

Thames – Sydenham and Region Source Protection Region Meeting Agenda

Source Protection Authority: Lower Thames Valley
Meeting Date: April 18, 2024
Meeting Time: Directly after the Board of Directors Meeting
Meeting Location: In Person and Remotely

Agenda

1. Adoption of the Agenda
2. Minutes from the Previous Meeting
 - a. April 20, 2023
3. Business Arising from the Previous Minutes
4. Business for Approval
 - a. Drinking Water Source Protection 2023 Annual Progress Report
 - b. Appendix A 2023 TSR Annual Report
 - c. Appendix B 2023 TSR Supplemental Form
5. Business for Information
6. Correspondence
7. Other Business
8. Adjourn

2. a. Minutes from the Previous Meeting – April 20, 2023



Thames Sydenham and Region Source Protection Region DRAFT Minutes

Source Protection Authority: Lower Thames Valley
Meeting Date: April 20, 2023
Meeting Time: Directly after the Board of Directors Meeting
Meeting Location: LTVCA Administration Building Board Room and via remote access

A meeting of the LTV Source Protection Authority was held in person at the LTVCA Administration Building in Chatham, Ontario and via remote access at 4:10 PM on Thursday, April 20, 2023 with the following directors present: S. Emons, K. Loveland, L. Vogler, P. Tiessen, M. Blosch, H. Aerts, M. Vink, and R. Leatham.

1. Adoption of the Agenda

1. L. Vogler – K. Loveland

Moved that the agenda be adopted.

CARRIED

2. Minutes of the Previous Meeting

2. R. Leatham – P. Tiessen

Moved that the April 21, 2022 minutes be approved.

CARRIED

3. Business Arising from the Previous Minutes

None noted.

4. Business for Approval

- a. Drinking Water Source Protection 2022 Annual Progress Report
- b. Appendix A 2022 TSR Annual Report
- c. Appendix B 2022 TSR Supplemental Form



M. Peacock provided a power point presentation on 2022 Source Water Protection activity and the requirement to submit reporting to the Director of the Source Water Programs Branch.

3. L. Vogler – R. Leatham

Moved that the Lower Thames Valley Source Protection Authority direct staff to submit the 2022 Thames-Sydenham and Region Source Protection Annual Progress Report and Supplemental form to the Director of the Source Protection Programs Branch of the Ministry of the Environment, Conservation and Parks.

CARRIED

5. Business for Information

None noted.

6. Correspondence

None noted.

7. Other Business

None noted.

8. Adjourn

4. K. Loveland – M. Vink

Moved that the meeting be adjourned.

CARRIED

Sarah Emons
Chair

Mark Peacock, P.Eng.
CAO/Secretary-Treasurer

4. a. Drinking Water Source Protection 2023 Annual Progress Report



Report to Lower Thames Valley Source Protection Authority
 Cc SP Management Committee Date April 18, 2024
 From Julie Welker, Source Protection Coordinator
 Re: Drinking Water Source Protection Annual Progress Report

Purpose

To approve the submission of the 2023 Thames-Sydenham and Region Source Protection Annual Progress Report to the Ministry of the Environment, Conservation and Parks (MECP).

Background

As required by the Clean Water Act, the TSR Source Protection Region must prepare an annual progress report to demonstrate progress made in implementing policies that protect surface water and groundwater municipal drinking water sources in the region. Figure 1 provides a simplified overview of the comprehensive process.

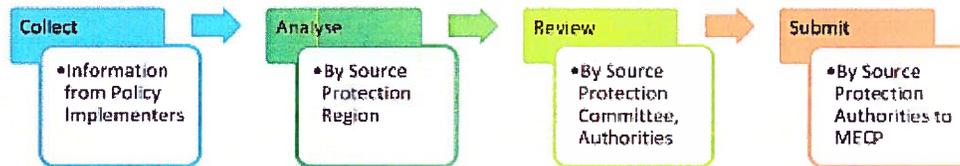


Figure 1: Source Protection Plan - Annual Progress Reporting at a Glance

Staff analysed information from implementing bodies, using the online Electronic Annual Reporting (EAR) tool. Municipalities, provincial ministries and Risk Management Officials are commended for their large effort in collecting pertinent data and information over the course of the year to inform the annual progress reporting process.

Reporting information is provided to MECP at the source protection region level, based on TSR SPR’s analysis of hundreds of contributing data and information from policy implementers provided by February 1 every year. In turn, the MECP collects the detailed synthesized reports from Source Protection Authorities across Ontario by May 1 every year, and aggregates it to the provincial scale in the annual Chief Drinking Water Inspector’s Report.

The Thames-Sydenham and Region Annual Progress Report is a public-facing document developed by the MECP and prepared by Thames-Sydenham and Region staff (Appendix A). The report provides valuable information about the implementation of the Thames-Sydenham and Region Source Protection Plan and the overall success of the program. The report reflects implementation efforts from January 1, 2023 to December 31, 2023.

Information presented in the progress report is intended to be a high-level reflection of annual reporting results collected through the Thames-Sydenham and Region Supplemental Form. The

Supplemental Form is a tool to collect key information from implementing bodies to help convey the story of progress made in the Thames-Sydenham Source Protection Region using a series of questions organized by theme (Appendix B). Some themes are specific and mirror policy tools, e.g., Risk Management Plans, while others are more broad, e.g., municipal integration of source protection, achievement of source protection objectives.

The theme, "achievement of source protection plan objectives" includes two report items that require Source Protection Committee (SPC) input: the first, the committee's opinion on the extent to which objectives in the plan have been achieved during the reporting period, and the second, comments to explain how the committee arrived at its opinion. The Thames-Sydenham and Region Source Protection Committee has reviewed the results of the Supplemental Form and Annual Progress Report and have approved the following responses for inclusion in the report.

Report Item ID 350

In the opinion of the Source Protection Committee (SPC), to what extent have the objectives of the SPP been achieved in this reporting period?

Progressing well/on target – Majority of the source protection plan policies have been implemented and/or are progressing well.	
Satisfactory – Some of the source protection plan policies have been implemented and/or are progressing well.	
Limited progress made – A few of the source protection plan policies have been implemented and/or are progressing well.	

Reportable Item ID 351

Please provide comments to explain how the SPC arrived at its opinion. Include a summary of any discussions that might have been had amongst the SPC members, especially where no consensus was reached.

