



Lake Simcoe Region
conservation authority



South Georgian Bay Lake Simcoe Source Protection Region

South Georgian Bay Lake Simcoe Explanatory Document

This explanatory document is a companion to, and should be read in conjunction with, the South Georgian Bay Lake Simcoe source protection plan.

Approval Date: January 26, 2015

Effective: July 1, 2015

Amended: ~~September 17, 2019~~TBD



PREFACE

This explanatory document was prepared by staff in the South Georgian Bay Lake Simcoe source protection region. It has been reviewed by the South Georgian Bay Lake Simcoe source protection committee (SPC) to be submitted to the Ministry of Environment ([now, MECP](#)) for approval in the summer of 2014.

The objective of this document is to provide the rationale behind policies that the committee has developed to protect existing and future municipal drinking water sources.

This document also contains the comments received during consultation as well as the source protection committee's response to those comments.

If you have any questions about this document or the South Georgian Bay Lake Simcoe source protection area, please contact the source protection staff at the Lake Simcoe Region Conservation Authority at 1-800-465-0437 or 905-895-1281 or www.ourwatershed.ca.

Plan Approval Date: January 26, 2015

Effective Date: July 1, 2015

Amended: May 15, 2015; January 1, 2017;
September 17, 2019; [TBD](#)



Made possible through funding from the government of Ontario

SUMMARY OF AMENDMENTS

- 1) May 14, 2015: Rationale for policy LUP-3 amended to reflect source protection plan policy update (Pg. 107). Policy LUP-3 amended to align with policy SEWG(a)-1. Amendment endorsed by SPAs and SPC, April 2015.
- 2) January 1, 2017: Clarification provided for policy SEWG(a)-1 to define what type of stormwater management facilities the policy applies to
- 3) September 17, 2019: Minor typographic changes to Section 7.24
- 3)4) [TBD: Rationale for policy changes resulting from the 2021 Technical Rules and added as part of the Section 36 Amendment process.](#)

Table of Contents

[1 Purpose and Objectives of the Explanatory Document..... 10](#)

[2 Relationship to Other Source Protection Planning Documents 10](#)

[3 Policy Development 11](#)

[3.1 Governing Fundamentals 12](#)

[3.1.1 Efficiency & Effectiveness 12](#)

[3.1.2 Flexibility 12](#)

[3.1.3 Consistency 12](#)

[3.1.4 Financial Considerations 13](#)

[3.1.5 Existing Measures 14](#)

[3.2 Evaluation Criteria 14](#)

[4 Policy Rationale: Introduction 15](#)

[5 Transition Provisions..... 17](#)

[6 Timing for Conformity to Policies 18](#)

[7 Policy Rationale..... 20](#)

[7.1 Threat #1: The establishment, operation or maintenance of a waste disposal site within the meaning of Part V of the Environmental Protection Act 20](#)

[7.1.1 Threat #1\(a\): The application of Hauled Sewage..... 20](#)

[7.1.2 Threat #1\(b\): The storage of hauled sewage 23](#)

[7.1.3 Threat #1\(c\): The application of processed organic waste to land 24](#)

[7.1.4 Threat #1\(d\): The storage of processed organic waste 25](#)

[7.1.5 Threat\(s\) #1\(e\): Waste generating facilities 26](#)

[7.1.6 Threat\(s\) #1\(f\): Waste transfer and processing:..... 27](#)

[7.1.7 Threat\(s\) #1\(g\): Waste disposal 28](#)

[7.1.8 Threat #1\(h\): Mine tailings..... 33](#)

[7.2 Threat 2: The establishment, operation or maintenance of a system that collects, stores, transmits, treats or disposes of sewage. 34](#)

[7.2.1 Threat\(s\) #2\(a\): Stormwater management facilities and stormwater infiltration facilities 34](#)

[7.2.2 Threat\(s\) #2\(b\): Wastewater collection facilities & wastewater treatment facilities 37](#)

7.2.3 Threat #2(c): On-site sewage systems	40
7.2.4 Threat #2(d): Industrial effluent discharge	42
7.3 Threat #3: The application of agricultural source material (ASM) to land	44
7.4 Threat #4: The storage of agricultural source material	46
7.4.1 Threat #3 & #4: The application and storage of agricultural source material – issues contributing area: nitrate for Georgian Sands and Lafontaine	49
7.5 Threat #5: The management of agricultural source material (aquaculture)	52
7.6 Threat #6: The application of non-agricultural source material (NASM) to land	52
7.7 Threat #7: The handling and storage of non-agricultural source material.....	56
7.8 Threat #8: The application of commercial fertilizer to land	60
7.9 Threat #9: The handling and storage of commercial fertilizer	61
7.9.1 Threat #8 and #9: The application, handling and storage of commercial fertilizer – issues contributing area: nitrate for Georgian Sands and Lafontaine	63
7.10 Threat #10: The application of pesticides to land	66
7.11 Threat #11: The handling and storage of pesticides	68
7.12 Threat #12: The application of road salt	69
7.13 Threat #13: The handling and storage of road salt	71
7.13.1 Threat #12 & #13: The application, storage and handling of road salt – issues contributing area: for the City of Barrie	72
7.14 Threat #14: The storage of snow	75
7.14.1 Threat # 14: The storage of snow: Issues Contributing Area for the City of Barrie 77	
7.15 Threat #15: The handling and storage of fuel	78
7.16 Threat #16: The handling and storage of a dense non-aqueous phase liquid (DNAPL) 83	
7.17 Threat #17: The handling and storage of an organic solvent	86
7.18 Threat #18: The management of runoff that contains chemicals used in the de-icing of aircraft	88
7.19 Threat #19: An activity that takes water from a surface water body without returning the water taken to the same aquifer or surface water body	89
7.20 Threat #20: An activity that reduces the recharge of an aquifer	93
7.21 Threat #21: The use of land as livestock grazing or pasturing land, an outdoor confinement area or a farm-animal yard	94

7.22	Threat #22: Liquid hydrocarbon pipelines	98
7.23	Condition Policies	98
7.24	Georgian Sands Issue Contributing Area Transport Pathway Policies	99
7.25	Restricted Land Use Policies	100
7.26	Land Use Planning Policies	103
7.27	Education and Outreach Policies	112
7.28	Incentive Policies	119
7.29	Monitoring Policies	122
8	Pre- Consultation Comments Received and The SPC Response	124
9	Formal Consultation Comments Received and The SPC Response	124
10	[Add 36 Consultation Information]	125
11	Climate Change Considerations	125
12	The Need for Water Conservation	125
13	Appendix A: Pre-consultation Comments and Responses	127
14	Appendix B: First Formal Consultation Comments and Responses	128
15	Appendix C: Second Formal Consultation Comments and Responses	129
16	Appendix D: Pre-consultation on the Revised Proposed Source Protection Plan - Comments and Responses	130
17	Appendix E: Formal Consultation on the Revised Proposed Source Protection Plan - Comments and Responses	131
18	Appendix F: Post Submission Comments on the Revised Proposed Source Protection Plan	132
19	[Insert S36 Consultation Information]	133
20	Notes:	134
1	Purpose and Objectives of the Explanatory Document	7
2	Relationship to Other Source Protection Planning Documents	7
3	Policy Development	8
3.1	Governing Fundamentals	9
3.1.1	Efficiency & Effectiveness	9
3.1.2	Flexibility	9
3.1.3	Consistency	9
3.1.4	Financial Considerations	10

Formatted: Default Paragraph Font, Check spelling and grammar

Formatted: Default Paragraph Font, Check spelling and grammar

Formatted: Default Paragraph Font, Check spelling and grammar

Formatted: Default Paragraph Font, Check spelling and grammar

Formatted: Default Paragraph Font, Check spelling and grammar

Formatted: Default Paragraph Font, Check spelling and grammar

Formatted: Default Paragraph Font, Check spelling and grammar

Formatted: Default Paragraph Font, Check spelling and grammar

3.1.5 Existing Measures	11
3.2 Evaluation Criteria	11
4 Policy Rationale: Introduction	12
5 Transition Provisions	14
6 Timing for Conformity to Policies	15
7 Policy Rationale	17
7.1 Threat #1: The establishment, operation or maintenance of a waste disposal site within the meaning of Part V of the Environmental Protection Act	17
7.1.1 Threat #1(a): Application of untreated septage	17
7.1.2 Threat #1(b): Waste disposal sites	19
7.1.3 Threat #1(c): Mine Tailings	23
7.2 Threat 2: The establishment, operation or maintenance of a system that collects, stores, transmits, treats or disposes of sewage.	24
7.2.1 Threat #2(a) Stormwater management	24
7.2.2 Threat #2(b) Wastewater treatment plants / sewer systems	26
7.2.3 Threat #2(c) On-site sewage systems	29
7.2.4 Threat #2(d) Industrial Effluent	31
7.3 Threat #3: The application of agricultural source material (ASM) to land	32
7.4 Threat #4: The storage of agricultural source material	35
7.4.1 Threat #3 & #4: Application and storage of agricultural source material – issues contributing area: nitrate for Georgian Sands and Lafontaine	37
7.5 Threat #5: The management of agricultural source material (aquaculture)	40
7.6 Threat #6: The application of non agricultural source material (NASM) to land	40
7.7 Threat #7: The handling and storage of non agricultural source material	44
7.8 Threat #8: The application of commercial fertilizer to land	47
7.9 Threat #9: The handling and storage of commercial fertilizer	49
7.9.1 Threat #8 and #9: Application, handling and storage of commercial fertilizer – issues contributing area: nitrate for Georgian Sands and Lafontaine	50
7.10 Threat #10: The application of pesticides to land	53
7.11 Threat #11: The handling and storage of pesticides	54
7.12 Threat #12: The application of road salt	55
7.13 Threat #13: The handling and storage of road salt	57

Formatted: Default Paragraph Font, Check spelling and grammar

Formatted: Default Paragraph Font, Check spelling and grammar

Formatted: Default Paragraph Font, Check spelling and grammar

Formatted: Default Paragraph Font, Check spelling and grammar

Formatted: Default Paragraph Font, Check spelling and grammar

Formatted: Default Paragraph Font, Check spelling and grammar

Formatted: Default Paragraph Font, Check spelling and grammar

Formatted: Default Paragraph Font, Check spelling and grammar

Formatted: Default Paragraph Font, Check spelling and grammar

Formatted: Default Paragraph Font, Check spelling and grammar

Formatted: Default Paragraph Font, Check spelling and grammar

Formatted: Default Paragraph Font, Check spelling and grammar

Formatted: Default Paragraph Font, Check spelling and grammar

Formatted: Default Paragraph Font, Check spelling and grammar

Formatted: Default Paragraph Font, Check spelling and grammar

Formatted: Default Paragraph Font, Check spelling and grammar

Formatted: Default Paragraph Font, Check spelling and grammar

Formatted: Default Paragraph Font, Check spelling and grammar

Formatted: Default Paragraph Font, Check spelling and grammar

Formatted: Default Paragraph Font, Check spelling and grammar

Formatted: Default Paragraph Font, Check spelling and grammar

Formatted: Default Paragraph Font, Check spelling and grammar

Formatted: Default Paragraph Font, Check spelling and grammar

Formatted ...

Formatted ...

Formatted ...

Formatted ...

Formatted ...

7.13.1 Threat #12 & 13: Application, storage and handling of road salt – issues contributing area: for the City of Barrie 58

7.14 Threat #14: The storage of snow 61

7.14.1 Threat # 14: The storage of Snow: Issues Contributing Area for the City of Barrie 62

7.15 Threat #15: The handling and storage of fuel 63

7.16 Threat #16: The handling and storage of a dense non-aqueous phase liquid (DNAPL) 68

7.17 Threat #17: The handling and storage of an organic solvent 70

7.18 Threat #18: The management of runoff that contains chemicals used in the de-icing of aircraft 72

7.19 Threat #19: An activity that takes water from a surface water body without returning the water taken to the same aquifer or surface water body 73

7.20 Threat #20: An activity that reduces the recharge of an aquifer 77

7.21 Threat #21: The use of land as livestock grazing or pasturing land, an outdoor confinement area or a farm animal yard 78

7.22 Condition Policies 81

7.23 Georgian Sands Issue Contributing Area Transport Pathway Policies 82

7.24 Restricted Land Use Policies 83

7.25 Land Use Planning Policies 85

7.26 Education and Outreach Policies 94

7.27 Incentive Policies 101

7.28 Monitoring Policies 104

8 Pre-Consultation Comments Received and The SPC Response 105

9 Formal Consultation Comments Received and The SPC Response 105

10 Climate Change Considerations 106

11 The Need for Water Conservation 106

Formatted: Default Paragraph Font, Check spelling and grammar

Formatted: Default Paragraph Font, Check spelling and grammar

Formatted: Default Paragraph Font, Check spelling and grammar

Formatted: Default Paragraph Font, Check spelling and grammar

Formatted: Default Paragraph Font, Check spelling and grammar

Formatted: Default Paragraph Font, Check spelling and grammar

Formatted: Default Paragraph Font, Check spelling and grammar

Formatted: Default Paragraph Font, Check spelling and grammar

Formatted: Default Paragraph Font, Check spelling and grammar

Formatted: Default Paragraph Font, Check spelling and grammar

Formatted: Default Paragraph Font, Check spelling and grammar

Formatted: Default Paragraph Font, Check spelling and grammar

Formatted: Default Paragraph Font, Check spelling and grammar

Formatted: Default Paragraph Font, Check spelling and grammar

Formatted: Default Paragraph Font, Check spelling and grammar

Formatted: Default Paragraph Font, Check spelling and grammar

Formatted: Default Paragraph Font, Check spelling and grammar

Formatted: Default Paragraph Font, Check spelling and grammar

Formatted: Default Paragraph Font, Check spelling and grammar

Formatted: Default Paragraph Font, Check spelling and grammar

Formatted: Default Paragraph Font, Check spelling and grammar

List of Figures

Figure 1: Policy Development Process 118

Figure 2: Four Evaluation Pillars 151

List of Appendices

12 Appendix A: Pre-consultation Comments and Responses [127408](#)

13 Appendix B: First Formal Consultation Comments and Responses..... [128409](#)

14 Appendix C: Second Formal Consultation Comments and Responses [129410](#)

15 Appendix D: Pre-consultation on the Revised Proposed Source Protection Plan -
Comments and Responses..... [130411](#)

16 Appendix E: Formal Consultation on the Revised Proposed Source Protection Plan -
Comments and Responses..... [131412](#)

17 Appendix F: Post Submission Comments on the Revised Proposed Source Protection
Plan [132413](#)

1 PURPOSE AND OBJECTIVES OF THE EXPLANATORY DOCUMENT

The explanatory document explains in detail how the policies in the source protection plan were developed. The explanatory document is required by provincial legislation and accompanies the source protection plan. In short, it documents the 'thinking' behind the policies outlined in the source protection plan.

The explanatory document also includes a record of all the comments received during pre-consultation, first and second formal public consultations as well as the source protection committee's response to those comments. This record can be found on disk on the inside front cover.

The explanatory document will be of interest to the source protection authority, stakeholders, the Minister and members of the general public who may wish to understand the information that the source protection committee used to prepare the source protection plan. By disclosing the underlying rationale that was used to select specific policy approaches, the explanatory document supports a transparent decision-making process.

The explanatory document is a living document that will be updated periodically, as new information becomes available.

2 RELATIONSHIP TO OTHER SOURCE PROTECTION PLANNING DOCUMENTS

There are other supplementary documents that have also been developed. For a full description of each document listed below, please refer to the proposed source protection plan.

- 1) Terms of Reference
- 2) Assessment Reports
- 3) Source Protection Plan

3 POLICY DEVELOPMENT

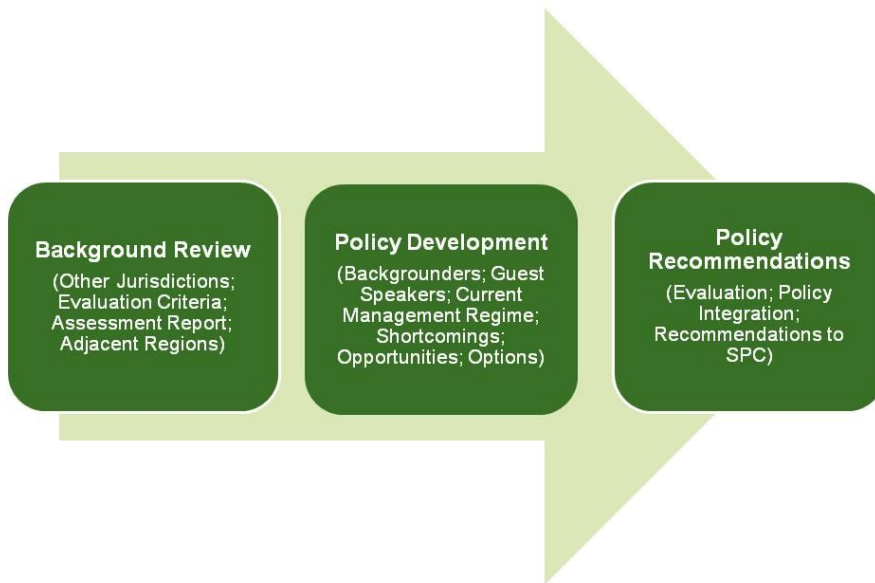


Figure 1: Policy Development Process

The development of the South Georgian Bay Lake Simcoe source protection plan requires the source protection committee to draft policies that have been evaluated and chosen from a range of existing and new policy options. In order to do this, a sub-committee called the “policy and planning working group” (PPWG) was established to oversee the detailed research needed to inform the work on policy options and development. The policy and planning working group consists of members of the larger source protection committee and also has members from a number of area municipalities. The group undertook their work in a three-step process as illustrated in Figure 1 and described in more detail below.

1. Background Review – The background research included undertaking an environmental scan of other jurisdictions throughout Canada and internationally, as well as discussions with adjacent source protection regions. The early work also included establishing evaluation criteria against which to measure the policies.

2. Policy Development – This stage was heavily focused on research in order to understand the nature of each individual threat category, what challenges currently exist, what legislation is already in place and what gaps exist. In addition to reviewing significant background materials,

a variety of expert speakers were invited to the meetings to provide as much information as possible to help the committee evaluate policy options.

3. Policy Recommendations – During this phase, the policy options for each threat category were considered and evaluated against the criteria laid out during the background review. The outcome was a series of policy recommendations that ultimately went to the source protection committee for review and approval.

3.1 Governing Fundamentals

A number of governing fundamentals were developed at the beginning of the policy development process. Members of the source protection committee and policy and planning working group began the deliberations by considering the elements of good policy and defined a number of early governing principles against which the policy options were considered.

Good policy, it was determined, is:

- consistent
- clear
- concise
- readily interpreted
- easily understood, and
- implementable

Members of the policy and planning working group agreed unanimously that the approach to be taken would align with the following governing principles:

3.1.1 Efficiency & Effectiveness

- Will the policy be successful in reducing the risk to source water?
- Is the schedule for implementing the solution workable?

3.1.2 Flexibility

- Does the policy provide opportunities for local circumstances and conditions to be taken into account?
- Does the policy recognize and accommodate different levels of capacity that may exist across the source protection region?

3.1.3 Consistency

- Is the policy consistent with approaches being used by other source protection regions and municipalities?
- Is the policy consistent with other threat policies? Does it align?

3.1.4 Financial Considerations

One of the legislated requirements for the contents of the explanatory document relates to how financial considerations were taken into account during policy development. The financial impacts of the policies on landowners, municipalities and other policy implementing bodies was given serious consideration by the policy and planning working group in policy development and the source protection committee in policy decisions.

Through consultation and the planning and policy working group, municipalities assessed the potential costs for implementing the draft source protection policies (e.g. risk management plans, land use planning and education and outreach policies). A number of municipalities raised concerns regarding the anticipated costs to implement the source protection policies. However, at the time, municipalities could not provide specific cost estimates and could only comment on the possible financial impact that may be associated with employing additional staff to implement these policies. It was noted that most municipalities would require additional operations staff and one or more risk management staff to implement the policies. In addition, municipalities may require additional planning resources to deal with land use planning policies and official plan amendments. The source protection committee used this information in their consideration of the comments received through consultation.

During consultation, it was also identified that there were a number of policies that were either duplicating initiatives already being addressed at the municipal level or that were too costly or labour intensive to be practical. In some of these cases, the source protection committee opted instead to include strategic action policies that strongly encouraged the municipality to undertake an action, recognizing some municipalities would not have the capacity and/or resources to implement the policy.

Prescribed instrument policies were chosen to address most significant threats because of their pre-existing legislative authority that can effectively address existing and future activities through the Environmental Compliance Approvals process. The source protection committee determined that there would be no additional costs associated with asking the province to review future Environmental Compliance Approval applications since this is already being done at the provincial level. However, there may be some initial costs/staff resources needed to amend existing Environmental Compliance Approvals where the source protection committee has opted to prohibit an existing activity.

Ultimately, the source protection committee and working group members worked to minimize costs but never at the expense of endangering drinking water sources. Based on concerns raised, the policy development approach was pragmatic, with selected directives focused on utilization and enhancement of existing programs (prescribed instruments), where appropriate, and minimization of new programs, to have the least overall financial impact. The source protection committee's goal was to require additional costs only where this was required to ensure that their mandate was achieved. It must be noted that the overall cost of implementing a policy is dependent upon many factors such as existing infrastructure and resources, scope of

implementation, and number of existing and future threats. This uncertainty sometimes made it difficult to give accurate consideration of the financial impacts of certain policies.

In addition to the four guiding principles, the policy and planning working group was also concerned about keeping the process aligned with existing legislation, policies and protocols. The following additional guidelines were agreed upon by the policy and planning working group.

How financial impacts were considered is further discussed in the individual policy rationale provided in section 5.

3.1.5 Existing Measures

- To the extent possible, existing measures are considered first in the development of policies.
- In the event that existing measures do not offer adequate protection, every effort is made to consider whether and how existing measures can be enhanced or fine-tuned.
- New measures are explored where existing mechanisms do not exist or cannot be enhanced to offer a sufficient level of protection.
- Lessons learned from other jurisdictions particularly as they relate to the use of new tools are taken into account.

3.2 Evaluation Criteria

A critical step in determining any preferred strategy or approach is the development of a reasonable set of criteria to assess the policy options. There are essentially two types of criteria:

1. evaluative criteria
2. practical criteria

Evaluative criteria focus on the ultimate outcome of a policy rather than the means of achieving the outcome. In other words, it's more concerned with the end result, not the process of achieving it. Efficiency and effectiveness are examples of evaluative criteria.

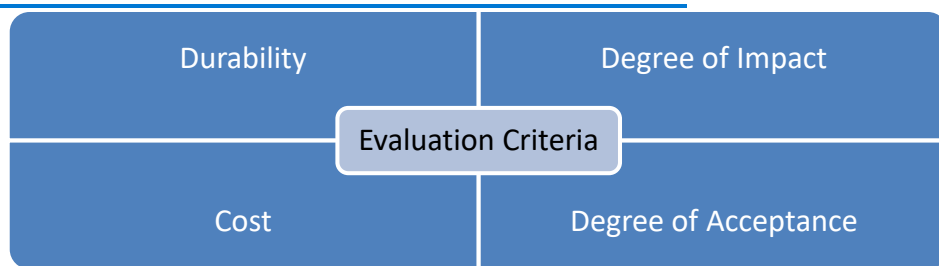
Practical criteria, on the other hand, focus more on the feasibility of implementation and can include such components as level of effort, reasonable cost, political constraints or administrative issues. In other words, practical criteria are more about the process than the end result.

Ideally, evaluation frameworks include a blend of both evaluative and practical criteria. It is important to note that there are a range of decision making criteria against which the policies were assessed. The evaluation criteria that were developed by the policy and planning working group and endorsed by the source protection committee focused on efficiency, effectiveness, consistency, flexibility, feasibility, fairness and fiscal responsibility. These key criteria – many of which were part of the governing principles developed by the policy and planning working group at the outset of the policy development process – were further categorized into four key areas:

- 1) degree of impact
- 2) degree of acceptance
- 3) cost
- 4) durability

[These four evaluation 'pillars' formed the evaluation framework as outlined in Figure 2.](#)

Figure 2: Four Evaluation Pillars



4 POLICY RATIONALE: INTRODUCTION

The explanatory document is a necessary component of the source protection plan as per Section 40 of O.Reg.287/07. This document is stand-alone from the source protection plan as the public does not have the opportunity to comment on it. The information covered in this section is outlined in the Section 40 (1) (2) (6) of O.Reg.287/07.

The Clean Water Act requires that all existing and future “would be” significant threats be addressed in the source protection plan, regardless of the potential for them to occur. For each policy prepared by the South Georgian Bay Lake Simcoe source protection committee, rationale and notes were included to support the decisions made. The source protection plan utilizes a number of policies and instruments to address existing and future activities, where they are or would be a significant drinking water threat under the Clean Water Act.

Where possible, the source protection committee opted to use prescribed instruments as the primary control because of its pre-existing legislative authority, with assigned roles and responsibilities and the appropriate technical support. These were considered the most efficient use of existing resources and a practical approach. This tool can effectively address existing and future activities through amendments to or refusal to issue prescribed instruments (e.g. Environmental Compliance Approvals).

In some cases the source protection committee elected to direct the province to amend all existing Environmental Compliance Approvals to ensure specific measures are addressed. In addition, the source protection committee designed some policies elected to direct the

province to deny an application for an Environmental Compliance Approval for an activity that would be a significant threat within a vulnerable area. Even though the Environmental Compliance Approval process was considered to be rigorous, in some cases, denial of an application was preferred from a policy perspective, to eliminate the option of allowing certain threats to be located within vulnerable areas.

Although the use of prescribed instruments was considered an effective approach for dealing with significant drinking water threats, there was a need for additional policies to address situations that are not covered by existing legislation. Depending on the type of drinking water threat, it was agreed that a combination of Section 57 prohibition, Section 58 risk management plans, Section 59 restricted land use, and land use planning policies would address these concerns.

Section 57 prohibition was typically suggested to prevent any new significant threats (that are not regulated through a prescribed instrument) from appearing on the landscape. This future prohibition was the most effective means of addressing significant threat activities (that cannot be controlled through land use planning). In most cases, prohibition policies were used to prohibit an activity that is or would be a significant drinking water threat within a WHPA-A or IPZ-1. Section 57 prohibition policies were also used for existing activities that involved the application of materials that contained pathogens and/or nitrates provided a greater risk to drinking water and should not be allowed within a WHPA-A, IPZ-1, or issues contributing areas. It was felt that large farms regulated under the Nutrient Management Act already prohibit activities within 100m of a wellhead (i.e. WHPA-A) and that small farms not captured under the Act should be brought to the same standards. The source protection committee determined that, in this instance, the prohibition policy approach was the only way to ensure these activities ceased to be significant drinking water threats. Further rationale is provided on an individual policy basis within Section 7.

The same approach was taken outside the WHPA-A and IPZ-1, where the source protection committee had a concern regarding a particular threat activity and determined there was no other way to adequately address this threat. Section 59 restricted land use was suggested to link the planning process with Section 57 prohibition. It was felt the municipal planning offices are the first line of sight for development restrictions, and therefore an efficient and effective means of communicating prohibitions.

Section 58 risk management plans were suggested to address existing significant threat activities where there was not a prescribed instrument. Through a risk management plan, it was determined the risk management official could negotiate and implement appropriate mitigation measures at a local level. The legislative authority to inspect and enforce the risk management plan makes this tool very effective at addressing existing threats.

Land use planning approaches were used to complement prescribed instruments or Section 57 prohibitions, typically for storage activities that are significant threats. It was felt the official plan and municipal planning offices are the first line of sight for development restrictions, and therefore an efficient and effective means of communicating prohibitions. Although not the

primary tool to address these activities, it was felt to be an important supporting policy to provide clarity to a landowner and municipal officials during the planning process.

Education and outreach policies were suggested to complement a number of policies. It was recognized many existing programs were already in place and effective, therefore the source protection committee attempted to align education and outreach efforts with those existing programs and implementers where possible. The source protection committee elected to include education and outreach as part of a broad, multi-barrier approach to addressing both existing and future threats.

Incentive policies were considered an important complementary tool to provide incentives to landowners to address the risks identified in the assessment reports. Outside the drinking water stewardship program, incentives were suggested sparingly by the source protection committee due to resource constraints.

Other tools were also considered by the source protection committee that were not specific to a vulnerable area, but would help address significant threats. An example is the suggestion that research into alternatives to road salt takes place. Research and the approval for use of emerging technologies were supported. A policy to encourage such research and consider new treatment options and by-product development was thought by the committee to be a proactive, forward-thinking and strategic policy.

In addition, Section 22(2) of the Clean Water Act states source protection plans must contain policies that monitor the area where activities that are or would be significant drinking water threat might occur. Six monitoring policies were created to track the actions and measures taken by the implementing body and to determine the effectiveness of the policy.

5 TRANSITION PROVISIONS

Policy TRANS-1- Transition Provision (MC)

Policy TRANS-1 outlines the circumstances under which a future significant drinking water threat activity may be considered an existing significant drinking water threat activity.

The Clean Water Act, 2006 requires source protection plans to contain policies to address both existing and future threat activities. The Act further specifies that all policies will come into effect upon the plan approval date or an effective date specified by the Director. Transition provisions have been developed to recognize those situations where an applicant has either obtained an approval-in-principle to proceed with a development application, or where a complete application has already been made to a planning approval authority that are 'in process' on the date the source protection plan comes into effect. They are not designed to allow proponents to ignore or circumvent the provision contained in this plan. They will allow the applications to proceed subject to existing significant drinking water threat policies.

The source protection committee felt that a transition provision should be included in the plan to be fair to those with applications in progress or that have received an approval in principle to proceed with works. The policy will allow those with complete applications made under the

Planning Act or Condominium Act, building permits submitted in compliance with Division C.1.3.1.3 (5) of the Ontario Building Code Act, development permits under the Niagara Escarpment Development Control Area, or an application for the issuance or amendment of a prescribed instrument prior to the day the source protection plan comes into effect to be treated as existing threat activities.

6 TIMING FOR CONFORMITY TO POLICIES

Policy TIME-1 – Risk Management Plan Policy (MC)

Policy TIME-1 requires existing activities designated for the purpose of Section 58 of the Clean Water Act to have risk management plans established no later than 5 years from the date the source protection plan takes effect.

The source protection committee felt they needed to include a timeline for risk management plans to be established to ensure they are done in a reasonable timeframe. Further, the source protection committee wanted to make certain that the timeframe for implementing the policies were not left up to the discretion of each risk management official to ensure that there was consistency in implementing the policies across the 52 municipalities within the source protection region.

Policy TIME-2 – Risk Management Plan Policy (MC)

Policy TIME-2 requires that on the date the source protection plan takes effect, all future activities designated for the purpose of Section 58 of the Clean Water Act requires a risk management plan to be established prior to engaging in the designated activity in the area where the threat could be significant.

This policy reiterates the current legislative requirement for implementing future activities designated for the purpose of Section 58 of the Clean Water Act. The source protection committee determined they did not need to deviate from this requirement but wanted to include a policy within the source protection plan to add clarity for policy implementation.

Policy TIME-3 – Prohibition of Activities Policy (MC)

Policy TIME-3 allows 365 days after the source protection plan takes effect before existing activities designated for the purpose of Section 57 of the Clean Water Act to be prohibited.

Although the legislation allows 180 days from when the source protection plan takes effect before Section 57, prohibition policies need apply; the source protection committee felt they needed to extend this to a full year. It was believed that depending on when the source protection plan comes into effect having an activity prohibited within 180 days could cause financial hardship for certain industries. It was also felt that 365 days would provide enough time to conform to the policies.

Policy TIME-4 – Prohibition of Activities Policy (MC)

Policy TIME-4 requires that on the date the source protection plan takes effect, all future activities designated for the purpose of Section 57 of the Clean Water Act are prohibited in the area they would be significant.

This policy reiterates the current legislative requirement for implementing future activities designated for the purpose of Section 57 of the Clean Water Act. The source protection committee determined they did not need to deviate from this requirement but wanted to include a policy within the source protection plan to add clarity for policy implementation.

Policy TIME-5 – Prescribed Instruments Policy (MC)

Policy TIME-5 requires all existing prescribed instruments be amended to conform to the applicable significant threat policy within 5 years from the date the source protection plan takes effect or on a schedule determined by the Director based on a prioritized review of the instruments that govern significant drinking water threat activities.

The source protection committee felt they needed to include a timeline for existing prescribed instruments to be amended to ensure they are done in a reasonable timeframe. Further, the source protection committee wanted to have consistency in the implementation of all policies and the timelines established for risk management plans are within 5 years of when the source protection plan takes effect. The source protection committee agreed that the Director(s) should be encouraged to amend existing prescribed instruments within a 5 year timeframe and at a minimum prioritize the review of such instruments to ensure these activities cease to be significant drinking water threats.

Policy TIME-6 – Prescribed Instruments Policy (MC)

Policy TIME-6 requires all future prescribed instruments to comply with the applicable significant drinking water threat policy on the day the source protection plan takes effect.

The source protection committee felt they needed to include a timeline for future prescribed instruments to be consistent with the timelines for future Section 58, risk management plan and Section 57, prohibition policies.

Policy TIME-7 – Land Use Planning Policy (MC)

Policy TIME-7 requires Official Plans and Zoning By-Laws to be updated to conform to the applicable significant drinking water threat policies in accordance with Section 26 of the Planning Act. The Planning Act requires amendments to Official Plans to occur on a 5 year cycle, therefore the land use planning policies would be incorporated within the Official Plans at that time.

Although, this policy reiterates current legislative requirements, the source protection committee felt they needed to include a policy within the source protection plan to add clarity for policy implementation.

Policy TIME-8 – Education and Outreach Policy (MC)

Policy TIME-8 requires all education and outreach programs to be developed and initiated within 3 years from the date the source protection plan takes effect.

The source protection committee felt they needed to include a timeline for the establishment of education and outreach programs to ensure each policy would be implemented within a reasonable timeframe that would be consistent for each implementer. Further, the source protection committee felt that 3 years was enough time to develop a program and at a minimum begin to implementing it.

