

Thames – Sydenham and Region Source Protection Authority Meeting Agenda

Source Protection Authority Upper Thames River

Meeting Date: Tuesday, April 27, 2021

Meeting Time: 9:30am

Meeting Location: Virtual Meeting Due to COVID-19 Pandemic

Agenda

1. Adoption of the Agenda

Mover: M.Blosh

Secunder: A.Hopkins

THAT the members approve the Agenda as posted.

2. Approval of Minutes from the Previous Meeting: April 28, 2020

Mover: T.Jackson

Secunder: S.Levin

THAT that the minutes of the Upper Thames River Source Protection Authority dated April 28, 2020 be approved as presented.

3. Business for Approval

3.1 Ratification of Elected Positions – J.Allain

Mover: N.Manning

Secunder: H.McDermid

THAT the Source Protection Authority approve the recommendation as presented in the report.

3.2 Drinking Water Source Protection Annual Progress Report – J.Allain

Mover: P.Mitchell

Secunder: A.Murray

THAT the Source Protection Authority approve the recommendations as presented in the report.

4. Business for Information

5. Adjournment

Mover: B.Petrie



Tracy Annett
General Manager

Report to: Upper Thames River Conservation Authority Board of Directors

Cc:

Date: April 14, 2021

From: Jenna Allain, Source Protection Coordinator

Re: Ratification of Elected Positions

Recommendation

That the Source Protection Authority ratify the January 26th, 2021 election of Joe Salter as the Source Protection Striking Committee Member and Committee Liaison.

Background

The following is an excerpt from the minutes of the January 26th, 2021 UTRCA Board of Directors Meeting.

Source Protection Striking Committee Member & Committee Liaison

S.Levin moved to open nominations.

G.Inglis called for nominations for the position on the Source Protection Striking Committee and Committee Liaison.

J.Reffle nominated J.Salter to be the Source Protection Striking Committee Member and Committee Liaison.

G.Inglis called twice more for further nominations.

J.Salter agreed to let his name stand.

Mover: A.Dale

Seconder: S.Levin

THAT nominations for the position of Source Protection Striking Committee Member and Committee Liaison be closed.

Carried.

Joe Salter was declared as the Source Protection Striking Committee Member & Committee Liaison.

Recommended by:

Jenna Allain,

Source Protection Coordinator

Report to Upper Thames River Source Protection Authority

Cc SP Management Committee

Date April, 2021

From Jenna Allain, Source Protection Coordinator

Re: Drinking Water Source Protection Annual Progress Report

Purpose

To approve the submission of the 2020 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.

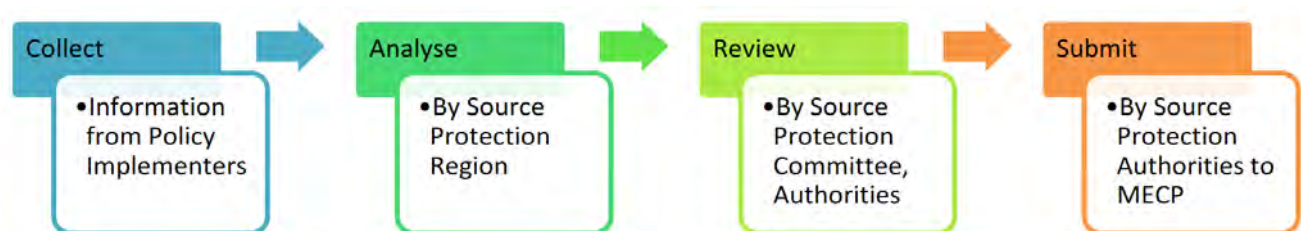


Figure 1: Source Protection Plan - Annual Progress Reporting at a Glance

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, 2020 to December 31, 2020.


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?

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

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, 2020 marked five 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, 2020 was 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 for most of the spring of 2020, with mostly outdoor-only visits eventually resuming over the summer months. 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. 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 six Risk Management Plans were established over the reporting period bringing the Region's total Risk Management Plans to 62.