December 31st, 2023 marked eight years since our Source Protection Plan first took effect. In that time significant progress has been made to implement the policies contained in the plan, and address the activities that were identified as posing a risk to our municipal drinking water supplies. To date, 85% of the policies in the plan that address significant drinking water threats have been fully implemented, with the remaining 15% progressing well.

An additional 20 Risk Management Plans were established over the reporting period bringing the Region's total Risk Management Plans to 101.

Approximately 90% of the 1058 originally identified significant drinking water threats have been successfully managed or eliminated. While there is still a considerable amount of work to do to address the remaining threats, the Thames-Sydenham and Region Source Protection Committee is pleased to see that policy implementation is moving steadily forward. For that reason, they believe that a ranking score of progressing well and on target is a fair assessment on our implementation progress.



Recommendation

That the Lower Thames Valley Source Protection Authority direct staff to submit the 2023 Thames-Sydenham and Region Source Protection Annual Progress Report and Supplemental form to the Director of the Source Protection Programs Branch of the Ministry of the Environment, Conservation and Parks.

4. b. Appendix A 2023 TSR Annual Report

**DRINKING WATER
SOURCE PROTECTION**
Our Actions Matter

Annual Progress Report

on Implementation of the Source Protection Plans for the
Thames-Sydenham & Region Source Protection Areas

Reporting Period - January 1, 2023 to December 31, 2023



For more information about the drinking water source protection plan, visit
www.sourcewaterprotection.on.ca

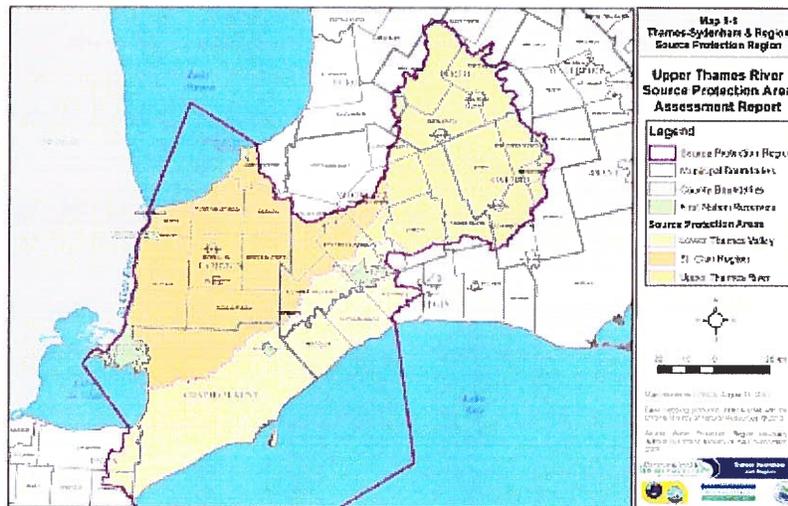


Source Protection Annual Progress Report

I. Introduction

This annual progress report outlines the progress made in implementing our source protection plan for the Lower Thames Valley Source Protection Area, St. Clair Region Source Protection Area and Upper Thames River Source Protection Area, as required by the Clean Water Act and regulations. This is the seventh Annual Progress Report released since the Source Protection Plan took effect on December 31st, 2015, and it highlights the actions taken from January 1 to December 31, 2023.

Protecting the sources of our drinking water is the first step in a multi-barrier approach to safeguard the quality and quantity of our water supplies. The source protection plan is the culmination of extensive science-based assessment, research, consultation with the community, and collaboration with local stakeholders and the Province. When policies in the plan are implemented it ensures that activities carried out in the vicinity of municipal wells and lake-based intakes will not pose significant risk to those drinking water supplies.



II. A message from your local Source Protection Committee

P : Progressing Well/On Target – The majority of the source protection plan policies have been implemented and/or are progressing.

December 31st, 2023 marked eight years since our Source Protection Plan first took effect. In that time significant progress has been made to implement the policies contained in the plan, and address the activities that were identified as posing a risk to our municipal drinking water supplies. To date, 85% of the policies in the plan that address significant drinking water threats have been fully implemented, with the remaining 15% progressing well.

An additional 20 Risk Management Plans were established over the reporting period bringing the Region's total Risk Management Plans to 101.

Approximately 90% of the 1058 originally identified significant drinking water threats along with those that have been identified after the originally approved SPP have been successfully managed or eliminated. While there is still a considerable amount of work to do to address the remaining threats, the Thames-Sydenham and Region Source Protection Committee is pleased to see that policy implementation is moving steadily forward. For that reason, they believe that a ranking score of progressing well and on target is a fair assessment on our implementation progress.

III. Our Watershed

To learn more, please read our assessment report(s) and source protection plan(s)

The Thames-Sydenham and Region is made up of the watersheds of Lower Thames Valley, the St. Clair Region, and the Upper Thames River.

The Lower Thames Valley Source Protection Area includes those lands draining into the Thames River from the community of Delaware to Lake St. Clair. It also includes the lands that drain into Lake Erie lying south of the lower Thames River watershed and a small triangle of land north of the mouth of the Thames draining directly into Lake St. Clair. This area includes most of the municipality of Chatham-Kent, the western portion of Elgin County, part of southwestern Middlesex County (including some of the City of London) and a portion of eastern Essex County. The Lower Thames Valley Source Protection Area also includes four First Nation reserves; the Chippewas of the Thames First Nation, Delaware Nation, Munsee-Deleware Nation and Oneida Nation of the Thames. Caldwell First Nation is also established in the area between Leamington and Rondeau Bay; however they currently do not have a reserve. The area covers approximately 3,274 square kilometres with a total watershed population (2001) of about 107,000.

The residents of the Lower Thames Valley Source Protection Area receive most of their municipal drinking water from Lake Erie through 3 intakes. The communities of Ridgetown and Highgate receive their drinking water from municipal wells. Some parts of the watershed within Essex County receive their municipal drinking water from intakes in Lake St. Clair. Although the drinking water for much of the population of the Lower Thames is supplied from municipal drinking water sources, some residents rely on water from private wells.