7 POLICY RATIONALE

[Many policies were revisited in the Section 36 amendment and as a result of the 2021 Technical Rules, local policy feedback from risk management officials, other provincial legislation changes, or SPA/SPC initiated review.](#)

7 [All prescribed instrument policies were amended to require the relevant approval, permit, or plan to include information about the drinking water system to which the activity poses a threat, the details of threat activity, and emergency response procedures. Policies for stormwater and wastewater were also amended to include specific reference to Consolidated Linear Infrastructure – Environmental Compliance Approvals \(CLI-ECAs\).](#)

7.1 Threat #1: The establishment, operation or maintenance of a waste disposal site within the meaning of Part V of the Environmental Protection Act

7.1 [The sub-threat categorization and circumstances for waste were amended in the 2021 Technical Rules, as a result policies have been updates to reflect these changes and new sub-threats as part of a Section 36 Update. Policies have been added, amended, renumbered, and consolidated as necessary.](#)

7.1.1 **Threat #1(a):** ~~The a~~[Application of Hauled Sewage](#)~~Application of untreated septage~~

Note: These policies also apply to the Georgian Sands and Lafontaine issues contributing area for nitrate.

[The policies for hauled sewage were re-examined as part of a Section 36 Update that came after updates to the ~~Director's~~ Technical Rules \(2021\). The source protection committee determined that the existing policies governing the application of hauled sewage as listed below were still appropriate to address significant drinking water threats.](#)

Policy WAST(a)-1 – Prescribed Instruments Policy (MC)

Policy WAST(a)-1 prohibits the existing and future application of untreated septage to land where it would be a significant drinking water threat. The use of prescribed instruments,

Formatted: Normal

Formatted: Normal

Formatted: Space Before: 0 pt, After: 0 pt, Border: Top: (Single solid line, Auto, 0.5 pt Line width)

Formatted: Space Before: 0 pt, After: 0 pt

Formatted: Font: Not Bold

Environmental Compliance Approvals, was the preferred, primary option to address this activity.

Where the application of untreated septage is an existing or would be a future significant drinking water threat, the ~~Ministry of the Environment~~[Ministry of the Environment, Conservation and Parks](#) would prohibit the issuance of any Environmental Compliance Approval.

When reviewing policy options, the source protection committee considered a range of approaches, from an outright prohibition to a provisional prohibition whereby an Environmental Compliance Approval could be approved only if it was demonstrated there would be no impact. In the end, the source protection committee concluded the use of prescribed instruments was an existing legislative authority, with clear criteria for implementation. Environmental Compliance Approvals have been a long-standing requirement for the application of untreated septage to land, and the criteria used to assess these Approvals are thorough. In the review of this option, the source protection committee elected to direct the ~~Ministry of the Environment~~[Ministry of the Environment, Conservation and Parks](#) to amend all existing Environmental Compliance Approvals and amend or revoke any Environmental Compliance Approval anywhere the application of untreated septage would be a significant drinking water threat.

In addition, the source protection committee factored in cost implications for the landowner and the municipality. It was felt the application of untreated septage could easily be moved and prohibition would not create costs for the municipality or undue hardship for a landowner that has been applying untreated septage to their land. In the end, it was determined that the contaminants from the application of untreated septage are very mobile and therefore, within close proximity to a municipal well or intake, they would provide an unnecessary risk to drinking water. The source protection committee concluded that prescribed instruments will effectively achieve prohibition while maintaining the goal of protecting source water and ensuring these threats cease to occur or do not occur in the future.

Policy WAST(a)-2 – Prescribed Instruments Policy (HR)

Policy WAST(a)-2 manages the future application of untreated septage to land where it would be a moderate or low drinking water threat. The use of prescribed instruments, Certificates of Approval, was the preferred, primary option to address the threat of the application of untreated septage to land.

It is recommended that the ~~Ministry of the Environment~~[Ministry of the Environment, Conservation and Parks](#), through the Environmental Compliance Approval process, include conditions in the Environmental Compliance Approval that ensures the activity will be managed in accordance with applicable legislation and policy where the application of untreated septage to land would be a moderate to low drinking water threat.

When considering policy options, the source protection committee considered a range of approaches from an outright prohibition of future application to a provisional prohibition

whereby an Environmental Compliance Approval could be approved only if it was demonstrated there would be no impact. In the end, the source protection committee concluded the use of prescribed instruments was an existing legislative authority, with clear criteria for implementation. Environmental Compliance Approvals have been a long-standing requirement for the application of untreated septage to land, and the criteria used to assess these approvals are thorough. Although the Environmental Compliance Approval process was considered to be rigorous, denial of an application was preferred from a policy perspective, to eliminate the option of allowing this activity to occur within vulnerable areas, for example, where moderate or low drinking water threats would occur in the future if the activity were undertaken.

In addition, it was felt the application of untreated septage to land could be applied to areas where the activity would not be a moderate or low drinking water threat. As this is a “have regard for” policy, it was meant to make municipalities and the province aware of the potential issues associated with the application of untreated septage to land in these areas and promote the application on more suitable lands. It was determined that the contaminants from the application of untreated septage to land are very mobile and therefore, within an area that is vulnerable to groundwater contamination and in close proximity to the municipal well or intake, would present an unnecessary risk to drinking water.

In the end, the source protection committee chose to manage the threat activity through the use of prescribed instruments, as the Clean Water Act does not allow for the prohibition of moderate or low drinking water threat activities.

Policy WAST(a)-3 – Research Policy (NLB)

Policy WAST(a)-3 manages the future application of untreated septage to land where this activity would be a significant, moderate or low drinking water threat.

Where the application of untreated septage to land would be a significant, moderate or low drinking water threat, it is recommended the ~~Ministry of the Environment~~[Ministry of the Environment, Conservation and Parks](#) continue ongoing research around untreated septage options and the opportunity to create environmentally friendly usable by-products (for example, compost).

The source protection committee thought it was important to include this policy even though there are accompanying policies that prohibit the application of untreated septage in areas where it would be a significant, moderate or low drinking water threat since WAST(a)-2 is a have regard for policy with no guarantee that it will be followed.

In addition, the source protection committee wanted to encourage and support the research and the approval for use of emerging technologies for new treatment options and by-product development. It is believed that this would be a proactive and forward-thinking approach that would reduce future drinking water threats from the application of untreated septage to land.

7.1.2 Threat #12(b2): The sStorage of hHauled sSewage

In addition to the below policies, the following policies also apply: LUP-1, LUP-4, INCENT-1, INCENT-2. Note: Within the Georgian Sands and Lafontaine issues contributing area (nitrate), in addition to the policies below, the following policies also apply: LUP-1, LUP-4, INCENT-1, INCENT-2.

This sub-threat was introduced explicitly as its own category under the 2021 Director's Technical Rules and was added to the Source Protection Plan in the DATE Section 36 update. The storage of hauled sewage is a similar threat to that of sewage stored in tanks or lagoons at wastewater treatment facilities. Therefore, the source protection committee determined it was appropriate to apply similar policies to this new threat category storage of hauled sewage.

[Proposed New Policy #1]Policy WAST(b)-1 – Risk Management Plan

Policy WAST(b2)-12 manages the existing storage of hauled sewage, by requiring a risk management plan where it would be a significant drinking water threat.

Where the existing establishment and operation of a tank or lagoon that stores hauled sewage is a significant drinking water threat and the Ontario Water Resources Act does not require an approval, risk management plans via Section 58 of the Clean Water Act were considered an effective approach to address this threat.

Provincial instruments will be used in most cases to address this activity where it is a significant drinking water threat. However, there are instances where lagoons that pre-date 1970 are not required to have an approval under the Ontario Water Resources Act and in those cases the activity will be managed by a risk management plan.

Risk management plans shall include appropriate terms and conditions to ensure the existing storage of hauled sewage ceases to be a significant drinking water threat, and at a minimum, complies with contemporary standards.

Risk management plans would allow the continued operation of tanks and lagoons that store hauled sewage, while ensuring that appropriate practices were put in place in order to limit the risk to drinking water. It was determined risk management plans would include best management practices for these sites. There was confidence that, with these measures in place, the risk to drinking water could be adequately managed. In addition, there was consideration for magnitude of the risk management official's duties to create risk management plans for all existing wastewater treatment plants and associated sewer systems to upgrade facilities. It was believed that since this policy is only applicable where the Environmental Protection Act does not require approval, it would not be a significant undertaking by the municipality. This policy was intended to capture only those instances that may not be covered by the Environmental Protection Act.

This policy was considered an effective approach for managing existing significant drinking water threats from wastewater treatment plants and associated sewer systems, while maintaining the goal of protecting source water and ensuring these threats cease to occur.

~~[Proposed New Policy #2] Policy WAST(b)-2 - Prescribed Instruments Policy (MC)~~

Policy WAST(b)-2 manages the existing storage of hauled sewage in an area where it would be a significant drinking water threat. The use of prescribed instruments, Environmental Compliance Approvals, was the preferred, primary option to address this threat.

Where the storage of hauled sewage is an existing significant drinking water threat, the ~~Ministry of the Environment~~ Ministry of the Environment, Conservation and Parks, through the Environmental Compliance Approval process, would ensure the approval contains appropriate terms and conditions so that the threat ceases to be significant.

In addition, it was felt additional measures, if not already in place, could include mandatory inspections, system upgrading, regular monitoring and regular reviews to ensure that any potential impacts to drinking water quality are identified early.

The source protection committee concluded the use of prescribed instruments was an effective tool, with clear criteria for implementation.

~~[Proposed New Policy #3] Policy WAST(b)-3 – Prohibition Policy~~

Policy WAST(b)-3 prohibits the future establishment, operation or maintenance of a tank or lagoon for the purpose of storage of hauled sewage in an area where they would be a significant drinking water threat. The use of prescribed instruments, Environmental Compliance Approvals, was the preferred, primary option to address these activities where they would be significant drinking water threats.

Where the future establishment, operation or maintenance of a tank or lagoon for the purpose of storage of hauled sewage would be a significant drinking water threat, the ~~Ministry of the Environment~~ Ministry of the Environment, Conservation and Parks would deny an Environmental Compliance Approval.

Although the Environmental Compliance Approval process was considered to be rigorous, denial of an application was preferred, from a policy perspective, to eliminate the option of allowing these activities to occur where they would be significant drinking water threats.

7.1.3 Threat #1(c): The application of processed organic waste to land

In addition to the below policies, the following policies also apply: EDU-1, EDU-12, and INCENT-6

The application of processed organic waste is a new threat type introduced in the 2021 Technical Rules. Processed organic waste is defined as, “waste that is predominantly organic in composition and has been treated by aerobic or anaerobic digestion, or other means of stabilization, and includes sewage residue from sewage works that are subject to the provisions of the Ontario Water Resources Act,” and is similar to category 3 non-agricultural source material (NASM) but is applied to a non-farm property.

Policy WAST(c)-1: Prohibition Policy

Formatted: No underline

Formatted: Font: No underline, Font color: Auto

Policy WAST(c)-1 applies to the existing and future application of processed organic waste and prohibits its application within WHPA-A and IPZ-1. This is consistent with the policies for Category 3 NASM as well as for future wastewater treatment facilities, which also contain prohibitions within WHPA-A and IPZ-1. For this reason, the Source Protection Committee deemed a prohibition policy to be necessary and appropriate.

Policy WAST(c)-2: Prescribed Instrument Policy (MC)

Processed organic waste application requires an Environmental Compliance Approval (ECA) in Ontario. Policy WAST(c)-2 applies to the existing and future application of processed organic waste where it would be a significant drinking water threat outside of WHPA-A and IPZ-1 and prohibits its application within those areas through the ECA process. This could occur in well head protection areas B, C or D with a vulnerability score of 10, in an intake protection zone 2 with a vulnerability score of 8 or higher if the rest of the circumstances are met. In these areas the ECA will include the appropriate terms and conditions to ensure the activity ceases to be a significant drinking water threat.

This policy approach is also consistent with that of non-agricultural source material (NASM) application where outside of WHPA-A and IPZ-1, a prescribed instrument is used to manage the threat. The Source Protection Committee felt a policy approach consistent with that used for NASM was appropriate.

7.1.4 Threat #1(d): The storage of processed organic waste / waste biomass

In addition to the below policies, the following policies also apply: LUP-1, EDU-1, and EDU-12

The handling and storage of processed organic waste and waste biomass are new sub-threats introduced in the 2021 Technical Rules. Processed organic waste is defined as, “waste that is predominantly organic in composition and has been treated by aerobic or anaerobic digestion, or other means of stabilization, and includes sewage residue from sewage works that are subject to the provisions of the Ontario Water Resources Act,” and is similar to category 3 non-agricultural source material (NASM) but is stored for use on a non-farm property.

Waste biomass refers to organic matter that is derived from a plant or animal, and that is available on a renewable basis. Examples include waste from harvesting or processing agricultural or forestry products, waste from rendering animal or animal by-products, solid or liquid waste generated by a pulp and paper manufacturing facility, waste from food processing, or wood waste.

Policy WAST(d)-1: Prohibition Policy

Policy WAST(d)-1 applies to the existing and future handling and storage of processed organic waste and/or waste biomass (where it might be a source of pathogens) and prohibits its storage within WHPA-A and IPZ-1. This is consistent with the policies for Category 3 NASM as well as for future wastewater treatment facilities, which also contain prohibitions within WHPA-A and IPZ-1. For this reason, the Source Protection Committee deemed a prohibition policy to be necessary and appropriate.

Formatted: Normal

Formatted: No underline

Formatted: No underline

Formatted: Font: No underline, Font color: Auto

Formatted: Font: No underline, Font color: Auto

Formatted: Font: No underline, Font color: Auto

Formatted: Font: No underline, Font color: Auto

Formatted: Font: No underline, Font color: Auto

Formatted: Font: Not Bold, No underline, Font color: Auto

Policy WAST(d)-2: Prescribed Instrument Policy (MC)

Processed organic waste and waste biomass storage requires an Environmental Compliance Approval (ECA) in Ontario. Policy WAST(d)-2 applies to the existing and future handling and storage of processed organic waste and or waste biomass (where it might be a source of pathogens) where it would be a significant drinking water threat outside of WHPA-A and IPZ-1 and prohibits its application within those areas through the ECA process. This could occur in well head protection areas B, C or D with a vulnerability score of 10, in in an intake protection zone 2 with a vulnerability score of 8 or higher if the rest of the circumstances are met. In these areas the ECA will include the appropriate terms and conditions to ensure the activity ceases to be a significant drinking water threat.

This policy approach is also consistent with that of non-agricultural source material (NASM) handling and storage where outside of WHPA-A and IPZ-1, a prescribed instrument is used to manage the threat. The Source Protection Committee felt a policy approach consistent with that used for NASM was appropriate.

Policy WAST(d)-3: Prescribed Instrument Policy (MC)

Policy WAST(d)-3 applies to existing and future storage of waste biomass that would not pose a pathogen threat, when stored in a WHPA-A or IPZ-1. The policy allows for storage and manages the threat through the environmental compliance approval process. This non-pathogenic material was deemed a more manageable risk by the Source Protection Committee than the potentially pathogenic material that is restricted within WHPA-A and IPZ-1.

7.1.5 Threat(s) #1(e): Waste generating facilities

In addition to the below policies the following policy also applies: EDU-7

Waste generating facilities (required to register to the provincial waste registry) and waste generating facilities (not required to register) are new sub-threats in the waste category as a result of the 2021 Technical Rules. Waste generation is the first in a three-step approach to categorize municipal and hazardous wastes. It is followed by waste transfer and processing and then by waste disposal.

Waste generating facilities are location where waste is created as stored on a temporary basis until it is transferred tor a processing facility or further disposed of. Waste generating facilities that are required to register refers to activities where waste generators are required to register to the provincial waste registry. This registry was previously referred to as the Hazardous Waste Information Network (HWIN), and now as the Hazardous Waste Program (HWP) Registry through the Resource Productivity & Recovery Authority. The policies refer to HWP and are intended to apply to any subsequent forms of this registry in the future.

Some waste generating facilities are not required to register and the Circumstances for this threat refers to a set list of waste that may be generated without the generator being required to register as a waste generator. The list is quite broad and includes common waste such as

Formatted: Font: No underline, Font color: Auto

Formatted: Font: Bold

Formatted: Font: No underline, Font color: Auto

Formatted: Font: No underline, Font color: Auto

Formatted: Font: No underline, Font color: Auto

Formatted: Font: No underline, Font color: Auto

Formatted: Normal

Formatted: Normal, Border: Top: (Single solid line, Auto, 0.5 pt Line width), Bottom: (Single solid line, Auto, 0.5 pt Line width)

paint cans and batteries, as well as more niche wastes such as waste asphalt, spent activated charcoal, waste silver from photograph process, and some medical wastes, among other things. The policies below were approved by the Source Protection Committee to address these threats.

Policy WAST(e)-1 - Prescribed Instruments Policy (MC)

Policy WAST(e)-1 applies to existing and future waste generating that are subject to environmental compliance approvals. It states that MECP shall include appropriate terms and conditions within the approval that ensure the activity cease to be and significant drinking water threat.

The Source Protection Committee concluded that the prescribed instrument policy was appropriate to manage these threats.

Policy WAST(e)-2 – Risk Management Plan

Policy WAST(e)-2 applies to existing and future waste generating facilities (those required to registry to the provincial waste registry) and requires that were they do not require an environmental compliance approval, that a risk management plan be required. The Source protection Committee concluded that at a minimum the risk management plan will be based on contemporary standards and include terms and conditions to ensure that activity ceases to be a significant drinking water threat.

Policy WAST(e)-3 – Risk Management Plan

Policy WAST(e)-3 applies to existing and future waste generating facilities (those that are not required to register).

The committee considered at what volume the wastes would require a risk management plan. It was deemed overly restrictive to apply risk management plans to small volumes of this waste such as a few batteries or an empty paint can. After deliberation the committee determined that for most of the wastes included in the circumstances, that a risk management plan would apply to amount of 200 Kg or greater. For waste mercury, a lower threshold of 5 Kg was set as the requirement for a risk management plan.

For waste in amounts lower than these thresholds, outreach and education policy EDU-7 was updated and encourages proper waste management and disposal for these smaller volumes of waste. This is in keeping with the policy approach used by the Source Protection Committee to address the previous and now rescinded small volumes of hazardous waste circumstances under the previous tech rules that the waste generating facilities circumstances largely replaced.

7.1.6 Threat(s) #1(f): Waste transfer and processing:

Waste transfer and processing, including both a) hazardous and liquid industrial waste and b) municipal waste, are new sub-threats in the waste category as a result of the 2021 Technical Rules. Waste transfer and processing is the second step in a three-step approach to categorize municipal and hazardous wastes. It is preceded by waste generation and followed by waste

Formatted: Font: Bold

disposal. The policies below were approved by the Source Protection Committee to address these threats.

In addition to the below policies the following policy also apply: LUP-1

Formatted: Tab stops: 13.23 cm, Left

Policy WAST(f)-1 – Prescribed Instrument Policy (MC)

Formatted: Font: Bold

Policy WAST(f)-1 applies to existing waste transfer and processing facilities receiving municipal waste, hazardous waste, and/or liquid industrial waste. The policy requires that the MECP shall ensure the Environmental Compliance Approval includes the appropriate terms and conditions to ensure the activity ceases to be a significant drinking water threat.

The prescribed instrument policy was approved by the Source Protection Committee as appropriate to address threats associated with existing waste transfer and processing without being overly restrictive to existing operations.

Policy WAST(f)-2 – Prohibition Policy

Policy WAST(f)-2 applies to the future waste transfer and processing facilities and activities. These activities are to be prohibited where the activity would be a significant drinking water threat. The policy applies to municipal, hazardous, and liquid industrial waste transfer and processing.

The Source Protection Committee concluded that a prohibition on future waste transfer and processing activities where they would be a significant drinking water threat is the appropriate policy to ensure drinking water is protected from future threats. The areas where the activity would be a significant drinking water threat are limited to vulnerability scores of 8 to 10 for hazardous and liquid industrial waste, and 10 for municipal waste. These are limited and highly vulnerable areas within communities, and there are more appropriate locations for waste transfer and processing facilities outside of these areas. It is also in keeping with the policies for waste disposal.

Formatted: Normal

7.1.7 Threat(s) #1(g): Waste disposal

Waste Disposal is the last in a three-step approach to categorize municipal and hazardous wastes. It is preceded by waste generation and waste transfer and processing. This multi-step categorization was introduced with the 2021 Technical Rules. This update to the Technical Rules also updated the circumstances for landfilling of municipal and hazardous and liquid industrial wastes. The policies and general policy approach were reviewed in lieu of the updated technical rules. The policies were approved by the Source Protection Committee to address the following threats:

- Landfarming of Petroleum Refining Waste
- Landfilling (Hazardous Waste or Liquid Industrial Waste)
- Landfilling (Municipal Waste)

- [Liquid Industrial Waste Injection into a well](#)
- [PCB Waste Storage.](#)

~~7.1.2 (b): Waste disposal sites~~

In addition to the below policies the following policies also apply: [RLU-1](#), LUP-1, EDU-7, EDU-12, INCENT-1, INCENT-2.

~~Policy WAST(b)-1(g)-1~~ – Risk Management Plan Policy (MC)

Policy WAST~~(b)-1(g)-1~~ manages the existing establishment, operation or maintenance of a waste disposal site ~~within the meaning of Part V of the Environmental Protection Act (including landfarming of petroleum refining waste, landfilling of hazardous or liquid industrial waste, landfilling of municipal waste, liquid industrial waste injection into a well, and PCB waste storage)~~, where the Environmental Protection Act provides an exemption for requiring an Environmental Compliance Approval.

Areas where the Environmental Protection Act does not require an approval includes the storage of small PCB waste storage facilities and hazardous liquid industrial waste.

Where the Environmental Protection Act does not require an approval for the establishment, operation or maintenance of a waste disposal site within the meaning of Part V of the Environmental Protection Act, risk management plans via Section 58 of the Clean Water Act were considered among the most effective approaches to address the activity that is a significant drinking water threat. This would allow for existing operations to continue and provide a measure of protection to sources of drinking water. Provincial Instruments will be used in most cases to address this activity where it is a significant drinking water threat.

Some examples of land uses that may be required to establish risk management plans include: auto mechanics/service stations that produce waste oil; salvage yards; commercial industrial/manufacturing properties that process high end photography/photo finishing solutions, laboratories, including laboratories associated with institutions, welding works etc. Risk management plans shall include appropriate terms and conditions to ensure the establishment, operation or maintenance of a waste disposal site within the meaning of Part V of the Environmental Protection Act ceases to be a significant drinking water threat, and at a minimum, will be based on contemporary standards.

~~After consideration of comments received and additional information provided by the MOE, small quantities of hazardous waste defined in clauses (p),(q),(r),(s),(t) or (u), were exempted from the requirement to complete a risk management plan where an Environmental Compliance Approval was not required.~~

~~The circumstances surrounding (p),(q),(r),(s),(t) or (u) typically represent small amounts of wastes from residues left in drums to quantities of waste ranging from 1-15kg. Additional information provided indicated that battery and paint can recycle drop-off locations are captured under the Table of Circumstances. The full extent of small quantities of hazardous waste not captured under the EPA is just beginning to be understood.~~

Formatted: List Paragraph, Bulleted + Level: 1 + Aligned at: 1.9 cm + Indent at: 2.54 cm

Formatted: Font: Bold

~~As a result of this new information, the SPC determined that the feasibility of establishing and enforcing risk management plans associated with small quantities of hazardous waste would be onerous and difficult to determine when a risk management plan was required. A comprehensive education and outreach program is proposed to address small quantities of wastes defined in clauses (p),(q),(r),(s),(t) or (u) of the definition of hazardous waste O.Reg 347 until the full extent of the threat sub-category is understood.~~

Policy WAST(b)-2(g)-2– Prohibition of Activities Policy (MC)

Formatted: Font: Bold

Policy WAST(b)-2(g)-2 prohibits the expansion of existing or the future establishment, operation or maintenance of waste disposal sites (including landfarming of petroleum refining waste, landfilling of hazardous or liquid industrial waste, landfilling of municipal waste, liquid industrial waste injection into a well, and PCB waste storage), where it is or would be a significant drinking water threat.

This policy will address activities that are or would be significant threats if they were to take place. This is based on the Ontario Ministry of Environment’s Tables of Drinking Water Threats (2009).

Where the expansion of existing or the future establishment, operation or maintenance of waste disposal sites is a significant drinking water threat, and the Environmental Protection Act does not require approval, prohibition via Section 57 of the Clean Water Act is considered an effective approach to address this threat. Except for rare circumstances, the Environmental Protection Act does not require an approval for the storage of:

- PCB waste
- ~~Wastes described in clauses p,q,r,s,t or u of the definition of hazardous waste (O.Reg 347)~~
- Hazardous liquid industrial waste.

When considering policy options, it was determined that the planning for future waste disposal sites could easily be located outside vulnerable areas and would not cause undue hardship to the municipality. Prohibition of existing waste disposal site expansions may incur additional resources from the municipality or financial implications to a private waste disposal site owner/operator. However, it was determined that since this policy is only applicable where the Environmental Protection Act does not require approval, it would not be a significant undertaking by the developer or municipality. This policy is intended to capture only those instances that may not be covered by the Environmental Protection Act.

The committee weighed these options and, in the end, agreed that allowing expansions or new facilities would unnecessarily increase the risk to drinking water. The source protection committee concluded that Section 57 will effectively achieve prohibition while maintaining the goal of protecting source water and ensuring these threats cease to occur or do not occur in the future.

~~After consideration of comments received and additional information provided by the MOE, small quantities of hazardous waste defined in clauses (p),(q),(r),(s),(t) or (u), were exempted~~

~~from the future Section 57 prohibition where an Environmental Compliance Approval was not required.~~

~~The circumstances surrounding (p), (q), (r), (s), (t) or (u) typically represent small amounts of wastes from residues left in drums to quantities of waste ranging from 1–15 kg. Additional information provided indicated that battery and paint recycling drop-off locations are captured under the Tables of Circumstances. The full extent of small quantities of hazardous waste not captured under the EPA is just beginning to be understood.~~

~~As a result of this new information, the SPC determined that the feasibility of enforcing a prohibition associated with small quantities of hazardous waste would be onerous and difficult to determine when a risk management plan was required. A comprehensive education and outreach program is proposed to address small quantities of wastes defined in clauses (p), (q), (r), (s), (t) or (u) of the definition of hazardous waste under O.Reg 347 until the full extent of the threat sub-category is understood.~~

Policy WAST ~~(b) 3(g) 3~~ – Prescribed Instruments Policy (MC)

Policy WAST ~~(b) 3(g) 3~~ manages the establishment, operation or maintenance of existing waste disposal sites (including landfarming of petroleum refining waste, landfilling of hazardous or liquid industrial waste, landfilling of municipal waste, liquid industrial waste injection into a well, and PCB waste storage), where it is a significant drinking water threat. The use of prescribed instruments, Environmental Compliance Approvals, was the preferred, primary option to address this threat.

When considering policy options, the source protection committee considered a range of approaches from an outright prohibition to a provisional prohibition whereby an Environmental Compliance Approval could be approved only if it was demonstrated there would be no impact. In the end, the source protection committee concluded the use of prescribed instruments was an effective tool, with clear criteria for implementation. Environmental Compliance Approvals have been a long-standing requirement for this type of activity, and the criteria used to assess these approvals are thorough. In review of this option the source protection committee elected to direct the Ministry of the Environment to amend all existing Environmental Compliance Approvals to ensure specific measures are included to address the significant drinking water threat. This will allow existing operations to continue, and provide a measure of protection to sources of drinking water. In addition, there are currently only a few active landfills located within vulnerable areas and therefore cost and inconvenience of implementing additional measures to the municipality would be limited.

Policy WAST ~~(b) 4(g) 4~~ – Prescribed Instruments Policy (MC)

Policy WAST ~~(b) 4(g) 4~~ prohibits the establishment, operation or maintenance of future waste disposal sites (including landfarming of petroleum refining waste, landfilling of hazardous or liquid industrial waste, landfilling of municipal waste, liquid industrial waste injection into a well, and PCB waste storage), where it would be a significant drinking water threat. The use of

Formatted: Font: Bold

Formatted: Font: Bold

Formatted: Font: Bold

prescribed instruments, Environmental Compliance Approvals, was the preferred, primary option to address this threat.

Where the establishment, operation or maintenance of future waste disposal sites would be a significant drinking water threat, the Ministry of the Environment would deny an application for an Environmental Compliance Approval.

When considering policy options, the source protection committee considered a range of approaches from an outright prohibition to a provisional prohibition whereby an Environmental Compliance Approval could be approved only if it was demonstrated there would be no impact. In the end, the source protection committee concluded the use of prescribed instruments was an effective tool, with clear criteria for implementation. Environmental Compliance Approvals have been a long-standing requirement for these types of facilities, and the criteria used to assess these approvals are thorough. Although the Environmental Compliance Approval process was considered to be rigorous, denial of an application was preferred, from a policy perspective, to eliminate the option of allowing these sites to be located within vulnerable areas, for example, where significant drinking water threats would occur in the future if the activity were undertaken.

The source protection committee considered allowing expansions to existing sites due to the substantial undertaking it would be for the municipality to locate a new site versus expanding an existing site. However, it was determined that landfill sites should not be located in close proximity to a drinking water source. In addition, there are currently only a few active landfills located within vulnerable areas and therefore cost and inconvenience to the municipality would be limited.

Policy WAST(b)-5– Other Policy (MC)

Policy WAST(b)-5 manages existing and future hazardous waste disposal sites ([including landfarming of petroleum refining waste, landfilling of hazardous or liquid industrial waste, landfilling of municipal waste, liquid industrial waste injection into a well, and PCB waste storage](#)), where this activity is or would be a significant drinking water threat.

Where hazardous waste disposal sites are or would be a drinking water threat, it is recommended the municipalities responsible for waste management consider ways in which additional opportunities for household hazardous waste can be provided to those handling and storing pesticides, organic solvents and DNAPLs.

The source protection committee supported the policy to address hazardous waste handled or stored in households within vulnerable areas where they are or would be a significant drinking water threat. The committee believes that significant threats caused by the household storage of pesticides, organic solvents and DNAPLs could exist because residents don't have a convenient method or opportunity to dispose of these products. It was felt that municipalities could come up with an alternative approach to give residents an opportunity to properly dispose of these products, removing them from the vulnerable area where they are or would be a significant drinking water threat. It was therefore decided that municipalities should be

Formatted: Font: Bold

encouraged to develop an alternative approach which would enable hazardous waste to be disposed of outside vulnerable areas where they are or would be a significant drinking water threat.

~~7.1.3~~ 7.1.8 Threat #1(he): Mine t~~f~~ailings

No additional policies apply.

Policy WAST(h)-1 (e)-1 – Prescribed Instruments Policy (MC)

Policy WAST(h)-1 (e)-1 manages existing disposal of mine tailings where it would be a significant drinking water threat. The use of prescribed instruments, Environmental Compliance Approvals, was the preferred, primary option to address the activity where it would be a significant drinking water threat.

Where the disposal of mine tailings is an existing significant drinking water threat, the ~~Ministry of the Environment~~ [Ministry of the Environment, Conservation and Parks](#) would ensure that the Environmental Compliance Approval that governs the disposal of mine tailing includes appropriate terms and conditions so that the threat ceases to exist. Such appropriate terms and conditions could include a prohibition on the disposal of mine tailings anywhere it would be a significant drinking water threat.

When considering policy options, the source protection committee considered a range of approaches from an outright prohibition to a provisional prohibition whereby an Environmental Compliance Approval could be approved only if it was demonstrated there would be no impact. In the end, the source protection committee concluded the use of prescribed instruments was an effective tool, with clear criteria for implementation. Environmental Compliance Approvals have been a long-standing requirement for this type of activity, and the criteria used to assess these approvals are thorough. In the review of this option, the source protection committee elected to direct the ~~Ministry of the Environment~~ [Ministry of the Environment, Conservation and Parks](#) to amend all existing Environmental Compliance Approvals to ensure specific measures are addressed.

When considering policy options, the source protection committee determined this activity is not currently being undertaken within the source protection region, and therefore this policy would not be a significant undertaking and would not result in additional costs by the industry or Ministry.

Policy WAST(h)-2 (e)-2 – Prescribed Instruments Policy (MC)

Policy WAST(h)-2 (e)-2 prohibits future disposal of mine tailings where it would be a significant drinking water threat. The use of prescribed instruments, Environmental Compliance Approvals, was the preferred, primary option to address the activity where it would be a significant drinking water threat.

Where the disposal of mine tailings would be a significant drinking water threat, the ~~Ministry of the Environment~~ [Ministry of the Environment, Conservation and Parks](#) would deny an Environmental Compliance Approval.

When considering policy options, the source protection committee considered a range of approaches from an outright prohibition to a provisional prohibition whereby an Environmental Compliance Approval could be approved only if it was demonstrated there would be no impact. In the end, the source protection committee concluded the use of prescribed instruments was an effective tool, with clear criteria for implementation. Environmental Compliance Approvals have been a long-standing requirement for these types of facilities, and the criteria used to assess these approvals are thorough. Although the Environmental Compliance Approval process was considered to be rigorous, denial of an application was preferred from a policy perspective, to eliminate the option of allowing these sites to be located within vulnerable areas, for example, where significant drinking water threats would occur if the activity were undertaken in the future.

When considering policy options, it was determined the planning for future disposal of mine tailings could be located outside vulnerable areas and would not cause undue hardship to the industry. In addition, it was believed there would not be a significant number of mine tailings disposal sites located within the source protection region.

7.2 Threat 2: The establishment, operation or maintenance of a system that collects, stores, transmits, treats or disposes of sewage.

7.2.1 Threat(s) #2(a): — Stormwater management facilities and stormwater infiltration facilities management

7.2.1 Under the 2021 Technical Rules, stormwater was split into two threat types: stormwater management facilities, and stormwater infiltration facilities. Stormwater management facilities as a threat type includes more traditional stormwater infrastructure such as stormwater ponds. Stormwater infiltration facilities refer to a variety of infrastructure both grey and green, that direct stormwater to infiltrate back into the ground. Examples include low-impact development features, bioswales, rain gardens, permeable paving, etc. The circumstances under which stormwater is or would be considered a significant drinking water threat were also updated under the 2021 rules. The Source Protection Committee reviewed and amended the stormwater policies for the Source Protection Region because of these updates to the technical rules.

