

Thames Sydenham and Region Source Protection Region Meeting Agenda

Source Protection Authority: Lower Thames Valley
Meeting Date: April 21, 2022
Meeting Time: Directly after the Board of Directors Meeting
Meeting Location: Remote / in Person Access

Agenda

1. Adoption of the Agenda
2. Minutes from the Previous Meeting
 - a. April 15, 2021
3. Business Arising from the Previous Minutes
4. Business for Approval
 - a. Drinking Water Source Protection 2021 Annual Progress Report
 - b. Appendix A 2021 TSR Annual Report
 - c. Appendix B 2021 TSR Supplemental Form
5. Business for Information
6. Correspondence
7. Other Business
8. Adjourn

2. a. Minutes from the Previous Meeting April 15, 2021



**Thames – Sydenham and Region
Source Protection Region
Draft Minutes**

Source Protection Authority: Lower Thames Valley
Meeting Date: April 15, 2021
Meeting Time: Directly after the Board of Directors Meeting
Meeting Location: LTVCA Administration Building Board Room via remote access

A meeting of the LTV Source Protection Authority was held via remote access at the LTVCA Administration Building in Chatham, Ontario at 4:10 PM on Thursday, April 15, 2021 with the following directors present: T. Thompson, L. McKinlay, M. Hentz, P. Tiessen, C. Cowell and H. Aerts.

1. Adoption of the Agenda

1. M. Hentz – C. Cowell

Moved that the agenda be adopted.

CARRIED

2. Minutes of the Previous Meeting

2. P. Tiessen – L. McKinlay

Moved that the April 16, 2020 minutes be approved.

CARRIED

3. Business Arising from the Previous Minutes

None noted.

4. Business for Approval

- a. Drinking Water Source Protection 2020 Annual Report
- b. Appendix A 2020 TSR Annual Report
- c. Appendix B 2020 TSR Supplemental Form

DRAFT

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M. Peacock provided a power point presentation on 2020 Source Water Protection activity and the requirement to submit reporting to the Director of the Source Water Programs Branch.

3. M. Hentz – C. Cowell

Moved that the Lower Thames Valley Source Protection Authority direct staff to submit the Thames-Sydenham and Region Source Protection Annual Progress Report, Appendix A 2020 TSR Annual Report and Appendix B 2020 TSR 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. P. Tiessen – C. Cowell

Moved that the meeting be adjourned.

CARRIED

Trevor Thompson
Chair

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

4. a. Drinking Water Source Protection 2021 Annual Progress Report



Report to Lower Thames Valley Source Protection Authority
Cc SP Management Committee **Date** April, 2022
From Julie Welker, Source Protection Coordinator
Re: Drinking Water Source Protection Annual Progress Report

Purpose

To approve the submission of the 2021 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, 2021 to December 31, 2021.

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, 2021 marked six 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, 80% of the policies in the plan that address significant drinking water threats have been fully implemented, with the remaining 20% progressing well.

That being said, 2021 continued to be a difficult year for everyone due to the COVID-19 pandemic, and for those working in source protection, it was no exception. Risk Management Officials and Inspectors throughout the region put a pause on all site visits during lockdowns and resumed when those restrictions were lifted. Most Risk Management Officials and Inspectors have reported that it has been a challenging time to try and engage people to negotiate risk management plans, with many businesses just focused on saving or maintaining their operations as well as a number of businesses closing and new businesses opening. Risk Management Officials understood those challenges, and continued their efforts to ensure that municipal drinking water supplies were protected without creating undue hardships for



businesses. An additional seven Risk Management Plans were established over the reporting period bringing the Region's total Risk Management Plans to 65.

Approximately 53% 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 2021 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 2021 TSR Annual Report



Annual Progress Report

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

Reporting Period - January 1, 2021 to December 31, 2021



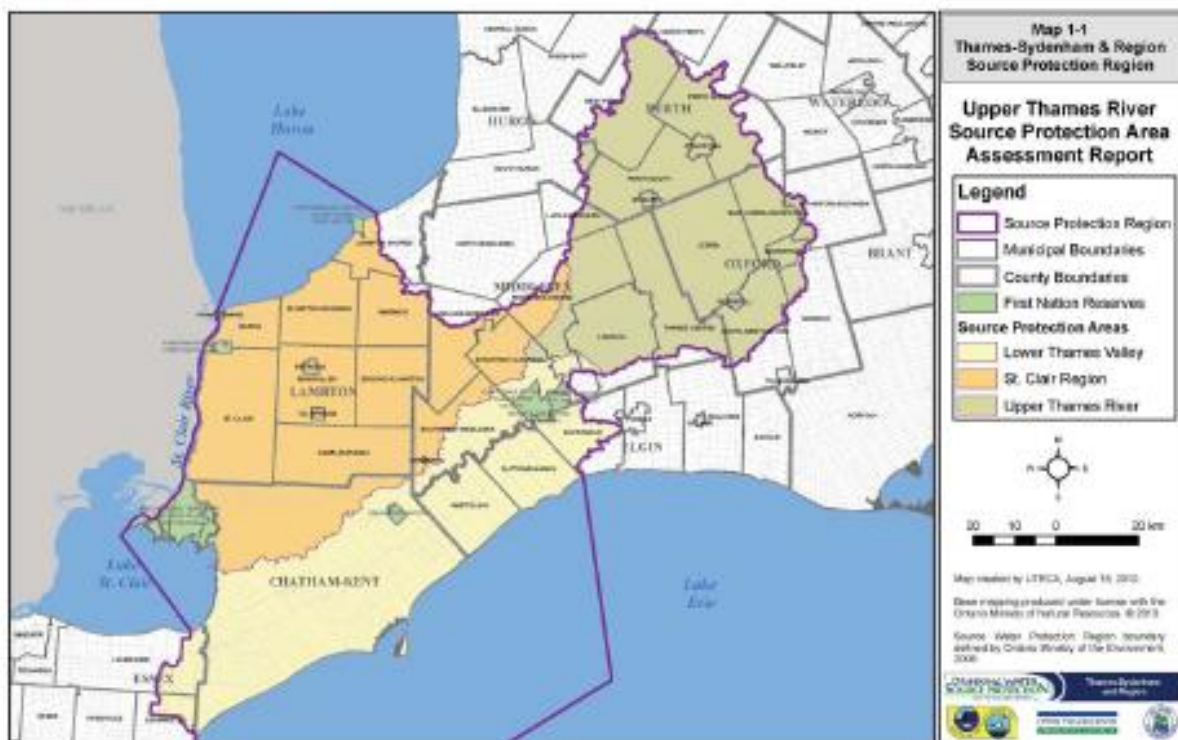
For more information about the drinking water source protection plan, visit
www.sourcewaterprotection.on.ca



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 sixth 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, 2021.



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, 2021 marked six 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, 80% of the policies in the plan that address significant drinking water threats have been fully implemented, with the remaining 20% progressing well.

That being said, 2021 continued to be a difficult year for everyone due to the COVID-19 pandemic, and for those working in source protection, it was no exception. Risk Management Officials and Inspectors throughout the region put a pause on all site visits during each lock down and resumed as lockdowns were lifted. Most Risk Management Officials and Inspectors have reported that it has been a challenging time to try and engage people to negotiate risk management plans, with many businesses just focused on saving or maintaining their operations and businesses closing and new ones starting up. Risk Management Officials understood those challenges, and continued their efforts to ensure that municipal drinking water supplies were protected without creating undue hardships for businesses. An additional seven Risk Management Plans were established over the reporting period bringing the Region's total Risk Management Plans to 65.

Approximately 53% 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.

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, 80% have been fully implemented. Another 16% are currently in progress, and for the remaining 4%, policy outcomes were evaluated and no further action was required. Further progress was also made to implement the significant non-legally binding policies, with 84% of those policies being fully implemented, and the remaining 16% requiring no further action.

2. Municipal Progress: Addressing Risks on the Ground

P : Progressing Well/On Target:

27 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 conforms with the SPP upon the next Planning Act review.

Half of the municipalities in the TSR that have an official plan (10 of 18) have completed their required Official Plan conformity exercises. Of the remaining 8 municipalities, 7 are in the process of amending their Official Plan, and one has not yet started.

All of the municipalities in our Source Protection Region that are responsible for day-to-day land use planning and building permit decisions, have integrated source protection requirements to ensure that their planning and building decisions conform with the policies in the TSR SPP.

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, four have completed all of the required inspections, while two municipalities are currently in the process of undertaking their inspections and two municipalities have not started.

4. Risk Management Plans

P : Progressing Well/On Target

Risk Management Officials and Inspectors throughout the Thames-Sydenham and Region reported that 2021 continued to be a challenging year to try and engage people to negotiate risk management plans due to the COVID-19 pandemic. Most RMO's and RMI's had to suspend in-person site visits when the pandemic was first declared in March 2020 and during each lockdown thereafter in 2021, with limited site visits that included extra safety precautions, resuming after each lockdown was lifted. Despite the challenging year, seven new Risk Management Plans were agreed to in 2020, bringing the Region's total Risk Management Plans to 65.

In The Thames-Sydenham and Region there are 18 municipalities who have areas where risk management plan policies apply. In 10 of those 18 municipalities, 100% of the expected risk management plans have already been agreed to or established.

Based on the responses provided by Risk Management Officials, it is estimated that about 70% of the anticipated risk management plans across the Region have been established. However, this assessment does not include some municipalities who are still in the process of verifying significant threats, and do not have an accurate assessment of the number of RMP's that will be required in their municipalities.

Although site visits were limited in 2021 due to the global pandemic (as discussed above), Risk Management Officials and Inspectors still managed to carry out 22 inspections to investigate activities that could either be prohibited or require a risk management plan.

5. Provincial Progress: Addressing Risks on the Ground

P : Progressing Well/On Target

Provincial ministries, including MECP, MNRF, 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. Our policies set out a timeline of 5 years to complete the review and make any necessary changes. 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 160 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

Microcystin at the Wheatley and Chatham/South Kent Surface Water Intakes

Harmful algal blooms (HABs) of blue-green algae (cyanobacteria) have been increasing in size and severity in recent years in the western basin of Lake Erie. Annual blooms have resulted in the closure of many Lake Erie beaches, as well as the shut-down of drinking water facilities on Pelee Island, and in Ohio. Microcystin-LR, a neurotoxin, is released when blue-green algae cells break down. All water treatment plants for Lake Erie systems in the Thames-Sydenham and Region have the treatment processes in place to remove microcystin-LR and provide safe drinking water during a bloom event. However, there is concern that some systems could be overwhelmed if HABs continue to increase in severity. The Great Lakes Water Quality Agreement (GLWQA) recognized that phosphorous is the limiting nutrient for cyanobacteria growth and, as such, contributes to the microcystin issue. The Conservation Authorities of the Thames-Sydenham and Region (TSR) are committed to working with senior levels of government and other partners to implement relevant actions to reduce phosphorous in our region. The TSR will also continue to consider all available data for the Wheatley and Chatham/South Kent intakes to determine whether microcystin-LR continues to be an issue for these water treatment plants.

Nitrates at the Wallaceburg Surface Water Intake

In October 2017, the Thames-Sydenham and Region Source Protection Committee (SPC) reviewed nitrate monitoring data collected between 2013 and 2017 for the Wallaceburg issue. The results of the monitoring were inconclusive and did not yield enough information to confirm the issue and delineate an Issue Contributing Area. Water treatment plant staff and managers for the Wallaceburg intake indicated that they no longer had any significant concerns regarding nitrate concentrations at the intake. The Assessment Report and Source Protection Plan will therefore be amended to indicate that nitrates are no longer an issue at the Wallaceburg intake.

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.

In their 2021 annual monitoring report, Oxford County indicated that there currently was not enough information available to determine changes to the concentration or trend of nitrates in either the Thornton or Tabor wellfields. 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 2021 TSR Supplemental Form



Source Water Protection Annual Report 2021 - Supplemental Form SPR - Thames, Sydenham and Region

Report Id	Completed	Question																																												
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.																																												
		<table><tr><th>Response</th><th>Answer</th></tr><tr><td>Risk Management Official</td><td>Yes</td></tr><tr><td>Municipality</td><td>Yes</td></tr><tr><td>Conservation Authority</td><td>Yes</td></tr><tr><td>Local Health Unit</td><td>No</td></tr><tr><td>MECP - Waste Disposal Sites - Landfilling and Storage</td><td>Yes</td></tr><tr><td>MECP - Wastewater/Sewage Works</td><td>Yes</td></tr><tr><td>MECP - Pesticides</td><td>Yes</td></tr><tr><td>MECP - Hauled Sewage/Biosolids</td><td>Yes</td></tr><tr><td>MECP - Permit to Take Water</td><td>Yes</td></tr><tr><td>MECP - Municipal Residential Drinking Water Systems</td><td>Yes</td></tr><tr><td>MECP - Source Protection</td><td>Yes</td></tr><tr><td>MECP - Waste Disposal Sites - Landfilling and Storage Inspections</td><td>Yes</td></tr><tr><td>MECP - Wastewater/Sewage Works Inspections</td><td>Yes</td></tr><tr><td>MECP - Conditions Sites</td><td>No</td></tr><tr><td>MECP - NMA - ASM and NASM Inspections</td><td>Yes</td></tr><tr><td>OMAFRA</td><td>Yes</td></tr><tr><td>MNRF</td><td>Yes</td></tr><tr><td>MTO</td><td>Yes</td></tr><tr><td>MMAH</td><td>No</td></tr><tr><td>MGCS-TSSA</td><td>No</td></tr><tr><td>MENDM</td><td>No</td></tr></table>	Response	Answer	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 - Permit to Take Water	Yes	MECP - Municipal Residential Drinking Water Systems	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	OMAFRA	Yes	MNRF	Yes	MTO	Yes	MMAH	No	MGCS-TSSA	No	MENDM	No
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MENDM	No																																													

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Source Water Protection Annual Report 2021 - Supplemental Form SPR - Thames, Sydenham and Region

Provincial Board/Commission	No
Federal Departments/Agencies/Commissions/Crown Corporations	No
Private Entity/Company	No
Association/Organization	No
MECP - Hauled Sewage/Biosolids Inspections	Yes
MECP - Permit to Take Water Inspections	Yes
MECP - Municipal Residential Drinking Water Systems Inspections	Yes
MECP - Environmental Monitoring	Yes
MECP - Fuel	Yes
MECP - Great Lakes	Yes
MECP - Spills Response	Yes
MECP - Wells	Yes

Comment: All implementing bodies met the February 1st deadline to report on their implementation efforts in 2019. 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

2021 - Supplemental Form

SPR - Thames, Sydenham and Region

Report Id	Completed	Question	Category
20	True	Did the Source Protection Authority (i) indicate the status of all threat policies as contained in their source protection plan by using one of the two options outlined in the guidance document (ID 20a) AND (ii) either provide details in the response field text box in section 2 for policies with a "No Progress Made" and "No information available/no response received" implementation status OR complete the table as part of reportable ID 20b in the Excel Workbook for those policies with a "No Progress Made" and "No information available/no response received" implementation status (only if also submitting the Excel Workbook), 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. Please refer to the instructions provided for EAR Reportable ID 20 in the Guidance document which can be found in the FAQ section of the EAR online tool.	Implementation status of source protection plan policies
Answer:		Yes	

Comment:

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).						
		<table><tr><th>Current Year</th><th>Cumulative Count</th></tr><tr><td>7</td><td>69</td></tr><tr><td>Provincial Total</td><td>7</td></tr></table>	Current Year	Cumulative Count	7	69	Provincial Total	7
Current Year	Cumulative Count							
7	69							
Provincial Total	7							
		Comment:						



Source Water Protection Annual Report

2021 - Supplemental Form

SPR - Thames, Sydenham and Region

Report Id	Completed	Question				
31	True	Number of properties (i.e., parcels) with risk management plans agreed to or established in this reporting period.				
		<table><tr><th>Current Year</th><th>Cumulative Count</th></tr><tr><td>7</td><td>68</td></tr></table>	Current Year	Cumulative Count	7	68
Current Year	Cumulative Count					
7	68					
Provincial Total		7 68				
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)?				
		<table><tr><th>Current Year</th><th>Cumulative Count</th></tr><tr><td>13</td><td>134</td></tr></table>	Current Year	Cumulative Count	13	134
Current Year	Cumulative Count					
13	134					
Provincial Total		13 134				
Comment:						



Source Water Protection Annual Report

2021 - Supplemental Form

SPR - Thames, Sydenham and Region

Report Id	Completed	Question	Category
33	True	If known, please state the percentage of risk management plans that have been established to date in relation to the ones still needed/pending to manage EXISTING significant drinking water threat activities. [OPTIONAL]: You may also include a description of the effort and time dedicated to getting the risk management plans in place in the Comments field.	Part IV (Sections 57, 58 & Section 59)
Answer:	58		
Comment:		Based on the responses provided by Risk Management Officials, we are estimating that about 58% of the anticipated risk management plans have already been agreed to or established. However, there are some municipalities that are still in the process of verifying significant threats and do not have an accurate assessment of the number of RMP's that will be required in their municipalities, and were therefore unable to provide a response to this question. Those municipalities were left out of the above estimate. In The Thames-Sydenham and Region there are 18 municipalities who have areas where risk management plan policies apply. In 8 of those 17 municipalities, 100% of the expected risk management plans have already been agreed to or established.	
Report Id	Completed	Question	Category
34	True	Since their establishment, were any risk management plans cancelled within the source protection region/area because of updates or amendments or other changes? If yes, please state how many. If no, please enter "0". Note: This count should be the cumulative count of all risk management plans that have been cancelled over any of the previous reporting years. See guidance for more details.	Part IV (Sections 57, 58 & Section 59)
Answer:	0		
Comment:			



Source Water Protection Annual Report

2021 - Supplemental Form

SPR - Thames, Sydenham and Region

Report Id	Completed	Question				
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?				
		<table><thead><tr><th>Current Year</th><th>Cumulative Count</th></tr></thead><tbody><tr><td>12</td><td>125</td></tr></tbody></table>	Current Year	Cumulative Count	12	125
Current Year	Cumulative Count					
12	125					
Provincial Total		12 125				
Comment:						

Report Id	Completed	Question				
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?				
		<table><thead><tr><th>Current Year</th><th>Cumulative Count</th></tr></thead><tbody><tr><td>3</td><td>18</td></tr></tbody></table>	Current Year	Cumulative Count	3	18
Current Year	Cumulative Count					
3	18					
Provincial Total		3 18				
Comment:						

Report Id	Completed	Question				
50	True	For the purposes of section 61 of O. Reg. 287/07, how many notices and/or copies of prescribed instruments that state the prescribed instrument conforms with the significant drinking water threat policies in the source protection plan (i.e., statement of conformity confirms the instrument holder is exempt from requiring a risk management plan) did the risk management official receive in this reporting period?				
		<table><thead><tr><th>Current Year</th><th>Cumulative Count</th></tr></thead><tbody><tr><td>1</td><td>7</td></tr></tbody></table>	Current Year	Cumulative Count	1	7
Current Year	Cumulative Count					
1	7					
Provincial Total		1 7				
Comment:						

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SPR - Thames, Sydenham and Region

Report Id	Completed	Question	Category
60	True	Provide a brief overview of inspections that were carried out for activities that are prohibited under section 57 or require a risk management plan under section 58 of the Clean Water Act. You may wish to include a brief summary of inspection results and an overall indication of compliance. If no inspections were conducted in the previous calendar year, please explain. [OPTIONAL]: If you wish to share any insights or feedback about the compliance process in general, please do so.	Part IV (Sections 57, 58 & Section 59)
		<p>Answer: Due to the COVID-19 pandemic, only a limited number of on-site inspections were carried out by Risk Management Officials and Inspectors in the Thames-Sydenham and Region. Most Risk Management Officials reported that inspections in 2021 were carried out as drive-by/windshield surveys and phone calls and compliance with risk management plans were confirmed through email and telephone correspondence.</p> <p>In Oxford County, 12 inspections were completed. Most were regarding DNAPLs or fuel oil. These activities were thought to require a Risk Management Plan, but were then found not to meet the circumstances. No non-compliance issues were found.</p>	
<p>Comment:</p>			
Report Id	Completed	Question	
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.	
		Current Year	Cumulative Count
		22	164
Provincial Total		22	164
<p>Comment:</p>			



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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><thead><tr><th></th><th>Current Year</th><th>Cumulative Count</th></tr></thead><tbody><tr><td></td><td>0</td><td>0</td></tr><tr><td>Provincial Total</td><td>0</td><td>0</td></tr><tr><td>Comment:</td><td></td><td></td></tr></tbody></table>		Current Year	Cumulative Count		0	0	Provincial Total	0	0	Comment:		
	Current Year	Cumulative Count												
	0	0												
Provincial Total	0	0												
Comment:														

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><thead><tr><th></th><th>Current Year</th><th>Cumulative Count</th></tr></thead><tbody><tr><td></td><td>0</td><td>15</td></tr><tr><td>Provincial Total</td><td>0</td><td>15</td></tr><tr><td>Comment:</td><td></td><td></td></tr></tbody></table>		Current Year	Cumulative Count		0	15	Provincial Total	0	15	Comment:		
	Current Year	Cumulative Count												
	0	15												
Provincial Total	0	15												
Comment:														

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.												
		<table><thead><tr><th></th><th>Current Year</th><th>Cumulative Count</th></tr></thead><tbody><tr><td></td><td>30</td><td>835</td></tr><tr><td>Provincial Total</td><td>30</td><td>835</td></tr><tr><td>Comment:</td><td></td><td></td></tr></tbody></table>		Current Year	Cumulative Count		30	835	Provincial Total	30	835	Comment:		
	Current Year	Cumulative Count												
	30	835												
Provincial Total	30	835												
Comment:														

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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)?				
		<table><tr><th>Current Year</th><th>Cumulative Count</th></tr><tr><td>34</td><td>35</td></tr></table>	Current Year	Cumulative Count	34	35
Current Year	Cumulative Count					
34	35					
Provincial Total		<table><tr><td>34</td><td>35</td></tr></table>	34	35		
34	35					
Comment: 12 out of the 34 were in Oxford County.						

Report Id	Completed	Question				
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.)				
		<table><tr><th>Current Year</th><th>Cumulative Count</th></tr><tr><td>6</td><td>6</td></tr></table>	Current Year	Cumulative Count	6	6
Current Year	Cumulative Count					
6	6					
Provincial Total		<table><tr><td>6</td><td>6</td></tr></table>	6	6		
6	6					
Comment:						

Report Id	Completed	Question				
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.				
		<table><tr><th>Current Year</th><th>Cumulative Count</th></tr><tr><td>1</td><td>1</td></tr></table>	Current Year	Cumulative Count	1	1
Current Year	Cumulative Count					
1	1					
Provincial Total		<table><tr><td>1</td><td>1</td></tr></table>	1	1		
1	1					
Comment:						



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Report Id	Completed	Question				
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.				
		<table><thead><tr><th>Current Year</th><th>Cumulative Count</th></tr></thead><tbody><tr><td>0</td><td>0</td></tr></tbody></table>	Current Year	Cumulative Count	0	0
Current Year	Cumulative Count					
0	0					
Provincial Total		0				
Comment:						

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.				
		<table><thead><tr><th>Current Year</th><th>Cumulative Count</th></tr></thead><tbody><tr><td>0</td><td>0</td></tr></tbody></table>	Current Year	Cumulative Count	0	0
Current Year	Cumulative Count					
0	0					
Provincial Total		0				
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.				
		<table><thead><tr><th>Current Year</th><th>Cumulative Count</th></tr></thead><tbody><tr><td>1</td><td>1</td></tr></tbody></table>	Current Year	Cumulative Count	1	1
Current Year	Cumulative Count					
1	1					
Provincial Total		1				
Comment:						



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SPR - Thames, Sydenham and Region

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 by-law conformity exercises for source protection and indicate the status of those exercises for each listed municipality. *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	Official Plan	Zoning By Law
City of London	Completed	Completed
Municipality of Thames Centre	Completed	Completed
Township of St. Clair	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
Essex, County of	Completed	Not Applicable
Lambton, County of	Completed	Not Applicable
Middlesex, County of	Completed	Not Applicable
Town of Plympton-Wyoming	Completed	Not Started
Municipality of Chatham-Kent	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
Oxford, County of	In Progress/Updates Underway	Not Applicable
Perth, County of	In Progress/Updates Underway	Not Applicable
Municipality of Leamington	In Progress/Updates Underway	Not Started
City of Woodstock	Not Applicable	In Progress/Updates Underway
Town of Ingersoll	Not Applicable	In Progress/Updates Underway
Township of East Zorra-Tavistock	Not Applicable	In Progress/Updates Underway
Township of Norwich	Not Applicable	In Progress/Updates Underway
Township of South-West Oxford	Not Applicable	In Progress/Updates Underway

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Township of Zorra	Not Applicable	In Progress/Updates Underway
Municipality of West Perth	Not Applicable	Not Started
Township of Perth East	Not Applicable	Not Started
Township of Perth South	Not Applicable	Not Started
Village of Point Edward	Not Started	Not Started

Comment:

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 6
Provincial Total		0 6
Comment:		

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
		0 153
Provincial Total		0 153
Comment:		



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SPR - Thames, Sydenham and Region

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.							
			<table border="1"> <thead> <tr> <th>Current Year</th> <th>Cumulative Count</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>4</td> </tr> <tr> <td>0</td> <td>4</td> </tr> </tbody> </table>	Current Year	Cumulative Count	0	4	0	4
Current Year	Cumulative Count								
0	4								
0	4								
<div>Provincial Total</div> <div>Comment:</div>									
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:		146							
<div>Comment:</div>									
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:		51							
<div>Comment:</div>									



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Report Id	Completed	Question	Category
262	True	How many on-site sewage system inspections were completed in this reporting period?	Sewage System Inspections

Answer: 36

Comment:

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	20
--	---	----

Provincial Total	0	20
------------------	---	----

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
--	--------------	------------------

	1	4
--	---	---

Provincial Total	1	4
------------------	---	---

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



Source Water Protection Annual Report 2021 - Supplemental Form SPR - Thames, Sydenham and Region

Report Id	Completed	Question	Category
265	True	How many of the inspected on-site sewage systems required no maintenance work?	Sewage System Inspections
Answer:	35		
Comment:			



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SPR - Thames, Sydenham and Region

Report Id	Completed	Question	
266	True	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].	
Response			Answer
landowner refused entry, compliance order being sought			Yes
other. Please specify in the comment box below.			Yes
inspections delayed/postponed due to COVID-19 restrictions			Yes
vulnerable area changed and on-site sewage system(s) no longer a threat activity			Yes
Comment: Inspections in some municipalities were all completed in previous years, and the next round of inspections has not yet begun.			
Chatham-Kent - There were originally 20 septic systems in the Highgate WHPA that were inspected. However, the Highgate well system was officially decommissioned in 2019, so they are no longer threats since the WHPA went away. There are only 3 septic systems that remain in Ridgetown that were previously inspected.			



Source Water Protection Annual Report 2021 - Supplemental Form SPR - Thames, Sydenham and Region

Report Id	Completed	Question	Category
267	True	If applicable, please indicate if any municipality(ies) has not yet established or initiated the mandatory on-site sewage system inspection program (i.e., the first inspection cycle) in your source protection region/area. As part of your response, please indicate the name of the municipality(ies), the reason(s) for not yet initiating the mandatory on-site sewage inspection program (if known) and the steps that have been taken to ensure compliance with the mandatory inspection program.	Sewage System Inspections
Answer:	n/a		
Comment:			



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Report Id Completed Question

270 True 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.

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.				



Source Water Protection Annual Report 2021 - Supplemental Form SPR - Thames, Sydenham and Region

Report Id	Completed	Question				
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))?				
		<table><tr><th>Current Year</th><th>Cumulative Count</th></tr><tr><td>0</td><td>1</td></tr></table>	Current Year	Cumulative Count	0	1
Current Year	Cumulative Count					
0	1					
Provincial Total		0 1				
Comment: Question not asked in 2021.						



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SPR - Thames, Sydenham and Region

Report Id	Completed	Question
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:
Response		Answer
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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SPR - Thames, Sydenham and Region

Report Id	Completed	Question																												
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).																												
		<table><tr><th>Response</th><th>Answer</th></tr><tr><td>Education and Outreach (in description include details, if available, on type and percentage of target population reached, outcome(s) achieved, etc.)</td><td>Yes</td></tr><tr><td>Incentives (in description include details, if available, on outcome(s) achieved, how widely available was the incentive, etc.)</td><td>No</td></tr><tr><td>Stewardship Programs</td><td>Yes</td></tr><tr><td>Best Management Practices</td><td>Yes</td></tr><tr><td>Pilot Programs</td><td>Yes</td></tr><tr><td>Research</td><td>Yes</td></tr><tr><td>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.)</td><td>Yes</td></tr><tr><td>Climate Change (e.g., data collection)</td><td>Yes</td></tr><tr><td>Spill prevention/spill contingency/emergency response plan updates</td><td>Yes</td></tr><tr><td>Transport pathways</td><td>Yes</td></tr><tr><td>Water quantity</td><td>No</td></tr><tr><td>Great Lakes</td><td>Yes</td></tr><tr><td>Other policies (i.e., strategic action, etc.)</td><td>Yes</td></tr></table>	Response	Answer	Education and Outreach (in description include details, if available, on type and percentage of target population reached, outcome(s) achieved, etc.)	Yes	Incentives (in description include details, if available, on outcome(s) achieved, how widely available was the incentive, etc.)	No	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
Response	Answer																													
Education and Outreach (in description include details, if available, on type and percentage of target population reached, outcome(s) achieved, etc.)	Yes																													
Incentives (in description include details, if available, on outcome(s) achieved, how widely available was the incentive, etc.)	No																													
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																													



Source Water Protection Annual Report 2021 - Supplemental Form SPR - Thames, Sydenham and Region

Comment: Stratford: With the increase of online learning in schools, we engaged with a few teachers and arranged presentations for Stratford HS classes which explained out water and wastewater process with a section focused solely on SWP. We piloted a new Dead End Hydrant Flushing Optimization Program in 2021 with a focus on water conservation through improved flushing practices.

Samia: The City of Samia developed a Samia 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. No additional public activities or council policy actions due to Covid in 2020. Ongoing BMP's including contracted RMO services and expertise added in late 2020

Plympton-Wyoming - Specify 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! Emergency calls to SAC and to local contractors for clean up measures



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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. *NOTE: SPAs are strongly encouraged to refer to the Guidance document for additional details and instructions on completing this table.

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	21	9
2	The establishment, operation or maintenance of a system that collects, stores, transmits, treats or disposes of sewage.	264	0	80	91
3	The application of agricultural source material to land.	90	0	17	34
4	The storage of agricultural source material.	12	4	6	5
5	The management of agricultural source material.	0	0	0	0
6	The application of non-agricultural source material to land.	34	0	15	2
7	The handling and storage of non-agricultural source material.	0	0	0	0
8	The application of commercial fertilizer to land.	57	7	14	29
9	The handling and storage of commercial fertilizer.	23	4	13	9
10	The application of pesticide to land.	57	1	17	15
11	The handling and storage of pesticide.	19	0	16	1
12	The application of road salt.	0	0	0	0

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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	53	13
16	The handling and storage of a dense non-aqueous phase liquid.	259	51	199	86
17	The handling and storage of an organic solvent.	35	4	21	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	18	5
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
1002	Spill of Tritium from Nuclear Generating Station	0	0	0	0
1003	Handling storage of fuel	0	0	0	0
1004	Transportation, storage and handling of diesel/gasoline	0	0	0	0
1005	Transportation of Agricultural and Non-Agricultural Source Materials	0	0	0	0
1006	International Shipping Channel within IPZ2	0	0	0	0
1007	Transportation of hazardous substances along transportation corridors	0	0	0	0
1008	Transportation or Storage and Handling of Fuel in an Event Based Area	46	4	29	12

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1009	Waterfowl			0	0	0	0	
1010	Local condition			0	0	0	0	
	325	619		Totals:	1058	82	521	325

Comment:

MECP Calc D/(A+B-C): 53 %
Category

Report Id	Completed	Question	Category
310	True	Please provide comments below to explain the overall progress made in addressing these significant threats 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 in reportable ID 305 and dividing it by the number that is derived by adding the total numbers in columns A and B and then subtracting this sum total from the total in column C. In other words, overall progress made = D/(A plus B minus C).	Addressing existing enumerated threats

Answer:

Overall progress made is 53 %

There were 1,058 threats included in the original enumeration and subsequently 82 new threats have been identified after the Source Protection Plan was approved. Of those threats 521 were determined to not be present/or no longer occurring on the landscape. There are 325 threats that are being managed.

Comment:

Report Id	Completed	Question	Category
320	True	If applicable to the assessment report in your source protection region/area, 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 to the assessment report in your source protection region/area, 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 to the assessment report in your source protection region/area, 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
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	Category
340	True	What positive outcomes (e.g., less water consumption, changes in behaviour, reduction in phosphorus and nitrogen concentrations, less chloride from road salt, reduction in algal blooms, human health protected, etc.), if any, have potentially resulted from the implementation of source protection plan policies? Please describe the outcomes below.	Source protection outcomes
Answer:		Here are some comments from our municipalities: Lambton County: Public and business community awareness of the existence of drinking water threats. Protection of human health. City of London: Our ongoing Water conservation program has reduced consumption and increased awareness of our source of drinking water. Oxford County: Changes in behaviour has been noted. More people are aware of the Source Protection program and less apprehensive to setting up site visits. St. Clair Township: Increase in general public and public sector awareness of source protection. Incorporation of source protection into public works regular business practices. New industry is being reviewed with a source protection lens to include spills prevention in site planning.	
		Comment:	



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Report Id	Completed	Question
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?
Response		Answer
Progressing Well/On Target - The majority of the source protection plan policies have been implemented and/or are progressing well		Yes
Satisfactory - Some of the source protection plan policies have been implemented and/or are progressing well		No
Limited Progress made - A few of the source protection plan policies have been implemented and/or are progressing well		No
<hr/>		
Comment:		



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Report Id	Completed	Question	Category
351	True	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.	Achievement of source protection plan objectives
Answer:		<p>December 31st, 2021 marked six 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, 80% of the policies in the plan that address significant drinking water threats have been fully implemented, with the remaining 20% progressing well.</p> <p>That being said, 2021 continued to be a difficult year for everyone due to the COVID-19 pandemic, and for those working in source protection, it was no exception. Risk Management Officials and Inspectors throughout the region put a pause on all site visits during each lock down that occurred and resumed as lock downs lifted. Most Risk Management Officials and Inspectors have reported that it has been a challenging time to try and engage people to negotiate risk management plans, with many businesses just focused on saving or maintaining their operations. In addition, there has been many businesses that have closed during this pandemic while other businesses has started up. Risk Management Officials understood those challenges, and continued their efforts to ensure that municipal drinking water supplies were protected without creating undue hardships for businesses. An additional seven Risk Management Plans were established over the reporting period bringing the Region's total Risk Management Plans to 65.</p> <p>Approximately 53% 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.</p>	
Comment:			