The St. Clair Region Source Protection Area includes the Sydenham River drainage basin and several smaller watersheds that drain to Lake Huron, the St. Clair River or Lake St. Clair. The Source Protection Area covers over 4,100 square kilometres and includes most of the County of Lambton, part of the Municipality of Chatham-Kent and part of the County of Middlesex with a total watershed population of 167,000. The area also includes three First Nation reserves; Chippewas of Kettle and Stoney Point, Aamjiwnaang, and Walpole Island First Nations. The residents of the St. Clair Region Source Protection Area receive most of their municipal drinking water from Lake Huron and the St. Clair River through 3 intakes. Parts of Middlesex County receive their municipally supplied drinking water from an intake in Lake Huron outside the Source Protection Region. There are no longer any communities in the St. Clair Region that receive drinking water from municipal wells. Although the drinking water for much of the population of the Lower Thames is supplied from municipal drinking water sources, some residents rely on water from private wells.

The Upper Thames River Source Protection Area includes all areas draining into the Thames River above the community of Delaware. This covers large parts of Oxford, Perth and Middlesex Counties including most of the City of London. Very small portions of Huron and Elgin Counties also drain into the upper Thames River. The area covers approximately 3,423 square kilometres with a total watershed population (2001) of about 472,000. There are no First Nations in the Upper Thames River Source Protection Area.

The residents of the Upper Thames River Source Protection Area receive their municipal drinking water from Lake Huron or Erie through 2 intakes in other Source Protection Areas. Many of the communities in Perth and Oxford Counties rely on groundwater for municipally supplied drinking water. Although the drinking water for much of the population of the Upper Thames is supplied from municipal drinking water sources, many rural residents rely on water from private wells.

IV. At a Glance: Progress on Source Protection Plan Implementation

1. Source Protection Plan Policies

P : Progressing Well/On Target:

For the policies that address significant drinking water threats in the TSR Source Protection Plan, 85% have being fully implemented. Another 15% are currently in progress. Further progress was also made to implement the significant non-legally binding policies with 67% implemented and 33% with some progress made.

2. Municipal Progress: Addressing Risks on the Ground

P : Progressing Well/On Target:

26 municipalities in the Thames-Sydenham and Region (TSR) have vulnerable areas where significant drinking water threat policies apply. These municipalities are required to ensure that their planning and building decisions conform with the Thames-Sydenham and Region SPP, and must also ensure that their Official Plan (or their Upper Tier municipality) conforms with the SPP upon the next Planning Act review.

Of the 26 municipality, 17 must undertake a completion of a Official Plan. 9 of the municipalities in the TSR that have an official plan have completed their required Official Plan conformity exercises. Of the remaining 8 municipalities, 6 are in the process of amending their Official Plan, 1 has their OP under appeal and 1 has yet to begin.

3. Septic Inspections

P : Progressing Well/On Target: Under the Ontario Building Code, any on-site sewage system which has been identified as a significant drinking water threat is required to be inspected once every five years. In the Thames-Sydenham and Region there are seven municipalities which have on-site sewage systems that require mandatory inspection. Of those seven municipalities, six have completed all of the required inspections for 2023, while one municipality has not completed them due to an initial delay due to COVID restrictions and have been dealing with further delays due to scheduling priorities and staffing constraints.

4. Risk Management Plans

P : Progressing Well/On Target

Twenty new Risk Management Plans were agreed to in 2023, bringing the Region's total Risk Management Plans to 101.

Based on the responses provided by Risk Management Officials, 33 (Section 58) Inspections were carried out in 2023 and 12 new RMPs are currently in-progress. None of which are in contravention or non-compliance.

5. Provincial Progress: Addressing Risks on the Ground

P : Progressing Well/On Target

Provincial ministries, including MECP, MNR, MTO and OMAFRA, are responsible for the implementation of source protection policies included in the Thames-Sydenham and Region Source Protection Plan. These ministries are reviewing previously issued provincial approvals (e.g., prescribed instruments such as environmental compliance approvals issued under the Environmental Protection Act), where they have been identified as a tool in our plan to address existing activities that pose a significant risk to sources of drinking water. The provincial approvals are being amended or revoked where necessary to conform with plan policies. The ministries have completed this for 100% of previously issued provincial approvals in our source protection region.

The above-noted Provincial Ministries have also established Standard Operating Policies to ensure that all new applications submitted for provincial approvals take into account the science generated through the Drinking Water Source Protection Program, and policies in the relevant source protection plan. Where necessary, new prescribed instruments are either being denied or issued with conditions added to ensure that the activity does not pose a significant threat to sources of drinking water.

6. Source Protection Awareness and Change in Behaviour

New, provincial standard road signs mark locations where well-used roads cross into zones where municipal drinking water sources are the most vulnerable to contamination. The road signs provide general public awareness about the sensitivity of the area. They will also alert first responders of the need to quickly inform the appropriate authorities so action can be taken to keep contaminants out of the public water treatment and distribution system. A total of 157 Drinking Water Protection Zone signs have been installed on roadways in the Thames-Sydenham Source Protection Region.

7. Source Protection Plan Policies: Summary of Delays

Incentive programs are not being considered by most organizations in the Thames-Sydenham Region as suggested by Policy 1.04 of the Source Protection Plan. If Provincial funding support were made available to help offset the costs of an incentive programs, more organizations would be open to the consideration of an incentive program.

Discretionary Septic System Maintenance Inspections programs targeting moderate and low septic system threats have not yet been considered by municipalities in the Thames-Sydenham and Region. Discretionary inspections are recommended in policy 3.01, and it should be noted that this is a non-legally binding policy. At this point in time, municipalities have been focusing on the mandatory septic inspections as required for septic systems that pose a significant threat to drinking water. More consideration will be given to discretionary inspections once the mandatory inspections are complete.

8. Source Water Quality: Monitoring and Actions

Nitrogen at the Woodstock Well System

Nitrate occurs in the Thornton wellfield and Tabor wellfield of the Woodstock Drinking Water System. Nitrate levels are routinely above half of the treated water maximum allowable concentration (MAC) of 10 mg/L. Anthropogenic activities associated with agriculture, residential development and wetlands are known sources of nitrate in groundwater. Nitrates were therefore identified as an issue for both the Thornton and Tabor wellfields. An analysis of the nitrate levels in some of the wells for the Thornton wellfield revealed that nitrate levels may be leveling off or decreasing. Additional monitoring was recommended to determine whether an Issue Contributing Area (ICA) was required at the Thornton wellfield. Levels at the Tabor wellfield were significantly lower than those seen in the Thornton wellfield, but appeared to be trending upwards. The wellfield contains two highly productive wells that are a main supply of water to the system. An ICA was therefore delineated for the Tabor wellfield.

The County will complete a review of the Thornton nitrate levels to determine whether the delineation of an Issue Contributing Area (ICA) is warranted.

9. Science-based Assessment Reports: Work Plans

No work plans were required to be implemented for our assessment reports.

10. More from the Watershed

To learn more about our source protection region, visit our Homepage:
<https://www.sourcewaterprotection.on.ca/>

4. c. Appendix B 2023 TSR Supplemental Form – Attached



Source Water Protection Annual Report

2023 - Supplemental Form

SPR - Thames, Sydenham and Region

Report Id	Completed	Question	Answer
10	True	As applicable to your source protection region/area, indicate if all relevant implementing bodies submitted a status update/annual report to the source protection authority for the previous reporting year. If "No" is selected for any implementing body(ies), then please complete the Comments field below with details including the name of the specific implementing body along with an explanation, if available, for not submitting a status update/annual report as required by a monitoring policy. *NOTE: Where a listed implementing body(ies) is not applicable/relevant to your source protection region/area, then simply select "No" and explain that it is not an applicable implementing body in your source protection region/area in the Comments field text box.	Yes
		Response	Yes
		Risk Management Official	Yes
		Municipality	Yes
		Conservation Authority	Yes
		Local Health Unit	No
		MECP - Waste Disposal Sites - Landfilling and Storage	Yes
		MECP - Wastewater/Sewage Works	Yes
		MECP - Pesticides	Yes
		MECP - Hauled Sewage/Biosolids	Yes
		MECP - Hauled Sewage/Biosolids Inspections	Yes
		MECP - Permit to Take Water	Yes
		MECP - Permit to Take Water Inspections	Yes
		MECP - Municipal Residential Drinking Water Systems	Yes
		MECP - Municipal Residential Drinking Water Systems Inspections	Yes
		MECP - Source Protection	Yes
		MECP - Waste Disposal Sites - Landfilling and Storage Inspections	Yes
		MECP - Wastewater/Sewage Works Inspections	Yes
		MECP - Conditions Sites	No
		MECP - NMA - ASM and NASM Inspections	Yes
		MECP - Environmental Monitoring	Yes
		MECP - Fuel	Yes
		MECP - Great Lakes	Yes



Source Water Protection Annual Report 2023 - Supplemental Form SPR - Thames, Sydenham and Region

MECP - Spills Response	Yes
MECP - Wells	Yes
OMAFRA	Yes
MNRF	Yes
MTO	Yes
MMAH	No
MGCS-TSSA	No
MENDM	No
Provincial Board/Commission	No
Federal Departments/Agencies/Commissions/Crown Corporations	No
Private Entity/Company	No
Association/Organization	No

Comment: All implementing bodies met the February 1st deadline to report on their implementation efforts in 2023. All "NO" responses are because that body is not named as an implementing body in the Thames-Sydenham & Region Source Protection Plan.



Source Water Protection Annual Report

2023 - Supplemental Form

SPR - Thames, Sydenham and Region

Report Id	Completed	Question	Category
20	True	Did the Source Protection Authority indicate the status of all threat policies as contained in their source protection plan? Please provide details in the response field text box in the Policy Interface for policies with a "No Progress Made" and "No information available/no response received" implementation status especially for legally-binding policies that address significant drinking water threat activities and for any moderate/low threat policies that use prescribed instruments and Planning Act tools.	Implementation status of source protection plan policies

Answer: Yes

Comment:

Report Id	Completed	Question	Category
21	True	Did the source protection authority(ies) confirm the accuracy of the implementation status of all threat policies as contained in their source protection plan and located on the policy interface database for the current reporting year?	Monitoring Policy Implementation

Answer: Yes

Comment:

Report Id	Completed	Question	Category
22	True	Did all source protection authority(ies) confirm that if a policy is significant and legally binding and has not been implemented by a person or a body by the implementation date specified in the policy, that there are written comments that include a description of the failure and the reasons for the failure as per O.Reg 287/07 s.52(1) 1.?	Monitoring Policy Implementation

Answer: Yes

Comment:



Source Water Protection Annual Report

2023 - Supplemental Form

SPR - Thames, Sydenham and Region

Report Id	Completed	Question						
30	True	Number of risk management plans agreed to or established within the source protection area/region (to address existing and future threats) in this reporting period (i.e., annual total).						
Provincial Total								
		<table><thead><tr><th>Current Year</th><th>Cumulative Count</th></tr></thead><tbody><tr><td>20</td><td>103</td></tr><tr><td>20</td><td>103</td></tr></tbody></table>	Current Year	Cumulative Count	20	103	20	103
Current Year	Cumulative Count							
20	103							
20	103							
Comment:								

Report Id	Completed	Question						
31	True	Number of properties (i.e., parcels) with risk management plans agreed to or established in this reporting period.						
Provincial Total								
		<table><thead><tr><th>Current Year</th><th>Cumulative Count</th></tr></thead><tbody><tr><td>20</td><td>100</td></tr><tr><td>20</td><td>100</td></tr></tbody></table>	Current Year	Cumulative Count	20	100	20	100
Current Year	Cumulative Count							
20	100							
20	100							
Comment:								

Report Id	Completed	Question						
32	True	How many existing* significant drinking water threats have been managed through the established risk management plans in this reporting period (* meaning engaged in OR enumerated as existing significant threats)?						
Provincial Total								
		<table><thead><tr><th>Current Year</th><th>Cumulative Count</th></tr></thead><tbody><tr><td>27</td><td>176</td></tr><tr><td>27</td><td>176</td></tr></tbody></table>	Current Year	Cumulative Count	27	176	27	176
Current Year	Cumulative Count							
27	176							
27	176							
Comment:								



Source Water Protection Annual Report

2023 - Supplemental Form

SPR - Thames, Sydenham and Region

Report Id	Completed	Question
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40	True	How many section 59 notices were issued in this reporting period for activities to which neither a prohibition (section 57) nor a risk management plan (section 58) policy applied, as per ss. 59(2)(a) of the Clean Water Act?
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Current Year	Cumulative Count
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19	151
19	151

Provincial Total

Comment:

Report Id	Completed	Question
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41	True	How many section 59 notices were issued in this reporting period for activities to which a risk management plan (section 58) policy applied, as per ss. 59(2)(b) of the Clean Water Act?
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Current Year	Cumulative Count
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1	24
1	24

Provincial Total

Comment:

Report Id	Completed	Question
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61	True	State the total number of inspections (including any follow-up site visits) that were carried out for activities (existing or future) that are prohibited under section 57 of the Clean Water Act in this reporting period. If no inspections were conducted in the previous calendar year, please explain.
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Current Year	Cumulative Count
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0	183
0	183

Provincial Total

Comment:



Source Water Protection Annual Report

2023 - Supplemental Form

SPR - Thames, Sydenham and Region

Report Id	Completed	Question						
62	True	Among the inspections conducted for section 57, how many showed that activities were taking place on the landscape even though they were prohibited (i.e., in contravention) under section 57 of the Clean Water Act in this reporting period?						
<table border="0" style="width: 100%;"> <tr> <td style="width: 60%;"></td> <td style="text-align: right;">Current Year</td> <td style="text-align: right;">Cumulative Count</td> </tr> <tr> <td></td> <td style="text-align: right;">0</td> <td style="text-align: right;">0</td> </tr> </table>				Current Year	Cumulative Count		0	0
	Current Year	Cumulative Count						
	0	0						
<p>Provincial Total _____ 0 _____ 0</p> <p>Comment:</p>								
Report Id	Completed	Question						
63	True	How many new properties were identified with s.57 prohibited activities during the reporting year (do not include properties established outside of this reporting year)?						
<table border="0" style="width: 100%;"> <tr> <td style="width: 60%;"></td> <td style="text-align: right;">Current Year</td> <td style="text-align: right;">Cumulative Count</td> </tr> <tr> <td></td> <td style="text-align: right;">0</td> <td style="text-align: right;">0</td> </tr> </table>				Current Year	Cumulative Count		0	0
	Current Year	Cumulative Count						
	0	0						
<p>Provincial Total _____ 0 _____ 0</p> <p>Comment: None were found.</p>								
Report Id	Completed	Question						
70	True	How many existing significant drinking water threats have been prohibited as a result of section 57 prohibitions in this reporting period?						
<table border="0" style="width: 100%;"> <tr> <td style="width: 60%;"></td> <td style="text-align: right;">Current Year</td> <td style="text-align: right;">Cumulative Count</td> </tr> <tr> <td></td> <td style="text-align: right;">0</td> <td style="text-align: right;">15</td> </tr> </table>				Current Year	Cumulative Count		0	15
	Current Year	Cumulative Count						
	0	15						
<p>Provincial Total _____ 0 _____ 15</p> <p>Comment:</p>								



Source Water Protection Annual Report

2023 - Supplemental Form

SPR - Thames, Sydenham and Region

Report Id **Completed** **Question**

80 True State the total number of inspections (including any follow-up site visits) that were carried out for activities that require a risk management plan under section 58 of the Clean Water Act in this reporting period. If no inspections were conducted in the previous calendar year, please explain.

Current Year	Cumulative Count
33	966
33	966

Provincial Total

Comment:

Report Id **Completed** **Question**

81 True Among the inspections conducted for section 58, how many were in contravention with section 58 of the Clean Water Act in this reporting period (i.e., person engaging in a drinking water threat activity without a risk management plan as required by the source protection plan)?

Current Year	Cumulative Count
0	41
0	41

Provincial Total

Comment:



Source Water Protection Annual Report

2023 - Supplemental Form

SPR - Thames, Sydenham and Region

Report Id	Completed	Question
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82	True	Among the inspections for section 58, how many were in non-compliance with the specific contents of the risk management plan in this reporting period? (NOTE: Please only include those inspections that showed non-compliance with measures/conditions to manage the actual threat activity.)
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Current Year	Cumulative Count
0	6
0	6

Provincial Total

Comment:

Report Id	Completed	Question
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83	True	State the total number of notices issued where there were cases of contraventions and/or non-compliance found with section 57 in this reporting period.
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Current Year	Cumulative Count
0	1
0	1

Provincial Total

Comment:

Report Id	Completed	Question
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84	True	State the total number of notices issued where there were cases of contraventions and/or non-compliance found with section 58 in this reporting period.
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Current Year	Cumulative Count
0	7
0	7

Provincial Total

Comment:



Source Water Protection Annual Report

2023 - Supplemental Form

SPR - Thames, Sydenham and Region

Report Id **Completed** **Question**

85 True State the total number of orders issued for contraventions and/or non-compliance found with section 57 in this reporting period.

Current Year	Cumulative Count
0	0
0	0

Provincial Total

Comment:

Report Id **Completed** **Question**

86 True State the total number of orders issued for contraventions and/or non-compliance found with section 58 in this reporting period.

Current Year	Cumulative Count
0	7
0	7

Provincial Total

Comment:

Report Id **Completed** **Question**

220 True List the municipality(ies) (including upper-, lower-, and single-tier) within the source protection region/area that are required to complete Official Plan and Zoning exercises to conform to the latest source protection plan, and indicate the status of those exercises for each applicable municipality. "Latest source protection plan" means the first approved plan or any subsequent approved plan update. *NOTE: Applies to every municipality affected by land use planning or Part IV type policies. Where the official plan and/or zoning by-law status for any particular municipality needs to be changed/updated, then please do so by deleting the entry for that particular municipality by clicking on the red "-" (minus) sign and then re-select the municipality name from the drop down list of municipalities followed by selecting the updated status of the conformity exercise for the official plan and zoning by-law from the drop down list for that particular municipality. After doing so, please be sure to add the municipality as your response by clicking on the green plus sign.

Municipality
City of Sarnia

Official Plan
Completed

Zoning By Law
Completed



Source Water Protection Annual Report 2023 - Supplemental Form

SPR - Thames, Sydenham and Region

Municipality of Thames Centre	Completed	Completed
City of Stratford	Completed	In Progress/Updates Underway
Municipality of Lambton Shores	Completed	In Progress/Updates Underway
Municipality of Middlesex Centre	Completed	In Progress/Updates Underway
Village of Point Edward	Completed	In Progress/Updates Underway
Essex, County of	Completed	Not Applicable
Middlesex, County of	Completed	Not Applicable
Oxford, County of	Completed	Not Applicable
Town of Plympton-Wyoming	Completed, but Under appeal	Not Started
Township of St. Clair	In Progress/Updates Underway	Completed
Municipality of Chatham-Kent	In Progress/Updates Underway	In Progress/Updates Underway
Municipality of Leamington	In Progress/Updates Underway	In Progress/Updates Underway
Town of Lakeshore	In Progress/Updates Underway	In Progress/Updates Underway
Town of St. Marys	In Progress/Updates Underway	In Progress/Updates Underway
Lambton, County of	In Progress/Updates Underway	In Progress/Updates Underway
Perth, County of	In Progress/Updates Underway	Not Applicable
Township of East Zorra-Tavistock	Not Applicable	Not Applicable
Township of South-West Oxford	Not Applicable	Completed
City of Woodstock	Not Applicable	Completed
Township of Norwich	Not Applicable	In Progress/Updates Underway
Township of Perth South	Not Applicable	In Progress/Updates Underway
Township of Zorra	Not Applicable	In Progress/Updates Underway
Municipality of West Perth	Not Applicable	In Progress/Updates Underway
Township of Perth East	Not Applicable	Not Started

Comment:



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Report Id **Completed** **Question**

240 True State the number of source water protection signs installed on provincial highways in the source protection region/area in this reporting period.

Current Year	Cumulative Count
0	179
0	179

Provincial Total

Comment: The question that was asked of the municipalities was how many total.

Report Id **Completed** **Question**

241 True State the number of source water protection signs installed on municipal roads in the source protection region/area in this reporting period.

Current Year	Cumulative Count
5	170
5	170

Provincial Total

Comment:

Report Id **Completed** **Question**

242 True State the number of source water protection signs installed at other locations (if applicable) in the source protection region/area in this reporting period.

Current Year	Cumulative Count
0	4
0	4

Provincial Total

Comment:



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Report Id	Completed	Question	Category
260	True	Current total overall number of on-site sewage systems that are assessed as significant drinking water threat activities and that are required to be inspected every five years in accordance with the Ontario Building Code.	Sewage System Inspections
Answer: 143			
Comment:			

Report Id	Completed	Question	Category
261	True	Of those requiring inspections, how many inspections of on-site sewage systems were due to be carried out in this reporting period? If not applicable or no inspections of on-site sewage systems were due to be carried out in this reporting period because they were already inspected earlier within the inspection cycle or will be inspected in a future year within the cycle, then please enter "0" and state either explanation in the comment field.	Sewage System Inspections
Answer: 54			
Comment:			

Report Id	Completed	Question	Current Year	Cumulative Count
262	True	How many on-site sewage system inspections were completed in this reporting period?	31	207
Provincial Total			31	207
Comment:				



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Report Id **Completed** **Question**

263 True How many of the inspected on-site sewage systems required minor maintenance work in this reporting period?

Current Year	Cumulative Count
0	24
0	24

Provincial Total

Comment:

Report Id **Completed** **Question**

264 True How many of the inspected on-site sewage systems required major maintenance work (e.g., tank replacement, etc.) in this reporting period?

Current Year	Cumulative Count
0	4
0	4

Provincial Total

Comment: Thames Centre - Septic Bed replacement at 1 existing property

Report Id **Completed** **Question** **Category**

265 True How many of the inspected on-site sewage systems required no maintenance work?

Answer: 31

Sewage System Inspections

Comment:



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Report Id	Completed	Question
266	True	<p>For those on-site sewage systems that were not inspected in this reporting period but should have been inspected, and are now out of compliance, please indicate why they were not all inspected from among the reasons below. [Note: For municipalities that have not yet initiated the mandatory on-site sewage system inspection program, please see the next reportable to provide your response if this is the case].</p>
Response		
landowner refused entry, compliance order being sought inspections delayed/postponed due to COVID-19 restrictions vulnerable area changed and on-site sewage system(s) no longer a threat activity other. Please specify in the comment box below.		
Answer		
No		
Yes		
No		
Yes		
Comment: Initially delayed due to COVID restrictions and have been further delayed due to scheduling priorities and staffing constraints		



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Report Id	Completed	Question		
270	True	<p>Complete the information below regarding environmental monitoring of drinking water issues identified in accordance with the Technical Rules within your source protection region/area. Begin by selecting the drinking water system, the specific well or intake, the drinking water issue, the delineation status, and the observation of the concentration. [OPTIONAL]: In the comments field, describe any actions or behavioural changes that might be contributing to reported changes in the concentration of the issue or parameter. Where the drinking water issue, well or intake, delineation status, or observation of any previously listed drinking water system needs to be changed/updated, then please do so by deleting the entry for that particular drinking water system by clicking on the red minus sign on the right side of the entry and then re-select the drinking water system from the dropdown list of drinking water systems followed by selecting the associated well or intake, the drinking water issue, its delineation status, and the observation from the dropdown list for that particular drinking water system. After doing so, please be sure to add the drinking water system as your response by clicking on the green plus sign on the right side of the entry. If this reportable is not applicable to your source protection region/area, please indicate as such by choosing "No system with issues," "Not Known/Available," "No issue," "Not applicable," and "No observation," respectively, under the drop down menu options under each of the categories of this reportable. Do not leave blank.</p>		
DWIS Number	DWIS Name	Issue	ICA Delineated	Observation
220003332	Wheatley system	Microsystin LR	No	No Change in Concentration / Trend
220003378	Chatham/South Chatham-Kent System	Microsystin LR	No	No Change in Concentration / Trend
220003341	Wallaceburg System	Nitrate	No	No Longer Monitoring - issue improved
220000709	Woodstock Well Supply	Nitrogen	Yes	Not Enough Data
220000709	Woodstock Well Supply	Nitrogen	No	Not Enough Data
Comment:	Woodstock (Tabor Wellfield), Nitrogen, Yes, Not Enough Data/Information Available to Determine Changes in Concentration/Trend; Woodstock (Thornton Wellfield), Nitrogen, No, Not Enough Data/Information Available to Determine Changes in Concentration/Trend; University of Waterloo (UofW) have been completing groundwater studies within the Thornton Wellfield. UofW have indicated the elevated nitrates have been identified with monitoring wells within upgradient of the Thornton Wellfield.			



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Report Id	Completed	Question	Current Year	Cumulative Count
280	True	How many notices about transport pathways (meaning a condition of land resulting from human activity (e.g., pits and quarries, improperly abandoned wells, geothermal system, etc.) that increases the vulnerability of a raw water supply of a drinking water system) did the source protection authority receive from municipalities in this reporting period (as per O. Reg. 287/07, ss. 27(3))?	0	1
Provincial Total			0	1
Comment: Question not asked in 2022				



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Report Id	Completed	Question	Answer
281	True	Where transport pathway notices were received, indicate the action(s) taken by the source protection region/area in response to receiving these notices:	No
		Response	No
		Provided information to municipalities about changes in vulnerability	No
		Provided notice to Source Protection Committee for information	No
		Situation continues to be monitored	No
		Comment: N/A	



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Report Id	Completed	Question	Answer
300	True	[OPTIONAL]: If and where there are successful examples for each of the following initiatives in the source protection region/area (including from local municipalities, residents and businesses) that occurred in this reporting period that the authority wishes to highlight, then please indicate in the Comments field below. In your comments, please include details for each of the selected topics. Please limit the descriptions provided (e.g., one example for each topic or more could be included when the source protection authority feels they are exceptional/quite successful).	Yes
		Response	
		Education and Outreach (in description include details, if available, on type and percentage of target population reached, outcome(s) achieved, etc.)	No
		Incentives (in description include details, if available, on outcome(s) achieved, how widely available was the incentive, etc.)	Yes
		Stewardship Programs	Yes
		Best Management Practices	Yes
		Pilot Programs	Yes
		Research	Yes
		Specify Action (e.g., road salt management, municipal by-laws, legislative or regulatory amendments, mapping, review of fuel codes, new airport facility design standards to manage runoff of chemicals from de-icing of aircraft, instrumentation, etc.)	Yes
		Climate Change (e.g., data collection)	Yes
		Spill prevention/spill contingency/emergency response plan updates	Yes
		Transport pathways	Yes
		Water quantity	No
		Great Lakes	Yes
		Other policies (i.e., strategic action, etc.)	Yes



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Comment: Chatham-Kent: Climate Change Action Plan (mitigation/adaptation) initiated in 2020. To be completed in 2024.

Lakeshore: The University of Toronto, is evaluation of GAC Performance for Geosmin an MIB removal at the Lakeshore Water Treatment Plant in Belle River.

Lemington: Discussions with greenhouse developers regarding source protection planning is taking place during the preliminary site plan review/approval process.

Oxford County: 2021 was an unusual year due to Covid restrictions and staff changes (i.e., new RMO and RMI position being vacated). Details of success stories haven't been characterized for this reporting year.

Perth County: Council's received a workshop on how growth areas are planned for serviced settlement areas which included how the SWP areas in the vicinity of municipal wells affects the lower risk types of land uses that we would permit in those areas. Perth County Initiated the development of a stewardship program and the project launched in December 2022. They received \$75,000 in funding towards projects. We have scheduled SWP training for all our planning staff in March 2023 with two local RMO's. Research for the SWP policies proposed in the New OP that have been reviewed by the RMO's.

Stratford: With the increase of online learning in schools, we engaged with a few teachers and arranged presentations for Stratford HS classes which explained our water and wastewater process with a section focused solely on SWP. We piloted a new Unidirectional Flushing Program in 2023 and completed a system wide leak detection survey and made repairs to limit water loss and enhance conservation.

St. Marys: Town has partnered with external company to provide emergency spill response that provides the Town with better access to equipment, services and supplies in the event of a spill response. Town has initiated data collection and development of a Climate Change Action Plan

City of Sarnia: The City of Sarnia developed a Sarnia Emergency Management "Guideline for communication & response for spills that could impact municipal drinking water sources" in 2017 and a special training exercise was held for the City's emergency response Primary Control Group in December 2017. In 2018, a workshop was held and the Source Protection Authority provided guidance materials for Transport Pathways. Ongoing BMP's including contracted RMO services and expertise added in late 2020. Additional research conducted in 2023 regarding salt management strategies and best practices.

Plymton-Wyoming: Specific action: Application of Salt Sand is Tracked yearly by staff utilizing a events calendar along with purchasing receipts and Calibration of equipment; implemented a prewetting program. Spill prevention: Spill kits are on hand to apply if needed!

Perth East: GHG reduction plan developed over the the previous two years. Completed in 2021 which involved data collection.



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Report Id Completed Question

305 True Complete the table below with the count data for each significant drinking water threat activity/local threat activity/condition being engaged in (i.e., enumerated as 'existing' significant threats) at the time of source protection plan approval or approval of amendments that include new / changing protection zones. Please use the best available information/desktop exercises, reports from Risk Management Officials, and other implementing bodies to provide the counts below. For convenience, the count data from the previous reporting year have been copied over, but please be sure to review, edit, and confirm the counts for accuracy in the table below. [CWA Section 46(1)(a)]

The running tally consists of the formula: A+B-C-D where:

- A = Number of significant drinking water threats estimated when the source protection plan was first approved
- B = Number of additional significant drinking water threats counted after the first source protection plan approval (not part of the original estimate)
- C = Number of significant drinking water threats included in A and B that were determined through field verification to longer exist because: (i) the threat was not actually engaged in at a particular location after all OR (ii) it was no longer engaged in (e.g., land may still have an agricultural operation but owner no longer applying pesticides for their own reasons)
- D = Number of significant drinking water threats addressed because a policy is implemented. (It is understood that multiple policies/policy tools may address a single threat on the landscape. If any one policy is implemented and directed at that single threat it is considered addressed.)

In the comments box below summarize any remaining significant threats needing to be addressed for each source protection authority and what actions will be taken to eliminate those threats. If all threats have been addressed for each source protection authority(ies) write "All known significant threats have been addressed" in the comments box. Note that this summary response will be posted under the objective summary section 3 of the report.

ThreatId	Threat	A	B	C	D
1	The establishment, operation or maintenance of a waste disposal site within the meaning of Part V of the Environmental Protection Act.	36	1	27	9
2	The establishment, operation or maintenance of a system that collects, stores, transmits, treats or disposes of sewage.	262	1	55	152
3	The application of agricultural source material to land.	90	0	24	40
4	The storage of agricultural source material.	13	2	7	5
5	The management of agricultural source material.	0	0	0	0



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6	The application of non-agricultural source material to land.	34	0	22	5
7	The handling and storage of non-agricultural source material.	0	0	0	0
8	The application of commercial fertilizer to land.	58	6	24	24
9	The handling and storage of commercial fertilizer.	23	4	16	9
10	The application of pesticide to land.	57	0	26	17
11	The handling and storage of pesticide.	19	0	16	3
12	The application of road salt.	0	0	0	0
13	The handling and storage of road salt.	0	0	0	0
14	The storage of snow.	2	0	2	0
15	The handling and storage of fuel.	90	6	66	18
16	The handling and storage of a dense non-aqueous phase liquid.	259	56	220	91
17	The handling and storage of an organic solvent.	35	4	25	14
18	The management of runoff that contains chemicals used in the de-icing of aircraft.	0	0	0	0
19	Water taking from an aquifer without returning the water to the same aquifer or surface water body	0	0	0	0
20	Reducing recharge of an aquifer	0	0	0	0
21	The use of land as livestock grazing or pasturing land, an outdoor confinement area or a farm-animal yard. O. Reg. 385/08, s. 3.	34	0	25	3
22	The establishment and operation of a liquid hydrocarbon pipeline	0	0	0	0
1000	Water conditioning salts from water softeners	0	0	0	0
1001	Transportation of specified substances along corridors	0	0	0	0



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1002	Spill of Tritium from Nuclear Generating Station	0	0	0	0	0
1003	Handling storage of fuel	0	0	0	0	0
1004	Transportation, storage and handling of diesel/gasoline	0	0	0	0	0
1005	Transportation of Agricultural and Non-Agricultural Source Materials	0	0	0	0	0
1006	International Shipping Channel within IPZ2	0	0	0	0	0
1007	Transportation of hazardous substances along transportation corridors	0	0	0	0	0
1008	Transportation or Storage and Handling of Fuel in an Event Based Area	46	4	30	19	
1009	Waterfowl	0	0	0	0	0
1010	Local condition	0	0	0	0	0
	409	105	84	585	409	
		8				
	Totals:					

MECP Calc D/(A+B-C): 90 %

Comment:



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Report Id	Completed	Question	Category
310	True	Please provide comments below to explain the overall progress made in addressing existing significant threat activities and include the percentage of overall progress made within the comments provided. The percentage of overall progress made in addressing local threats and conditions that are taking place on the landscape is determined by taking the total number in column D (i.e., significant drinking water threat addressed because policy is implemented) from the table above (reportable 305) adding it to C (i.e., significant threats determined through field verification to no longer be threats) and dividing it by the number that is derived by adding the total numbers in columns A and B. In other words, overall progress made = $(C+D)/(A + B)$.	Addressing existing enumerated threats
Answer: Overall progress made is 87 %			
There were 1,058 threats included in the original enumeration and subsequently 84 new threats have been identified after the Source Protection Plan was approved. Of those threats 585 were determined to not be present/or no longer a occurring on the landscape. There are 409 threats that are being managed. There are 148 outstanding threats that need to be addressed.			
Comment:			
Report Id	Completed	Question	Category
320	True	If applicable, where the 2013/2017 technical rules were used for the assessment report update/amendment, provide a summary of steps taken to further assess or implement the plans of work described in technical rule 30.1: Water Budget Tier 3 not included in your original assessment report(s).	Assessment report information gaps
Answer: N/A			
Comment:			



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Report Id	Completed	Question	Category
321	True	If applicable, where the 2013/2017 technical rules were used for the assessment report update/amendment, provide a summary of steps taken to further assess or implement the plans of work described in technical rule 50.1: GUDI for WHPA-E or F not included in your original assessment report(s).	Assessment report information gaps

Answer: N/A

Comment:

Report Id	Completed	Question	Category
322	True	If applicable, where the 2013/2017 technical rules were used for the assessment report update/amendment, provide a summary of steps taken to further assess or implement the plans of work described in technical rule 116: Issue Contributing Area not included in your original assessment report(s).	Assessment report information gaps

Answer: N/A

Comment:

Report Id	Completed	Question	Category
323	True	[OPTIONAL] If applicable where the 2021 technical rules were used for the assessment report update/amendment, provide a summary of steps taken to further assess or implement the plans of work described in technical rule 30.1: Water Budget Tier 3 not included in your original assessment report(s).	Assessment report information gaps

Answer: N/A

Comment:



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Report Id	Completed	Question	Category
324	True	[OPTIONAL] Where the 2021 technical rules were used for the assessment report update/amendment, provide a summary of steps taken to further assess or implement the plans of work described in technical rule 50.1: GUDI for WHPA-E or F not included in your original assessment report(s).	Assessment report information gaps
Answer: N/A			
Comment:			
Report Id	Completed	Question	Category
330	True	Does the source protection authority have any other item(s) on which it wishes to report? If so, please explain.	Other reporting items
Answer: No other items to report on.			
Comment:			



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Report Id	Completed	Question	Answer
350	True	In the opinion of the Source Protection Committee, to what extent have the objectives of the source protection plan been achieved in this reporting period?	Yes
Response			
		Progressing Well - The majority of the policies from the approved original or an amended source protection plan have been implemented and/or are progressing well	Yes
		Satisfactory - Some of the policies from the approved original or an amended source protection plan have been implemented and/or are progressing well	No
		Limited Progress made - A few of the policies from the approved original or an amended source protection plan have been implemented and/or are progressing well	No
Comment:			



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Report Id	Completed	Question	Category
351	True	<p>Please provide comments to explain how the Source Protection Committee arrived at its opinion. Include a summary of any discussions that might have been had amongst the Source Protection Committee members, especially where no consensus was reached.</p>	Achievement of source protection plan objectives
Answer:		<p>December 31st, 2023 marked eight years since our Source Protection Plan first took effect. In that time significant progress has been made to implement the policies contained in the plan, and address the activities that were identified as posing a risk to our municipal drinking water supplies. To date, 85% of the policies in the plan that address significant drinking water threats have been fully implemented, with the remaining 15% progressing well.</p> <p>An additional 20 Risk Management Plans were established over the reporting period bringing the Region's total Risk Management Plans to 101.</p> <p>Approximately 87% of the 1058 originally identified significant drinking water threats, along with those identified after the originally approved SPPs, have been successfully managed or eliminated. While there is still a considerable amount of work to do to address the remaining threats, the Thames-Sydenham and Region Source Protection Committee is pleased to see that policy implementation is moving steadily forward. For that reason, they believe that a ranking score of progressing well and on target is a fair assessment on our implementation progress.</p>	
Comment:			