Formatted: Normal

In addition to the below policies, the following policies also apply: LUP-3, LUP-5, EDU-6, EDU-12, INCENT-1, INCENT-2.

Note: Within the greater City of Barrie (salt) issues contributing area, in addition to the policies below, the following policies also apply: LUP-3, LUP-5, EDU-6, EDU-8, INCENT-1, INCENT-2.

Policy SEWG(a)-1 – Prescribed Instruments Policy (MC)

Policy SEWG(a)-1 manages the existing and future establishment, operation or maintenance of a system that collects, stores, transmits, treats or disposes of stormwater that is or would be a significant drinking water threat. The use of prescribed instruments, Environmental Compliance

Approvals, was the preferred, primary option to address this activity where it is or would be a significant drinking water threat.

Where stormwater management sites are an existing or future significant drinking water threat, the ~~Ministry of the Environment~~ [Ministry of the Environment, Conservation and Parks](#), through the Environmental Compliance Approval process, would ensure these sites include appropriate terms and conditions so that:

1. expansions of existing facilities would only be permitted where the expansion does not pose a significant drinking water threat
2. retrofits to existing facilities would only be permitted where the retrofit will discharge the stormwater outside of the significant drinking water threat area.
- ~~2.3.~~ [plans for operations, maintenance and monitoring are in place to ensure that the facilities does not become a significant drinking water threat through insufficient maintenance](#)

The source protection committee was of the opinion that conditions should be included that outline design, operation and performance specifications as well as requirements for regular and on-going maintenance with periodic removal of accumulated sediment, lining of the pond (where warranted) and the possible need for an oil/water separator, particularly in settlement areas where oil may be entering the pond. The Ministry could also impose requirements for the removal of accumulated sediment from the retention ponds on a regular basis. This would be beneficial to ensure the pond has the capacity to operate effectively for sediment removal. In addition, it would be advisable to remove sediment because contaminants may have adsorbed to it and this could improve the quality of the discharge water. Additional measures, including mandatory inspections, system upgrading, regular monitoring and regular reviews should be completed to ensure that any potential impacts to drinking water quality are identified early.

It was determined that expansions and retrofits for an existing facility would be permitted where the activity would cease to be a significant drinking water threat. It was felt that there are a number of sub-standard stormwater management facilities across the source protection region that would benefit from retrofits to ensure they are no longer a significant drinking water threat. Expansions would allow new technologies and upgrades to be implemented that a retrofit alone would not be able to address.

The source protection committee was of the opinion that the sewer system transmitting stormwater to stormwater management ponds did not represent additional threats associated with the storage or application of salt within the Barrie salt Issues Contributing Area. The committee was also of the opinion that best practices do not exist to manage any threat associated with the transmittal of salt-rich storm water from parking lots and city streets to stormwater management ponds, and that best practices are better implemented during the application of salt for winter ice management. As such, policy SEWG(a)-1 is to apply only to facilities which treat, retain, infiltrate, or control stormwater, but not facilities for its transmittal, in the City of Barrie salt Issue Contributing Area.

When considering policy options, the source protection committee considered a range of approaches from an outright prohibition to a provisional prohibition whereby a Certificate of Approval could be approved only if it was demonstrated there would be no impact. In the end, the source protection committee concluded the use of prescribed instruments was an existing legislative authority, with clear criteria for implementation. In addition, it was believed that the Environmental Compliance Approval will identify necessary operation and maintenance terms and conditions. Environmental Compliance Approvals have been a long-standing requirement for these types of facilities and the criteria used to assess these approvals are thorough. In the review of this option, the source protection committee elected to direct the [Ministry of the Environment](#) [Ministry of the Environment, Conservation and Parks](#) to include appropriate terms and conditions for all existing and future Environmental Compliance Approvals to ensure the activity ceases to be or does not become a significant drinking water threat.

[As part of the Section 36 the Source Protection Committee added a third suggested condition that should be applied to Environmental Compliance Approvals to the policy. The condition focuses on operations and maintenance plans and monitoring plans to ensure stormwater works do not become a significant drinking water threat through insufficient maintenance.](#)

Policy SEWG(a)-2 –~~Prioritization Policy (NLB) Research Policy (NLB)~~

[The original SEWG\(a\)-2 policy was a non-binding policy suggesting the MECP further research stormwater infiltration facilities with respect to sourcewater. The 2021 Technical Rules added stormwater infiltration facilities as a sub-threat of wastewater, in addition the stormwater management facilities. The original SEWG\(a\)-2 policy was removed through the Section 36 update as it was no longer necessary.](#)

[A policy was added to encourage the Ministry to prioritize activities registered to the Environmental Activity and Sector Registry that are considered Significant Drinking Water Threats within their audit process. This policy was added because registration is considered an approval, but not a prescribed instrument. Proponents can self-register without human oversight, but the Committee cannot require risk management plans stacked on top of the 'approval.' Prioritizing registered threat activities for within the audit process would hopefully help provide more oversight. Policy SEWG\(a\)-2 manages the existing and future establishment, operation or maintenance of a system that collects, stores, transmits, treats or disposes of stormwater that is or would be a significant drinking water threat.](#)

[Where the activity would be a significant drinking water threat, the Ministry of Environment is encouraged to undertake research to identify the risk from infiltration ponds to aquifers used as a drinking water source and to review contemporary technology for the design and operation of stormwater management facilities. The goal of this would be to protect municipal drinking water systems by updating stormwater management planning and design guidelines, and the Provincial Tables of Circumstances as appropriate.](#)

[The source protection committee determined this policy would encourage the Ministry of Environment to conduct research and investigate alternative methods for stormwater management and could provide direction on design standards for low impact development](#)

technologies. Stormwater management planning and design guidelines could be updated to reflect the results of the research. A policy to encourage such research is proactive, comprehensive, forward thinking and strategic.

~~Threat #2(b) – Wastewater treatment plants / sewer systems~~
~~Threat #2(?) – Wastewater Collection Facilities~~

7.2.2 ~~2.2.2~~ ~~Threat(s) #22~~ ~~(b2)~~: ~~—Wastewater collection facilities & wastewater treatment facilities~~

In addition to the below policies, the following policies also apply: LUP-4, INCENT-1, INCENT-2.

Note: Within the Georgian Sands and Lafontaine issues contributing area (nitrate), in addition to the policies below, the following policies also apply: LUP-4, INCENT-1, INCENT-2.

Under the 2021 Technical Rules, wastewater infrastructure was split into two threat types: wastewater collections facilities, and wastewater treatment facilities. The policies for wastewater as whole were re-examined as part of a Section 36 Update that came after a result of updates to the Director's Technical Rules (2021). The Source Protection Committee determined that the existing policies governing wastewater as listed below were still appropriate to address significant drinking water threats associated with wastewater collection and treatment facilities with some minor updates to the wording to reflect that of the new technical rules.

Formatted: Font: Not Bold

Policy SEWG(b)-1 – Risk Management Plan Policy (MC)

Policy SEWG(b)-1 manages ~~existing wastewater~~ existing wastewater infrastructure associated with the collection and treatment of wastewater ~~wastewater treatment plants and associated sewer systems~~, by requiring a risk management plan where the plant or sewer system is a significant drinking water threat.

Where the existing establishment and operation of a wastewater treatment plant and associated sewer system is a significant drinking water threat and the Ontario Water Resources Act does not require an approval, risk management plans via Section 58 of the Clean Water Act were considered an effective approach to address this threat.

Provincial instruments will be used in most cases to address this activity where it is a significant drinking water threat. However, there are instances where lagoons that pre-date 1970 are not required to have an approval under the Ontario Water Resources Act and in those cases the activity will be managed by a risk management plan.

Risk management plans shall include appropriate terms and conditions to ensure the existing wastewater treatment plant and associated sewer system ceases to be a significant drinking water threat, and at a minimum, complies with contemporary standards.

When considering policy options, the source protection committee determined risk management plans would allow the continued operation of existing wastewater treatment plants and associated sewer systems, while ensuring that appropriate practices were put in

place in order to limit the risk to drinking water. It was determined risk management plans would include best management practices for these sites. There was confidence that, with these measures in place, the risk to drinking water could be adequately managed. In addition, there was consideration for magnitude of the risk management official's duties to create risk management plans for all existing wastewater treatment plants and associated sewer systems to upgrade facilities. It was believed that since this policy is only applicable where the Environmental Protection Act does not require approval, it would not be a significant undertaking by the municipality. This policy was intended to capture only those instances that may not be covered by the Environmental Protection Act.

This policy was considered an effective approach for managing existing significant drinking water threats from wastewater treatment plants and associated sewer systems, while maintaining the goal of protecting source water and ensuring these threats cease to occur.

Policy SEWG(b)-2 – Prescribed Instruments Policy (MC)

Policy SEWG(b)-2 manages existing ~~wastewater treatment plants and associated sewer systems~~ [wastewater infrastructure associated with the collection and treatment of wastewater](#) in an area where it would be a significant drinking water threat. The use of prescribed instruments, Environmental Compliance Approvals, was the preferred, primary option to address this threat.

Where a wastewater treatment plant or the associated sewer systems is an existing significant drinking water threat, the ~~Ministry of the Environment~~ [Ministry of the Environment, Conservation and Parks](#), through the Environmental Compliance Approval process, would ensure the approval contains appropriate terms and conditions so that the threat ceases to be significant

In addition, it was felt additional measures, if not already in place, could include mandatory inspections, system upgrading, regular monitoring and regular reviews to ensure that any potential impacts to drinking water quality are identified early.

When considering policy options, the source protection committee considered a range of approaches from an outright prohibition to a provisional prohibition whereby an Environmental Compliance Approval could be approved only if it was demonstrated there would be no impact. In the end, the source protection committee concluded the use of prescribed instruments was an effective tool, with clear criteria for implementation. Environmental Compliance Approvals have been a long-standing requirement for these types of facilities, and the criteria used to assess these approvals are thorough.

Policy SEWG(b)-3 – Prescribed Instruments Policy (MC)

Policy SEWG(b)-3 prohibits the future establishment, operation or maintenance of a sewage treatment plant, sewage treatment by-pass discharge to surface water, and sewage treatment plant effluent discharge (including lagoons) in an area where they would be a significant drinking water threat. The use of prescribed instruments, Environmental Compliance Approvals, was the preferred, primary option to address these activities where they would be significant drinking water threats.

Where the future establishment, operation or maintenance of a sewage treatment plant, sewage treatment by-pass discharge to surface water, and sewage treatment plant effluent discharge (including lagoons) would be a significant drinking water threat, the [Ministry of the Environment](#) [Ministry of the Environment, Conservation and Parks](#) would deny an Environmental Compliance Approval.

When considering policy options, the source protection committee considered a range of approaches from an outright prohibition to a provisional prohibition whereby an Environmental Compliance Approval could be approved only if it was demonstrated there would be no impact. In the end, the source protection committee concluded the use of prescribed instruments was an effective tool, with clear criteria for implementation. Environmental Compliance Approvals have been a long-standing requirement for these types of facilities, and the criteria used to assess these approvals are thorough. Although the Environmental Compliance Approval process was considered to be rigorous, denial of an application was preferred, from a policy perspective, to eliminate the option of allowing these activities to occur where they would be significant drinking water threats.

Policy SEWG(b)-4 – Prescribed Instruments Policy (MC)

Policy SEWG(b)-4 manages the future establishment, operation or maintenance of sanitary sewers and related pipes in an area where they would be a significant drinking water threat. The use of prescribed instruments, Environmental Compliance Approvals, was the preferred, primary option to address these activities where they would be significant drinking water threats.

Where sanitary sewers and related pipes would be a significant drinking water threat, the [Ministry of the Environment](#) [Ministry of the Environment, Conservation and Parks](#), through the Environmental Compliance Approval process, would incorporate appropriate terms and conditions so that the activity does not become a significant drinking water threat. There have been sufficient advances in technology that could eliminate the risk to drinking water if utilized in the future planning of sanitary sewers/related pipes, and such terms and conditions within the approval would reflect these advancements.

By utilizing technological advancements, the threat could be reduced. Municipalities could avoid incurring additional expense and effort in trying to locate these pipes outside areas where they would be significant drinking water treats.

When considering policy options, the source protection committee considered a range of approaches from an outright prohibition to a provisional prohibition whereby an Environmental Compliance Approval could be approved only if it was demonstrated there would be no impact. In the end, the source protection committee concluded the use of prescribed instruments was an effective tool, with clear criteria for implementation. Environmental Compliance Approvals have been a long-standing requirement for these types of facilities, and the criteria used to assess these approvals are thorough.

Policy SEWG(b)-5 – Other Policy (MC)

Policy SEWG(b)-5 manages existing [wastewater infrastructure associated with the collection and treatment of wastewater](#) ~~wastewater treatment plants and associated sewer systems~~ in an area where they are a significant drinking water threat.

Where wastewater treatment plants and associated sewer systems are a significant drinking water threat, it is recommended that municipalities consider ways to implement programs to remove stormwater connections to sanitary sewers including combined sewer overflow outlets to surface water to reduce surges in volumes during inflow/outflow and establish upgrade priorities that focus on the most vulnerable areas.

The source protection committee supported this policy to address the threat of activities related to substandard wastewater treatment. It was determined many of the significant threats from wastewater are due to existing stormwater connections and wastewater facilities that could be better managed if these connections were removed or at least reduced. The source protection committee thought the municipality should consider ways to work with landowners to encourage the removal of stormwater connections and thus reduce the risk to drinking water.

7.2.3 Threat #2(c): ~~On-site sewage systems~~

In addition to the below policies, the following policies also apply where there is no issues contributing area: LUP-1, LUP-6, INCENT-1, INCENT-2, INCENT-3, EDU-6, EDU-12.

Note: Within the Georgian Sands and Lafontaine issues contributing area (nitrate), in addition to the below policies, the following policies also apply: LUP-1, LUP-7, LUP-8, INCENT-1, INCENT-2, INCENT-3, EDU-6, EDU-12.

Policy SEWG(c)-1 – Prescribed Instruments Policy (MC)

Policy SEWG(c)-1 manages existing large (more than 10,000 litres) on-site sewage systems in an area where it would be a significant drinking water threat. The use of prescribed instruments, Environmental Compliance Approvals, was the preferred, primary option to address this threat.

Where a large (more than 10,000 litres) on-site sewage system is an existing significant drinking water threat, the [Ministry of the Environment, Conservation and Parks](#) would ensure the Environmental Compliance Approval contains appropriate terms and conditions so that the threat ceases to occur.

When considering policy options, the source protection committee considered a range of approaches from an outright prohibition of future systems to a provisional prohibition whereby an Environmental Compliance Approval could be approved only if it was demonstrated there would be no impact. In the end, the source protection committee concluded the use of prescribed instruments was an effective tool, with clear criteria for implementation. Environmental Compliance Approvals have been a long-standing requirement for these types of facilities, and the criteria used to assess these approvals are thorough. In the review of this option, the source protection committee elected to direct the [Ministry of the](#)

[Environment](#)[Ministry of the Environment, Conservation and Parks](#) to amend all existing approvals to ensure specific measures are addressed.

Policy SEWG(c)-2 – Prescribed Instruments Policy (MC)

Policy SEWG(c)-2 prohibits future large (more than 10,000 litres) on-site sewage systems in an area where they would be a significant drinking water threat. The use of prescribed instruments, Environmental Compliance Approvals, was the preferred, primary option to address this threat.

Where a large (more than 10,000 litres) on-site sewage system would be a significant drinking water threat, the [Ministry of the Environment](#)[Ministry of the Environment, Conservation and Parks](#) would deny an application for an Environmental Compliance Approval.

When considering policy options, the source protection committee considered a range of approaches from an outright prohibition of future systems to a provisional prohibition whereby an Environmental Compliance Approval could only be approved only if it was demonstrated there would be no impact. In the end, the source protection committee concluded the use of prescribed instruments was an effective tool, with clear criteria for implementation. Environmental Compliance Approvals have been a long-standing requirement for these types of facilities, and the criteria used to assess these approvals are thorough. Although the Environmental Compliance Approval process was considered to be rigorous, denial of an application was preferred, from a policy perspective, to eliminate the option of allowing these sites to be located within vulnerable areas, for example, where significant drinking water threats would occur in the future if the activity were undertaken.

There was consideration for allowing new large on-site sewage systems within the issues contributing area of Lafontaine and Georgian Sands where they would be significant drinking water threats. It was felt a large system, regulated through the Environmental Compliance Approval process could be better managed, utilizing technological advancements than a number of smaller private sewage systems which have a higher potential to be poorly maintained and/or not functioning properly. In the end, it was decided that it would be difficult to determine the criteria in which a number of small systems would need to be replaced with a large system and -therefore it would not be practical to implement a conditional policy. In addition, there was a concern the municipality would be taking on liability and undo financial hardship if they were ordered to operate and maintain a number of private communal systems.

SEWG(c)-3 – Other Policy (MC)

Policy SEWG(c)-3 manages existing on-site sewage systems in an area where they are a significant drinking water threat.

Where on-site sewage systems are a significant drinking water threat, it is recommended municipalities consider enacting a by-law to require a mandatory connection to municipal wastewater systems where the services and capacity exist.

The policy was supported to address the significant drinking water threat related to on-site sewage systems. It was determined that many of the significant threats from on-site sewage systems are due to system failure from not being properly maintained and that municipal wastewater facilities have higher standards for maintenance, thus reducing the threat to drinking water. Although this is a “must conform” policy, municipalities are only encouraged to consider enacting by-laws to promote mandatory connection to municipal wastewater systems where it is feasible to do so.

Policy SEWG(c)-4 – Other Policy (MC)

Policy SEWG(c)-4 manages existing and future on-site sewage systems in an area where they are or would be a significant drinking water threat.

Where on-site sewage systems are or would be a significant drinking water threat, municipalities are directed to implement a septic inspection program.

This policy has been included in the source protection plan to reference the recent amendment to the Building Code through Ontario Regulation 315/10. The Building Code amendment requires that municipalities carry out a mandatory septic inspection program in vulnerable areas identified in the assessment reports where the presence of an on-site sewage system (septic) is a potential significant threat to drinking water. This is because many existing on-site sewage systems are significant drinking water threats because of system failure from not being properly maintained. This makes it necessary for these systems to be inspected on a regular basis. The Building Code allows local municipalities to set up the inspection program in such a way that works for their residents. The Building Code amendment allows 5 years to undertake the inspection program from the time the assessment reports are approved.

Specific details for how the inspection program will be implemented can be obtained from the local municipality. However, the inspection program would identify and prioritize those systems that are significant drinking water threats and are in greatest need of repair and/or maintenance. Prioritizing should be done by inspecting systems in closer proximity to the municipal well or intake (e.g. WHPA-A vs. WHPA-B) and systems that are older should be inspected first.

7.2.4 Threat #2(d): ~~Industrial eEffluent dDischarge~~

In addition to the below policies, the following policies also apply: INCENT-1, INCENT-2.

The policies for industrial effluent discharge were re-examined as part of a Section 36 Update that came after updates to the ~~Director’s~~ Technical Rules (2021). The Source Protection Committee determined that the existing policies governing industrial effluent discharge as listed below were still appropriate to address significant drinking water threats.

Policy SEWG(d)-1 – Prescribed Instruments Policy (MC)

Policy SEWG(d)-1 manages the existing industrial effluent discharge in an area where it is a significant drinking water threat. The use of prescribed instruments, Environmental Compliance

Approvals, was the preferred, primary option to address this activity where it is a significant drinking water threat.

Where the establishment, operation or maintenance of a system that collects, transmits, treats or disposes of industrial effluent is an existing significant drinking water threat, the ~~Ministry of the Environment~~[Ministry of the Environment, Conservation and Parks](#), through the Environmental Compliance Approval process, should incorporate appropriate terms and conditions so that the threat ceases to occur. In addition, it was felt additional measures including mandatory inspections, system upgrading, regular monitoring and regular reviews should be completed through the approvals process to ensure that any potential impacts to drinking water quality are identified early.

When considering policy options, the source protection committee considered a range of approaches from an outright prohibition to a provisional prohibition whereby an Environmental Compliance Approval could be approved only if it was demonstrated there would be no impact. In the end, the source protection committee concluded the use of prescribed instruments was an effective tool, with clear criteria for implementation. Environmental Compliance Approvals have been a long-standing requirement for these types of facilities, and the criteria used to assess these approvals are thorough. In the review of this option, the source protection committee elected to direct the ~~Ministry of the Environment~~[Ministry of the Environment, Conservation and Parks](#) to amend all existing Environmental Compliance Approvals to ensure specific measures are addressed.

Policy SEWG(d)-2 – Prescribed Instruments Policy (MC)

Policy SEWG(d)-2 prohibits the future establishment, operation or maintenance of a system that collects, transmits, treats or disposes of industrial effluent in an area where they would be a significant drinking water threat. The use of prescribed instruments, Environmental Compliance Approvals, was the preferred, primary option to address the activity where it would be a significant drinking water threat.

Where the establishment, operation or maintenance of a system that collects, transmits, treats or disposes of industrial effluent would be a significant drinking water threat, the ~~Ministry of the Environment~~[Ministry of the Environment, Conservation and Parks](#) would deny any application for an Environmental Compliance Approval.

When considering policy options, the source protection committee considered a range of approaches from an outright prohibition to a provisional prohibition whereby an Environmental Compliance Approval could be approved only if it was demonstrated there would be no impact. In the end, the source protection committee concluded the use of prescribed instruments was an effective tool, with clear criteria for implementation. Environmental Compliance Approvals have been a long-standing requirement for these types of facilities, and the criteria used to assess these approvals are thorough. Although the Certificate of Approval process was considered to be rigorous, denial of an application was preferred, from a policy perspective, to eliminate the option of allowing these sites to be located within vulnerable areas, for example,

where significant drinking water threats would occur in the future if the activity were undertaken.

7.3 Threat #3: The application of agricultural source material (ASM) to land

In addition to the below policies, the following policies also apply: RLU-1, EDU-1, EDU-12, INCENT-1, INCENT-2, INCENT-5.

There are four policies to manage the existing and/or future significant drinking threats from the application of agricultural source material. Prescribed instruments, such as the Nutrient Management Act was used for situations where it applies (i.e. larger farming operations that have greater than 300 NU/acre/year). Where the Nutrient Management Act does not apply (i.e. smaller farming operations that have less than 300 NU/acre/year) risk management plans were used to prohibit and/or manage the activity where it is or would be a significant drinking water threat.

The policies prohibit the application of agriculture source material within the WHPA-A and IPZ-1, while everywhere outside these areas are managed either through a risk management plan or Environmental Compliance Approval where these apply. This approach mirrors the Nutrient Management Act, which already prohibits the application of agriculture source material inside the WHPA-A.

Policy ASM(App)-1 – Risk Management Plan Policy (MC)

Policy ASM(App)-1 manages existing and future significant drinking water threats from the application of agricultural source material by requiring a risk management plan for those applying agricultural source materials on farms outside of WHPA-A and IPZ-1 which are not phased in under the Nutrient Management Act and the activity is or would be a significant drinking water threat.

Where the application of agricultural source material to land is or would be a significant drinking water threat, risk management plans via Section 58 of the Clean Water Act were considered among the most effective approaches to address the threat outside the WHPA-A and IPZ-1 for those farms not phased in under the Nutrient Management Act.

Risk management plans will be based upon the same principles as the requirements of a Nutrient Management Plan or strategy, and scoped to address these specific threats with conditions such as:

- No ASM spreading within the WHPA-A and IPZ-1
- Mirror application guidelines outlined in the Nutrient Management Plan

When considering policy options, the source protection committee considered the use of existing tools, such as the Nutrient Management Plan, to be the most effective approach for managing existing and future threats to drinking water while maintaining the goal of protecting source water and ensuring these threats cease to occur or do not occur in the future. However, an amendment to the Nutrient Management Act would be required in order to include small

and large farms. Given the time constraints and difficulty of amending the Act, the risk management plan was chosen as a reasonable approach until revisions could be considered under the Nutrient Management Act.

Policy ASM(App)-2 – Prohibition of Activities Policy (MC)

Policy ASM(App)-2 prohibits the existing and future application of agricultural source material within a WHPA-A and IPZ-1 where the Nutrient Management Act does not require an approval and this activity is or would be a significant drinking water threat.

This policy will address activities that are or would be significant threats in the WHPA-A or IPZ-1 if they were to take place. This was based on the Ontario Ministry of Environment's Tables of Drinking Water Threats (2009).

Where the application of agricultural source material to land is or would be a significant drinking water threat, prohibition via Section 57 of the Clean Water Act was considered among the most effective approaches to address the threat.

When considering policy options, the source protection committee factored in cost implications for the landowner and/or the municipality, which may include the cost of purchasing or leasing additional lands around the wellhead (for example WHPA-A and/or IPZ-1). In the end, it was determined any application of agricultural source material within close proximity to the municipal well or intake would provide an unnecessary risk to the drinking water. The source protection committee concluded that Section 57 will effectively achieve prohibition while maintaining the goal of protecting source water and ensuring these threats cease to occur or do not occur in the future.

Policy ASM(App)-3 – Prescribed Instruments Policy (MC)

Policy ASM(App)-3 prohibits the existing and future application of agricultural source material to land in the WHPA-A and IPZ-1 for those phased in under the Nutrient Management Act where this activity is or would be a significant drinking water threat. The use of prescribed instruments, approval under the Nutrient Management Plan, was the preferred, primary option to address this threat.

Where the application of agricultural source material to land is or would be a significant drinking water threat, the Ministry of Agriculture, Food and [Rural Affairs Agribusiness](#), through the Nutrient Management Plan approval process, would ensure this activity would not occur within the WHPA-A and IPZ-1. It should be noted that the Nutrient Management Act, 2002, O.Reg. 267/03, Section 46 already prohibits the application of agricultural source material within 100m (WHPA-A) of a municipal well. It has been included within this policy along with the IPZ-1 for simplicity.

When considering policy options, the source protection committee considered a range of approaches from an outright prohibition to a provisional prohibition whereby approval could be granted only if it was demonstrated there would be no impact. In the end, the source protection committee concluded the use of prescribed instruments was an effective tool, with

clear criteria for implementation. The Nutrient Management Plan has been a long-standing requirement for these types of activities, and the criteria used to assess them are thorough. In the review of this option, the source protection committee elected to direct the Ministry of Agriculture, Food and [Rural Affairs Agribusiness](#) to incorporate terms and conditions within Nutrient Management Plans that would prohibit this activity within the WHPA-A and IPZ-1 to ensure the activity ceases to be or does not become a significant drinking water threat.

Policy ASM(App)-4 – Prescribed Instruments Policy (MC)

Policy ASM(App)-4 manages the existing and future application of agricultural source material to land in an area where this activity is a significant drinking water threat outside of WHPA-A or IPZ-1 and the activity requires approval under the Nutrient Management Act. The use of prescribed instruments, approval under the Nutrient Management Plan, was the preferred, primary option to address this threat.

Where application of agricultural source material to land is or would be a significant drinking water threat, the Ministry of Agriculture, Food and [Rural Affairs Agribusiness](#), through the Nutrient Management Plan approval process, would ensure these approvals include appropriate terms and conditions to make sure the activity ceases to be a significant drinking water threat.

When considering policy options, the source protection committee considered a range of approaches from an outright prohibition to a provisional prohibition whereby approval could be granted only if it was demonstrated there would be no impact. In the end, the source protection committee concluded the use of prescribed instruments was an effective tool, with clear criteria for implementation. The Nutrient Management Plan has been a long-standing requirement for these types of activities, and the criteria used to assess them are thorough. In the review of this option, the source protection committee elected to direct the Ministry of Agriculture, Food and [Rural Affairs Agribusiness](#) to include appropriate terms and conditions under the Nutrient Management Plan to ensure specific measures are addressed and the activity ceases to be or does not become a significant drinking water threat.

7.4 Threat #4: The storage of agricultural source material

In addition to the below policies, the following policies also apply: LUP-1, RLU-1 EDU-1, EDU-12, INCENT-1, INCENT-2, INCENT-5.

There are four policies to manage the existing and/or future significant drinking threats from the storage of agricultural source material (ASM). Prescribed instruments, such as the Nutrient Management Act was used for situations where it applies (i.e. larger farming operations that have greater than 300 NU/acre/year). Where the Nutrient Management Act does not apply (i.e. smaller farming operations that have less than 300 NU/acre/year), risk management plans were used to prohibit and/or manage the activity where it is or would be a significant drinking water threat.

The policies manage the existing storage of agriculture source material anywhere it is a significant drinking water threat through Environmental Compliance Approvals (where they apply) and risk management plans.

In addition, the policies prohibit all future storage of agriculture source material where it would be a significant drinking water threat.

Policy ASM(Store)-1 – Risk Management Plan Policy (MC)

Policy ASM(Store)-1 manages existing significant drinking water threats from storage of agricultural source material (ASM) by requiring a risk management plan for those storing agricultural source material on farms not phased in under the Nutrient Management Act.

Where the storage of agricultural source material (ASM) is a significant drinking water threat, risk management plans via Section 58 of the Clean Water Act were considered among the most effective approaches to address this threat.

Risk management plans shall include appropriate terms and conditions to ensure the storage of agricultural source material ceases to be a significant drinking water threat, and at a minimum, will be based on contemporary standards that reflect appropriate nutrient management practices.

When considering policy options, the source protection committee considered the use of existing tools, such as Nutrient Management Strategies, to be the most effective approach for managing the significant threats to drinking water while maintaining the goal of protecting source water and ensuring these threats cease to occur. However, an amendment to the Nutrient Management Act would be required in order to include small and large farms. Given the time constraints and difficulty of amending the Act, the risk management plan was chosen as a reasonable approach until revisions could be considered under the Nutrient Management Act.

Policy ASM(Store)-2 – Prohibition of Activities Policy (MC)

Policy ASM(Store)-2 prohibits the future storage of agricultural source material where this activity would be a significant drinking water threat and approvals are not required under the Nutrient Management Act.

This policy will address activities that would be significant threats if they were to take place. This was based on the Ontario Ministry of Environment's Tables of Drinking Water Threats (2009).

Where the storage of agricultural source material would be a significant drinking water threat, prohibition via Section 57 of the Clean Water Act was considered among the most effective approaches to address the threat.

When considering policy options, the source protection committee factored in cost implications for the landowner who may not be able to locate future storage facilities for agricultural source material in a desired location. In the end, the source protection committee decided any future storage of agricultural source material within a vulnerable area where there would be a significant threat to drinking water would provide an unnecessary risk. In addition, it was felt that in most cases, storage facilities could be located outside an area where they would be a significant drinking water threat. The source protection committee concluded that Section 57 will effectively achieve prohibition while maintaining the goal of protecting source water and ensuring these threats do not occur in the future.

Policy ASM(Store)-3 – Prescribed Instruments Policy (MC)

Policy ASM(Store)-3 manages the existing storage of agricultural source material through approvals provided for under the Nutrient Management Act that govern the activity in an area where it is a significant drinking water threat.

Where storage of agricultural source material is an existing significant drinking water threat, the Ministry of Agriculture, Food and [AgribusinessRural Affairs](#) would ensure appropriate terms and conditions are included in the Nutrient Management Strategy so that the activity ceases to be a significant drinking water threat.

When considering policy options, the source protection committee considered a range of approaches, from an outright prohibition to a provisional prohibition whereby a storage facility could be approved only if it was demonstrated there would be no impact. In the end, the source protection committee concluded the use of prescribed instruments was an effective tool, with clear criteria for implementation. Nutrient Management Strategy approvals have been a long-standing requirement for these types of facilities, and the criteria used to assess these facilities are thorough. In the review of this option, the source protection committee elected to direct the Ministry of Agriculture, Food and Rural [AgribusinessAffairs](#) to ensure that all approvals for storage facilities include appropriate terms and conditions to make sure they are no longer a significant drinking water threat.

Policy ASM(Store)-4 – Prescribed Instruments Policy (MC)

Policy ASM(Store)-4 prohibits the future storage of agricultural source material through the Nutrient Management Act approval process where this activity would be a significant drinking water threat.

Where storage of agricultural source material would be a significant drinking water threat, the Ministry of Agriculture, Food and [Rural Affairs, Agribusiness](#), through the Nutrient Management Plan approval process, would ensure these storage sites would not be approved.

When considering policy options, the source protection committee considered a range of approaches from an outright prohibition of future to a provisional prohibition whereby a storage facility could only be approved if it was demonstrated there would be no impact. In the end, the source protection committee concluded the use of prescribed instruments was an effective tool, with clear criteria for implementation. Nutrient Management Plan approvals have been a long-standing requirement for these types of facilities, and the criteria used to assess these facilities are thorough.

Although the approval process was considered to be rigorous, denial of an application was preferred, from a policy perspective, to eliminate the option of allowing these storage facilities to be located within vulnerable areas, for example, where significant drinking water threats would occur in the future if the activity were undertaken.

7.4.1 Threat #3 & #4: [The application and storage of agricultural source material – issues contributing area: nitrate for Georgian Sands and Lafontaine](#)

In addition to the below policies, the following policies also apply: LUP-1, EDU-1, EDU-12, INCENT-1, INCENT-2, INCENT-5, INCENT-6.

There are four policies to manage the existing and/or future significant drinking water threats within the issues contributing area for Georgian Sands and Lafontaine from the application and storage of agricultural source material. Prescribed instruments, such as the Nutrient Management Act was used for situations where it applies (i.e. larger farming operations that have greater than 300 NU/acre/year). Where the Nutrient Management Act does not apply (i.e. smaller farming operations that have less than 300 NU/acre/year), risk management plans were used to prohibit and/or manage the activity where it is or would be a significant drinking water threat.

The policies prohibit the existing and future application and storage of agriculture source material within the WHPA-A, WHPA-B, where the vulnerability score is 10, while everywhere outside these areas are managed either through a risk management plan or Environmental Compliance Approval, as they apply. Although, the application and storage of Agriculture source material are considered to be a significant threat within the whole ICA it was decided that the prohibition policies would only apply where the vulnerability score was 10. This differs to policy ASM(App)-2, where the application of agriculture source material is only prohibited within the WHPA-A and IPZ-1 where they are or would be significant.