Approximately 48% of the 1055 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 Upper Thames River Source Protection Authority direct staff to submit the 2020 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.

Annual Progress Report

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

Reporting Period - January 1, 2020 to December 31, 2020

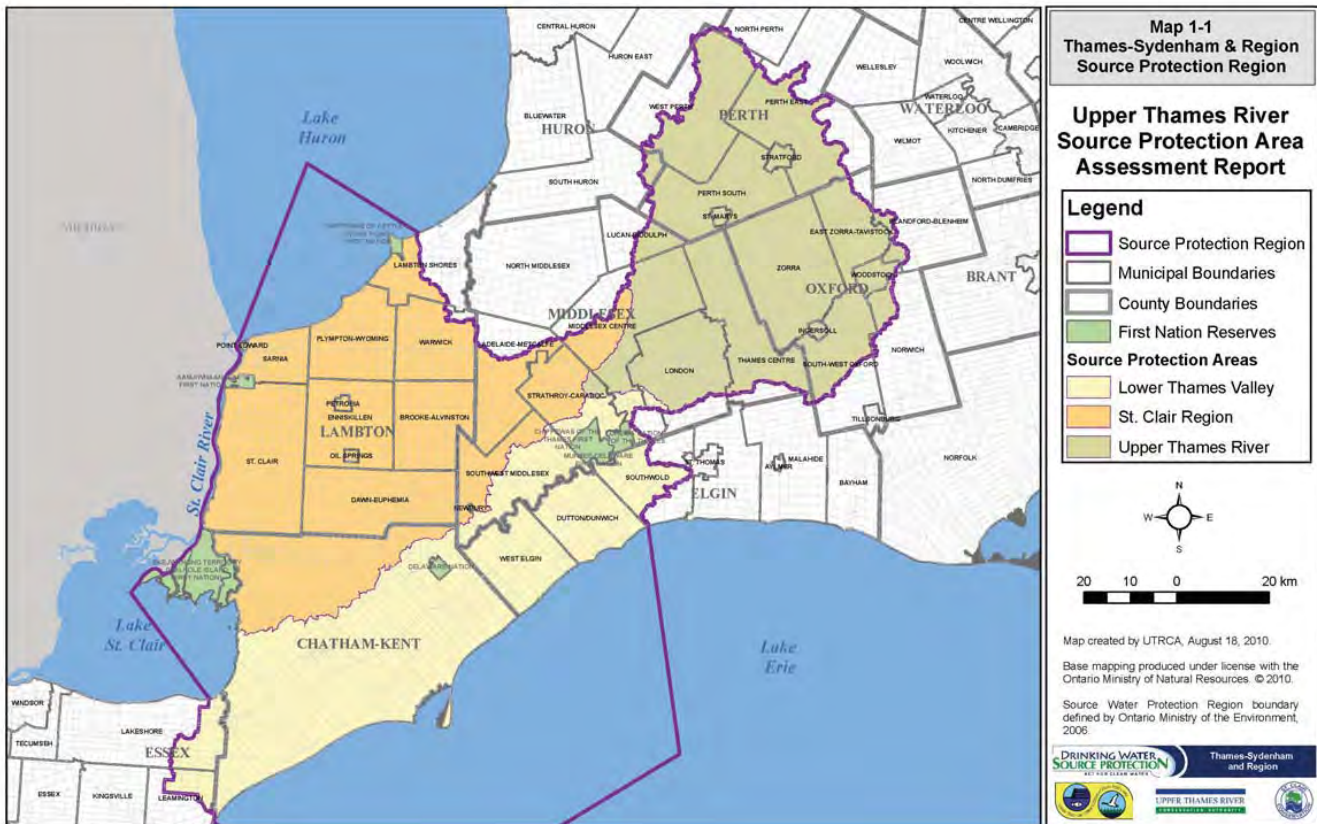
For more information about the drinking water source protection plan, visit
www.sourcewaterprotection.on.ca

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 fourth 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, 2020.

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.**
- S : Satisfactory – Some of the source protection plan policies have been implemented and/or are progressing.**
- L : Limited progress – A few of the source protection plan policies have been implemented and/or are progressing.**

December 31st, 2020 marked five 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, 2020 was 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 for most of the spring of 2020, with mostly outdoor-only visits eventually resuming over the summer months. 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. 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 six Risk Management Plans were established over the reporting period bringing the Region's total Risk Management Plans to 62.

Approximately 48% of the 1055 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

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

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 (9 of 18) have completed their required Official Plan conformity exercises. Of the remaining 9 municipalities, 8 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, five have completed all of the required inspections, while two municipalities are still undertaking inspections. While only two inspections were undertaken in 2020, many of our municipalities are planning inspections for 2021.

4. Risk Management Plans

P : Progressing Well/On Target

Risk Management Officials and Inspectors throughout the Thames-Sydenham and Region reported that 2020 was 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, with limited site visits that included extra safety precautions, resuming in the summer and fall of 2020. Despite the challenging year, six new Risk Management Plans were agreed to in 2020, bringing the Region's total Risk Management Plans to 62.

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 2020 due to the global pandemic (as discussed above), Risk Management Officials and Inspectors still managed to carry out 86 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 163 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. It should be noted that this is a non-legally binding policy in the Source Protection Plan.

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 as above, 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 2020 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/>



Source Water Protection Annual Report 2020 - 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. | |
| 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 - Other Policies | | | 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 |



Source Water Protection Annual Report 2020 - 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 |

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 2020 - 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/or "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/or "No information available/no response received" implementation status (only if also submitting the Excel Workbook)? 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 | Current Year | Cumulative Count |
|-----------|-----------|---|--------------|------------------|
| 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). | 6 | 62 |

| | | | | |
|-------------------------|--|--|---|----|
| Provincial Total | | | 6 | 62 |
|-------------------------|--|--|---|----|

Comment:

| Report Id | Completed | Question | Current Year | Cumulative Count |
|-----------|-----------|--|--------------|------------------|
| 31 | True | Number of properties (i.e., parcels) with risk management plans agreed to or established in this reporting period. | 6 | 61 |

| | | | | |
|-------------------------|--|--|---|----|
| Provincial Total | | | 6 | 61 |
|-------------------------|--|--|---|----|

Comment:



Source Water Protection Annual Report 2020 - Supplemental Form SPR - Thames, Sydenham and Region

| 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 style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th style="text-align: left;">Current Year</th> <th style="text-align: left;">Cumulative Count</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">4</td> <td style="text-align: center;">121</td> </tr> <tr> <td style="text-align: center;">4</td> <td style="text-align: center;">121</td> </tr> </tbody> </table> | Current Year | Cumulative Count | 4 | 121 | 4 | 121 |
| Current Year | Cumulative Count | | | | | | | |
| 4 | 121 | | | | | | | |
| 4 | 121 | | | | | | | |
| Provincial Total | | | | | | | | |
| Comment: | Two of the six RMP's agreed to/established in 2020 were for future threats, where the RMP was established prior to the development of a property and establishment of drinking water threat activities. Therefore, there were more RMP's agreed to or established in 2020 than "existing" significant threats managed. | | | | | | | |

| 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: | 70 | | |
| Comment: | Based on the responses provided by Risk Management Officials, we are estimating that about 70% 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 10 of those 18 municipalities, 100% of the expected risk management plans have already been agreed to or established. | | |



Source Water Protection Annual Report

2020 - Supplemental Form

SPR - Thames, Sydenham and Region

| Report Id | Completed | Question | Current Year | Cumulative Count |
|-------------------------|-----------|---|--------------|------------------|
| 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? | 10 | 113 |
| Provincial Total | | | 10 | 113 |
| Comment: | | | | |

| Report Id | Completed | Question | Current Year | Cumulative Count |
|-------------------------|-----------|--|--------------|------------------|
| 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? | 3 | 15 |
| Provincial Total | | | 3 | 15 |
| Comment: | | | | |

| Report Id | Completed | Question | Current Year | Cumulative Count |
|-------------------------|-----------|--|--------------|------------------|
| 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? | 0 | 6 |
| Provincial Total | | | 0 | 6 |
| Comment: | | | | |



Source Water Protection Annual Report 2020 - Supplemental Form 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) |
| Answer: | | <p>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 2020 were carried out as drive-by/windshield surveys only and compliance with risk management plans were confirmed through email and telephone correspondence.</p> <p>32 on-site inspections were completed in Oxford County to verify the presence of significant drinking water threats and confirm the need for risk management plans. All of these inspections led to the RMO/RMI confirming that on-site activities did not to meet the circumstances required to be a significant threat and RMP's were not required.</p> | |
| Comment: | | No compliance issues were reported other than for one property in the Municipality of Leamington where the RMO has not been able to establish communication with property owner to initiate discussions about the required RMP for the property. | |

| 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. | | | | | | | | |
| | | <table border="1"> <thead> <tr> <th>Current Year</th> <th>Cumulative Count</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">19</td> <td style="text-align: center;">142</td> </tr> <tr> <td colspan="2">Provincial Total</td> </tr> <tr> <td style="text-align: center;">19</td> <td style="text-align: center;">142</td> </tr> </tbody> </table> | Current Year | Cumulative Count | 19 | 142 | Provincial Total | | 19 | 142 |
| Current Year | Cumulative Count | | | | | | | | | |
| 19 | 142 | | | | | | | | | |
| Provincial Total | | | | | | | | | | |
| 19 | 142 | | | | | | | | | |
| Comment: | | | | | | | | | | |



Source Water Protection Annual Report

2020 - Supplemental Form

SPR - Thames, Sydenham and Region

| Report Id | Completed | Question | Current Year | Cumulative Count |
|-------------------------|-----------|--|--------------|------------------|
| 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? | 0 | 0 |
| Provincial Total | | | 0 | 0 |
| Comment: | | | | |

| Report Id | Completed | Question | Current Year | Cumulative Count |
|-------------------------|-----------|--|--------------|------------------|
| 70 | True | How many existing significant drinking water threats have been prohibited as a result of section 57 prohibitions in this reporting period? | 0 | 15 |
| Provincial Total | | | 0 | 15 |
| Comment: | | | | |

| Report Id | Completed | Question | Current Year | Cumulative Count |
|-------------------------|-----------|--|--------------|------------------|
| 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. | 67 | 805 |
| Provincial Total | | | 67 | 805 |
| Comment: | | | | |



Source Water Protection Annual Report

2020 - Supplemental Form

SPR - Thames, Sydenham and Region

| Report Id | Completed | Question | Current Year | Cumulative Count |
|-------------------------|-----------|--|--------------|------------------|
| 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)? | 1 | 1 |
| Provincial Total | | | 1 | 1 |
| Comment: | | | | |

| Report Id | Completed | Question | Current Year | Cumulative Count |
|-------------------------|-----------|--|--------------|------------------|
| 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.) | 0 | 0 |
| Provincial Total | | | 0 | 0 |
| Comment: | | | | |

| Report Id | Completed | Question | Current Year | Cumulative Count |
|-------------------------|-----------|---|--------------|------------------|
| 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. | 0 | 0 |
| Provincial Total | | | 0 | 0 |
| Comment: | | | | |



Source Water Protection Annual Report

2020 - Supplemental Form

SPR - Thames, Sydenham and Region

| Report Id | Completed | Question | Current Year | Cumulative Count |
|-------------------------|-----------|---|--------------|------------------|
| 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. | 0 | 0 |
| Provincial Total | | | 0 | 0 |
| Comment: | | | | |

| Report Id | Completed | Question | Current Year | Cumulative Count |
|-------------------------|-----------|--|--------------|------------------|
| 85 | True | State the total number of orders issued for contraventions and/or non-compliance found with section 57 in this reporting period. | 0 | 0 |
| Provincial Total | | | 0 | 0 |
| Comment: | | | | |

| Report Id | Completed | Question | Current Year | Cumulative Count |
|-------------------------|-----------|--|--------------|------------------|
| 86 | True | State the total number of orders issued for contraventions and/or non-compliance found with section 58 in this reporting period. | 0 | 0 |
| Provincial Total | | | 0 | 0 |
| Comment: | | | | |



Source Water Protection Annual Report 2020 - Supplemental Form 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 |
|----------------------------------|------------------------------|------------------------------|
| Municipality of Thames Centre | Completed | Completed |
| Township of St. Clair | Completed | Completed |
| City of London | Completed | In Progress/Updates Underway |
| 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 |
| City of Sarnia | In Progress/Updates Underway | In Progress/Updates Underway |
| 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 |
| Town of Plympton-Wyoming | 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 |



Source Water Protection Annual Report 2020 - Supplemental Form SPR - Thames, Sydenham and Region

| | | |
|-------------------------------|----------------|------------------------------|
| Township of South-West Oxford | Not Applicable | In Progress/Updates Underway |
| 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 | Current Year | Cumulative Count |
|-------------------------|-----------|---|--------------|------------------|
| 240 | True | State the number of source water protection signs installed on provincial highways in the source protection region/area in this reporting period. | 0 | 6 |
| Provincial Total | | | 0 | 6 |
| Comment: | | | | |

| Report Id | Completed | Question | Current Year | Cumulative Count |
|-------------------------|-----------|---|--------------|------------------|
| 241 | True | State the number of source water protection signs installed on municipal roads in the source protection region/area in this reporting period. | 0 | 153 |
| Provincial Total | | | 0 | 153 |
| Comment: | | | | |



Source Water Protection Annual Report 2020 - Supplemental Form 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 style="text-align: center;">0</td> <td style="text-align: center;">4</td> </tr> <tr> <td style="text-align: center;">0</td> <td style="text-align: center;">4</td> </tr> </tbody> </table> | Current Year | Cumulative Count | 0 | 4 | 0 | 4 |
| Current Year | Cumulative Count | | | | | | | |
| 0 | 4 | | | | | | | |
| 0 | 4 | | | | | | | |
| Provincial Total | | | | | | | | |
| Comment: | | | | | | | | |

| Report Id | Completed | Question | Category |
|-----------------|-----------|---|---------------------------|
| 260 | True | How many on-site sewage systems in the source protection area require inspections in accordance with the Ontario Building Code (i.e., identified as significant drinking water threat) once every five years? The inspection cycle is every 5 years after the approval date of individual assessment reports. If the inspection cycle ended in 2017, for example, then the numbers reported for 2018 should be the new 'cumulative' total of the second round of inspections. | Sewage System Inspections |
| Answer: | 169 | | |
| Comment: | | | |

| Report Id | Completed | Question | | | | | | |
|-------------------------|------------------|--|--------------|------------------|---|-----|---|-----|
| 261 | True | Of those requiring inspections, how many on-site sewage systems were inspected in the previous calendar year? | | | | | | |
| | | <table border="1"> <thead> <tr> <th>Current Year</th> <th>Cumulative Count</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">2</td> <td style="text-align: center;">176</td> </tr> <tr> <td style="text-align: center;">2</td> <td style="text-align: center;">176</td> </tr> </tbody> </table> | Current Year | Cumulative Count | 2 | 176 | 2 | 176 |
| Current Year | Cumulative Count | | | | | | | |
| 2 | 176 | | | | | | | |
| 2 | 176 | | | | | | | |
| Provincial Total | | | | | | | | |
| Comment: | | | | | | | | |



Source Water Protection Annual Report 2020 - Supplemental Form SPR - Thames, Sydenham and Region

| Report Id | Completed | Question | |
|---|-----------|--|---------------|
| 262 | True | If not all required on-site sewage systems were inspected, please indicate why they were not all inspected from among the options below: | |
| Response | | | Answer |
| on-site sewage system(s) is newly constructed and therefore not captured in the first round of inspections | | | Yes |
| landowner refused entry, compliance order being sought | | | Yes |
| municipality has not yet initiated inspection program | | | Yes |
| other. Please specify in the comment box below. | | | Yes |
| Comment: Inspections in some municipalities were all completed in previous years, and the next round of inspections has not yet begun. | | | |



Source Water Protection Annual Report

2020 - Supplemental Form

SPR - Thames, Sydenham and Region

| Report Id | Completed | Question | Current Year | Cumulative Count |
|-------------------------|-----------|---|--------------|------------------|
| 263 | True | How many of the on-site sewage systems inspected required minor maintenance work (e.g., pump out, etc.) in this reporting period? | 0 | 20 |
| Provincial Total | | | 0 | 20 |
| Comment: | | | | |

| Report Id | Completed | Question | Current Year | Cumulative Count |
|-------------------------|-----------|---|--------------|------------------|
| 264 | True | How many of the on-site sewage systems inspected required major maintenance work (e.g., tank replacement, etc.) in this reporting period? | 1 | 3 |
| Provincial Total | | | 1 | 3 |
| Comment: | | | | |



Source Water Protection Annual Report 2020 - Supplemental Form SPR - Thames, Sydenham and Region

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. Under "Drinking Water System", only the names of the drinking water system(s) are listed from which to choose. If specific wells or surface water intakes are impacted, please note these in the comments field. Optional: Describe the actions or behavioural changes in the issue contributing area that might be contributing to changes in observations in the Comments field for each applicable system. If this reportable is not applicable to your source protection region/area, please indicate as such by choosing "No system with issues," "No issue," "Not applicable," and "No observation," respectively, under the drop down menu options under each of the four categories of this reportable. Where the drinking water issue, 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 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. Do not leave blank.

| DWIS Number | DWIS Name | Issue | ICA Delinated | 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:



Source Water Protection Annual Report

2020 - 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))?

Current Year Cumulative Count

0 1

Provincial Total

0 1

Comment:



Source Water Protection Annual Report 2020 - Supplemental Form 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: | | | |



Source Water Protection Annual Report 2020 - Supplemental Form 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). | |
| 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 | | | No |
| Best Management Practices | | | Yes |
| Pilot Programs | | | No |
| 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 2020 - Supplemental Form SPR - Thames, Sydenham and Region

Comment: Education and Outreach (Leamington): Discussions with greenhouse developers regarding source protection planning is taking place during the preliminary site plan review/approval process.

Education and Outreach (Middlesex Centre): Mailing in fall 2020 outlining source protection area info and advising of septic inspections in 2021.

Specify Action (Plympton-Wyoming): Application of Salt Sand is Tracked yearly by staff utilizing a events calendar along with purchasing receipts and calibration of equipment.

Spill Prevention (Plympton-Wyoming): Spill kits are on hand to apply if needed. Emergency calls to SAC and to local contractors for clean up measures.



Source Water Protection Annual Report 2020 - Supplemental Form SPR - Thames, Sydenham and Region

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 for the current reporting year, 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. | 35 | 1 | 17 | 9 |
| 2 | The establishment, operation or maintenance of a system that collects, stores, transmits, treats or disposes of sewage. | 269 | 0 | 46 | 104 |
| 3 | The application of agricultural source material to land. | 87 | 0 | 12 | 39 |
| 4 | The storage of agricultural source material. | 12 | 2 | 3 | 6 |
| 5 | The management of agricultural source material. | 0 | 0 | 0 | 0 |
| 6 | The application of non-agricultural source material to land. | 34 | 0 | 10 | 4 |
| 7 | The handling and storage of non-agricultural source material. | 0 | 0 | 0 | 0 |
| 8 | The application of commercial fertilizer to land. | 57 | 5 | 20 | 18 |
| 9 | The handling and storage of commercial fertilizer. | 22 | 3 | 12 | 7 |
| 10 | The application of pesticide to land. | 60 | 0 | 18 | 11 |
| 11 | The handling and storage of pesticide. | 19 | 0 | 11 | 1 |
| 12 | The application of road salt. | 0 | 0 | 0 | 0 |



Source Water Protection Annual Report

2020 - Supplemental Form

SPR - Thames, Sydenham and Region

| | | | | | |
|------|--|-----|----|-----|----|
| 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. | 91 | 6 | 52 | 14 |
| 16 | The handling and storage of a dense non-aqueous phase liquid. | 257 | 51 | 179 | 88 |
| 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. | 29 | 0 | 16 | 4 |
| 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 | 1 | 27 | 5 |



Source Water Protection Annual Report 2020 - Supplemental Form SPR - Thames, Sydenham and Region

| | | | | | |
|----------------|-----------------|------------|-----------|------------|------------|
| 1009 | Waterfowl | 0 | 0 | 0 | 0 |
| 1010 | Local condition | 0 | 0 | 0 | 0 |
| Totals: | | 105 | 73 | 446 | 324 |
| | | 5 | | | |

Comment:

MECP Calc D/(A+B-C): 0 %
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 48%

There were 1,055 threats included in the original enumeration and subsequently 73 new threats have been identified after the Source Protection Plan was approved. Of those threats 446 were determined to not be present/or no longer a occurring on the landscape. There are 326 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:



Source Water Protection Annual Report 2020 - Supplemental Form SPR - Thames, Sydenham and Region

| 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:



Source Water Protection Annual Report 2020 - Supplemental Form SPR - Thames, Sydenham and Region

| 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 |
| | | <p>Answer:</p> <p>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.</p> | |
| <p>Comment:</p> | | | |



Source Water Protection Annual Report 2020 - Supplemental Form SPR - Thames, Sydenham and Region

| 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 | |
| Comment: | | | | |



Source Water Protection Annual Report 2020 - Supplemental Form SPR - Thames, Sydenham and Region

| 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, 2020 marked five 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, 2020 was 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 for most of the spring of 2020, with mostly outdoor-only visits eventually resuming over the summer months. 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. 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 six Risk Management Plans were established over the reporting period bringing the Region's total Risk Management Plans to 62.</p> <p>Approximately 48% of the 1055 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: | | | |



Source Water Protection Annual Report 2020 - Policy Implementation Status Summary SPR - Thames, Sydenham and Region

Implementation Status - Significant Legally Binding Policies

| Implementation Status Category | Count of Plan Policies | Percent of Plan Policies |
|-------------------------------------|------------------------|--------------------------|
| Implemented | 329 | 80 % |
| In progress/some progress made | 64 | 16 % |
| No response required/not applicable | 16 | 4 % |
| TOTAL | 409 | 100 % |



Source Water Protection Annual Report 2020 - Policy Implementation Status Summary SPR - Thames, Sydenham and Region

Implementation Status - Significant Non Legally Binding Policies

| Implementation Status Category | Count of Plan Policies | Percent of Plan Policies |
|-------------------------------------|------------------------|--------------------------|
| Implemented | 58 | 84 % |
| No response required/not applicable | 11 | 16 % |
| TOTAL | <hr/> 69 | <hr/> 100 % |



Source Water Protection Annual Report 2020 - Policy Implementation Status Summary SPR - Thames, