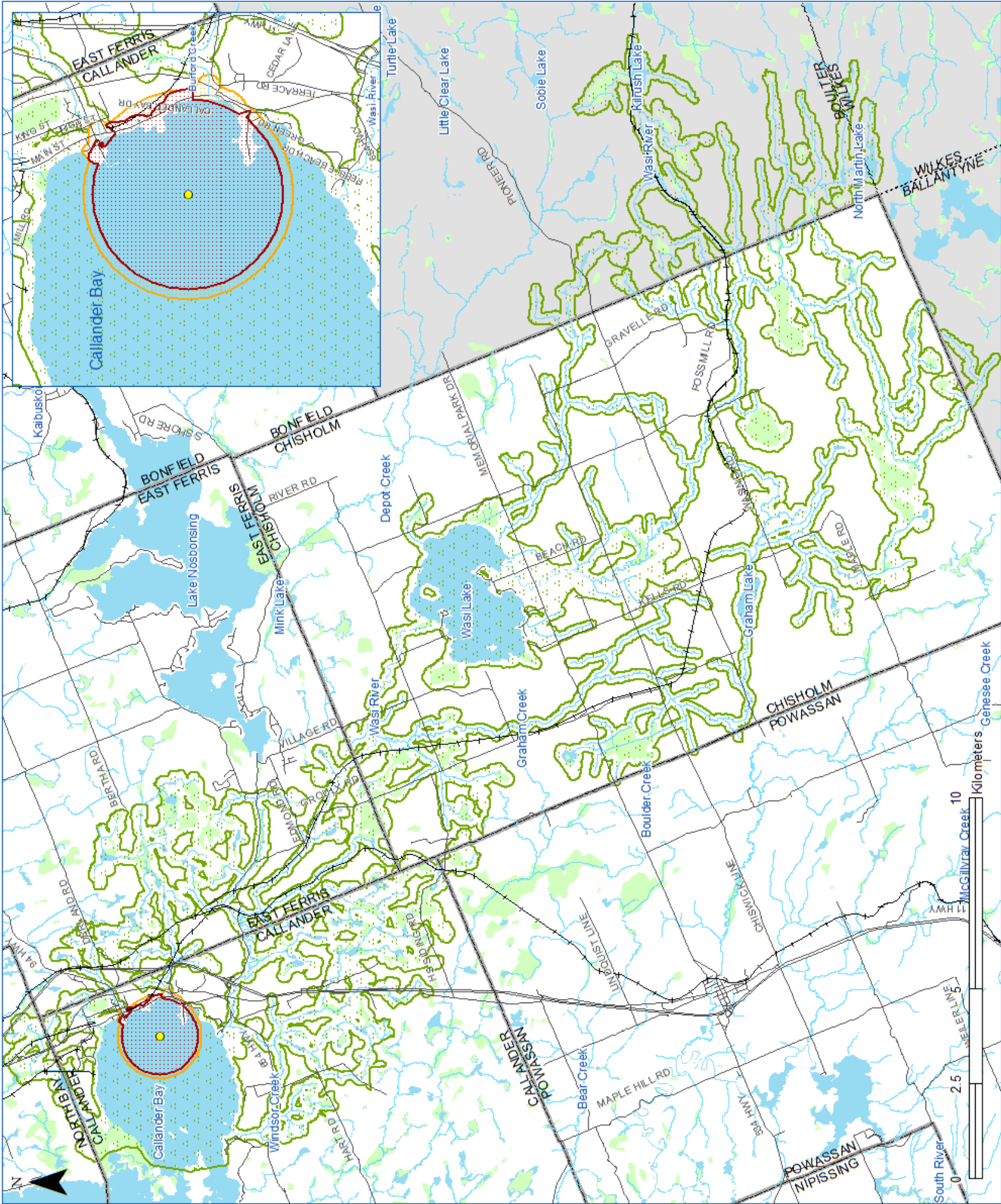
- Water Intake
- Municipality
- Unorganized Township
- Waterbody
- Wetland
- River/Creek
- Rail
- Road

Intake Protection Zones

- IPZ-1
- IPZ-2
- IPZ-3



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Schedule A-7 **City of North Bay** **Intake Protection Zones**

Legend

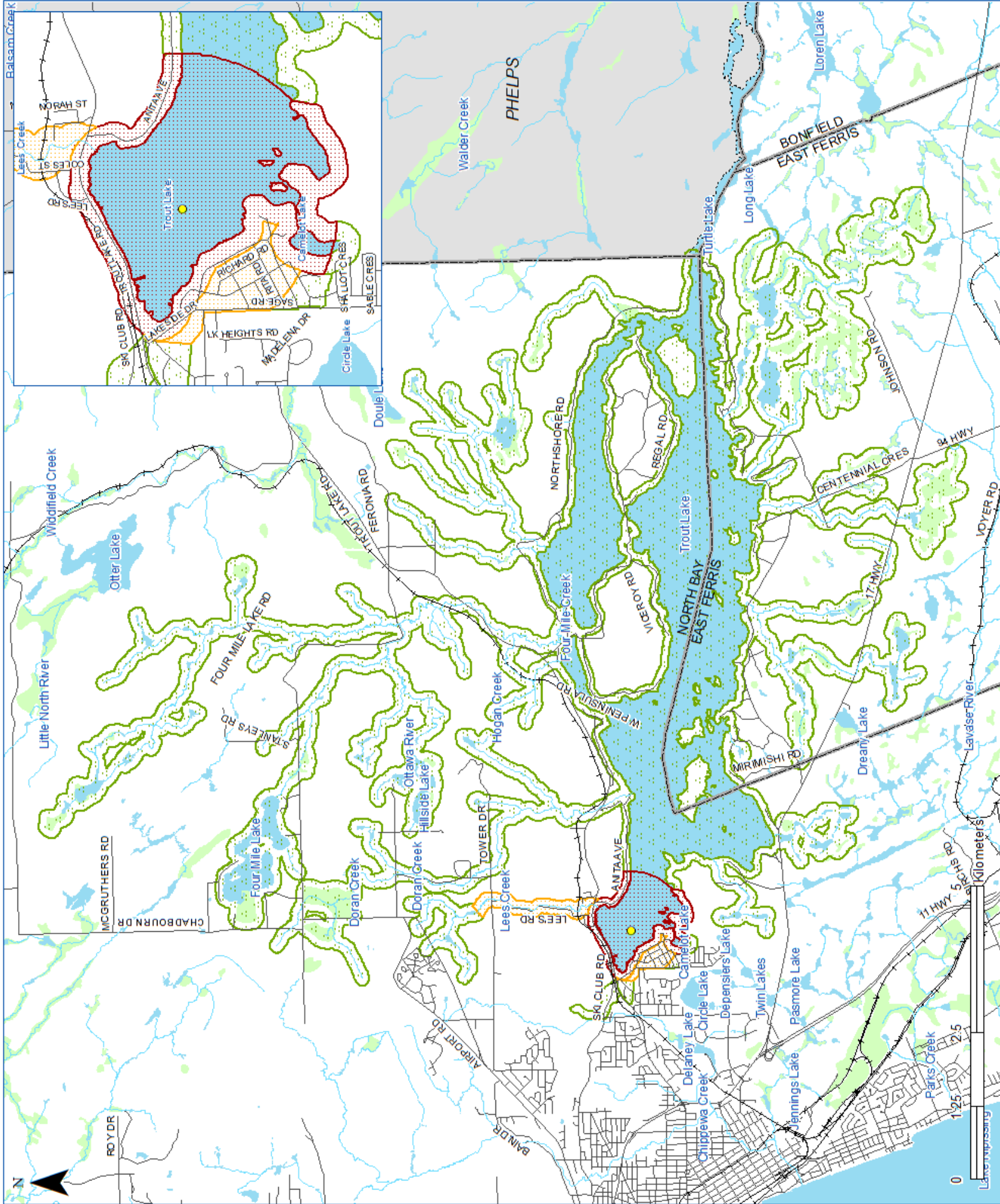
- Water Intake
- Municipality
- Unorganized Township
- Waterbody
- Wetland
- River/Creek
- Rail
- Road

Intake Protection Zones

- IPZ-1
- IPZ-2
- IPZ-3



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Schedule A-8 South River Intake Protection Zones

Legend

- Water Intake
- Municipality
- Unorganized Township
- Waterbody
- Wetland
- River/Creek
- Rail
- Road

Intake Protection Zones

- IPZ-1
- IPZ-3



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