When considering policy options, the source protection committee considered a variety of factors including impacts on property owners in the ICA, as well as other technical considerations such as well field hydrogeology for the ICA, local soil types, and trends in contaminant concentrations.

The Georgian Sands and Lafontaine wells were determined to obtain water from two shallow aquifers associated with permeable unconfined to semi-confined conditions. These conditions allow for the rapid migration of contaminants through the subsurface into the underlying supply aquifers, and are therefore indicative of highly vulnerable well systems. The sandy to silty soils that underlie the issue contributing area further highlight the area's high vulnerability to contamination.

Another factor considered during policy development was the increasing trend in nitrate concentrations observed in both the Georgian Sands and Lafontaine systems. Within the Georgian Sands well supply, nitrate concentrations were predicted to exceed Ontario Drinking Water Standards as early as the year 2018. As a result, nitrates were identified as an issue for the Georgian Sands and Lafontaine Systems. Due to the elevated nitrate concentration, the local health unit declared the water unsuitable for consumption by infants under 6 months of age who have not developed the ability to digest nitrates. To keep nitrate concentrations from exceeding maximum permitted levels, water from the two systems is now being blended.

Due to increasing levels of nitrogen in the water supply, the source protection committee felt that the ICA policies warranted added protection.

Policy ASM(ICA)-1 – Risk Management Plan Policy (MC)

Policy ASM(ICA)-1 manages existing and future application and storage of agricultural source material by requiring a risk management plan where it would be a significant drinking water threat and the vulnerability score is less than 10 within the entire ICA.

Where the application and storage of agricultural source material is or would be a significant drinking water threat, risk management plans via Section 58 of the Clean Water Act were considered among the most effective approaches to address the threat. Risk management plans will be based upon the same principles as the requirements of a Nutrient Management Plan or strategy.

When considering policy options, the source protection committee considered the use of existing tools, such as the Nutrient Management Plan, to be the most effective approach for managing existing and future threats to drinking water while maintaining the goal of protecting source water and ensuring these threats cease to occur or do not occur in the future. However, an amendment to the Nutrient Management Act would be required in order to include small and large farms. Given the time constraints and difficulty of amending the Act, the risk management plan was chosen as a reasonable approach until revisions could be considered under the Nutrient Management Act.

Policy ASM(ICA)-2 – Prohibition of Activities Policy (MC)

Policy ASM(ICA)-2 prohibits the existing and future handling and storage of agricultural source material where the Nutrient Management Act does not require approval and the vulnerability score is 10, where the activity is or would be a significant drinking water threat.

Where the application and storage of agricultural source material (ASM) would be a significant drinking water threat, prohibition via Section 57 of the Clean Water Act was considered among the most effective approaches to address the threat.

When considering policy options, the source protection committee factored in cost implications for the landowner who may not be able to locate future storage facilities for agricultural source material in a desired location. In the end, it was determined that any future storage of agricultural source material within close proximity to the municipal well or intake would provide an unnecessary risk to the drinking water. The source protection committee has concluded that Section 57 will effectively achieve prohibition while maintaining the goal of protecting source water and ensuring these threats cease to occur or do not occur in the future. Currently there are no known existing agricultural operations located in the ICA that would be impacted by this policy.

Policy ASM(ICA)-3 – Prescribed Instruments Policy (MC)

Policy ASM(ICA)-3 manages the existing storage and application of agricultural source material (ASM) through approvals provided for under the Nutrient Management Act that govern the storage and application of agricultural source material in an area where the vulnerability score is less than 10 and this activity is a significant drinking water threat.

Where storage and application of ASM is an existing significant drinking water threat, the Ministry of Agriculture, Food and Rural [Agribusiness, Affairs](#), through the Nutrient Management Plan approval process, would ensure that appropriate terms and conditions are included to make sure the activity ceases to be a significant drinking water threat.

When considering policy options, the source protection committee considered a range of approaches from an outright prohibition to a provisional prohibition whereby the storage and application would be approved only if it was demonstrated there would be no impact. In the end, the source protection committee concluded the use of prescribed instruments was an effective tool, with clear criteria for implementation. Nutrient Management Plan approvals have been a long-standing requirement for these types of activities, and the criteria used to assess these activities are thorough. In the review of this option, the source protection committee elected to direct the Ministry of Agriculture, Food and [AgribusinessRural Affairs](#) to ensure that all approvals for storage and application include appropriate terms and conditions to ensure they are no longer a significant drinking water threat.

Policy ASM(ICA)-4 – Prescribed Instruments Policy (MC)

Policy ASM(ICA)-4 prohibits the existing and future application and storage of agricultural source material through approvals provided for under the Nutrient Management Act in an area

where the vulnerability score is 10 and the activity is or would be a significant drinking water threat.

Where the application and storage of agricultural source material is or would be a significant drinking water threat, the Ministry of Agriculture, Food and [AgribusinessRural Affairs](#), through the Nutrient Management Plan approval process, would ensure these activities would not be approved.

When considering policy options, the source protection committee considered a range of approaches from an outright prohibition of future to a provisional prohibition whereby the application or storage could be approved only if it was demonstrated there would be no impact. In the end, the source protection committee concluded the vulnerable areas within the issues contributing area required an additional level of protection and the use of prescribed instruments was an effective tool, with clear criteria for implementation. Nutrient Management Plan approvals have been a long-standing requirement for these types of activities, and the criteria used to assess them are thorough.

Although the approval process was considered to be rigorous, denial of an application was preferred, from a policy perspective, to eliminate the option of allowing these activities to occur within vulnerable areas where the score is 10 and where significant drinking water threats exist or would exist in the future if the activity were undertaken. Currently there are no known agricultural operations located in the ICA that would be impacted by this policy.

7.5 Threat #5: The management of agricultural source material (aquaculture)

According to the Ministry of Environment, [Conservation and Parks](#) tables of drinking water threats, this activity cannot be a significant drinking water threat. As such, no policies have been developed for this threat.

7.6 Threat #6: The application of non-agricultural source material (NASM) to land

In addition to the below policies, the following policies also apply: RLU-1, EDU-1, EDU-12, INCENT-1, INCENT-2.

Note: Within the Georgian Sands and Lafontaine issues contributing area (nitrate), in addition to the below policies, the following policies also apply: RLU-1, EDU-1, EDU-12, INCENT-1, INCENT-2, INCENT-6.

[The policies for non-agricultural source material were re-examined as part of a Section 36 Update and in response to the updated Technical Rules \(2021\). The Source Protection Committee determined that the existing policies governing wastewater as listed below were still appropriate to address significant drinking water threats associated with the application of non-agricultural source material to land.](#)

[The Policies](#)

Formatted: Font: Bold

There are five policies to manage the existing and/or future significant drinking water threats from the application of non-agricultural source material. These policies also apply within the Georgian Sands and Lafontaine issues contributing areas. Prescribed instruments, such as the Nutrient Management Act and the Environmental Protection Act were used for situations where they apply. Risk management plan policies were used in situations where the prescribed instruments do not apply.

In most cases, the Ministry of Agriculture, Food and [AgribusinessRural Affairs](#) only issues Environmental Compliance Approvals for category 2 and 3 non-agriculture source material, as defined under the Nutrient Management Act (see Glossary of Terms, Source Protection Plan). Therefore, risk management plans were used for category 1 non-agriculture source material significant drinking water threats.

Risk management plan policies are used for the application of category 1 non-agricultural source material where it is or would be a significant drinking water threat. These policies prohibit the future application in the WHPA-A and IPZ-1, whereas the existing application is managed outside the WHPA-A and IPZ-1.

Prescribed instrument policies are used for the application of category 2 and 3 non-agricultural source material (category 1 in very few circumstances) where it is or would be a significant drinking water threat. These policies prohibit the existing application in the WHPA-A, WHPA-B and IPZ-1, whereas the existing application is managed outside the WHPA-A, WHPA-B and IPZ-1. The future application of category 2 and 3 non-agricultural source material (category 1 in very few circumstances) is prohibited everywhere it would be a significant drinking water threat.

[The 2021 Technical Rules revised the circumstances for non-agricultural source material to exclude some category 1 materials from being a significant drinking water threat. Category 1 non-agricultural source material containing material from non-farm herbivorous animals can still be considered a significant drinking water threat.](#)

Policy NASM(App)-1 – Risk Management Plan Policy (MC)

Policy NASM(App)-1 manages existing and future significant drinking water threats from the application of category 1 non-agricultural source material by requiring a risk management plan for areas outside of the WHPA-A or IPZ-1 where the Nutrient Management and Environmental Protection Act do not require an approval and the activity is or would be a significant drinking water threat.

Where the application of non-agricultural source material to land is or would be a significant drinking water threat, risk management plans via Section 58 of the Clean Water Act were considered among the most effective approaches to address the threat outside the WHPA-A and IPZ-1.

Risk management plans will, at a minimum, comply with contemporary standards and reflect appropriate nutrient management practices.

When considering policy options, the source protection committee determined that risk management plans would allow farming operations to continue within vulnerable areas, while ensuring that the optimal amount of nutrients are applied in order to limit the risk to drinking water. In addition, the committee felt policies for category 1 non-agriculture source material should mirror policies for agriculture source material, where everything would be prohibited in WHPA-A and IPZ-1 and category 1 would be managed outside these areas. Category 1 non-agriculture source material can include unprocessed plant material (e.g. carrot tops). This policy was considered the most effective approach for managing the existing and future drinking water threats outside the WHPA-A and IPZ-1 while maintaining the goal of protecting source water and ensuring these threats cease to occur or do not occur in the future.

Policy NASM(App)-2 – Prohibition Policy (MC)

Policy NASM(App)-2 will prohibit existing and future application of category 1 non-agricultural source material within a WHPA-A and IPZ-1 where this activity is or would be a significant drinking water threat and where the Nutrient Management Act and Environmental Protection Act do not require an approval.

Where the application of non-agricultural source material to land is or would be a significant drinking water threat, prohibition via Section 57 of the Clean Water Act was considered among the most effective approaches to address the threat.

When considering policy options, the source protection committee considered the implications of not allowing non-agricultural source materials to be applied within the WHPA-A and IPZ-1 where it would be a significant drinking water threat. In addition, the committee felt policies for category 1 non-agricultural source material should mirror policies for agricultural source material (ASM), where everything would be prohibited in WHPA-A and IPZ-1 and category 1 would be managed outside these areas. Category 1 non-agricultural source material can include unprocessed plant material (e.g. carrot tops). In the end, it was determined any application of non-agricultural source material within close proximity to the municipal well or intake would provide an unnecessary risk to drinking water. The source protection committee concluded that Section 57 will effectively achieve prohibition while maintaining the goal of protecting source water and ensuring these threats cease to occur or do not occur in the future. Through, a threats verification exercise, the source protection committee was able to confirm that no known existing application of non-agricultural source material to land significant drinking water threats exist within the WHPA-A or IPZ-1.

Policy NASM(App)-3 – Prescribed Instruments Policy (MC)

Policy NASM(App)-3 prohibits the existing application of category 2 and 3 (category 1 in few circumstances) non-agricultural source material to land within a WHPA-A, WHPA-B and IPZ-1 and manages the activity outside the WHPA-A, WHPA-B, and IPZ-1 in an area where this activity is a significant drinking water threat. The use of prescribed instruments under other legislation such as the Environmental Protection Act and Nutrient Management Act, were the preferred, primary option to address the threat of application of non-agricultural source material to land.

Where application of non-agricultural source material to land is an existing significant drinking water threat, the Ministry of Environment, [Conservation and Parks](#) and/or Ministry of Agriculture, Food and [AgribusinessRural Affairs](#) would ensure all Environmental Compliance Approvals include appropriate terms and conditions to make sure that:

1. The application of NASM to land is prohibited within WHPA-A, WHPA-B, and IPZ-1;
2. The application of non-agricultural source material to land ceases to be a significant drinking water threat.

When considering policy options, the source protection committee considered a range of approaches from an outright prohibition to a provisional prohibition whereby approval could be granted only if it was demonstrated there would be no impact. In the end, the source protection committee concluded the use of prescribed instruments was an effective tool, with clear criteria for implementation. Environmental Compliance Approvals have been a long-standing requirement for these types of activities, and the criteria used to assess them are thorough. In the review of this option, the source protection committee was of the opinion that the policy should direct the Ministry of Environment, [Conservation and Parks](#) and Ministry of Agriculture, Food and [AgribusinessRural Affairs](#) to amend all Environmental Compliance Approvals to prohibit application of category 1, 2 and 3 non-agricultural source material in WHPA-A, and category 2 and 3 within WHPA-A, WHPA-B and IPZ-1 so that the activity ceases to be a significant drinking water threat. Category 2 includes processed plant material (e.g. organic waste material from a bakery) and category 3 includes animal-based non-agriculture source material (e.g. organic residual material from meat processing plant, pulp and paper biosolids and municipal sewage biosolids). Through a threats verification exercise, the Source Protection Committee was able to confirm that no known existing application of non-agricultural source material to land significant drinking water threats exist where the activity would be a significant drinking water threat.

Policy NASM(App)-4 – Prescribed Instruments Policy (MC)

Policy NASM(App)-4 prohibits the future application of category 2 and 3 non-agricultural source material to land in an area where this activity is a significant drinking water threat. The use of prescribed instruments under other legislation, such as the Environmental Protection Act and Nutrient Management Act are the preferred, primary option of addressing the threat of application of non-agricultural source material to land.

Where application of non-agricultural source material to land would be a significant drinking water threat, the Ministry of Environment, [Conservation and Parks](#) and/or Ministry of Agriculture, Food and [AgribusinessRural Affairs](#) would not issue Environmental Compliance Approvals.

When considering policy options, the source protection committee considered a range of approaches from an outright prohibition to a provisional prohibition whereby an Environmental Compliance Approval could be approved only if it was demonstrated there would be no impact. In the end, the source protection committee concluded the use of prescribed instruments was

an effective tool, with clear criteria for implementation. Environmental Compliance Approvals have been long-standing requirements for these types of activities, and the criteria used to assess them are thorough. Although the approval process was considered to be rigorous, denial of an application for category 1 within WHPA-A and everywhere significant for categories 2 and 3 non-agriculture source materials was preferred, from a policy perspective, to eliminate the option of allowing these sites to be located within vulnerable areas, for example, where significant drinking water threats would occur in the future if the activity were undertaken. Category 2 includes processed plant material (e.g. organic waste material from a bakery) and category 3 includes animal-based non-agriculture source material (e.g. organic residual material from meat processing plant, pulp and paper biosolids and municipal sewage biosolids). Further explanation of category 1, 2 & 3 is included within the definitions section of the source protection plan.

Policy NASM(App)-5 – Other Research Policy (NLB)

Policy NASM(App)-5 manages the existing application of non-agricultural source material to land where this activity would be a significant drinking water threat.

Where the application of non-agricultural source material to land would be a significant drinking water threat, it is recommended the Ministry of Environment, [Conservation and Parks](#) and Ministry of Agriculture, Food and [Rural Affairs](#)~~Agribusiness~~ continue on-going research regarding soil limiting factors relevant to non-agriculture source material, and to reflect that research in the management of non-agriculture source material sites.

The source protection committee thought it was important to encourage and support the research on soil limiting factors and that the use of the research would improve the management of non-agricultural source material sites. The Ministry of Environment, [Conservation and Parks](#) and Ministry of Agriculture, Food and [Agribusiness](#) ~~Rural Affairs~~ had in the past conducted research on the application of non-agricultural source material on which current standards are based. The source protection committee felt that current standards based on outdated research is in need of updating. Therefore, the source protection committee supported a policy to encourage the Ministry of Environment, [Conservation and Parks](#) and Ministry of Agriculture, Food and [Agribusiness](#)~~Rural Affairs~~ to update these standards by conducting additional research as it would be a proactive and forward-thinking approach to reduce future significant drinking water threats from the application of non-agricultural source material to land.

7.7 Threat #7: The handling and storage of non-agricultural source material

In addition to the below policies, the following policies also apply: LUP-1, RLU-1, EDU-1, EDU-12, INCENT-1, INCENT-2.

Note: Within the Georgian Sands and Lafontaine issues contributing area (nitrate), in addition to the below policies, the following policies also apply: LUP-1, RLU-1, EDU-1, EDU-12, INCENT-1, INCENT-2, INCENT-6.

[The policies for non-agricultural source material were re-examined as part of a Section 36 Update that came after updates to the Technical Rules \(2021\). The Source Protection Committee determined that the existing policies governing wastewater as listed below were still appropriate to address significant drinking water threats associated with the handling and storage of non-agricultural source material.](#)

The Policies

There are four policies to manage the existing and future significant drinking water threats from the handling and storage of non-agricultural source material (NASM). These policies also apply within the Georgian Sands and Lafontaine issues contributing areas. The source protection committee opted to use prescribed instruments, such as the Nutrient Management Act and the Environmental Protection Act for activities where they apply. In situations where prescribed instruments are not applicable, the source protection committee, chose to use risk management plan policies.

In most cases, the Ministry of Agriculture, Food and ~~Rural Affairs~~ [Agribusiness](#) only issues Environmental Compliance Approvals for category 2 and 3 non-agriculture source material, as defined under the Nutrient Management Act (see Glossary of Terms, Source Protection Plan). Therefore, risk management plans were used for category 1 non-agriculture source material significant drinking water threats.

Risk management plan policies are used for the handling and storage of category 1 non-agricultural source material where it is or would be a significant drinking water threat. These policies prohibit the existing and future handling and storage in the WHPA-A and IPZ-1, and managed whereas outside the WHPA-A and IPZ-1.

Prescribed instrument policies are used for the handling and storage of category 2 and 3 non-agricultural source material (category 1 in very few circumstances) where it is or would be a significant drinking water threat. These policies prohibit the existing handling and storage in the WHPA-A and IPZ-1, whereas the existing handling and storage is managed outside the WHPA-A and IPZ-1. The future handling and storage of category 2 and 3 non-agricultural source material (category 1 in very few circumstances) is prohibited everywhere it would be a significant drinking water threat.

[The 2021 Technical Rules revised the circumstances for non-agricultural source material to exclude some category 1 materials from being a significant drinking water threat. Category 1 non-agricultural source material containing material from non-farm herbivorous animals can still be considered a significant drinking water threat.](#)

Policy NASM(H&S)-1 – Risk Management Plan Policy (MC)

Policy NASM(H&S)-1 manages existing and future significant drinking water threats from the handling and storage of category 1 non-agricultural source material by requiring a risk management plan for those applying NASM on farms where the application is a significant drinking water threat outside the WHPA-A and IPZ-1 and the activity does not require approval under the Nutrient Management or Environmental Protection Acts.

Where the handling and storage of non-agricultural source material is or would be a significant drinking water threat, risk management plans via Section 58 of the Clean Water Act were considered among the most effective approaches to address the threat outside the WHPA-A and IPZ-1.

Risk management plans will include appropriate terms and conditions to ensure the handling and storage of non-agriculture source materials ceases to be significant drinking water threat, and at a minimum, complies with contemporary standards and reflects appropriate nutrient management practices.

When considering policy options, the source protection committee considered the implications of not allowing non-agriculture source materials to be handled or stored within the WHPA-A and IPZ-1 where it would be a significant drinking water threat. In addition, the committee felt policies for category 1 non-agricultural source material should mirror policies for agricultural source material, where everything would be prohibited in WHPA-A and IPZ-1 and category 1 would be managed outside these areas. Category 1 non-agricultural source material can include unprocessed plant material (e.g. carrot tops). In the end, it was determined the handling and storage of non-agricultural source material within close proximity to the municipal well or intake would provide an unnecessary risk to drinking water. The source protection committee concluded that Section 57 will effectively achieve prohibition while maintaining the goal of protecting source water and ensuring these threats cease to occur or do not occur in the future.

Policy NASM(H&S)-2 – Prohibition Policy (MC)

Policy NASM(H&S)-2 prohibits existing and future handling and storage of category 1 non-agricultural source material within WHPA-A or IPZ-1, where the Nutrient Management and Environmental Protection Acts do not require an approval and this activity would be a significant drinking water threat.

This policy will address activities that would be significant threats in the WHPA-A or IPZ-1 if they were to take place. This was based on the Ontario Ministry of Environment's Tables of Drinking Water Threats (2009).

Where the handling and storage of category 1 non-agricultural source material is or would be a significant drinking water threat, prohibition via Section 57 of the Clean Water Act was considered among the most effective approaches to address the threat.

When considering policy options, the source protection committee considered the implications of not allowing non-agricultural source materials to be handled or stored within the WHPA-A and IPZ-1 where it would be a significant drinking water threat. In addition, the committee felt policies for category 1 non-agricultural source material should mirror policies for agriculture source material, where everything would be prohibited in WHPA-A and IPZ-1 and category 1 would be managed outside these areas. Category 1 non-agriculture source material can include unprocessed plant material (e.g. carrot tops). In the end, it was determined the handling and storage of non-agricultural source material within close proximity to the municipal well or intake would provide an unnecessary risk to drinking water. The source protection committee

concluded that Section 57 will effectively achieve prohibition while maintaining the goal of protecting source water and ensuring these threats cease to occur or do not occur in the future.

Policy NASM(H&S)-3 – Prescribed Instruments Policy (MC)

Policy NASM(H&S)-3 prohibits the existing handling and storage of category 2 and 3 (category 1 in few circumstances) non-agricultural source material to land within a WHPA-A/IPZ-1 and manages the activity outside the WHPA-A/IPZ-1 in an area where this activity is a significant drinking water threat. The use of prescribed instruments under other legislation such as the Environmental Protection Act and Nutrient Management Act were the preferred, primary option to address this threat.

Where handling and storage of non-agricultural source material to land is an existing significant drinking water threat, the Ministry of Environment, [Conservation and Parks](#) and/or the Ministry of Agriculture, Food and [Rural Affairs/Agribusiness](#) would amend all Environmental Compliance Approvals to ensure these sites include appropriate terms and conditions to make sure that:

- 1) The handling and storage of NASM to land is prohibited within WHPA-A and IPZ-1;
- 2) The handling and storage of non-agricultural source material to land ceases to be a significant drinking water threat.

When considering policy options, the source protection committee considered a range of approaches from an outright prohibition to a provisional prohibition whereby approval could be granted only if it was demonstrated there would be no impact. In the end, the source protection committee concluded the use of prescribed instruments was an effective tool, with clear criteria for implementation. The Nutrient Management Act has been a long-standing requirement for these types of activities, and the criteria used to assess them are thorough. In the review of this option, the source protection committee was of the opinion that the policy should direct the Ministry of Environment, [Conservation and Parks](#) and Ministry of Agriculture, Food and [Rural Affairs/Agribusiness](#) to amend all Environmental Compliance Approvals and NASM plans to prohibit handling and storage of category 2 and 3 non-agricultural source material in WHPA-A and IPZ-1 so that the activity ceases to be a significant drinking water threat. Category 2 includes processed plant material (e.g. organic waste material from a bakery) and category 3 includes animal-based NASM (e.g. organic residual material from meat processing plant, pulp and paper biosolids and municipal sewage biosolids).

Policy NASM(H&S)-4 – Prescribed Instruments Policy (MC)

Policy NASM(H&S)-4 prohibits the future handling and storage of category 2 and 3 (category 1 in few circumstances) non-agricultural source material to land in an area where this activity is a significant drinking water threat. The use of prescribed instruments under other legislation such as the Environmental Protection Act and the Nutrient Management Act was the preferred, primary option to address the activity where it would be a significant drinking water threat.

Where handling and storage of non-agricultural source material to land would be a significant drinking water threat, the Ministry of Environment, [Conservation and Parks](#) and/or Ministry of

Agriculture, Food and [Rural Affairs/Agribusiness](#) would not issue an Environmental Compliance Approval.

When considering policy options, the source protection committee considered a range of approaches from an outright prohibition to a provisional prohibition whereby an Environmental Compliance Approval could be approved only if it was demonstrated there would be no impact. In the end, the source protection committee concluded the use of prescribed instruments was an effective tool, with clear criteria for implementation. Environmental Compliance Approvals have been long-standing requirements for these types of activities, and the criteria used to assess them are thorough. Although the approval process was considered to be rigorous, denial of an application for category 1 within WHPA-A and category 2 and 3 non-agricultural source materials everywhere it would be a significant drinking water threat was preferred, from a policy perspective, to eliminate the option of allowing these sites to be located within vulnerable areas, for example, where significant drinking water threats would occur in the future if the activity were undertaken. Category 2 includes processed plant material (e.g. organic waste material from a bakery) and category 3 includes animal-based non-agricultural source material (e.g. organic residual material from meat processing plant, pulp and paper biosolids and municipal sewage biosolids).

7.8 Threat #8: The application of commercial fertilizer to land

In addition to the below policies, the following policies also apply: RLU-1, EDU-1, EDU-12, [EDU-13](#), INCENT-1, INCENT-2, INCENT-5.

Note: Please see policies FERT(ICA)-1 through 4 for those that apply to the Georgian Sands and Lafontaine issues contributing area. These policies do not apply to the Georgian Sands and Lafontaine issues contributing area.

Policy FERT(App)-1 – Risk Management Plan Policy (MC)

Policy FERT(App)-1 manages existing and future significant drinking threats from the application of commercial fertilizer to land by requiring a risk management plan where there is no Nutrient Management Plan in effect.

Where the application of commercial fertilizer to land is or would be a significant drinking water threat, risk management plans via Section 58 of the Clean Water Act were considered among the most effective approaches to address the activity where it is or would be a significant drinking water threat.

Risk management plans will require that fertilizers be applied at prescribed label rates on the advice of a certified crop advisor, that NPK (nitrogen, phosphorus, potassium) soil tests are carried out, and that proper farm practices regarding crop rotation be applied.

When considering policy options, the source protection committee determined that risk management plans would allow farming operations to continue within vulnerable areas, while ensuring that the optimal amount of nutrients are applied in order to limit the risk to drinking water. This policy would apply to smaller farms that don't have a Nutrient Management Plan. It

will allow fertilizers to be applied within the WHPA-A, which is different than the policy for application of non-agricultural source material which does not. It was determined that there is less of a risk to drinking water from fertilizers because they do not contain pathogens. Also, with proper soil testing, farmers could apply the correct rates that are fully absorbed by the crop. This policy was considered the most effective approach for managing existing and future threats to drinking water while maintaining the goal of protecting source water and ensuring these threats cease to occur or do not occur in the future.

Policy FERT(App)-2– Prescribed Instruments Policy (MC)

Policy FERT(App)-2 manages existing and future significant drinking threats from the application of commercial fertilizer to land where the activity requires approval under the Nutrient Management Plan.

Where the application of commercial fertilizer to land is an existing or future significant drinking water threat, the Ministry of Agriculture, Food and [Rural Affairs Agribusiness](#) would ensure the Nutrient Management Plan includes appropriate terms and conditions to make sure the activity ceases to be or does not become a significant drinking water threat.

When considering policy options, the source protection committee considered a range of approaches from an outright prohibition to a provisional prohibition whereby approval could be granted only if it was demonstrated there would be no impact. In the end, the source protection committee concluded the use of prescribed instruments was an effective tool, with clear criteria for implementation. The Nutrient Management Plan has been a long-standing requirement for these types of activities, and the criteria used to assess them are thorough. In the review of this option, the source protection committee was of the opinion that the policy should direct the Ministry of Agriculture, Food and [Rural Affairs Agribusiness](#) to ensure the activity is not a significant threat or ceases to be a significant drinking water threat by including the appropriate terms and conditions within the Nutrient Management Plan or strategy.

The source protection committee determined that this policy approach would allow farming operations to continue within vulnerable areas, while ensuring that the optimal amount of nutrients is applied in order to limit the risk to drinking water. This policy would apply to larger farms that have a Nutrient Management Plan. It was not necessary for the policy to prohibit the application of commercial fertilizer within the WHPA-A, as the Nutrient Management Act already has this built-in prohibition.

7.9 Threat #9: The handling and storage of commercial fertilizer

In addition to the below policies the following policies also apply: LUP-1, RLU-1, EDU-1, EDU-12, INCENT-1, INCENT-2, INCENT-5

Note: Please see policies FERT(ICA)-1 through 4 for those that apply to the Georgian Sands and Lafontaine issues contributing area. These policies do not apply to the Georgian Sands and Lafontaine issues contributing area.

[The policies for the handling and storage of commercial fertilizer were re-examined as part of a Section 36 Update that came after updates to the Technical Rules \(2021\). The Source Protection Committee determined that the existing policies governing wastewater as listed below were still appropriate to address significant drinking water threats associated with the handling and storage of commercial fertilizer.](#)

Policy FERT(H&S)-1 – Risk Management Plan Policy (MC)

Policy FERT(H&S)-1 manages existing significant drinking water threats from the handling and storage of commercial fertilizer to land by requiring a risk management plan.

Where the handling and storage of commercial fertilizer is a significant drinking water threat, risk management plans via Section 58 of the Clean Water Act were considered among the most effective approaches to address the threat.

Risk management plans will, at a minimum, comply with contemporary standards and will require specific provisions pertaining to the handling and storage of liquid fertilizer. At a minimum, the risk management plan will require:

- 1) liquid fertilizer to be stored in double-walled tanks or secondary containment facilities, with collision protection; and
- 2) dry fertilizer to be stored under cover on impervious floor surfaces with no drainage outlets.

When considering policy options, the source protection committee determined that risk management plans would allow existing storage facilities to remain in vulnerable areas, while ensuring that the appropriate safety measures were put in place in order to limit the risk to drinking water. It was also determined that this activity can only be a significant threat in limited circumstances as commercial fertilizer needs to be stored in quantities of 2,500 kg or greater to be a significant drinking water threat. This type of fertilizer is generally not stored or is not stored in large quantities on-site due to the deterioration of the quality of fertilizer and/or extra expense in stockpiling it. If the activity was deemed a significant drinking water threat, the risk management official, at his/her discretion, could limit the handling and storage of commercial fertilizer to outside the WHPA-A or other vulnerable area so that it ceases to be a significant drinking water threat.

Policy FERT(H&S)-2- Prohibition of Activities Policy (MC)

Policy FERT(H&S)-2 prohibits the future handling and storage of commercial fertilizer where this activity would be a significant drinking water threat.

Where the handling and storage of commercial fertilizer would be a significant drinking water threat, prohibition via Section 57 of the Clean Water Act was considered among the most effective approaches to address the threat.

When considering policy options, the source protection committee factored in the inconvenience to the landowner, who may not be able to locate future storage facilities in a desired location. In the end, it was determined that this activity would only become a

significant threat in limited circumstances as commercial fertilizer needs to be stored in quantities of 2,500 kg or greater in order to be classified a significant threat. In addition, this type of fertilizer is generally not stored or is not stored in large quantities on-site due to the deterioration of the quality of fertilizer and/or extra expense in stockpiling it. The future handling and storage could be planned to ensure it will not become a significant drinking water threat. The source protection committee concluded that Section 57 will effectively achieve prohibition while maintaining the goal of protecting source water and ensuring these threats do not occur in the future.

7.9.1 Threat #8 and #9: The application, handling and storage of commercial fertilizer – issues contributing area: nitrate for Georgian Sands and Lafontaine

In addition to the below policies the following policies also apply LUP-1, RLU-1, EDU-1, EDU-12, INCENT-1, INCENT-2, INCENT-5, INCENT-6.

Policy FERT(ICA)-1 – Risk Management Plan Policy (MC)

Policy FERT(ICA)-1 manages existing and future significant drinking water threats from the handling, storage and application of commercial fertilizer to land by requiring a risk management plan for those not phased in under the Nutrient Management Act and where the vulnerability score is less than 10. Where the handling, storage and application of commercial fertilizer to land is a significant drinking water threat, risk management plans via Section 58 of the Clean Water Act were considered among the most effective approaches to address the threat.

Risk management plans will, at a minimum, comply with contemporary standards and will require specific provisions such as:

Application:

The risk management plan will require fertilizers to be applied using best agronomic practices on the advice of a certified crop advisor, that NPK (nitrogen, phosphorus, potassium) soil tests be carried out and that proper farm practices regarding crop rotation be applied.

Handling and Storage:

The risk management plan will require specific provisions pertaining to the handling and storage of liquid fertilizer. Such conditions should require liquid fertilizer to be stored in double-walled tanks or secondary containment with collision protection (bollards) around the storage facility, dry fertilizer to be stored under cover on impervious floor surface with no drainage outlets.

When considering policy options, the source protection committee determined that risk management plans would allow the existing handling, storage and application of commercial fertilizers to land where the vulnerability score is less than 10, while ensuring that appropriate safety measures and application methods are put in place in order to limit the risk to drinking water. This policy was considered the most effective approach for managing existing and future

threats to drinking water while maintaining the goal of protecting source water and ensuring these threats cease to occur or do not occur in the future.

Policy FERT(ICA)-2 – Prohibition of Activities Policy (MC)

Policy FERT(ICA)-2 prohibits the existing and future handling, storage and application of commercial fertilizer to land within a WHPA-A and WHPA-B with a vulnerability score of 10 where this activity is or would be a significant drinking water threat.

Where the handling, storage and application of commercial fertilizer to land has a vulnerability score of 10 and is a significant drinking water threat, prohibition via Section 57 of the Clean Water Act was considered among the most effective approach to address the activity.

When considering policy options, the source protection committee factored in the inconvenience to the landowner who may need to relocate an existing storage facility for commercial fertilizer.

Other technical considerations such as well field hydrogeology, local soil type, and trends in contaminant concentrations were also considered during policy development.

The Georgian Sands and Lafontaine Wells obtain water from two shallow aquifers associated with permeable unconfined to semi-confined conditions. These conditions allow for the rapid migration of fertilizer contaminants through the subsurface into the underlying supply aquifers, and are therefore indicative of highly vulnerable well systems. The sandy to silty soils that underlie the ICA further highlight the area's high vulnerability to contamination.

Another factor considered during policy development was the increasing trend in nitrate concentrations observed in both the Georgian Sands and Lafontaine systems. Within the Georgian Sands well supply, nitrate concentrations were predicted to exceed Ontario Drinking Water Standards as early as the year 2018. As a result, the local health unit declared the elevated level of nitrate in the drinking water health concern for infants under six months of age who have not developed the ability to digest nitrates. To keep nitrate concentrations from exceeding maximum permitted levels, water from the two systems is now being blended. The source protection committee felt that a prohibition of nitrogen based fertilizers within the ICA where the vulnerability score is 10 was necessary to help stop the increase of nitrogen rates occurring within the municipal water supply.

In the end, due to the high vulnerability of the lands and supply aquifers to contamination, and the increasing nitrate concentration trend in the local water supply, it was determined that any existing storage of commercial fertilizer within close proximity to or within a vulnerable area to the municipal well or intake would provide an unnecessary risk to drinking water. There are 75 properties located in the ICA that would potentially be impacted by this policy. With the exception of two properties, all are classified as single family residential. The two non-residential properties are a local school, and a small portion of an agricultural property that is not actively farmed. The source protection committee felt that a prohibition of nitrogen based fertilizers within the ICA where the vulnerability score is 10 was necessary to help stop the increase nitrogen rates occurring within the municipal water supply. It was noted that

alternative non-nitrogen based fertilizers exist and could be used on residential lawns if needed. To date, the source protection committee has been able to confirm that the vast majority of residents are not applying, handling, or storing commercial fertilizers on their properties. The source protection committee concluded that Section 57 will effectively achieve prohibition while maintaining the goal of protecting source water and ensuring these threats cease to occur or do not occur in the future.

Policy FERT(ICA)-3– Prescribed Instruments Policy (MC)

Policy FERT(ICA)-3 manages existing and future application of commercial fertilizer to land where the vulnerability score is less than 10 the activity is or would be a significant drinking water threat and requires approval under the Nutrient Management Act.

Where the application of commercial fertilizer to land is an existing or future significant drinking water threat, the Ministry of Agriculture, Food and [Rural Affairs Agribusiness](#) would ensure the Nutrient Management Plan or strategy includes appropriate terms and conditions to make sure the activity ceases to be or does not become a significant drinking water threat. Such conditions may include:

- 1) requiring all fertilizers to be applied using best agronomic practices based on the advice of a certified crop advisor;
- 2) soil tests (NPK) be conducted;
- 3) proper farm practices regarding crop rotation be applied, as appropriate.

When considering policy options, the source protection committee considered a range of approaches from an outright prohibition to a provisional prohibition whereby approval could be granted only if it was demonstrated there would be no impact. In the end, the source protection committee concluded the use of prescribed instruments was an effective tool, with clear criteria for implementation. The Nutrient Management Plan has been a long-standing requirement for these types of activities, and the criteria used to assess them are thorough. In the review of this option, the source protection committee was of the opinion that the policy should direct the Ministry of Agriculture, Food and [Rural Affairs Agribusiness](#) to ensure the activity ceases to be or does not become a significant drinking water threat by including the appropriate terms and conditions within the Nutrient Management Plan or strategy.

The source protection committee determined that this policy approach would allow farming operations to continue within vulnerable areas, while ensuring that the optimal amount of nutrients is applied in order to limit the risk to drinking water. This policy would apply to larger farms that have a Nutrient Management Plan.

Policy FERT(ICA)-4 – Prescribed Instruments Policy (MC)

Policy FERT(ICA)-4 prohibits the existing and future application of commercial fertilizer to land where the vulnerability score is 10 and where this activity would be a significant drinking water threat.

Where the existing and future application of commercial fertilizer to land is in an area where the vulnerability score is 10 and is or would be a significant drinking water threat, prohibition was considered among the most effective approach to address the threat.

When considering policy options, the source protection committee factored in the inconvenience to the landowner who may need to relocate activities that require the application of commercial fertilizer. Other technical considerations such as well field hydrogeology, soil type, and trends in contaminant concentrations were also considered during policy development.

The Georgian Sands and Lafontaine Wells obtain water from two shallow aquifers associated with permeable unconfined to semi-confined conditions. These conditions allow for the rapid migration of fertilizer contaminants through the subsurface into the underlying supply aquifers, and are therefore indicative of highly vulnerable well systems. The sandy to silty soils that underlie the ICA further highlight the area's high vulnerability to contamination.

Another factor considered during policy development was the increasing trend in nitrate concentrations observed in both the Georgian Sands and Lafontaine systems. Within the Georgian Sands well supply, nitrate concentrations were predicted to exceed Ontario Drinking Water Standards as early as the year 2018. To keep nitrate concentrations from exceeding maximum permitted levels, water from the two systems is now being blended. The source protection committee felt that a prohibition of nitrogen based fertilizers within the ICA where the vulnerability score is 10 was necessary to help stop the increase of nitrogen rates occurring within the municipal water supply.

In the end, due to the high vulnerability of the lands and supply aquifers to contamination, and the increasing nitrate concentration trend in the local water supply, the source protection committee concluded that any existing or future application of commercial fertilizer to land where the vulnerability score is 10 and therefore is or would be a significant drinking water threat, would provide an unnecessary risk to drinking water.

7.10 Threat #10: The application of pesticides to land

In addition to the below policies, the following policies also apply: RLU-1, EDU-1, EDU-12, INCENT-5.

[The policies for the application of pesticides were re-examined as part of a Section 36 Update that came after updates to the Technical Rules \(2021\). The policies were amended to reflect an expansion of the pesticide products whose use can constitute a significant threat and the land use types where a threat may occur.](#)

[Policy PEST\(App\)-1 – Pesticide Permit \(PI\)](#)

[Policy PEST\(App\)-1 manages the application of pesticides where a pesticide permit is required. The permit shall include the appropriate terms and conditions to ensure the activity ceases to be a significant drinking water threat.](#)

[This policy was added to address the expanded land use types that may be significant drinking water threat and that some of those potential new threats, for example spraying larvicide to control mosquito populations and the spread of West Nile Virus, are already required to obtain a pesticide permit from MECP.](#)

Formatted: Font: Not Bold

Policy PEST(App)-24 – Risk Management Plan Policy (MC)

Policy PEST(App)-24 manages existing and future significant drinking water threats [where a pesticide permit is not required](#) from the application of pesticides to land by requiring a risk management plan.

Where the application of pesticides to land is or would be a significant drinking water threat, risk management plans via section 58 of the Clean Water Act were considered among the most effective approaches to address the threat because there is no existing prescribed instrument for pesticides.

Risk management plans will, at a minimum, comply with contemporary standards and conditions that require pesticides to be applied by a certified or registered professional in keeping with prescribed label rates per the Pesticide Act. When considering policy options, the source protection committee determined that risk management plans would allow for existing and future application of pesticides, while ensuring that the appropriate safety measures and application methods were put in place in order to limit the risk to drinking water. The source protection committee thought it was important to outline specific risk management plan conditions so that the [farmer-applicator](#) and the risk management official are both aware of the minimum requirements intended by the source protection plan. ~~In addition, the source protection committee considered the circumstances listed in the MOE threat tables and found that the Clean Water Act is only applicable to 12 pesticide chemicals and only a few are commonly used in today's farming practices. The source protection committee wanted to work with farmers on management plans to avoid noxious weeds and ensure other harsher chemicals would not be used as a substitute for those listed within the table of circumstances. This policy was considered the most effective approach for managing existing and future significant drinking water threats.~~

[Pesticides classified as domestic are exempt from requiring a Risk Management Plan, as are pesticide application activities that are for public health purposes and do not require a pesticide permit. Domestic pesticide use will be addressed through education and outreach.](#)

[The Ontario cosmetic pesticides ban also limits what products can be sold and used for aesthetic purposes. This was one of the factors influencing the updated policy approach.](#)

Policy PEST(App)-32 – Other Policy (NLB)

Policy PEST(App)-32 manages the existing application of pesticides to land in an area where it is a significant drinking water threat.

Where the application of pesticides to land is a significant drinking water threat, the Ministry of Agriculture, Food and [Rural Affairs Agribusiness](#) and the Ministry of Environment, [Conservation](#)

[and Parks](#) are encouraged to review and amend pest management training courses to incorporate additional precautions and considerations pertaining to pesticide application in vulnerable areas.

The source protection committee supported this policy to address the threat of activities related to the application of pesticides to land. It was believed that many significant threats from the application of pesticides to land could be reduced if farmers were given adequate training that emphasizes the importance of taking additional precautions in areas where the threat to drinking water is significant. It was determined that the Ministry of Agriculture, Food and ~~R~~[Agribusiness](#) ~~rural Affairs~~ and the Ministry of Environment, [Conservation and Parks](#) would be the most appropriate agencies to provide the necessary training to these individuals.

7.11 Threat #11: The handling and storage of pesticides

In addition to the below policies the following policies also apply: LUP-1, RLU-1, EDU-1, EDU-12, INCENT-5.

[The policies for the handling and storage of pesticides were re-examined as part of a Section 36 Update that came after updates to the Technical Rules \(2021\). The policies were deemed to still be appropriate by the Source Protection Committee. The storage volumes required for a significant threat have not changed and exceed any amount that could be considered stored for personal domestic use.](#)

Formatted: Font: Not Bold

Policy PEST(H&S)-1 – Risk Management Plan Policy (MC)

Policy PEST(H&S)-1 manages existing significant drinking water threats from the handling and storage of pesticides by requiring a risk management plan.

Where the handling and storage of pesticides is a significant drinking water threat, risk management plans via Section 58 of the Clean Water Act were considered among the most effective approaches to address the threat.

Risk management plans will include appropriate terms and conditions to ensure the handling and storage of pesticides ceases to be a significant drinking water threat. The risk management plan should, at a minimum, follow the guidance of a Tier 2 Environmental Farm Plan (EFP). A Tier 2 EFP indicates current, well-practiced standards that should be the basis of a risk management plan.

When considering policy options, the source protection committee determined that risk management plans would allow existing handling and storage of pesticides, while ensuring that the appropriate safety measures were put in place in order to limit the risk to drinking water. The source protection committee thought it was important to outline specific risk management plan conditions so that the farmer and the risk management official are both aware of the minimum requirements intended by the source protection plan. This would allow the landowner to upgrade existing facilities to bring them up to contemporary standards. This policy was considered the most effective approach for managing existing significant threats to drinking water.

Policy PEST(H&S)-2 – Prohibition of Activities Policy (MC)

Policy PEST(H&S)-2 prohibits the future handling and storage of pesticides where this activity would be a significant drinking water threat.

Where the handling and storage of pesticides would be a significant drinking water threat, Prohibition via Section 57 of the Clean Water Act was considered among the most effective approaches to address the threat.

When considering policy options, the source protection committee factored in the inconvenience to the landowner who may not be able to locate future storage facilities for pesticides in a desired location. In the end, it was determined that any future handling and storage of pesticides in an area where it would be a significant drinking water threat would provide an unnecessary risk to drinking water. The source protection committee concluded that Section 57 will effectively protect drinking water sources from this threat in the future.

7.12 Threat #12: The application of road salt

In addition to the below policies, the following policies also apply: LUP-2, RLU-1, EDU-3, EDU-12, INCENT-1, INCENT-2.

Note: Please see Threat 12 & 13 City of Barrie issues contribution area for the application, storage and handling of road salt, for a list of policies that apply within the City of Barrie issues contributing area for road salt.

[The policies for the application of road salt were re-examined as part of a Section 36 Update that came after updates to the Technical Rules \(2021\). These changes lowered the percent impervious surface required in the application area required to be a significant drinking water threat. The Source Protection Committee determined that the existing policies \[SALT\(App\)-1, SALT\(App\)-2\] remain appropriate and approved the addition of a new policy SALT\(App\)-3, described below. The changes to the Technical Rules also allowed for a choice between calculating the percent impervious surface based on a 1 km squared grid, or based on WHPA boundaries. The Source Protection Committee elected to use WHPA boundaries as some initial investigation showed it to be the more conservative approach.](#)

Policy SALT(App)-1- Risk Management Plan Policy (MC)

Policy SALT(App)-1 manages existing and future application of road salt by requiring a risk management plan where it is or would be a significant drinking water threat, with the exception of personal domestic use,

Where the application of road salt is a significant drinking water threat, risk management plans via Section 58 of the Clean Water Act were considered among the most effective approaches to address the activity that is or would be a significant drinking water threat.

More than half the road salt applied to roads is transported in surface run-off. The remaining salt infiltrates through soil into groundwater. This is most noticeable in urbanized areas and

along major roadways. The risk management plan will include appropriate terms and conditions that mirror a salt management plan and, at a minimum, complies with contemporary standards to ensure the application of road salt ceases to be a significant drinking water threat.

When considering policy options, the source protection committee determined that risk management plans would allow for the existing and future application of road salt in order to maintain public safety, while ensuring that the appropriate application measures were put in place in order to limit the risk to drinking water. Low density residential properties were exempted from this policy since the intent of the policy is to target federal, provincial, and municipal authorities, which are the greatest users of road salt. In addition, it was not the intent of the policy to have risk management officials create a risk management plan for each residential property that uses road salt on their driveway. Under the Canadian Environmental Protection Act, many municipalities are already mandated to have a salt management plan in place and therefore the financial impact has already been anticipated. The policy was considered the most effective approach for managing current and future significant drinking water threats.

Policy SALT(App)-2 Other Policy (NLB)

Policy SALT(App)-2 manages the future application of road salt where this activity would be a significant drinking water threat.

Where the application of road salt would be a significant drinking water threat, it is recommended the Ministry of Transportation Ontario (MTO) in collaboration with Ontario Good Roads Association (OGRA) and the Association of Municipalities Ontario (AMO) undertake research regarding cost-effective alternatives to salt application, new mitigative technologies, and innovative practices that would not compromise public safety.

The source protection committee believes it is important to encourage and support research on salt alternatives, new mitigative technologies, and innovative practices that reduce the amount of salt being applied to municipal roads and commercial properties. It was determined that conducting such research would be a proactive and forward-thinking approach to reduce future significant drinking water threats from the application of road salt and that does not compromise public safety.

Policy SALT(App)-3 Other Policy (NLB)

Policy SALT(App)-3 manages the existing and future application of road salt through requiring municipalities to maintain a salt management plan. These plans are to identify any municipal drinking water system where the application of salt could be a Significant Drinking Water Threat as a "salt vulnerable area." The plans will identify and implement practices to minimize the loss of salt to the environment and the impact of salt on drinking water, in areas where it would be a Significant Drinking Water Threat.

This policy was added as a result of increasing sodium and chloride concentration throughout the Source Protection Region, as well as the changes to the Technical Rules (2021) and increasing road salt threats on the landscape. It is based on the approach take in the City of

[Barrie where there is an Issue Contributing Area for road salt. The “salt vulnerable area” approach has been more effective for operations staff than changing their practices only on sections of roads known to be a SDWT within the vulnerable area.](#)

7.13 Threat #13: The handling and storage of road salt

In addition to the below policies, the following policies also apply: LUP-1, RLU-1, EDU-3, EDU-12, INCENT-1, INCENT-2.

[The policies for the handling and storage of road salt were re-examined as part of a Section 36 Update that came after updates to the Technical Rules \(2021\). These changes significantly lowered the threshold of salt required to be a Significant Drinking Water Threat. As a result of these changes, there were some revisions to policies SALT\(H&S\)-1 and SALT\(H&S\)-2.](#)

Formatted: Font: Not Bold

Policy SALT(H&S)-1 – Risk Management Plan Policy (MC)

Policy SALT(H&S)-1 [has been revised to apply to the existing and future handling and storage of road salt in a Wellhead Protection Area with greater than 30% impervious surface, or Intake Protection Zone with greater than 8% impervious surface, which is in keeping with the circumstances required for significant threat for the application of road salt.](#) ~~manages the existing handling and storage of road salt by requiring a risk management plan where it is a significant drinking water threat.~~

Where the handling and storage of road salt is a significant drinking water threat, risk management plans via Section 58 of the Clean Water Act were considered among the most effective approaches to address the threat.

Local impacts from road salt are typically caused by inappropriate handling and storage facilities and practices. Handling practices where impacts to the environment result from the loading and unloading of trucks, stormwater run-off from the site, and the release of water used to wash equipment. Salt storage should be out of direct contact with precipitation and run-off to reduce dissolution. The risk management plan will include appropriate terms and conditions that mirror a salt management plan and, at a minimum, comply with contemporary standards to ensure the handling and storage of road salt ceases to be a significant drinking water threat.

When considering policy options, the source protection committee determined that risk management plans would allow for existing handling and storage of road salt that is needed in order to maintain public safety, while ensuring that appropriate application measures were put in place in order to limit the risk to drinking water. Under the Canadian Environmental Protection Act, many municipalities are already mandated to have a salt management plan in place and therefore the financial impact has already been anticipated by the municipality. This policy of requiring a risk management plan was considered the most effective approach for managing the threat.

[As a result of the lowered threshold \(2021 Technical Rules\) for the volume of salt storage that can be considered a Significant Drinking Water Threat, the policy has also been updated to](#)

[include an exemption for residential salt storage. Those threats will instead be addressed with education and outreach.](#)

SALT(H&S)-2 – Prohibition of Activities Policy (MC)

Policy SALT(H&S)-2 ~~prohibits the future handling and storage of road salt where this activity would be a significant drinking water threat.~~ has been revised to [prohibit the handling and storage of road salt in quantities equal to or greater than 500 tonnes \(the previous threshold for a Significant Drinking Water Threat in a WHPA\), or any quantity of salt that is stored uncovered.](#)

Where the handling and storage of road salt is a significant drinking water threat, prohibition via Section 57 of the Clean Water Act was considered among the most effective approach to address the threat.

When considering policy options, the source protection committee factored in cost implications for the municipality which may not be able to locate future storage facilities for road salt in a desired location. In the end, it was determined any future storage of road salt within close proximity or within a vulnerable area to the municipal well or intake would provide an unnecessary risk to the drinking water. The source protection committee concluded that Section 57 will effectively achieve prohibition while maintaining the goal of protecting source water and ensuring these threats do not occur in the future.

7.13.1 [Threat #12 & #13: The aApplication, storage and handling of road salt – issues contributing area: for the City of Barrie](#)

In addition to the below policies, the following policies also apply to the issues contributing area: SALT(App)-2, RLU-1, LUP-2, EDU-3, EDU-8, EDU-12, INCENT-1, INCENT-2, INCENT-6.

[The policies for road salt in the City of Barrie were re-examined as part of a Section 36 Update that came after updates to the Technical Rules \(2021\). It was determined that the existing policies remain appropriate for addressing these threats.](#)

Policy SALT(ICA)-1- Risk Management Plan Policy (MC)

Policy SALT(ICA)-1 manages existing and future application of road salt within the City of Barrie's issues contributing area for road salt by requiring a risk management plan, within the WHPA-A, where it is or would be a significant drinking water threat, with the exception of personal domestic use.

Where the application of road salt is a significant drinking water threat, risk management plans via Section 58 of the Clean Water Act were considered among the most effective approaches to address the activity that is or would be a significant drinking water threat.

More than half the road salt applied to roads is transported in surface run-off. The remaining salt infiltrates through soil into groundwater. This is most noticeable in urbanized areas and along major roadways. The risk management plan will include appropriate terms and conditions

that mirror a salt management plan and, at a minimum, complies with contemporary standards to ensure the application of road salt ceases to be a significant drinking water threat.

When considering policy options, the source protection committee determined that risk management plans would allow for the existing and future application of road salt in order to maintain public safety, while ensuring that the appropriate application measures were put in place in order to limit the risk to drinking water. Considerable discussion occurred around whether or not all properties within the ICA should be required to establish a risk management plan to address the increasing rates of sodium occurring in the groundwater supply wells. There are approximately 11,000 properties located within the ICA. Of the 11,000 properties, only 59 are not classified as low density residential and 42 of those properties are estimated to be applying road salt. It was decided that those applying salt for personal domestic on residential properties are to be exempted from requiring a risk management plan, since the intent of the policy is to target federal, provincial, and municipal authorities, and parking lots associated with businesses who are the greatest users of road salt. In addition, it was not the intent of the policy to have risk management officials create a risk management plan for each residential property that uses road salt on their driveway. Under the Canadian Environmental Protection Act, many municipalities are already mandated to have a salt management plan in place and therefore the financial impact has already been anticipated. The policy was considered the most effective approach for managing current and future significant drinking water threats.

Policy Salt(ICA)-2 Risk Management Plan Policy (MC)

Policy SALT(ICA)-2 manages existing and future handling and storage of road salt within the issues contributing area (ICA) for the City of Barrie by requiring a risk management plan, where the handling and storage of road salt is or would be, a significant drinking water threat within the WHPA-A, and outside of the WHPA-A where road salt is stored in quantities equal to or greater than 5 tonnes. This policy does not apply for any personal domestic use.

Where the handling and storage of road salt is or would be a significant drinking water threat, risk management plans via Section 58 of the Clean Water Act were considered among the most effective approaches to address the activity that is or would potentially be a significant drinking water threat.

Local impacts from road salt are typically caused by inappropriate handling and storage practices. Handling practices include impacts to the environment as a result of the loading of trucks, stormwater run-off from the site, and the release of water used to wash equipment. Salt storage should be out of direct contact with precipitation, and run-off to reduce dissolution. The risk management plan will include appropriate terms and conditions that mirror a salt management plan and, at a minimum, comply with contemporary standards to ensure the handling and storage of road salt ceases to be a significant drinking water threat.

When considering policy options for the ICA the source protection committee originally adopted the policy approach used across the source protection region to manage existing and prohibit future significant drinking water threats. However, as the City of Barrie began preparing for source protection plan implementation, some unanticipated impacts of policy

implementation were realized. Due to the large number of circumstances in the Table of Threats that make salt handling and storage a significant drinking water threat in the ICA, the City of Barrie identified an abundance of properties as potential significant drinking water threats that were not previously considered.

For salt handling and storage to be a significant drinking water threat in the ICA, road salt must be stored in a manner that may result in its exposure to precipitation, or runoff. Furthermore, the quantity of road salt stored must be less than 500 tonnes, between 500 and 5,000 tonnes, or more than 5,000 tonnes, and runoff from the area in which salt is stored may result in the presence of chloride in groundwater. This means that anyone storing road salt exposed to precipitation or runoff from precipitation or snowmelt would be considered a significant drinking water threat within the ICA.

Alternatively, for salt handling and storage to be a significant drinking water threat in wellhead protection areas where there is no issue, the quantity of salt stored must be greater than 5000 tonnes, and the underlying vulnerability score equal to 10.

To address the ambiguity of the circumstances which state that road salt exposed to precipitation and runoff and stored in quantities less than 500 tonnes in an ICA would be considered a significant drinking water threat, the City of Barrie contacted the Ministry of Environment, [Conservation and Parks and Climate Change \(MOEMECPC\)](#) to clarify the intent of the circumstances. The [MOEMECPC](#) clarified that the circumstances were always meant to capture those storing larger quantities of salt, and not bags of salt that someone may be storing in their home garage for personal use. This justified and provided the rationale for exempting personal domestic use.

When discussing a policy revision in response to the City of Barrie's comment, the source protection committee discussed the seasonality of the salt threats presence within the ICA, and how the volume of salt stored on a site can change on a monthly, weekly or even daily basis. A discussion also occurred around whether or not to exempt those handling and storing road salts for personal domestic use. There was some concern about small contractors that may be storing salt on personal property for business. In the end, it was determined that since contractors would be handling and storing salt for business purposes, a risk management plan would be required. Small contractors who pick-up salt at a depot and store it in a spreader in the back of their pick-up trucks were also discussed. It was determined that salt stored in spreaders would not be considered a significant drinking water threat because salt spreaders are mobile, and therefore currently exempt from the Table of Circumstances. Depending on the location of their clients, salt spreaders would be captured through the application of road salt policies, and education and outreach programs.

Further discussion occurred about whether or not those handling and storing covered salt should be exempt from requiring a risk management plan. However, since covered salt could still be exposed to precipitation and run-off under some circumstances, it could be considered a significant drinking water threat. It was decided that using the terminology "exposed to precipitation" would more accurately reflect the intention of the table of circumstances.

When considering policy options, the source protection committee determined that risk management plans would allow for the existing and future handling and storage of road salt in order to maintain public safety, while ensuring appropriate handling and storage measures were put in place in order to limit the risk to drinking water. Those handling and storing road salt for personal domestic use were exempted from this policy since the intent of the policy is to target those storing larger quantities of salt for example, federal, provincial and municipal authorities, contractor yards, businesses' and commercial industries that are handling and storing large quantities of road salt on site. After considerable debate, this policy was considered the most effective approach for managing current and future significant drinking water threats.

Policy Salt(ICA)-3 Specify Action Policy (MC)

Policy Salt(ICA)-3 will require the City of Barrie to prioritize snow ploughing or removal, street sweeping, and cleaning on primary arterial and collector roads after the winter control season has ended.

Even though the big picture policy approach for the ICA typically will not require the development of a risk management plan beyond the WHPA-A, the source protection committee wanted to address the release of salt into the environment within the greater ICA.

The source protection committee believes this is a cost effective approach to ensure the City of Barrie prioritizes street sweeping and cleaning within the ICA to minimize the loss of salt into the environment, after the winter control season has ended.

7.14 Threat #14: The storage of snow

In addition to the below policies, the following policies also apply: LUP-1, RLU-1, EDU-3, EDU-12, INCENT-1, INCENT-2, INCENT-4

Note: In addition to the below policies, the following policies also apply to the City of Barrie issues contributing area for salt: LUP-1, RLU-1, EDU-3, EDU-12 INCENT-1, INCENT-2 ,INCENT-4.

[The policies for the storage of snow were re-examined as part of a Section 36 Update that came after updates to the Technical Rules \(2021\). As a result of these changes and the related changes to the circumstances for the application and storage of road salt, policies SNOW-1 and SNOW-2 were revised.](#)

Formatted: Font: Not Bold

Policy SNOW-1 – Risk Management Plan Policy (MC)

[Policy SNOW-1 manages the existing storage of snow by requiring a risk management plan where it is a significant drinking water threat. has been revised to include both existing and future storage of snow and restricted to areas in a Wellhead Protection Area with greater than 30% impervious surface, or an Intake Protection Zone with greater than 8% impervious surface. This is consistent with the circumstances in place for road salt threats.](#)

Within these areas, where the storage of snow is a significant drinking water threat, risk management plans via Section 58 of the Clean Water Act were considered among the most effective approaches to address the threat.

Storage of snow can pose a significant drinking water threat depending on the geographic location of the storage area and whether the snow is stored above or below grade. In general, the greater the snow storage area, the greater the risk to drinking water. The risk management plan will include appropriate terms and conditions and, at a minimum, comply with contemporary standards to ensure the storage of snow and associated run-off ceases to be a significant drinking water threat.

When considering policy options, the source protection committee determined that risk management plans would allow for existing storage of snow needed in order to maintain public safety, while ensuring that appropriate storage practices were put in place in order to limit the risk to drinking water. It was felt that this would not be an onerous exercise for the risk management official since it would only include large snow storage sites (greater than a hectare in size) and smaller sites that are below grade (for example, in a pit or quarry). It should also be noted that although snow pushed into a pile in a parking lot is a significant drinking water threat, snow banks immediately adjacent to a travelled roadway are not. Therefore risk management officials are not required to create a risk management plan for sites adjacent to a roadway. The policy was considered the most effective approach for managing existing significant threats to drinking water while maintaining the goal of protecting source water and ensuring these threats cease to occur.

Policy SNOW-2 – Prohibition of Activities Policy (MC)

Formatted: Font: Bold

Policy SNOW-2 [has been revised to](#) prohibits the future storage of snow [in areas one hectare or larger](#) where this activity would be a significant drinking water threat, except within emergency situations where the storage of snow would be allowed in vulnerable areas outside the WHPA-A.

Where the storage of snow is a significant drinking water threat, prohibition via Section 57 of the Clean Water Act was considered among the most effective approaches to address the threat.

When considering policy options, the source protection committee factored in cost implications for the municipality or landowner who may not be able to locate future storage facilities for snow in a desired location. In the end, it was determined that any future storage of snow within a vulnerable area of the municipal well or intake would provide an unnecessary risk to drinking water. The source protection committee concluded that Section 57 will effectively achieve prohibition while maintaining the goal of protecting source water and ensuring these threats do not occur in the future.

[The revision to specify in areas of one hectare or larger is designed to create some continuity between the previous technical rule and the 2021 Technical Rules, and to maintain the original intent of the policy.](#)

7.14.1 Threat # 14: The storage of snow: Issues Contributing Area for the City of Barrie

Note: In addition to the below policies, the following policies also apply to the City of Barrie issues contributing area for salt: RLU-1, EDU-3, EDU-12 INCENT-1, INCENT-2, INCENT-4, INCENT-6.

SNOW(ICA)-1 Risk Management Plan (MC)

Policy SNOW(ICA)-1 manages existing and future storage of snow threats within the City of Barrie's ICA by requiring a risk management plan, where it is or would be a significant drinking water threat within the WHPA-A of the [WHPA-ICA](#), with the exception of personal domestic use.

Where the storage of snow is or would be a significant drinking water threat, risk management plans via Section 58 of the Clean Water Act were considered among the most effective approaches to address the activity that is or would be a significant drinking water threat.

Storage of snow can pose a significant drinking water threat depending on the geographic location of the storage area and whether the snow is stored at, above or below grade. In general, the greater the snow storage area, the greater the potential risk to drinking water. The risk management plan will include appropriate terms and conditions and, at a minimum, comply with contemporary standards to ensure the storage of snow and associated run-off ceases to be a significant drinking water threat.

When considering policy options for the [WHPA-ICA](#), the source protection committee originally adopted the policy approach used across the source protection region, which is to manage existing and prohibit future significant drinking water threats. However, as the City of Barrie commenced preparations for source protection plan implementation, some unanticipated impacts of policy implementation were realized. The circumstances surrounding what makes snow storage a significant drinking water threat in the [WHPA-ICA](#), identifies an abundance of properties as potential significant drinking water threats that were not previously considered.

For circumstances of snow storage to be a significant drinking water threat in the ICA the snow must be stored at, above or below grade, the area upon which snow is stored is at least 0.01ha, but not more than 0.5ha, 0.5-1ha, 1-5ha or >5ha, and runoff from the area in which the snow is stored may result in the presence of chloride in groundwater. This means that parking lots with a snow storage area of 10metres by 10metres (0.01ha) would be considered a significant drinking water threat within the [WHPA-ICA](#). For snow storage to be a threat in wellhead protection areas where there is no issue the snow storage area must be 1 ha or greater when stored at grade (a parking lot).

Due to the seasonality and fluctuating size of snow storage areas, the City of Barrie noted that the identification of properties that met the snow storage circumstances in the ICA would be exceedingly difficult to track, and furthermore that the negotiation of risk management plans for all properties subject to the circumstances would be onerous. The City of Barrie also noted that a further prohibition of snow storage would be onerous to enforce, as this would mean that the creation of all new snow storage areas greater than 0.01ha would be prohibited within

the entire [WHPA-ICA](#). The source protection committee considered how changing the policy scope would address the issue, and specifically, whether controlling the snow storage areas through the use of Part IV powers or education and outreach efforts would be more effective in keeping salt out of the snow in the [WHPA-ICA](#) in the first place. Concern was expressed about not controlling large snow storage areas in commercial plaza parking lots with a risk management plan.

When considering policy options, the source protection committee determined that risk management plans would allow for the existing and future storage of snow needed to maintain safety, while ensuring that appropriate storage practices were put in place in order to limit the risk to drinking water. It was felt that this would not be an onerous exercise for the risk management officials since it would only include snow storage sites within the WHPA-A of the [WHPA-ICA](#), and education and outreach would be provided outside of the WHPA-A. This policy change will provide a consistent approach between the policies addressing salt handling and storage in the [WHPA-ICA](#), and the policies addressing snow storage in the [WHPA-ICA](#). After considerable debate, this policy was considered the most effective approach for managing current and future significant drinking water threats.

7.15 Threat #15: The handling and storage of fuel

In addition to the below policies the following policies also apply: LUP-1, RLU-1, EDU-2, EDU-12, INCENT-1, INCENT-2.

[The policies for the handling and storage of fuel were re-examined as part of a Section 36 Update and in response to the updated Technical Rules \(2021\). The source protection committee determined that the existing policies governing the handling and storage of fuel as listed below were still appropriate do address this threat.](#)

Formatted: Font: Not Bold

Policy FUEL-1 – Risk Management Plan Policy (MC)

Policy FUEL-1 manages existing significant drinking water threats from the handling and storage of fuel by requiring a risk management plan, with the exception of low density residential properties.

Where the handling and storage of fuel is a significant drinking water threat, risk management plans via Section 58 of the Clean Water Act were considered among the most effective approaches to address the threat.

The improper handling and storage of fuel can result in the release of fuel to the environment and thus is a significant threat to drinking water. The risk management plan will include appropriate terms and conditions and, at a minimum, comply with contemporary standards, to ensure the handling and storage of fuel ceases to be a significant drinking water threat. The risk management plan may include such conditions as:

- 1) Secondary containment
- 2) Spill/leak detection (monitoring processes)
- 3) Collision protection (bollards)

When considering policy options, the source protection committee determined that risk management plans would allow for existing handling and storage of fuel, while ensuring that the appropriate handling and storage practices were put in place in order to limit the risk to drinking water. It was felt the majority of commercial fuel storage facilities are already using up-to-date standards and practices and therefore would likely not require considerable efforts to bring them up to current standards through the risk management plan. In addition, most back-up generators used at a municipal pump station (i.e. wellhead) were determined to contain fuel stored in small enough quantities that would not meet the circumstances that would cause it to become a significant drinking water threat.

Residential properties were to be required to complete a risk management plan if the circumstances for a significant drinking water threat (i.e. 250L tank that is below grade – basement or buried) were met and property owners/ tenants could not provide the risk management official with documentation proving that the fuel tank is certified and up to contemporary standards. Although many residents still use oil to heat their homes, many tanks are now above-grade and will therefore not require a risk management plan. In addition, the source protection committee considered the level of effort for the risk management official to negotiate and inspect risk management plans for residential fuel tanks stored in basements. The source protection committee felt if the resident could produce a document/certificate indicating that their tanks were aligned with contemporary standards (i.e. double walled) then they could be exempted from a risk management plan. This policy was considered the most effective approach for managing existing significant drinking water threats from the handling and storage of fuel while maintaining the goal of protecting source water and ensuring these threats cease to occur.

Concern was expressed by some municipalities regarding the workload associated with checking all residential properties in urban areas to confirm whether or not home heating fuel is being used, and if so, whether or not the criteria for an exemption has been met. While others expressed concern about residential properties being exempted, and thought that all fuel tanks should be required to establish a risk management plan due to risks that a fuel spill would pose. Others further expressed concern regarding the cross-boundary policy differences between source protection regions. Neighbouring source protection regions have proposed a range of policies to deal with existing residential home heating fuel including prohibition, risk management plans and education and outreach.

It was felt that requiring a risk management plan for all fuel tanks, and providing the opportunity for the residential property exemption was a good compromise between the different cross-boundary policy differences.

During pre-consultation on the revised proposed source protection plan in March, 2014 additional comments were received relating to the ability to implement the policy with respect to the partial exemption provided for home heating fuel in the Region of York and City of Barrie. This is due to the high urban density in these municipalities, and the unwillingness of the fuel supply companies to provide location information on home heating fuel tanks identifying the presence of fuel tanks that would pose a significant threat would be difficult, particularly as

they are located in the basement. Given the verification response rates, York Region estimated that it could take up to three years of staff time to locate a handful of home heating fuel threats. It was further anticipated that of those found, most would likely be able to provide documentation indicating that they were up to current standards.

As a result of the comments provided, some time was spent looking into recent fuel spills in the source protection region. It was found that fuel tanks (both below and above grade) associated with abandoned/vacant properties deteriorate and leak left-over fuel through floor drains, sump lines, foundation cracks, and over the landscape into groundwater and surface water sources. When these properties are abandoned, no one is checking the tanks for signs of deterioration.

A couple of fuel spills also occurred when fuel was supplied to tanks that had noticeable signs of deterioration. Under Ontario legislation, tanks that are not compliant with the regulations and standards outlined in the legislation should not be supplied by the distributor. Fuel spills were noted to continue as the clean-up claims worked their way through the insurance process.

There were also many reports of fuel spilling into creeks via stormwater run-off. In these situations the exact source of the fuel spill was often not found. However, in most cases when no accidents had been reported, the suspected cause is abandoned or unused furnace oil tanks that continued to get filled when they shouldn't, or parking lot run-off.

The fuel spills that have occurred in the Source Protection Region indicated that fuel tanks associated with abandoned properties, and those not in use pose the greatest risk, rather than tanks that are in use and inspected at the time of fill-up.

After much consideration, the source protection committee decided to fully exempt existing home heating fuel tanks from requiring a risk management plan, and require a comprehensive education and outreach program for homeowners and fuel suppliers. In addition, a policy was to be developed to require the removal of old tanks from abandoned properties and unused tanks from occupied properties to ensure future fuel spills do not occur. Additional information on the new policy can be found below (Policy FUEL-4).

Policy FUEL-2 – Prohibition of Activities Policy (MC)

Policy FUEL-2 prohibits the future handling and storage of fuel where this activity would be a significant drinking water threat.

Where the handling and storage of fuel would be a significant drinking water threat, prohibition via Section 57 of the Clean Water Act was considered among the most effective approaches to address the threat.

When considering policy options, the source protection committee factored in the inconvenience to the landowner, who may not be able to locate future storage facilities for fuel in a desired location. In the end, it was determined that any future storage of fuel within a vulnerable area where it would be a significant drinking water threat posed an unnecessary risk to drinking water. In addition, it was felt that with some extra effort during planning, future fuel

storage facilities they could be kept outside the vulnerable area where they would be a significant drinking water threat.

Policy FUEL-3 – Other Policy (MC)

Policy FUEL-3 manages the existing and future and handling and storage of fuel where this activity would be a significant drinking water threat.

Where the handling and storage of fuel is or would be a significant drinking water threat, it is recommended the source protection authority obtain inspection reports from the Technical Standards and Safety Authority (TSSA) regarding fuel storage for private fuel outlets. This information would be provided to the risk management official. The source protection committee thought that it was essential for the risk management official to have information on existing and future fuel storage facilities in order to be better able to manage any risks associated with the handling and storage of fuel. It was determined that the TSSA would be the most appropriate agency from which to obtain this information.

TSSA's Fuels Safety Program regulates the transportation, storage, handling and use of fuels to ensure conformance to the Technical Standards and Safety Act, 2000, and applicable regulations, codes and standards. TSSA is an Administrative Authority mandated by the Government of Ontario to regulate key sectors of the economy, including Fuels. The TSSA is a not-for-profit and self-funded organization. The TSSA develops education materials in support of its risk priorities; licenses and regulates the bulk suppliers/distributors of fuel, fuel oil and associated equipment; and requires that fuel oil distributors annually inspect the fuel tanks of their customers, and refuse to provide service where a storage tank is at risk of leaking or not in compliance with current codes. TSSA upholds the requirements as defined within the Technical Standards and Safety Act, and its associated regulations. Inspection, compliance and enforcement activities undertaken by TSSA have supported an efficient, effective and robust regulatory regime which, in turn, supports safe drinking water across the province.

The TSSA has indicated that they are willing to provide source protection authorities with the requested information. It was noted that the requesting body should scope all information requests geographically by mailing address, as the TSSA does not use GIS parameters to sort its data. All information requests submitted to the TSSA are subject to the TSSA's Access to Privacy Code as well as any required fees. TSSA may consider waiving fees for limited requests from public sector partners.

In addition to requesting information from the TSSA, the source protection committee decided that it would be appropriate to recommend that the local source protection authorities provide information learned through policy implementation on tanks of concern back to TSSA through the annual reporting process. This approach would support the TSSA's efforts to achieve compliance for Private Fuel Outlets, and provide an enhanced level of protection for local sources of drinking water in significant drinking water threat areas.

Policy Fuel-4 – Other (Municipal Act) MC

Policy Fuel-4 manages the existing handling and storage of fuel where this activity would be a significant drinking water threat.

Where the handling and storage of fuel would be a significant drinking water threat, municipalities are required to develop a by-law to require the removal of fuel tanks from abandoned properties within one year of known vacancy, and unused tanks from occupied properties once no longer in use within vulnerable areas where the handling and storage of fuel is or would be a significant drinking water threat.

Research into recent fuel spills in the Source Protection Region indicated that spills associated with deteriorating tanks (both below and above grade) on abandoned properties were occurring and posing a risk to drinking water sources. When properties are abandoned the fuel tanks are no longer being checked for signs of deterioration and flagged for upgrades at the time of fill-up. It was found that leaking fuel makes its way to groundwater and surface water sources through floor drains, cracks in the foundation, sump lines, and over the landscape.

The Source Protection Committee felt that the greatest risk to drinking water was from fuel tanks located on abandoned or vacant properties, where they were not being regularly monitored or maintained, and fuel tanks that are no longer in use on residential properties. Fuel tanks that are in use are required under Ontario Regulation 213/01 to be inspected by the distributors which supply the tanks with fuel. Under the regulation, distributors must be satisfied that all fuel oil related equipment is compliant with the requirements outlined in the regulation.

When fuel tanks are no longer in use, the Fuel Code specifies that the tank and property owner must comply with the following requirements:

S.6.8.8.2 Above Ground Storage Tanks (including Basement Tanks)

Where an above ground tank system with a capacity greater than 2500 litres is not used for more than three years, the owner or operator of the above ground tank system and the owner of the property on which the tank system is located shall remove the tank and all associated piping.

S.6.11.18.4 (Underground Storage Tanks)

Where an underground tank system has not been used for more than two years, the owner or operator of the underground tank system and the owner of the property on which the tank is located shall remove the tank and all associated piping from the ground.

S.16.1 (Residential-Type Installations)

When a fuel oil appliance is removed for the purposes of conversion from oil to another form of energy or where a fuel oil tank is replaced, the authorized person shall:

- a) ensure that all fuel oil is removed and the tank is marked as empty;
- b) where the tank is located inside a building, remove the fill pipe, and cap or plug the exposed fill pipe opening;

- c) shut off the tank outlet valve, remove the filter, and plug or cap the outlet valve;
- d) plug or cap all openings, including the supply or return outlets or inlets in the tank, except for the vent pipe;
- e) where the tank is located outdoors, disconnect all exposed piping or tubing, and cap or plug the piping or tubing as close to the tank as is practical.

Due to the existing standards and regulations, the committee felt that tanks that are in use generally pose less of a threat to drinking water than those found on abandoned or vacant properties. However, given the lack of a reporting mechanism to TSSA upon ceasing use of the tank, the large volume threshold required for a removal, and no requirement for homeowners to remove a tank once no longer in use, the source protection committee felt that extra restrictions were warranted. As a result, requiring the removal of fuel tanks from abandoned properties within one year of known abandonment, and unused tanks once no longer in use, was considered to be an effective means to reduce the risk of a fuel spill occurring in a vulnerable area, where fuel tanks are no longer being actively inspected under Ontario Regulation 213/01.

7.16 Threat #16: The handling and storage of a dense non-aqueous phase liquid (DNAPL)

In addition to the below policies, the following policies also apply: RLU-1, LUP-1, EDU-2, EDU-10, EDU-112, INCENT-1, INCENT-2.

Note: In addition to the below policies, the following policies also apply in the Orillia, Coldwater and Cannington issues contributing area for TCE: RLU-1, LUP-1, EDU-2, EDU-10, EDU-12 INCENT-1, INCENT-2, INCENT-6.

[The DNAPL policies were reviewed as part of the Section 36 Amendment. The circumstances for the DNAPLs were revised in the new Technical Rules \(2021\). The previous circumstances listed five DNAPLs that were of concern, whereas the new circumstances are not limited to those chemicals and instead offer a list of businesses that may have DNAPLs associated with their activities. This review process also allowed for the opportunity for the committee to gain feedback from Risk Management Officials about the previous set of policies. This feedback included strong support for most DNAPL threats being managed through risk management plans.](#)

[As a result of the changed circumstances and feedback from Risk Management Officials, the Source Protection Committee approved removing the prohibition on handling and storage of less than 250L of DNAPL \(cumulative volume\), and exempting retail establishments from the ban. Volumes under 250L and retail establishments will now be captured in the Risk Management Plan policy.](#)

[This 250L volume threshold would allow businesses with small volumes of diluted DNAPL products to operate, while ensuring the protection of drinking water through risk management plans. It is also more effective in the cases where a business or activity starts up without Risk](#)

[Management Officials being notified right away, as a risk management plan can be negotiated at any time, whereas a prohibition is harder to enforce once a business is open. The Credit Valley, Toronto and Region, and Central Lake Ontario \(CTC\) Source Protection Region uses the same 250L threshold, allowing for continuity across source protection region boundaries.](#)

[The Source Protection Committee determined It is appropriate to treat the retail handling and storage of DNAPL differently than other handling and storage of DNAPL threat activities because retail stores do not open the containers for use on-site, resulting in a reduction of the risk of a spill. Industries which use DNAPLs in their daily operations pose a greater risk and, as such, merit greater oversight. However, if a catastrophic event \(e.g., tornado, fire, flood\) were to occur there is a reasonable chance that chemicals could be released to the environment \(including groundwater\). For this reason, the Source Protection Committee recommends that Risk Management Officials, when negotiating Risk Management Plans with retail business owners that may store DNAPLs, include risk management measures in the Risk Management Plan that will prevent chemicals from contaminating the soil and water of the surrounding natural environment. Examples of risk management measures that could be used for a retail business include: blockage of floor drains in the store to contain a spill until it can be cleaned up; instituting a requirement for spill kits on-site; mandatory employee training on the safe handling and storage of DNAPLs; strategic management of inventory \(only having a specific volume of DNAPL on-site at any given time\); products containing DNAPL stored on secondary containment systems to avoid a spill; and source water protection education for retail owners and staff.](#)

[The maximum volume threshold \(250L\) for non-retail DNAPL handling and storage ensures that quantities of DNAPLs are not stored close to municipal water supply wells or surface water intakes, where they would be a significant drinking water threat.](#)

Formatted: Font: Not Bold

Policy DNAPL-1 – Risk Management Plan Policy (MC)

Policy DNAPL-1 manages the existing [and future \(under 250L, and excluding retail\)](#) handling and storage of DNAPLs by requiring a risk management plan where the activity is a significant drinking water threat, excluding incidental volumes for personal/domestic use.

Where the handling and storage of DNAPLs is a significant drinking water threat, risk management plans via Section 58 of the Clean Water Act were considered among the most effective approaches to address the threat.

DNAPLs are a group of organic substances that, because of their density, sink vertically, below the water table. These liquids dissolve sparingly into the groundwater, creating a contaminant plume. The improper handling and storage of DNAPLs can result in the release of these chemicals into the environment and is thus a significant threat to drinking water. The risk management plan will include appropriate terms and conditions and, at a minimum, promote above-ground storage so the handling and storage of DNAPLs ceases to be a significant drinking water threat.

When considering policy options, the source protection committee determined that risk management plans would allow for the existing [and future \(under 250L, and excluding retail\)](#) handling and storage of DNAPLs, while ensuring that the appropriate handling and storage practices were put in place in order to limit the risk to drinking water. It was determined that risk management plans would mirror the requirements specified by the TSSA and/or industry best management practices (for example, responsible care) for the handling and storage of DNAPLs. There was confidence, with these measures in place, the risk to drinking water could be adequately managed.

In addition, there was consideration for the magnitude of the risk management official's duties to create risk management plans for all uses of DNAPL and also the considerable expense to upgrade existing facilities. It was determined that incidental volumes for personal/domestic use would be excluded so that a risk management plan would not be needed for every residential property that contained small amounts (i.e. standard size containers that are used for personal or domestic activities) of a DNAPL product. However, a risk management plan would still be needed for larger volumes used in activities, such as for business, home business or hobbies.

~~Although there would be considerable work for the risk management official and associated costs to the municipality, many industries/practices would not be impacted by this policy because there are only 5 DNAPL chemicals listed as significant drinking water threats – not all of these are actively used.~~ This policy was considered the most effective approach for managing the existing [and future \(under 250L, and excluding retail\)](#) significant drinking water threats from the handling and storage of DNAPLs while maintaining the goal of protecting source water and ensuring these threats cease to occur.

Policy DNAPL-2 – Prohibition of Activities Policy (MC)

Policy DNAPL-2 prohibits the future handling and storage handling and storage of [250L or greater of](#) DNAPLs where the activity would be a significant drinking water threat, excluding incidental volumes for personal/domestic use [and retail operations](#).

Where the handling and storage of DNAPLs would be a significant drinking water threat, prohibition via Section 57 of the Clean Water Act was considered among the most effective approaches to address the threat.

DNAPLs are a group of organic substances that, because of their density, sink vertically, below the water table. These liquids dissolve sparingly into the groundwater, creating a contaminant plume. The improper handling and storage of DNAPLs can result in the release of these chemicals into the environment and is thus a significant threat to drinking water.

When considering policy options, the source protection committee considered that the greatest risk to drinking water was from commercial use where DNAPLs are used in large quantities on a frequent basis. The committee did not want to prohibit small amounts of DNAPLs being used in a household. Therefore, it was determined that incidental volumes for personal/domestic use would be excluded so that a risk management official would not need to review every future

residential property that contained small amounts of a DNAPL product. This, however, would exclude larger quantities used and any quantity used for business, home business or hobbies.

~~In addition, the source protection committee factored in the implications where a future DNAPL storage facility would not be able to be located in a desired location. It was determined that many industries/practices would not be impacted by this policy because there are only 5 DNAPL chemicals listed as significant drinking water threats and not all of these are actively used. In the end, it was concluded that the future storage of DNAPLs within a vulnerable area where it would be a significant drinking water threat would be an unnecessary risk to drinking water.~~

Prescribed instruments were not available to address the use of DNAPLs within vulnerable areas. Therefore, the source protection committee concluded that Section 57 will effectively achieve prohibition while maintaining the goal of protecting source water and ensuring these threats do not occur in the future.

Policy DNAPL-3 – Other SA Policy (NLB)

Policy DNAPL-3 manages the ~~existing~~ handling and storage of DNAPLs, where this activity is a significant drinking water threat.

Where the handling and storage of DNAPLs is a significant drinking water threat, it is recommended the Ministry of Environment, [Conservation and Parks](#) should research alternatives to DNAPL products and phase out their use in Ontario.

The source protection committee thought it was important to encourage and support research on less harmful alternative chemicals to replace DNAPL use in Ontario. It was believed that the health risks associated with DNAPLs are well documented but not widely known. The potential impact to drinking water supplies from the improper handling and storage of DNAPLs is great enough to warrant a phasing out. It was felt that research could identify and further the use of less hazardous and ~~cost effective~~[cost-effective](#) alternatives, therefore reducing the existing handling and storage of DNAPLs, where it would be a significant drinking water threat.

7.17 Threat #17: The handling and storage of an organic solvent

In addition to the below policies, the following policies also apply: LUP-1, RLU-1, EDU-2, EDU-12, INCENT-1, INCENT-2.

Policy SOLV-1 – Risk Management Plans Policy (MC)

Policy SOLV-1 manages the existing handling and storage of organic solvents by requiring a risk management plan where it is a significant drinking water threat.

Where the handling and storage of organic solvents is a significant drinking water threat, risk management plans via Section 58 of the Clean Water Act were considered among the most effective approaches to address the threat.

The improper handling and storage of organic solvents can result in the release of these chemicals into the environment and is thus a significant threat to drinking water. The risk management plan will include appropriate terms and conditions to ensure the handling and

storage of organic solvents meets contemporary standards and ceases to be a significant drinking water threat.

When considering policy options, the source protection committee determined that risk management plans would allow for existing handling and storage of organic solvents, while ensuring that the appropriate handling and storage practices were put in place in order to limit the risk to drinking water. It was determined that risk management plans should mirror the requirements specified by the TSSA and/or industry best management practices (for example, responsible care) for the handling and storage of organic solvents. There was confidence that, with these measures in place, the risk to drinking water could be adequately managed. In addition, there was consideration for the magnitude of the risk management official's duties to create risk management plans for all uses of organic solvents and also the considerable potential expense to upgrade existing facilities. It was determined that since there were only 4 organic solvent chemicals listed as significant threats, many industries/practices would not be impacted by this policy.

This policy was considered the most effective approach for managing existing significant drinking water threats from the handling and storage of organic solvents while maintaining the goal of protecting source water and ensuring these threats cease to occur.

Policy SOLV-2 – Prohibition of Activities Policy (MC)

Policy SOLV-2 prohibits the future handling and storage of organic solvents where it would be a significant drinking water threat.

Where the storage of organic solvents is a significant drinking water threat, prohibition via Section 57 of the Clean Water Act was considered among the most effective approaches to address the threat.

When considering policy options, the source protection committee factored in cost implications for the industry or commercial user, who may not be able to expand existing storage facilities or establish a new facility for organic solvents in a desired location. In the end, it was determined that any future storage of solvents within a vulnerable area where there would be a significant threat to drinking water would provide an unnecessary risk. In addition, it was determined that limiting the expansion of existing storage facilities would have minimal impact since there are only 4 organic solvent chemicals that can be significant drinking water threats. The source protection committee concluded that Section 57 will effectively achieve prohibition while maintaining the goal of protecting source water and ensuring these threats do not occur in the future.

Policy SOLV-3 – Other SA Policy (NLB)

Policy SOLV-3 manages the existing handling and storage of organic solvents where it is a significant drinking water threat.

Where the handling and storage of organic solvents would be a significant drinking water threat, the Ministry of Environment, [Conservation and Parks](#) should research alternatives to organic solvent products and phase out their use in Ontario.

The source protection committee thought it was important to encourage and support research on using alternative chemicals to replace organic solvent use in Ontario. It was determined the health risks associated with organic solvents are well documented but not widely known and that the potential impact to drinking water supplies from the improper handling and storage of organic solvents was great enough to warrant phasing out these chemicals. It was felt that less hazardous and cost effective alternatives could be used in place of organic solvents, therefore reducing the existing handling and storage of organic solvents, where it would be a significant drinking water threat.

7.18 Threat #18: The management of runoff that contains chemicals used in the de-icing of aircraft

No additional policies apply to this threat.

Policy DeICE-1 – Other Policy (NLB)

Policy DeICE-1 manages the future run-off that contains chemicals used in the de-icing of aircraft where it would be a significant drinking water threat.

It is recommended the Airport Authorities or operators, in their consideration of any new airport facilities, include appropriate design standards and management practices to prevent the run-off from airport de-icing facilities from becoming a significant drinking water threat.

The source protection committee was supportive of using the existing planning process to address the impacts to drinking water that would occur from the management of run-off containing chemicals used in the de-icing of aircrafts. It was determined that new airport facilities could be designed in such a way that they would have adequate safety measures and management practices to prevent run-off from de-icing. Such design alternatives could include:

- The use of alternative de-icing products that are less toxic, such as propylene glycol;
- The use of mechanical de-icing technologies with less reliance on fluids; and
- The collection and disposal or re-use of fluids.

The source protection committee determined that this policy would adequately address the future significant drinking water threats from aircraft de-icing. Airports are federally regulated and therefore the committee could only address the federal government with a non-legally binding policy. In addition, no airports currently exist that would pose a significant drinking water threat and it is unlikely there will be future airports developed within a vulnerable area.

Policy DeICE-2 – Other Policy (MC)

Policy DeICE-2 manages the future run-off that contains chemicals used in the de-icing of aircraft where it would be a significant drinking water threat.

Where the run-off that contains chemicals used in the de-icing of aircraft would be a significant drinking water threat, it is recommended that the source protection authority obtain information from the Canadian Environmental Assessment Agency on the number of environmental assessments initiated for new airport facilities.

It was determined that it was necessary to be informed and track the number of environmental assessments that occur within vulnerable areas in order to monitor and manage risks associated with the run-off from de-icing aircrafts. In addition, it was determined that a limited number of environmental assessments would occur and thus this policy would not be too onerous for the source protection authority and the Canadian Environmental Assessment Agency to implement. The source protection authority was selected as the implementing body for this policy to ensure the required information was being collected through a Must Conform policy.

7.19 Threat #19: An activity that takes water from a surface water body without returning the water taken to the same aquifer or surface water body

In addition to the below policies, the following policies also apply: LUP-9, EDU-4, INCENT-1, INCENT-2.

Note: These policies only apply within the water quantity vulnerable area known as the WHPA-Q1, which has been identified through the completion of a Tier 3 Water Budget and Risk Assessment.

Orangeville Local Area (Mono, Amaranth): LUP-9, EDU-4, INCENT-1, INCENT-2

York Local Area (Bradford, Durham): LUP-10, EDU-4, INCENT-1, INCENT-2

Midland and Penetanguishene Local Area: LUP-10, EDU-4, INCENT-1, INCENT-2

Whip-Poor-Will Local Area: LUP-10, EDU-4, INCENT-1, INCENT-2

Policy DEMD-1 – Prescribed Instruments (MC)

Applicable Local Area: Orangeville (Mono, Amaranth), Whip-Poor-Will, York (York, Bradford, Durham, Midland, Penetanguishene)

Policy DEMD-1 manages existing and future activities that take water from an aquifer without returning the water to the same aquifer where it is would be a significant drinking water threat in a WHPA-Q1. The use of prescribed instruments (Permit to Take Water) was the preferred, primary option of addressing the significant threat associated with this activity.

Where an activity that takes water from an aquifer without returning the water to the same aquifer is an existing or future significant drinking water threat, the [Ministry of the Environment](#) [Ministry of the Environment, Conservation and Parks](#), through the Permit to Take Water (PTTW) approvals process, would ensure the water taking includes appropriate terms and conditions to make certain that municipal water supply requirements can be met on a sustainable basis and that the ecological and hydrological integrity is not adversely affected.

When considering policy options, the source protection committee considered a range of approaches, from an outright prohibition of future to a provisional prohibition whereby a PTTW could be approved only if it was demonstrated there would be no impact. In the end, the source protection committee concluded the use of prescribed instruments was an effective tool, with clear criteria for implementation. The PTTW approvals process has been a long-standing requirement for these types of activities, and the criteria used to assess them are thorough. In the review of this option, the source protection committee elected to direct the [Ministry of the Environment, Conservation and Parks](#) to amend all existing PTTWs to ensure specific measures are addressed.

Policy DEMD-2 – Other SA (MC)

Applicable Local Area: York, Midland, Penetanguishene, Whip-Poor-Will

Policy DEMD-2 manages existing and future activities that take water from an aquifer without returning the water taken to the same aquifer, where this activity would be a significant drinking water threat in a WHPA-Q1, and it is assigned a significant or moderate risk level.

Where an activity that takes water from an aquifer without returning the water taken to the same aquifer would be a significant drinking water threat, municipalities are required to develop and implement a water management plan using the water quantity risk assessment findings, modeling tools, and other available observation data to prevent consumptive demand from becoming a significant drinking water threat.

The source protection committee thought that requiring municipalities to develop and implement water management plans using the Tier 3 results would be an effective method for ensuring consumptive demand ceases to be or does not become a significant drinking water threat in significant or moderate risk areas. It is anticipated that the water management plans will utilize the Tier 3 optimization results, new observation data, and modeling tools to identify and implement appropriate management measures. **Policy DEMD-3 – Other (MC)**

Applicable Local Areas: York (Bradford, Durham), Midland, Penetanguishene, Whip-Poor-Will, Orangeville (Mono, Amaranth)

Policy DEMD-3 manages future activities that take water from an aquifer without returning the water taken to the same aquifer where this activity would be a significant drinking water threat.

Where an activity that takes water from an aquifer without returning the water taken to the same aquifer would be a significant drinking water threat, the municipality is encouraged to develop or update water conservation plans to ensure they remain an effective tool that supports sustainable water use.

The source protection committee thought that a water conservation plan is an effective method of providing guidance, strategies, programs and action plans for all sectors to conserve water, and could include things such as:

- a) ~~a)~~ water demand management such as metering and variable pricing systems;
- b) rainwater harvesting;

Formatted: List Paragraph, Numbered + Level: 1 +
Numbering Style: a, b, c, ... + Start at: 1 + Alignment: Left +
Aligned at: 0.63 cm + Indent at: 1.27 cm

- c) used/grey water recycling;
- d) the consideration of incentives for site design to conserve water and to retrofit buildings with low flow fixtures;
- e) establishing a regular inspection program to detect and repair leaks in the water distribution system in order to conserve drinking water; and
- f) limits on outdoor watering.

Although many municipalities currently have a water conservation plan, the committee felt this policy would encourage them to revise or update the plans to ensure they remain effective. In addition, it would encourage those municipalities currently without a water conservation plan to develop one.

Policy DEMD-4 – Other SA (NLB)

Applicable Local Area: York (Bradford, Durham), Orangeville (Mono, Amaranth), Midland, Penetanguishene, Tiny

Policy DEMD-4 manages existing and future activities that take water from an aquifer without returning the water taken to the same aquifer, where this activity would be a significant drinking water threat.

Where an activity that takes water from an aquifer without returning the water taken to the same aquifer would be a significant drinking water threat, the Ministry of Environment, [Conservation and Parks](#) is encouraged to adopt and fund the on-going maintenance of the Tier 3 numerical models. The on-going maintenance of the Tier 3 models includes supporting environmental monitoring efforts to address data gaps and improve simulations of cumulative impacts; and incorporate new information as appropriate into the Tier 3 models.

The source protection committee agreed that there has been a large investment of time both knowledge and money into developing tools to understand our groundwater resources. Further that these modeling tools will need to be updated and maintained overtime to continue to provide decision makers with a tool to make informed water management decisions. The committee identified several areas where the modeling tool could aid decision makers:

- Permit to Take Water Approvals
- Approving settlement area expansions
- Informing the Places to Grow legislation
- Identifying water servicing constraints
- Developing water conservation plans
- Optimization of water takings

The committee concluded that the Ministry of Environment, [Conservation and Parks](#) was the most appropriate agent to adopt and fund the on-going maintenance of the Tier 3 models.

Policy DEMD-5 – Other SA (NLB)

Applicable Local Area: Orangeville (Mono, Amaranth)

Policy DEMD-5 manages future activities that take water from an aquifer without returning the water taken to the same aquifer, where this activity would be a significant drinking water threat.

Where an activity that takes water from an aquifer without returning the water taken to the same aquifer would be a significant drinking water threat, the Ministries of Infrastructure and Municipal Affairs and Housing are encouraged to consider local water quantity availability when developing population employment forecasts.

Currently projected population employment forecasts do not take into account the municipality's ability to provide a sustainable water supply. The source protection committee believes it is counter-intuitive to determine population employment forecasts without taking into account this consideration.

Policy DEMD-6– Other Research (NLB)

Applicable Local Areas: Orangeville (Mono, Amaranth)

Policy DEMD-6 manages existing activities that take water from an aquifer without returning the water taken to the same aquifer, where this activity is a significant drinking water threat.

Where any activity that takes water from an aquifer without returning the water taken to the same aquifer is a significant drinking water threat, the Ministry of Environment, [Conservation and Parks](#) is encouraged to undertake social marketing research focused on water conservation and to share results of this research with the local source protection authority.

It was determined that social marketing research provides the necessary insight into the attitudes, reactions, behaviours and preferences of individuals that can form the basis of the development of marketing programs designed to change behaviour regarding water conservation. Traditional marketing approaches focus on providing information and educational tools without calculating the outcome of those efforts. Social marketing research looks into the barriers to behaviour that can provide powerful insight into whether or not certain approaches will be successful. The source protection committee agreed that there was already a wide-range of information and educational resources available that have been used and that further efforts needed to be explored.

The committee concluded that the Ministry of Environment, [Conservation and Parks](#) was the most appropriate agent to undertake this research. The source protection committee believes that such research is proactive and forward-thinking and seeks to gauge outcomes in order to understand the degree of success of outreach activities.

Policy DEMD-7– Other Specify Actions (MC)

Applicable Local Areas: Orangeville (Mono, Amaranth)

Policy DEMD-7 manages existing activities within the Dufferin County municipalities where a Tier 3 Budget WHPA-Q1 that takes water from an aquifer without returning the water taken to the same aquifer is a significant drinking water threat.

Within a local area where activities that take water from an aquifer without returning the water taken to the same aquifer is a significant drinking water threat, it is recommended the municipalities that share a water source (aquifer) consider collaborating to find mutually beneficial solutions to address water servicing constraints.

It was determined that the allocation of scarce water quantities can be more effectively managed collaboratively by the municipalities that are responsible for the supply and distribution of potable water. Such efficiencies could include the maintenance and repair of all existing systems, and the investigation and procurement of future requirements. The source protection committee believes that joint efforts by adjoining municipalities is a proactive and forward-thinking approach.

Policy DEMD-8 – Other Specify Actions (NLB)

Applicable Local Areas: Orangeville (Mono, Amaranth)

Policy DEMD-8 manages existing activities that take water from an aquifer without returning the water taken to the same aquifer where this activity would be a significant drinking water threat.

Where municipalities share a water source within a local area identified as having a significant drinking water threat, the province is encouraged to support municipal efforts that focus on finding collaborative and mutually beneficial solutions to address water servicing constraints.

It was determined the allocation of scarce water quantities can be more effectively managed collaboratively by the municipalities that are responsible for the supply and distribution of potable water. It was believed that for such an effort to occur, it would be necessary to have provincial support.

7.20 Threat #20: An activity that reduces the recharge of an aquifer

All policies related to this threat can be found in the Land Use Planning Section of this document.

Note: These policies only apply within the water quantity vulnerable area known as the WHPA-Q2, which has been identified through the completion of a Tier 3 Water Budget and Risk Assessment.

Orangeville Local Area (Mono, Amaranth): LUP-11, LUP-12, LUP-14 EDU-5, EDU-12, LUP-14

York Local Area (Bradford, Durham): LUP-11, LUP-12, LUP-13, LUP-15

Midland and Penetanguishene Local Area: LUP-11, LUP-12, LUP-13, LUP-15

Whip-Poor-Will Local Area: LUP-11, LUP-12, LUP-13, LUP-15

7.21 Threat #21: The use of land as livestock grazing or pasturing land, an outdoor confinement area or a farm-animal yard

7.21 [The policies for livestock were revisited as part of the Section 36 amendment because of feedback from risk management officials.](#)

Formatted: Normal

In addition to the below policies the following policies also apply: LUP-1, RLU-1, EDU-1, EDU-12, INCENT-1, INCENT-2, INCENT-5.

Note: In addition to the below policies, the following policies also apply within the Georgian Sands and Lafontaine issues contributing area (nitrate): LUP-1, RLU-1, EDU-1, INCENT-1, INCENT-2, INCENT-5, INCENT-6.

Five policies have been developed to address the use of land as livestock grazing or pasturing land, an outdoor confinement area or a farm-animal yard where it is or would be a significant drinking water threat.

Since livestock grazing and pasturing is not regulated under the Nutrient Management Act and the outdoor confinement area or a farm-animal yard is, the source protection committee chose to deal with these threats through different policy approaches.

Since livestock grazing and pasturing is not regulated under the Nutrient Management Act, the source protection committee chose to use two policies, a Section 58 – risk management plan policy and a Section 57 – prohibition policy (LSTOCK-1 AND LSTOCK-2) to address this activity where it is or would be a significant drinking water threat.

Since outdoor confinement area or a farm-animal yard for large farm operations is an activity that is already regulated under the Nutrient Management Act, the source protection committee chose to rely on prescribed instrument policies (LSTOCK-5 and LSTOCK-6) to address this activity where it is or would be a significant drinking water threat. However, small farm operations are not regulated under the Nutrient Management Act, therefore the source protection committee needed additional policies to address this activity where it is or would be a significant drinking water threat. Another Section 58 – risk management plan policy and Section 57 – prohibition policy (LSTOCK-3 and LSTOCK-4) was included to address these activities where it would not be regulated under the Nutrient Management Act.

Policy LSTOCK-1 – Prohibition of Activities Policy (MC)

Policy LSTOCK-1 prohibits the existing and future livestock grazing and pasturing [in the WHPA-A or IPZ-1](#), where the number of animals on the land at any time is sufficient to generate nutrients at an annual rate that is greater than or equal to 0.5 Nutrient Units/acre and where it is or would be a significant drinking water threat. Where the use of land as livestock grazing and pasturing is or would be a significant drinking water threat, prohibition via Section 57 of the Clean Water Act was considered among the most effective approaches to address the drinking water threat. This means that greater than or equal to 0.5 nutrient units (NU) per acre (i.e. greater than or equal to 1 beef cow and 1 calf per acre) would be prohibited.

When considering policy options, the source protection committee factored in cost implications for the landowner or the municipality, which may include the cost of purchasing or leasing lands around the wellhead (for example WHPA-A and/or IPZ-1). It was concluded that most farming practices would not be impacted since they would not exceed the threshold to become a significant drinking water threat. Work to verify significant drinking water threats across the source protection region has further concluded that very few properties will be impacted by the existing prohibition policy.

The threats assessment studies originally estimated the potential for 16 livestock, grazing, pasturing or outdoor confinement area threats to be present across the source protection region. To date verification efforts have been able to remove seven properties from the list of significant drinking water threats. Only one property has been identified as having livestock grazing within a WHPA-A; however, the number of animals present on the farm would not trigger a prohibition, rather the establishment of a Risk Management Plan. Eight potential threats have yet to be verified true or false.

Most farming practices are well below the 1 NU per acre. In the end, it was determined that the use of land as livestock grazing, pasturing, an outdoor confinement area, or a farm-animal yard within a vulnerable area where there is or would be a significant threat to drinking water would provide an unnecessary risk. The source protection committee concluded that Section 57 will effectively achieve prohibition while maintaining the goal of protecting source water and ensuring these threats cease to occur or do not occur in the future.

[This policy was amended to be more in line with the relative severity of other prohibition policies in the source protection plan. The prohibition was originally anywhere the activity would be a significant threat, and after the Section 36 amendment the policy will only apply to activities within the WHPA-A or IPZ-1.](#)

Policy LSTOCK-2 – Risk Management Plan Policy (MC)

[This policy was added during the Section 16 amendment. Policy LSTOCK-2 manages existing and future livestock grazing and pasturing, outside of WHPA-A and IPZ-1, where it would be a significant drinking water threat through the implementation of risk management plans.](#)

[This policy was added to make the plan's approach to livestock grazing and pasturing more similar to that of other agricultural threat activities such as agricultural source material. Better aligning the policy approach to prohibit in the most vulnerable areas and allow risk management plans outside of WHPA-A and IPZ-1 should make the policies more realistic for risk management officials to implement and be more fair to the agricultural community.](#)

Policy LSTOCK-~~32~~ – Risk Management Plan Policy (MC)

Policy LSTOCK-~~32~~ manages existing and future outdoor confinement areas and farm-animal yards, for those not phased in under the Nutrient Management Act, outside of WHPA-A/IPZ-1, , in an area where the activity is or would be a significant drinking water threat, by requiring a risk management plan.

Formatted: Font: Not Bold

Where the outdoor confinement areas and farm-animal yards is in an area that is or would be a significant drinking water threat, and is in an area outside the WHPA-A/IPZ-1, and is not phased in under the NMA, risk management plans via Section 58 of the Clean Water Act were considered among the most effective approaches to address the activity. Risk management plans will, at a minimum, comply with contemporary standards and reflect appropriate nutrient management practices.

When considering policy options, the source protection committee determined that risk management plans would allow the activity to continue, while ensuring that appropriate practices were in place in order to limit the risk to drinking water.

This policy would apply to small farms that are not phased in under the NMA. The committee wanted the policy to mirror the prescribe instrument policies (LSTOCK-5 and LSTOCK-6), so that smaller farming operations were treated the same as a larger farm that would be regulated under the NMA.

In general, the threat related to land used for livestock relates to the generation of agricultural source material (ASM) and the possible improper management or handling of run-off from these areas. This run-off can have elevated concentrations of nutrients and pathogens and thus affect both groundwater and surface water sources. It was determined that, with proper management, the outdoor confinement areas and farm-animal yards would cease to be or would not become a significant drinking water threat.

Policy LSTOCK-43 – Prohibition Policy (MC)

Policy LSTOCK-43 prohibits the existing and future outdoor confinement areas and farm-animal yards, for those not phased in under the Nutrient Management Act, within a WHPA-A/IPZ-1, where it is or would be a significant drinking water threat.

Where the outdoor confinement areas and farm-animal yards is in a WHPA-A/IPZ-1 and is or would be a significant drinking water threat, prohibition via Section 57 of the Clean Water Act was considered among the most effective approaches to address the drinking water threat.

This policy would apply to small farms that are not phased in under the NMA. The committee wanted the policy to mirror the prescribe instrument policies (LSTOCK-5 and LSTOCK-6), so that smaller farming operations were treated the same as a larger farm that would be regulated under the NMA.

In addition, when considering policy options, the source protection committee factored in cost implications for the landowner or the municipality, which may include the cost of purchasing or leasing lands around the wellhead (for example WHPA-A and/or IPZ-1). In the end, it was determined that the use of land as livestock grazing, pasturing, an outdoor confinement area, or a farm-animal yard within a vulnerable area where there would be a significant threat to drinking water would provide an unnecessary risk. The source protection committee concluded that Section 57 will effectively achieve prohibition while maintaining the goal of protecting source water and ensuring these threats cease to occur or do not occur in the future.

Policy LSTOCK-54 – Prescribed Instruments Policy (MC)

Policy LSTOCK-54 manages the existing and future outdoor confinement areas and farm-animal yards where it is in an area where the activity is or would be a significant drinking water threat outside the WHPA-A, and requires approval under the Nutrient Management Act.

Where the existing and future outdoor confinement areas and farm-animal yards is in an area where the activity is or would be a significant drinking water threat outside the WHPA-A, the Ministry of Agriculture, Food and [Rural Affairs, Agribusiness](#) through the nutrient management plan approval process, would ensure these sites include appropriate terms and conditions to ensure the activity ceases to be or does not become a significant drinking water threat.

When considering policy options, the source protection committee considered a range of approaches from an outright prohibition to a provisional prohibition whereby approval could be granted if it was demonstrated there would be no impact. In the end, the source protection committee concluded the use of prescribed instruments was an effective tool, with clear criteria for implementation. The nutrient management plan has been a long-standing requirement for these types of activities, and the criteria used to assess them are thorough. In the review of this option, the source protection committee elected to direct the Ministry of Agriculture, Food and [Rural Affairs, Agribusiness](#) to include appropriate terms and conditions under the nutrient management plan to ensure specific measures are addressed and the activity ceases to be or does not become a significant drinking water threat.

Policy LSTOCK-65 – Prescribed Instruments Policy (MC)

Policy LSTOCK-65 prohibits the existing and future outdoor confinement areas and farm-animal yards within WHPA-A, where the activity is a significant drinking water threat and requires approval under the Nutrient Management Act.

Where the existing and future outdoor confinement areas and farm-animal yards is in an area where the activity is or would be a significant drinking water threat in WHPA-A, the Ministry of Agriculture, Food and [Agribusiness, Rural Affairs](#), through the nutrient management plan approval process, would ensure this activity is prohibited so that it ceases to be or does not become a significant drinking water threat.

When considering policy options, the source protection committee considered a range of approaches from an outright prohibition to a provisional prohibition whereby approval could be granted if it was demonstrated there would be no impact. In the end, the source protection committee concluded the use of prescribed instruments was an effective tool, with clear criteria for implementation. The Nutrient Management Act has been a long-standing requirement for these types of activities, and the criteria used to assess them are thorough. In the review of this option, the source protection committee elected to direct the Ministry of Agriculture, Food and [Rural Affairs, Agribusiness](#) to incorporate terms and conditions within the nutrient management plans that would prohibit this activity within the WHPA-A to ensure the activity ceases to be or does not become a significant drinking water threat.

7.22 Threat #22: Liquid hydrocarbon pipelines

No additional policies apply.

Threat #22, the establishment and operation of a liquid hydrocarbon pipeline, was added to the list of threat activities by the Ministry in 2018 through an amendment to the *Clean Water Act, 2006*. Policies were developed in 2020 and officially added to the Source Protection Plan in the *Section 36 update*.

Policy PIPE-1: Other Policy

Policy PIPE-1 is directed at the Canadian Energy Regulator, the Ontario Energy Board, and pipeline proponents and requests that they provide the Source Protection Authority with location of any proposed pipelines in the region. It also encourages proponents and regulators to ensure proposals include appropriate design standards, monitoring and maintenance plans to prevent the proposed pipeline becoming a significant drinking water threat. This policy applies to future liquid hydrocarbon pipelines as there are no current threats in the region.

The governing authorities over pipeline development are the Canada Energy Regulator and the Ontario Energy Board. Source Protection Committees do not have legislative authority to develop policies that would be legally binding on federal or provincial agencies; thus the legal effect of the proposed policy is not legally binding and would encourage these agencies to inform the Source Protection Authority of proposed liquid hydrocarbon pipelines and to follow industry best management practices.

Policy PIPE-2: Other Policy

Policy PIPE-2 is directed at the Source Protection Authority and is a legally binding policy. The policy requires the Authority to engage in the public consultation process for any proposed liquid hydrocarbon pipeline in the Region.

This policy is the result of discussion by the Source Protection Committee on the gap left by PIPE-1 and that it cannot be legally binding for government agencies. It was decided that this gap could be filled by directing a policy at the Source Protection Authority to be proactive in the proposal process.

7.22.23 Condition Policies

Policy COND-1

Policy COND-1 is designed to manage the conditions within the City of Barrie and the Town of Penetanguishene.

This policy directs the ~~Ministry of the Environment~~ Ministry of the Environment, Conservation and Parks to provide the source protection authority with a report on the actions taken, if any, in relation to the contaminated site that has been identified as a significant drinking water threat by the ~~MOE/MECP~~ or anyone else over the previous calendar year.

Conditions are defined as existing contaminations associated with a past activity that have the potential to affect the quality of drinking water. Two municipalities within the source protection region have been identified as having existing conditions: 1) the City of Barrie and 2) the Town of Penetanguishene. All of the identified conditions are a result of historical activities that cannot be accurately linked back to any one activity or property. As such, the source protection committee has included this policy to allow the source protection authority to monitor the actions taken in relation to the contaminated site that has been identified as a significant threat. This may lead to additional information being gathered that may ultimately resolve the conditions, and require them to be removed from the assessment reports.

Policy COND-2

Policy COND-2 is used to manage the conditions within the City of Barrie and the Town of Penetanguishene.

This policy directs the municipality to give notice to the source protection authority of any applications under the Planning Act to re-develop a site identified as a significant threat condition in the assessment reports. It should be noted that Policy 3.2.2 of the Provincial Policy Statement directs that contaminated sites shall be remediated as necessary prior to any activities related to the redevelopment proposal proceeding. This re-development proposal may ultimately resolve the condition and therefore no more monitoring of this condition would be necessary.

Conditions are defined as existing contaminations associated with a past activity that have the potential to affect the quality of drinking water. Two municipalities within the source protection region have been identified with existing conditions: 1), the City of Barrie and 2) the Town of Penetanguishene. All of the identified conditions are a result of historical activities that cannot be accurately linked back to any one person or property. As such, the source protection committee has included this policy to allow the source protection authority to monitor the actions taken in relation to the contaminated site that has been identified as a significant threat. This may lead to additional information being gathered that may ultimately resolve the conditions, and require them to be removed from the assessment reports.

7.237.24 Georgian Sands Issue Contributing Area Transport Pathway Policies

Transport pathways may increase the risk of contamination to both surface and subsurface drinking water sources by circumventing the natural protection that soils and overburden create. Their presence may increase the distribution of contaminants horizontally (e.g. sewer lines) and/or vertically (e.g. substandard wells) throughout the supply aquifer.

The *Clean Water Act, 2006* defines transport pathways as “a condition of land resulting from human activity that increases the vulnerability of a raw water supply of a drinking water system,” (O.Reg 287/07 s.1). The intent of this legislation is to address artificial (or “constructed”) transport pathways, such as storm sewers, ditches and improperly constructed or abandoned wells. Naturally occurring transport pathways, such as fractured bedrock and

karst formations, are accounted for separately under the intrinsic vulnerability assessment that is part of the scoring system for WHPAs.

Policy TP-1

Policy TP-1 manages existing transport pathways within the Georgian Sands Issue Contributing Area that may endanger the municipal water supply.

There was support for education and outreach approaches to address transport pathways that may endanger the municipal water supply. The source protection committee felt the source protection authority could deliver an effective education and outreach program focusing on the potential for the transport pathway to endanger the municipal water supply, best management practices for upgrading transport pathways to minimize the potential for impacts to the water supply, and for wells subject to O.Reg 903 of the Ontario Water Resources Act, their legal obligations with respect to well construction, maintenance, and abandonment.

While the source protection committee believes that education and outreach is a viable tool to use for transport pathways within the Issue Contributing Area, it also felt that education and outreach, in and of itself, would not be sufficient to address the threats. The source protection committee elected to include education and outreach as part of a two pronged approach to address existing transport pathways.

Policy TP-2

Policy TP-2 encourages the Ministry of Environment, [Conservation and Parks](#) to make incentive programs available to property owners within the Georgian Sands Issue Contributing Area for Nitrate that have Transport Pathways. This would provide funding that would enable landowners within the Issue Contributing Area to have access to incentive programs to address existing transport pathways on their property. The programs would provide opportunities to decommission sub-standard wells and/or provide necessary upgrades, and promote best management practices to safeguard water supplies from significant threats,

There was support for the use of incentives, where available, to encourage ongoing stewardship and pollution prevention to address the threat of activities related to transport pathways. While incentives can create additional interest and potential uptake, other methods are needed to address both existing and future threats. The source protection committee elected to include incentives as part of a two-pronged approach to address transport pathways within the Georgian Sands Issue Contributing Area for Nitrate. It was felt that incentives could advance the degree of acceptance and interest and could offer additional opportunity to safeguard the water supply from significant threats.

7.247.25 Restricted Land Use Policies

[The policy below was reviewed and updated as part of the Section 36 review process to reflect changes associated with the 2021 Technical Rules.](#)

Policy RLU-1

Formatted: Font: Italic

Formatted: Font: Not Bold, Italic

Policy RLU-1 manages the following existing and future activities within vulnerable areas where the activity would be a significant drinking water threat as designated under Section 59 of the Clean Water Act, by requiring Risk Management Officials to screen applications for works proposed under the Planning Act, Condominium Act and Building Code:

1b. Storage of hauled sewage;

1**b**. The establishment, operation or maintenance of a waste disposal site within the meaning of Part IV of the Environmental Protection Act, that does not require approval under the Environmental Protection Act; ~~(PCB Waste Storage and the storage of hazardous liquid industrial waste, excluding the storage of wastes described in clauses (p),(r),(s),(t) and (u) of the definition of hazardous waste (O.Reg 347).~~

2a. Stormwater management facilities and stormwater infiltration facilities;

3. Application of agricultural source material to land;
4. Handling and storage of agricultural source material;
6. Application of non-agricultural source material;
7. Handling and storage of non-agricultural source material;
8. Application of commercial fertilizer to land;
9. Handling and storage of commercial fertilizer;
10. Application of pesticide to land;
11. Handling and storage of pesticide;
12. Application of road salt;
13. Handling and storage of road salt;
14. Storage of snow
15. Handling and storage of fuel
16. Handling and storage of DNAPLs
17. Handling and storage of organic solvents
21. Use of land as livestock grazing, or pasturing land, an outdoor confinement area of farm animal yard.

Where the above activities are or would be a significant drinking water threat, this policy requires municipalities to designate land uses within their official plans and zoning by-laws. This will allow for the pre-screening by a risk management official, via Section 59 of the Clean Water Act.

Section 59 policies require that municipalities put a process in place to “flag” for the building official and the Planning Department applications with the exception of residential uses made under the Planning Act or Condominium Act or an application for a building permit that is

within a vulnerable area where a threat could be significant and where Part IV authorities are being used to prohibit or manage activities. The “flag” would indicate to the building official or the Planning Department that the proposal needs to be reviewed by the risk management official. Once the risk management official is satisfied that the applicable Part IV policies are addressed, he/she would issue a “notice to proceed”. This notice is used to let the building official or planning department know they can proceed in processing the proposal.

It was determined that the workload associated with the risk management official reviewing any application made under the Planning Act or Condominium Act, or an application for a building permit could be onerous. Since the RLU-policy is meant to be a flagging tool to aid the risk management official in the implementation of Section 58 and 57 policies it was decided that the local risk management official should be provided with some flexibility to determine on a local level the types of applications to review and provide notice on. The policy includes some further text that would allow the local risk management official to implement a localized screening process.

“Despite the above policy, a risk management official may issue written direction specifying the situations under which a planning authority or building official may be permitted to make the determination that a site-specific land use is not designated for the purpose of Section 59. Where such direction has been issued, a site-specific land use is not designated for the purposes of Section 59, provided that the planning authority or building official, as the case may be, is satisfied that:

The application complied with circumstances specified in the written direction from the risk management official; and

The applicant has demonstrated that a significant drinking water threat activity designated for the purposes of Section 57 or 58 will not be engaged in, or will not be affected by the application.”

The Section 59 policy accompanies land use policies within the source protection plan, based on those described in the official plan or zoning by-law, with the threat activities that are subject to Part IV powers. By including the Section 59 policy, the plan is also requiring the official plans and zoning by-laws to be amended to identify where the Part IV policies apply. This does not mean that that planning documents are being used to manage or prohibit the activities. Instead it identifies areas where source protection policies may apply and a notice from the risk management official is required to proceed with the planning application. In keeping with the risk management plans required by policy in the source protection plan, pre-screening of planning applications must also be required for the following threat activities: threats related to agricultural land uses, livestock grazing and pasturing, the handling, storage and application of road salt, fuel, DNAPL, organic solvents. Pre-screening of building permit applications must also be required for the following threat activities: the proposed construction of ASM, NASM, salt, fuel, DNAPL, organic solvents storage facilities. Pre-screening of applications would be necessary in areas where these activities would pose a significant drinking water threat.

7.257.26 Land Use Planning Policies

The policies below were reviewed, and policy LUP-1 was updated as part of the Section 36 review process to reflect changes associated with the 2021 Technical Rules. Policy LUP-2 was also updated to add a clarification.

Formatted: Font: Italic

Formatted: Font: Italic

Formatted: Font: Italic

Formatted: Font: Italic

Land use planning approaches are used to complement prescribed instruments or Section 57 prohibitions, typically for storage activities that are significant threats. It was felt the official plan and municipal planning offices are the first line of sight for development restrictions, and therefore an efficient and effective means of communicating prohibitions. The official plan is a Council approved, public document that sets the strategic and long term policies for the municipality. Any official plan amendment application for these land uses would be considered in the context of the official plan policies, based on the protection of drinking water and wellhead protection areas, as well as the details contained in the source protection plan.

Although not the primary tool to address these activities, it was felt to be an important supporting policy to clarity to a landowner and municipal officials during the planning process. The source protection committee has concluded that land use planning will effectively achieve prohibition while maintaining the goal of protection the source water and ensuring these threats cease to occur or do not occur in the future.

The five year review cycle for official plans varies by municipality. The municipalities must conform to the significant threat policies regardless of whether or not they have been adopted into planning documents.

Policy LUP-1 (MC)

Policy LUP-1 will prohibit future (new):

- [1b\) Storage of hauled sewage;](#)
- [1d\) Storage of processed organic waste;](#)
- [1f\) Waste transfer and processing sites;](#)
- [1g\) waste disposal sites within the meaning of Part V of the Environmental Protection Act;](#)
- [2c\) Large \(more than 10,000 L\) on-site sewage systems;](#)
- [4\) Agricultural source material storage facilities;](#)
- [7\) Non-agricultural source material storage facilities;](#)
- [9\) Commercial fertilizer storage facilities;](#)
- [11\) Pesticide storage facilities;](#)
- [13\) Road salt storage facilities;](#)
- [14\) Snow storage facilities;](#)
- [15\) Fuel storage;](#)

Formatted: List Paragraph, Bulleted + Level: 1 + Aligned at: 0.63 cm + Indent at: 1.27 cm

Formatted: List Paragraph, Bulleted + Level: 1 + Aligned at: 0.63 cm + Indent at: 1.27 cm

- ~~16~~ DNAPL storage;
- ~~17~~ ~~organic~~ Organic solvent storage;
- ~~21~~ outdoor confinement or farm animal yard in WHPA-A/IPZ-1;

~~1) waste disposal sites within the meaning of Part V of the Environmental Protection Act (excluding storage of wastes described in clauses (p), (q), (r), (s), (t), or (u) of the definition of hazardous waste and storage of hazardous or liquid industrial waste);~~

where they are or would be significant drinking water threats.

Where these activities are or would be a significant drinking water threat, the policy requires the planning approval authority to amend their planning documents to prohibit new facilities. Prohibition via land use planning is employed where it is logical to exclude entire categories of land uses from a particular area.

When considering policy options, it was determined that locating future storage sites or facilities for the activities listed above outside of vulnerable areas would not cause undue hardship to the municipality or industry. The source protection committee concluded that the land use planning policy could effectively achieve prohibition while maintaining the goal of protecting source water and ensuring these threats case to occur or do not occur in the future. It was determined that it was not appropriate to address the storage of small amounts of waste described in clauses (p), (q), (r), (s), (t), or (u) of the definition of hazardous waste (O.Reg 347), PCB waste, and hazardous liquid industrial waste through land use planning, as it would be hard to capture and enforce.

Policy LUP-2 (MC)

Policy LUP-2 manages the future application of salt, where it would be a significant drinking water threat.

Where this activity would be a significant drinking water threat, this policy requires the planning approval authority to amend their planning documents to ensure that each site will be subject to site plan control to ensure that where possible:

1. the extent and location of impervious surfaces such as parking lots, roadways and sidewalks are minimized,
2. site grading and drainage is designed to reduce ponding, and
3. runoff is either directed outside of vulnerable areas or to storm sewers.

It was determined that there are innovative ways in which parking lots, roadways and sidewalks could be designed that would limit the amount and/or frequency that road salt needs to be applied. This was considered the most practical method of dealing with the activity where it is significant drinking water threat as it prevents the problem of needing road salt or needing large quantities of road salt to be applied.

Formatted: Indent: Left: 1.27 cm

The source protection committee considered the policy implications to landowners, developers and municipalities, and it was concluded that if the design of roads, sidewalks and parking lots could be done with these considerations in mind at the planning stage, it would not be an inconvenience or become costly to implement.

[This policy was amended to clarify that 'clean' rooftop water that has not be contaminated with road salt is exempt from this policy.](#)

Policy LUP-3 (MC)

Policy LUP-3 will manage future (new) stormwater management facilities and wastewater treatment plants where they are or would be significant drinking water threats.

Where these activities would be a significant drinking water threat, this policy requires the planning approval authority to amend their planning documents to ensure the design of new stormwater management facilities reduces the risk of contaminating drinking water and directs the discharge of stormwater outside of vulnerable areas where the activity would be a significant drinking water threat. In rare circumstances stormwater discharge may be permitted within a vulnerable area as a last option. This will only be acceptable where it can be demonstrated that physical and technical constraints restrict the discharge outside of vulnerable areas.

The source protection committee considered the policy implications to landowners, developers and municipalities and concluded that, in most cases, the discharge could easily be located outside the vulnerable area.

When considering policy options for stormwater management facilities, it was determined the planning for future stormwater management facilities should be located outside vulnerable areas. While there was consideration for the additional planning involved for the developer or municipality, it was felt that activities that involve the storage or discharge of wastewater are not desirable in a wellhead protection area or intake protection zone.

Where physical and technical constraints exist such that a future stormwater facility is not able to be constructed outside the vulnerable area the Environmental Compliance Approval will need to include terms and conditions to ensure that facility does not become a significant drinking water threat.

The source protection committee has concluded that the land use planning policy in conjunction with the Environmental Compliance Approval Policy (SEWG(a)-1) will effectively manage the threat while maintaining the goal of protecting source water and ensuring the threat does not occur in the future.

Policy LUP-4 (MC)

Policy LUP-4 requires planning approval authorities to amend their planning documents to locate new sewage systems infrastructure (private or municipal), wherever possible, outside vulnerable areas where they would be a significant drinking water threat.

The source protection committee considered the policy implications to landowners, developers, and municipalities and was concluded that it would vary. There could be significant financial implications or planning considerations in order to locate sewage system infrastructure outside the vulnerable area. Nevertheless, it was determined that this may be achievable in some cases and therefore it was worth encouraging municipalities to do this.

Policy LUP-5 (MC)

Policy LUP-5 encourages planning approval authorities to amend their official plans to require the preparation of Master Environmental Servicing Plans for new developments.

Planning approval authorities are encouraged to include policies in their official plans to address stormwater pond discharges and sanitary sewers and related pipes, by requiring master environmental servicing plans (MESPs) as part of a complete application to avoid locating threats associated with development infrastructure in all vulnerable areas.

The source protection committee considered the policy implications to landowners, developers and municipalities and concluded that most municipalities, particularly larger municipalities, already have a Master Environmental Servicing Plan within their official plans and therefore would not be required to undertake additional work. It was determined that although it could have financial implications, it was worthwhile to include a policy that would encourage those municipalities who do not currently have Environmental Servicing Plan within their official plan to develop one.

Policy LUP-6 (MC)

Policy LUP-6 manages future small on-site sewage systems where they would be a significant drinking water threat.

Where an on-site sewage system would be a significant drinking water threat, planning approval authorities are required to amend their planning documents to require that the lot size for any proposed development that would include such a system be based on the most current version of the Ministry of Environment, [Conservation and Parks](#) guidelines for individual on-site servicing. Lots of record that exist on the date of approval of the source protection plan are exempted.

When considering policy options, it was determined that the land use planning policy would allow for future on-site sewage systems where there is no municipal servicing, while ensuring that appropriate measures exist in order to limit the risk to drinking water. Existing lots of record were exempted from this policy so that it would not create undue hardship where there was a system already planned for that property. There was confidence, with these measures in place, the risk to drinking water could be adequately managed. In addition, there was consideration for municipalities required to review new development applications in order to ensure the appropriate guidelines are followed. However, it was believed that most municipalities are currently undertaking this task and therefore the impact would be minimal.

The policy was considered an effective approach for managing future significant drinking water threats from on-site sewage systems while maintaining the goal of protecting source water and ensuring these threats do not occur in the future.

Policy LUP-7 (MC)

Policy LUP-7 prohibits future small on-site sewage systems within the WHPA-A of an issues contributing area where they would be a significant drinking water threat.

Where a small on-site sewage system would be a significant drinking water threat in the WHPA-A of an issues contributing area, planning approval authorities are required to amend their planning documents to prohibit new on-site sewage systems.

When considering policy options, the source protection committee determined the land use planning policy should prohibit future on-site sewage systems within the WHPA-A of an issues contributing area. Because the issues contributing area already shows elevated nitrate concentrations, this was the committee's preferred option. There was consideration for the possibility of not being able to locate an on-site sewage system outside the 100 meter radius of the wellhead, however it was felt that this would be the exception rather than the rule.

This policy was considered an effective approach for prohibiting future significant drinking water threats from small on-site sewage systems, while maintaining the goal of protecting source water and ensuring these threats do not occur in the future.

Policy LUP-8 (MC)

Policy LUP-8 manages future small on-site sewage systems in an issues contributing area and outside the WHPA-A, where they would be a significant drinking water threat.

Where a small on-site sewage system would be a significant drinking water threat in an issues contributing area outside the WHPA-A, planning approval authorities are required to amend their planning documents to require that the lot size for any proposed development that would include a small on-site sewage treatment system should be based on the most current version of [MOEMECPC](#) guidelines for individual on-site servicing. Lots of record that exist on the date of approval of the source protection plan is exempted.

When considering policy options, the source protection committee determined the land use planning policy would allow the future on-site sewage systems where there is no municipal servicing, while ensuring that appropriate practices are put in place in order to limit the risk to drinking water. There was confidence that, with these measures in place, the risk to drinking water could be adequately managed. In addition, there was consideration for municipalities being required to review new development applications in order to ensure the appropriate guidelines are followed. However, it was believed that most municipalities are currently undertaking this task and the impact would thus be minimal.

This policy was considered an effective approach for managing future significant drinking water threats from small on-site sewage systems while maintaining the goal of protecting source water and ensuring these threats do not occur in the future.

Policy LUP-9 (MC)

Applicable Local Area: Orangeville (Mono, Amaranth)

Policy LUP-9 manages future activities that take water from an aquifer without returning the water to the same aquifer where it would be a significant drinking water threat.

Where an activity that takes water from an aquifer without returning the water to the same aquifer would be a significant drinking water threat, this policy requires planning approval authorities to amend their planning documents to only permit new development or site alteration where it can be demonstrated that any increase in water demand beyond the current demand can be accommodated on a sustainable basis as determined by the [MOEMEC](#) in accordance with the source protection plan and Ontario Water Resources Act. The intent of this policy is not to have [MOEMEC](#) review and comment on the appropriateness of a development application. Rather, that the appropriate planning approval authority requires that a PTTW or approval-in-principle to issue a PTTW has been obtained prior to new developments or site alterations. The implementation of this policy could result in some changes to the order in which planning approvals have traditionally been issued.

A wide range of policy approaches were considered, from an outright prohibition of future to a provisional prohibition whereby future development or site alteration could occur only if it was demonstrated there would be no impact to the sustainability of groundwater resources within the local area. It was determined that within WHPA-Q1 as delineated in the Orangeville Tier 3 study, groundwater sustainability issues already exist and could not support additional groundwater takings without compromising the municipal groundwater supply system.

Policy LUP-10 (MC)

Applicable Local Areas: York (Bradford, Durham) and Midland (Penetanguishene, Whip-Poor-will)

Policy LUP-10 manages future activities that take water from an aquifer without returning the water to the same aquifer where it would be a significant drinking water threat.

Where an activity that takes water from an aquifer without returning the water to the same aquifer would be a significant drinking water threat, this policy requires Planning Approval Authorities to amend their planning documents to only permit new development or site alteration where it can be demonstrated that any increase in water demand beyond the allocated demand can be accommodated on a sustainable basis as determined by the [MOEMEC](#) in accordance with the source protection plan and Ontario Water Resources Act. The intent of this policy is to not to have [MOEMEC](#) review and comment on the appropriateness of a development application. Rather, that the appropriate Planning Approval Authority requires that a PTTW or approval-in-principle to issue a PTTW has been obtained prior to new developments or site alterations. The implementation of this policy could result in some changes to the order in which planning approvals have traditionally been issued.

Since the allocated demand has already been assessed as part of the Tier 3 studies and did not trigger a significant risk level nor the identification of significant drinking water threats for (York, Midland and Penetanguishene) that a PTTW for new developments with water demand beyond what was included in the Tier 3 assessment be obtained prior to approving the development.

Note: The allocated demand represents the anticipated water demand associated with Official Plan build out rates.

Policy LUP-11 (MC)

Applicable Local Areas: York (Bradford, Durham), Midland, Penetanguishene, Whip-poor-will, Orangeville (Mono, Amaranth)

Policy LUP-11 manages future activities that may reduce the recharge of an aquifer within a significant groundwater recharge area that is located within WHPA-Q1/Q2.

Where an activity that may reduce the recharge of an aquifer would be a significant drinking water threat, this policy encourages planning approval authorities to amend their planning documents to protect significant groundwater recharge areas from incompatible development or site alteration.

When considering policy options, the source protection committee considered a range of approaches, from an outright prohibition of future to a provisional prohibition whereby future development or site alteration could occur only if it was demonstrated there would be no impact to the recharge within the local area. It was determined that WHPA-Q1/Q2 as delineated in the Orangeville Tier 3 study already demonstrates groundwater sustainability issues exist and could not support a decrease in recharge without compromising the municipal groundwater supply system.

It was determined that the WHPA-Q1/Q2 as delineated in the York and Midland Tier 3 studies demonstrated a moderate risk level to groundwater sustainability. To be proactive and prevent the moderate risk level from increasing to significant, and thereby creating significant drinking water threats, the source protection committee decided to carry over the requirement to protect significant groundwater recharge areas to the moderate risk local areas.

The area impacted by this policy is limited to the significant groundwater recharge areas within the WHPA-Q1/Q2 delineated within the Orangeville, York and Midland Tier 3 studies, which would require additional planning foresight in order to maintain existing recharge. This could include implementing additional mitigation measures within the significant groundwater recharge areas that would allow post-development recharge to be maintained. The source protection committee decided that this was currently a common practice and therefore would have limited impact on the municipality or developer.

The Whip-Poor-Will WHPA-Q1/Q2 represents a 100m radius around the well, and was assigned a significant risk level. A small portion of significant groundwater recharge area does intersect

the WHPA-Q1/Q2; however, given the low development pressures within the local area there is anticipated to be limited impact associated with implementing this policy.

Policy LUP-12 (MC)

Applicable Local Areas: York (York, Bradford, Durham), Midland, Penetanguishene, Whip-Poor-Will, Orangeville (Mono, Amaranth)

Policy LUP-12 manages future activities that may reduce the recharge of an aquifer where it would be a significant drinking water threat.

Where an activity that may reduce the recharge of an aquifer would be a significant drinking water threat, this policy requires planning approval authorities to amend their planning documents to only permit new major development where it can be demonstrated, through submission of a hydrogeological study, that the existing water balance will be maintained (for example there will be no net reduction in recharge). Where necessary, implementation and maximization of recharge enhancement within the same WHPA-Q2 to compensate for any predicted loss of recharge from the development can be explored.

When considering policy options, the source protection committee considered a range of approaches from an outright prohibition of future development to a provisional prohibition whereby future development or site alteration could occur only if it was demonstrated that there would be no impact to the recharge within the WHPA-Q1/Q2. It was determined that the WHPA-Q1/Q2 as delineated in the Orangeville Tier 3 study already demonstrates that groundwater sustainability issues exist and could not support a decrease in recharge as it would compromise the municipal groundwater supply system.

It was determined that the WHPA-Q1/Q2 as delineated in the York and Midland Tier 3 studies demonstrated a moderate risk level to groundwater sustainability. The source protection committee thought that requiring a hydrogeological study to maintain pre-development recharge rates for major developments, would be good practice to ensure that the moderate risk level does not increase to significant in the future thereby creating significant drinking water threats.

The Whip-Poor-Will local area represents a 100m radius around the well, and the associated subdivision has two existing lots of records left to be developed. It is anticipated that the remaining build out associated with Whip-Poor-Will be captured under Policy LUP-13.

The area impacted by this policy is limited to WHPA-Q1/Q2, which would require additional planning foresight in order to maintain existing recharge. This could include implementing additional mitigation measures within this area that would allow post-development recharge to be maintained. The source protection committee decided that this was currently a common practice and could be done with very little inconvenience or impact on the developer or the municipality.

Policy LUP- 13 (MC)

Applicable Local Area: York (Bradford, Durham), Midland, Penetanguishene, Whip-poor-will, Orangeville (Mono, Amaranth)

Policy LUP-13 manages future activities that may reduce the recharge of an aquifer where it would be a significant drinking water threat.

Where an activity that may reduce the recharge of an aquifer would be a significant drinking water threat, this policy requires planning approval authorities to require the use of Best Management Practices such as Low Impact Development to maintain pre-development recharge rates for non-major developments or site alterations in a WHPA-Q2 assigned a moderate or significant risk level.

When considering policy options, the source protection committee considered a range of approaches from an outright prohibition of future development to a provisional prohibition whereby future development or site alteration could occur only if it was demonstrated there would be no impact to the recharge within the WHPA-Q1/Q2. It was determined that reductions in recharge associated with non-major development would be best addressed by requiring that best management practices such as low impact development techniques be incorporated into site plan approvals. This was thought to be more appropriate than requiring a hydrogeological study to demonstrate that the water balance will be maintained for non-major development. This policy will work in conjunction with LUP-12 to maintain recharge within the WHPA-Q1/Q2 as delineated for the Orangeville, York and Midland Tier 3 studies.

Policy LUP-14 – (MC)

Applicable Local Area: Orangeville (Mono, Amaranth)

Policy LUP-14 manages future activities that would reduce the recharge of an aquifer where this activity would be a significant drinking water threat.

Where an activity that reduces the recharge of an aquifer is a significant drinking water threat, Planning Approval Authorities (Ministry of Municipal Affairs and Housing, Ministry of Infrastructure, in collaboration with the Ministry of Environment, [Conservation and Parks](#) and other Planning Approval Authorities) is encouraged to examine municipal water supply servicing constraints when approving settlement area expansions.

The source protection committee thought that development over recharge areas when a municipality is already experiencing water supply servicing constraints would further impair that water supply. Therefore it was felt that settlement area expansions should only be approved if additional water supply capacity was acquired.

Policy LUP-15 – (MC)

Applicable Local Area: York (Bradford, Durham), Midland, Penetanguishene, Whip-poor-will

Policy LUP-15 manages future activities that would reduce the recharge of an aquifer where this activity would be a significant drinking water threat.

Where an activity that reduces the recharge of an aquifer is a significant drinking water threat, Planning Approval Authorities (Ministry of Municipal Affairs and Housing, Ministry of Infrastructure, in collaboration with the Ministry of Environment, [Conservation and Parks](#) and other Planning Approval Authorities) is encouraged to examine municipal water supply servicing constraints when approving settlement area expansions beyond areas assessed in the Tier 3 assessment.

The York and Midland Tier 3 studies identified that a moderate risk level be assigned to the WHPA-Q2 when simulating recharge reductions associated with official plan build out. The source protection committee felt that settlement area expansions above and beyond what was assessed in the Tier 3 study should only be approved if additional water supply capacity was present. To prevent the creation of future significant drinking water threats.

7.267.27 Education and Outreach Policies

The policies below were reviewed, and policies EDU-1, EDU-7, and EDU-12 were updated as part of the Section 36 review process to reflect changes associated with the 2021 Technical Rules.

Formatted: Font: Not Bold, Italic

Policy EDU-1 (MC)

Policy EDU-1 manages existing activities related to the application, handling or storage of [processed organic waste](#), agricultural source material, non-agricultural source material, fertilizers, pesticides, and the use of land for livestock grazing, pasturing, outdoor confinement or farm animal yard within an area where the activity would be a significant drinking water threat.

Where these activities would be a significant drinking water threat, the source protection authority in collaboration with municipalities shall undertake an education and outreach program. The program will promote best management practices to safeguard water supplies from various agricultural related drinking water threats and include a component on timely fertilizer application practices. The program will be carried out in consultation with the Ontario Soil and Crop Improvement Association or other association(s), where appropriate.

There was support for education and outreach approaches to address activities that would be significant drinking water threats. It was determined the source protection authority could deliver an effective education and outreach program to inform landowners about the proper application, handling and storage of agricultural source material, non-agricultural source material, fertilizers, pesticides, best management practices for activities that use the land for livestock grazing, pasturing, outdoor confinement or farm animal yard within vulnerable areas where the activity would be a significant drinking water threat.

While the source protection committee believes that education and outreach is a viable tool to use for the existing significant threats within vulnerable areas, it also felt that education and outreach, in and of itself, would not be sufficient to address the threats. The source protection committee elected to include education and outreach as part of a broad, multi-barrier approach to address existing drinking water threats.

In regards to extensive livestock grazing and pasturing where nutrient units are generated at an annual rate of 0.5 NU/acre or less, education and outreach is the only tool proposed to address significant pathogen drinking water threats. The Tables of Circumstances indicates that the presence of one animal within a WHPA where the vulnerability score is 10, and IPZ-1/WHPA-E where the vulnerability score is 8-10 poses a significant threat to drinking water. The source protection committee felt that a soft approach was appropriate for this threat activity as not all livestock are carriers of the pathogen of concern and not all carriers are shedders of pathogens. In addition, when extensive grazing and pasturing practices are being followed, livestock are rotated through pasture lands using the remote sustainable pasturing principle. The rotation of livestock through the various pasture lands ensures that the livestock have enough nutrients available to survive and thrive. This means that the livestock will only periodically pass through the vulnerable area. It was felt that an education and outreach program focusing on best management practices for livestock grazing and pasturing and source water protection would protect the drinking water supply source.

Policy EDU-2 (MC)

Policy EDU-2 manages existing activities related to the handling and storage of fuel, DNAPLs and organic solvents where the activity would be a significant drinking water threat.

Where these activities would be a significant drinking water threat, the source protection authority, in collaboration with municipalities, shall undertake an education and outreach program and use materials developed by the [Ministry of the Environment, Conservation and Parks](#), where possible, to target consumers/landowners on the handling and storing fuels, DNAPLs and organic solvents.

The program will promote the importance of pollution prevention by explaining the importance of proper disposal of hazardous waste and promoting the use of alternative chemicals or products. The fuel component of the education and outreach program should focus on providing homeowners and fuel suppliers with information on the proper handling and storage of fuel from a source water protection perspective. The program will be carried out in consultation with the municipality responsible for waste management, and TSSA, where appropriate.

There was support for education and outreach approaches to address activities that would be significant drinking water threats. It was determined the source protection authority could deliver an effective education and outreach program to inform consumers and landowners about the proper handling and storage of fuel, DNAPLs and organic solvents within vulnerable areas where the activity would be a significant drinking water threat.

In addition, it was felt that an education and outreach policy alone would be sufficient to address the handling and storage of incidental volumes (i.e. standard size containers that are used for personal or domestic activities. This will exclude larger volumes used in activities, such as hobbies, businesses/home businesses) of DNAPLs where they are or would be significant drinking water threat. There are only 5 chemicals listed DNAPLs within the [MOEMEC](#) table of circumstances and therefore, source protection committee concluded that there would be

unlikely that these chemicals would be found within residential homes or that small volumes contained in individual store bought containers that posed a low risk would be found within residential homes. Therefore, the source protection committee decided that it was not necessary to have a policy that would require a risk management plan for each residential home, to address this activity where it is or would be a significant drinking water threat.

After much consideration, it was felt that an education and outreach policy alone would be sufficient to address the handling and storage of residential home heating fuel. Research into recent fuel spills in the source protection region indicated that fuel tanks being regularly inspected by suppliers at the time of refilling under O.Reg 213/01 generally pose less of risk than those not in use.

While the source protection committee believes that education and outreach is a viable tool to use for existing significant threats within vulnerable areas, it was generally felt that education and outreach policies should be used as part of a broad, multi-barrier approach to address existing drinking water threats.

Policy EDU-3 (MC)

Policy EDU-3 manages existing activities related to the application, handling and/or storage of road salt and the storage of snow where these activities would be a significant drinking water threat.

Where these activities would be a significant drinking water threat, the source protection authority, in collaboration with municipalities, shall undertake an education and outreach program and use materials developed by the [Ministry of the Environment](#)~~Ministry of the Environment, Conservation and Parks~~, where possible, targeting municipalities, property managers, and salt application industry, applying, handling and storing road salt and snow.

The program will promote pollution prevention by explaining the importance of proper salt application, and storage and run-off management of salt and snow to safeguard water supplies.

There was support for education and outreach approaches to address activities that would be significant drinking water threats. It was determined the source protection authority could deliver an effective education and outreach program targeting those applying, handling or storing road salt and snow within vulnerable areas where the activity would be a significant drinking water threat.

While the source protection committee believes that education and outreach is a viable tool to use for existing significant threats within vulnerable areas, it also felt that education and outreach, in and of itself, would not be sufficient to address the threats. The source protection committee elected to include education and outreach as part of a broad, multi-barrier approach to address existing drinking water threats.

Policy EDU-4 (MC)

Policy EDU-4 manages existing activities that take water from an aquifer without returning the water taken to the same aquifer where the activity would be a significant drinking water threat.

Where these activities would be a significant drinking water threat, the province is encouraged to maintain and enhance education and outreach programs that focus on water conservation.

There was support for education and outreach approaches to address activities that would be significant drinking water threats. The source protection committee felt the province could deliver an effective education and outreach program targeting those that take water from an aquifer without returning the water taken to the same aquifer within the local area A where the activity would be a significant drinking water threat.

While the source protection committee believes that education and outreach is a viable tool to use for the existing significant threats within vulnerable areas, it also felt that education and outreach, in and of itself, would not be sufficient to address the threats. The source protection committee elected to include education and outreach as part of a broad, multi-barrier approach to address existing drinking water threats.

Policy EDU-5 (MC)

Policy EDU-5 manages existing activities that reduce the recharge of an aquifer where the activity is a significant drinking water threat.

Where these activities are a significant drinking water threat, the source protection authority, in collaboration with municipalities, is encouraged to undertake an education and outreach program focusing on the importance of maintaining groundwater recharge. The program will promote sustainable development where infiltration enhancements are encouraged.

There was support for education and outreach approaches to address activities that are significant drinking water threats. It was determined that the source protection authority could deliver an effective education and outreach program focusing on areas where the reduction of recharge is a significant drinking water threat.

While the source protection committee believes that education and outreach is a viable tool to use for the existing significant threats within vulnerable areas, it also felt that education and outreach, in and of itself, would not be sufficient to address the threats. The source protection committee elected to include education and outreach as part of a broad, multi-barrier approach to address existing drinking water threats.

Policy EDU-6 (MC)

Policy EDU-6 manages existing activities related to the establishment, operation or maintenance of a system that collects stores or transmits, treats or disposes of sewage where the activity is a significant drinking water threat.

Where these activities are a significant drinking water threat, the source protection authority, in collaboration with municipalities, is encouraged to undertake an education and outreach program. The program will promote the importance of source water protection, the proper disposal of hazardous waste and proper care and maintenance of septic systems.

There was support for education and outreach approaches to address activities that are significant drinking water threats. The source protection committee felt the source protection

authority could deliver an effective education and outreach program focusing on proper management and the maintenance of septic systems where the activities are a significant drinking water threat.

While the source protection committee believes that education and outreach is a viable tool to use for the existing significant threats within vulnerable areas, it also felt that education and outreach, in and of itself, would not be sufficient to address the threats. The source protection committee elected to include education and outreach as part of a broad, multi-barrier approach to address existing drinking water threats.

Policy EDU-7 (MC)

Policy EDU-7 manages existing and future activities related to the establishment, operation or maintenance of a waste disposal site within the meaning of Part V of the Environmental Protection Act, where the activity is or would be a significant drinking water threat.

Where these activities are a significant drinking water threat, the source protection authority in collaboration with municipalities shall undertake an education and outreach program. The program will promote the importance of source water protection, and address waste disposal sites within the meaning of Part V of the Environmental Protection Act, with a particular focus on the proper handling, storage and disposal of hazardous wastes described [in the 2021 Technical Rules \(Threat 1.13 Waste Generating Facilities\) in clauses \(p\), \(q\), \(r\), \(s\), \(t\) or \(u\) of the definition of hazardous waste O.Reg 347.](#)

~~The circumstances surrounding (p), (q), (r), (s), (t) or (u) typically represent small amounts of wastes from residues left in drums to quantities of wastes ranging from 1-15kg. Further information provided from the MOE indicated that battery and paint recycling drop-off locations are captured under the Tables of Circumstances. At this time, the full extent of threat subcategory is unknown. After much consideration, the source protection committee decided that a comprehensive education and outreach program targeting the proper handling, storage and disposal of small quantities of waste would be an effective tool at managing the significant drinking water threat. As it would be difficult to determine when and where a Part IV policy would apply. Once the full extent of the threat subcategory is understood the source protection committee may re-consider the policy approach in future source protection plan updates.~~

Policy EDU-8 (MC)

Policy EDU-8 manages existing activities related to the application and handling of road salt and storage of road salt and snow in the Barrie ICA, where the activity is a significant drinking water threat.

Where these activities are a significant drinking water threat, the City of Barrie shall undertake an education and outreach program, targeting those who apply and handle road salt or store road salt and snow within the Barrie ICA. The program will promote the importance of proper salt application and storage to prevent excess salt from entering drinking water supplies. In addition, the source protection committee thought it was important that the education and

outreach policy would also target stormwater management facilities to prevent excess salt from entering drinking water supplies.

The City of Barrie has an ICA for sodium and chloride as determined by the elevated sodium and chloride levels found within City's drinking water source. Policies SALT(ICA)-1 and SNOW(ICA)-1 require a risk management plan for significant salt application and snow storage threats in WHPA-A of the ICA, while policy SALT(ICA)-2 requires a risk management plan for significant salt handling and storage threats in WHPA-A of the ICA, and outside of the WHPA-A where the quantity of salt stored is more than 5 tonnes. The policies exempt application and handling of salt, and storage of salt and snow activities carried out for personal domestic use. The committee felt that the implementation of an education and outreach program would serve as an important tool for engaging those carrying out significant salt threat activities outside of the WHPA-A, where the other salt policies do not apply. Due to its importance in addressing significant salt application, storage and handling threats across the entire ICA, there was support for an education and outreach program for the City of Barrie ICA. The source protection committee felt the City of Barrie could deliver an effective education and outreach program targeting those applying and handling road salt, or storing road salt and snow within vulnerable areas where the activity is a significant drinking water threat.

After considerable discussion, the source protection committee decided that an education and outreach policy would be the most cost effective and implementable tool to address the application, handling, and storage of salt in the City of Barrie's ICA. In the end the committee felt that this threat activity would be adequately managed within the issues contributing area, and that the effectiveness of the policy would be determined as the source protection committee received additional monitoring data from the City of Barrie.

Policy EDU-9 (MC)

Policy EDU-9 requires the ~~Ministry of the Environment~~[Ministry of the Environment, Conservation and Parks](#) to undertake a community-based social marketing research, in consultation with local source protection authorities, within vulnerable areas where significant drinking water threats are or would be present.

It was determined that social marketing research provides the necessary insight into the attitudes, reactions, behaviours and preferences of individuals that can form the basis of the development of marketing programs designed to change behaviour regarding water conservation. Traditional marketing approaches focus on providing information and educational tools without calculating the outcome of those efforts. Social marketing research looks into the barriers to behaviour that can provide powerful insight into whether or not certain approaches will be successful. The source protection committee agreed that there was already a wide range of information and educational resources available that have been used and that further efforts needed to be explored.

The committee concluded that the Ministry of Environment, [Conservation and Parks](#) was the most appropriate agent to undertake this research. The source protection committee believes

that such research is proactive and forward-thinking and seeks to gauge outcomes in order to understand the degree of success of outreach activities.

Policy EDU-10 (MC)

Policy EDU-10 encourages the ~~Ministry of the Environment~~[Ministry of the Environment, Conservation and Parks](#) petition Health Canada include products containing DNAPLs (TCE, PAHs and vinyl chloride) and organic solvents (chloroform, carbon tetrachloride, pentachlorophenol, methylene chloride) as controlled products, requiring cautionary labelling about the dangers these products pose to sources of drinking water.

The source protection committee supported the policy to address the threat of activities related to the handling and storage to DNAPLs. It was believed that many consumers are unaware of the hazards associated with DNAPLs and could make an informed choice when purchasing products that contain DNAPLs if the products were labelled clearly.

Policy EDU-11 (NLB)

Policy EDU-11 encourages municipalities, the province and SPA to collaborate in designing an appropriate road sign to identify the location of a wellhead protection area or an intake protection zone. The signs would educate the public and emergency response workers in case a spill happened close to a municipal well or intake.

The collaboration between these agencies may result but are not limited to the following:

- a) The Ministry of Transportation may be responsible for the manufacturing, installing and maintaining the signs along provincial highways with the WHPAs with a vulnerability score of 10 and/or within an IPZ or WHPA-E with a vulnerability score of 8 or higher.
- b) Municipalities may be responsible for the purchase, installation and maintenance of the signs in locations other than provincial highways.
- c) These signs should be placed, at a minimum, where municipal arterial roads are located within a wellhead protection areas with a vulnerability score of 10, and/or an intake protection zone or wellhead protection area E with a vulnerability score of 8 or higher.

The above policies will be implemented as part of an overall education and outreach plan within each source protection area. These policies, in conjunction with additional education and outreach policies, should be implemented within 2 years after the effective date of the plan.

Policy EDU-12 (NLB)

Policy EDU-12 encourages the ~~MOE~~[MOE/MCPC](#) to develop consistent province wide education and outreach materials for local implementing bodies (SPAs) to use in implementing the significant drinking water threat education and outreach programs. The source protection committee believes that having the province develop consistent materials would be a cost-effective use of resources, instead of having multiple groups developing similar materials. [The list of threats this policy applies to was updated as a result of the 2021 technical rules.](#)

Policy EDU-13 (NLB)

Policy EDU-13 encourages source protection authorities, risk management officials, and other bodies as appropriate to extend education and outreach efforts for the application of commercial fertilizer to locations within a WHPA-A where the activity would be considered and low or moderate drinking water threat. It was felt this policy would address a knowledge gap around best practices, particularly for non-agricultural properties.

This approach would mean that property owners, property maintenance companies, and lawn care companies would receive the same level of education and outreach for commercial fertilizer application activities in a WHPA-A, as they would for pesticide application activities. This policy works in tandem with EDU-1.

Formatted: Font: Bold

7.277.28 Incentive Policies

The policies below were reviewed, and policy INCENT-6 was updated as part of the Section 36 review process to reflect changes associated with the 2021 Technical Rules.

Formatted: Font: Not Bold, Italic

Policy INCENT-1 (NLB)

Policy INCENT-1 manages existing activities where it would be a significant drinking water threat.

The policy encourages Ministry of Environment, [Conservation and Parks](#) to undertake a review of the Ontario Drinking Water Stewardship Program (ODWSP) funding program and include expansions to the program that would address significant drinking water threats. This would provide funding that would enable landowners within vulnerable areas to have access to incentive programs to address existing threats on their property. The programs would promote best management practices and/or provide opportunities for improvements that will continue to safeguard water supplies from significant drinking water threats.

There was support for the use of incentives, where available, to encourage ongoing stewardship and pollution prevention to address the threat of activities related to Waste disposal, stormwater management, wastewater management, septic systems, industrial effluent, agricultural source material, non-agricultural source material, fertilizers, salt, snow, organic solvents, water takings, and livestock grazing. It was felt that incentives on their own would not be sufficient to address these threats. While incentives can create additional interest and potential uptake, other methods are needed to address both existing and future threats. The source protection committee elected to include incentives as part of a broad, multi-barrier approach to address both existing and future threats. It was felt that incentives could advance the degree of acceptance and interest and could offer additional opportunity to advance the objectives of the Plan.

Policy INCENT-2 (MC)

Policy INCENT-2 manages existing activities where it would be a significant drinking water threat.

The policy encourages the source protection authority to implement risk reduction projects through the stewardship program targeting prescribed drinking water threats if funding were made available by the Ministry of Environment, [Conservation and Parks](#) to do so. This would provide landowners within vulnerable areas with incentive to address threats on their property in order to promote best management practices or provide opportunities for improvements that will to safeguard water supplies from significant drinking water threats.

There was support for the use of incentives, where available, to encourage ongoing stewardship and pollution prevention to address the threat of activities related to waste disposal, stormwater management, wastewater management, septic systems, industrial effluent, agricultural source material, non-agricultural source material, fertilizers, salt, snow, organic solvents, water takings, and livestock grazing. It was felt that incentives on their own would not be sufficient to address these threats. While incentives can create additional interest and potential uptake, other methods are needed to address both existing and future threats. The source protection committee elected to include incentives as part of a broad, multi-barrier approach to address both existing and future threats. It was felt that incentives could advance the degree of acceptance and interest and could offer additional opportunity to advance the objectives of the plan.

Policy INCENT-3 (MC)

Policy INCENT-3 manages existing activities where it would be a significant drinking water threat.

The policy encourages municipalities to consider incentives that can be offered to landowners to improve the use and care of on-site sewage systems and to landowners to promote the effective storage of snow, upgrade existing facilities in order to bring them up to contemporary standards, or relocate a facility so the storage of snow and the on-line septic system would cease to be a drinking water threat.

There was support for the use of incentives, where available, to encourage ongoing stewardship and pollution prevention to address the threat of activities related to on-line septic systems and the storage of snow. It was felt that incentives on their own would not be sufficient to address these threats. While incentives can create additional interest and potential uptake, other methods are needed to address both existing and future threats. The source protection committee elected to include incentives as part of a broad, multi-barrier approach to address both existing and future threats. It was felt that incentives could advance the degree of acceptance and interest and could offer additional opportunity to advance the objectives of the plan.

Policy INCENT-4 (MC)

Policy INCENT-4 manages existing activities related to the storage of snow where it is a significant drinking water threat.

The policy encourages municipalities to consider opportunities that could be made available to promote the effective storage of snow. Through an incentive program, municipalities could

assist in the removal of the large snow dumps to reduce the risk to drinking water in areas where it is a significant drinking water threat. This could be accomplished by the municipality removing/relocating large snow piles, providing municipal snow removal equipment, or the municipality could have a forum by which they share the most current practices or standards for snow removal.

There was support for the use of incentives, where available, to encourage ongoing stewardship and pollution prevention to address the threat of activities related to the storage of snow. It was felt that incentives on their own would not be sufficient to address these threats. While incentives can create additional interest and potential uptake, other methods are needed to address both existing and future threats. The source protection committee elected to include incentives as part of a broad, multi-barrier approach to address both existing and future threats. It was felt that incentives could advance the degree of acceptance and interest and could offer additional opportunity to advance the objectives of the plan.

Policy INCENT-5 (NLB)

Policy INCENT-5 manages the existing application, handling and storage of agricultural source material, pesticides, and fertilizers in an area where it is a significant drinking water threat.

Where these activities are significant drinking water threats, the Ontario Soil and Crop Improvement Association is encouraged to prioritize the Environmental Farm Plan funds for use within vulnerable areas identified in the assessment reports developed under the Clean Water Act.

The source protection committee supported the policy to address the threat of activities related existing application, handling and storage of agricultural source material, pesticides, and fertilizers. The source protection committee felt many of the significant threats could be reduced if there were funds available to manage the activities. It was therefore determined the Ontario Soil and Crop Improvement Association should prioritize the Environmental Farm Plan funds to the vulnerable areas that would benefit the most thus reducing the potential threat to drinking water.

Policy INCENT-6 (NLB)

Policy INCENT-6 manages existing activities where it is a significant drinking water threat.

The policy encourages the Ministry of Environment, [Conservation and Parks](#) to continue its funding to municipalities and source protection authorities under source protection programs to continue local research into issues (nitrogen, pathogen, sodium, and chloride) to determine where the following activities are a contributing source of the contaminant in issues contributing areas:

[1a\) Application of hauled sewage;](#)

[1c\) Application of processed organic waste;](#)

[2c\) Septic systems governed under the Building Code Act and the Ontario Water Resources Act;](#)

- [2a\) Discharge of untreated stormwater from a stormwater retention pond;](#)
- [4\) Application and storage of ASM;](#)
- [6\) Application, handling and storage of NASM;](#)
- [8\) Application, handling and storage of fertilizer;](#)
- [13\) Handling and storage of road salt;](#)
- [16\) Handling and storage of DNAPLs; and](#)
- [21\) Use of land as livestock grazing or pasturing land, an outdoor confinement area or farm-animal yard. O. Reg. 385/08, s. 3.](#)
- ~~a) application and storage of ASM;~~
- ~~b) application, handling and storage of NASM;~~
- ~~c) use of land as livestock grazing or pasturing land, an outdoor confinement area or farm-animal yard. O. Reg. 385/08, s. 3;~~
- ~~d) application, handling and storage of fertilizer;~~
- ~~e) septic systems governed under the Building Code Act and the Ontario Water Resources Act;~~
- ~~f) discharge of untreated stormwater from a stormwater retention pond; and~~
- ~~g) handling and storage of road salt.~~

There was support for the use of incentives, where available, to encourage ongoing stewardship and pollution prevention to address the above listed activities where they are significant drinking water threats. It was felt that the issues that deal with nitrogen, pathogen, sodium and chloride could be better managed if more research was done to determine where they are a contributing source of the contaminant in the issues contributing areas.

It was determined that this incentive program would create additional interest and potential uptake by municipalities and source protection authorities where this research is needed. This incentive policy was created as part of a broad, multi-barrier approach to address existing threats. It was felt that incentives could advance the degree of acceptance and interest and could offer additional opportunity to advance the objectives of the plan.

7.287.29 Monitoring Policies

Policy MON-1

Policy MON-1 is used to monitor the implementation of policies by the municipalities under the source protection plan. Through the policy, the source protection authority can monitor actions taken by the municipality to reduce risks to drinking water. This will help to facilitate the monitoring process and advise the source protection committee of any issues related to the policies.

Policy MON-2

Policy MON-2 is used to monitor the implementation of policies by the Ministry of Environment, [Conservation and Parks](#) under the source protection plan. Through the policy, the source protection authority can monitor actions taken by the Ministry of Environment, [Conservation and Parks](#) to reduce risks to drinking water. This will help to facilitate the monitoring process and advise the source protection committee of any issues related to the policies.

[This policy has been updated as part of the Section 36 amendment to specifically ask MECP to report on the approval numbers of environmental compliance approvals managing significant drinking water threats that were reviewed that year, and the conditions in place within prescribed instruments to manage threats.](#)

Policy MON-3

Policy MON-3 is used to monitor the implementation of policies by the Ministry of Agriculture, Food and [Rural Affairs Agribusiness](#) under the source protection plan. Through the policy, the source protection authority can monitor actions taken by the Ministry of Agriculture, Food and [Rural Affairs Agribusiness](#) to reduce risks to drinking water. This will help to facilitate the monitoring process and advise the source protection committee of any issues related to the policies.

Policy MON-4

Policy MON-4 is used to monitor the implementation of policies by Planning Approval Authorities under the source protection plan. Through the policy, the source protection authority can monitor actions taken by the Province to reduce risks to drinking water. This will help to facilitate the monitoring process and advise the source protection committee of any issues related to the policies.

Policy MON-5

Policy MON-5 is used to monitor the implementation of policies by the source protection authority under the source protection plan. Through the monitoring, risk reduction efforts throughout the year can be documented by the source protection authority. This will help to determine the effectiveness of the stewardship programs and advise the source protection committee of any issues related to the Incentives Programs.

Policy MON-6

Policy MON-6 is used to monitor the implementation of Part IV powers. Through the monitoring policies, risk management plans, prohibition and restricted land use can be documented by the source protection authority. This will help to determine the effectiveness of the Part IV powers and meet the ministry's risk management official reporting requirements.

[Policy Mon-7](#)

[Policy Mon-7 was added through the S.36 amendment process and is directed at MECP to report on the number of significant threat activities registered to the Environmental Activity and Sector Registry, as well as how many were audited by the Ministry in that calendar year. This registry did not previously exist as an approval pathway, hence there being no previous policy in place when the plan was first written.](#)

The response to individual comments provided during pre-consultation and formal consultation is provided within the Appendices of this report, and can be found in the CD that is attached to the inside front cover of this document.

8 PRE-CONSULTATION COMMENTS RECEIVED AND THE SPC RESPONSE

Pre-consultation was a requirement in the legislation that obliged the source protection committee to consult with implementing bodies (such as municipalities) on the draft policies in advance of formal consultation with the public. The following activities were undertaken during pre-consultation.

This pre-consultation occurred between October 7, 2011 and January 13, 2012 and consisted of 11 workshops in various parts of the source protection region to obtain feedback from a variety of implementing bodies. During this period, comments on the policies were received from 6 provincial ministries, 17 municipalities, and 3 other implementing bodies.

Overall, several hundred comments were received. The comments were compiled into spreadsheets, enabling members of the policy and planning working group, a sub-committee of the source protection committee, to assess the range of feedback for each policy. All comments were then reviewed by the policy and planning working group and the source protection committee and revisions to the policies were developed.

The response to these comments is provided electronically, and can be found in the CD that is attached to the inside front cover of this document. Additional feedback can be obtained if necessary by contacting source water protection staff.

9 FORMAL CONSULTATION COMMENTS RECEIVED AND THE SPC RESPONSE

The legislation requires that the source protection committee undertake formal consultation with the public and implementing bodies (such as municipalities) on the proposed source protection plan. This formal consultation occurred between March 26 and June 15, 2012. During this period comments on the policies were received from 6 provincial ministries, 17 municipalities, 3 other implementing bodies and 7 members of the public at large.

Overall, several hundred comments were received. The comments were compiled into spreadsheets, enabling members of the policy and planning working group, a sub-committee of the source protection committee, to assess the range of feedback for each policy. All comments were then reviewed by the policy and planning working group and the source protection committee and revisions to the policies were developed.

The response to these comments is provided electronically, and can be found in the CD that is attached to the inside front cover of this document. Additional feedback can be obtained if necessary by contacting source water protection staff.

10 [ADD 36 CONSULTATION INFORMATION]

1011 CLIMATE CHANGE CONSIDERATIONS

Over the past twenty years, there has been a great deal of concern around the world over climate change, its causes and potential impacts on humanity. Climate change can change both the quality and quantity of current and future drinking water sources. Warmer temperatures can raise the temperature of surface water sources creating ideal habitats for bacterial growth. Warmer temperatures also indicate that more evaporation and evapotranspiration will be occurring, particularly after a storm event. The increased evaporation rates mean that less water is available to infiltrate the ground, to recharge the groundwater system. An increased frequency in storm events inherently leads to an increase in runoff, potentially introducing harmful pollutants to watercourses.

It is therefore important to look at climate change in the context of source water protection. The effects of climate change, from a number of perspectives (social, economic, environmental) is already being undertaken by a variety of experts throughout the world and therefore the source protection committee did not expressly consider the impacts of climate change while developing its policies.

1112 THE NEED FOR WATER CONSERVATION

Policies 19 and 20 relate directly to issues of water quantity. Threat #19 relates to activities that take water from an aquifer or surface water body without returning it to the same aquifer or surface water body. Policy #20 refers to reducing the recharge of an aquifer.

In this source protection region, water quantity threats exist within the WHPA-Q1 and WHPA-Q2 delineated in the Orangeville Tier 3 Water Budget and Water Quantity Risk Assessment. Although a number of Tier 3 water budget studies are still currently underway and, once complete, could point to additional areas of stress. If this occurs, and the stresses are such that they represent a significant threat, there will be a need for an update to the assessment reports and the development of new policies to mitigate those quantity threats.

Regardless of whether or not a water quantity threat currently exists in this source protection region, the source protection committee feels that water conservation efforts should be encouraged where possible.

Substantial benefits are also realized when less water is treated and fewer chemicals are used to treat the water. The life of the infrastructure is extended without the need for upgrades, repairs, or replacement, and there is no need to find additional water supplies to satisfy increased demand. More efficient water use also reduces demand and conserves energy as less water needs to be treated and delivered.

Education, outreach, and awareness can achieve dramatic results. Therefore, the source protection committee believes in encouraging a fundamental principle of promoting water conservation and the use of water efficient technologies to large and small water users.

1213 **APPENDIX A: PRE-CONSULTATION COMMENTS AND RESPONSES**

A complete list of all comments provided during pre-consultation and the source protection committee's responses to individual comments are provided in the CD that is attached to the inside front cover of this document.

1314 APPENDIX B: FIRST FORMAL CONSULTATION COMMENTS AND RESPONSES

A complete list of all comments provided during the first formal consultation and the source protection committee's responses to individual comments are provided in the CD that is attached to the inside front cover of this document.

1415 **APPENDIX C: SECOND FORMAL CONSULTATION COMMENTS AND RESPONSES**

A complete list of all comments provided during the second formal consultation and the source protection committee's responses to individual comments are provided in the CD that is attached to the inside front cover of this document.

**1516 APPENDIX D: PRE-CONSULTATION ON THE REVISED PROPOSED SOURCE PROTECTION PLAN
- COMMENTS AND RESPONSES**

A complete list of all comments provided during pre-consultation and the source protection committee's responses to individual comments are provided in the CD that is attached to the inside front cover of this document.

**1617 APPENDIX E: FORMAL CONSULTATION ON THE REVISED PROPOSED SOURCE PROTECTION
PLAN - COMMENTS AND RESPONSES**

A complete list of all comments provided during the second formal consultation and the source protection committee's responses to individual comments are provided in the CD that is attached to the inside front cover of this document.

1718 APPENDIX F: POST SUBMISSION COMMENTS ON THE REVISED PROPOSED SOURCE PROTECTION PLAN

A complete list of all comments provided during the second formal consultation and the source protection committee's responses to individual comments are provided in the CD that is attached to the inside front cover of this document.

19 [INSERT S36 CONSULTATION INFORMATION]

Formatted: Heading 1

1820 NOTES: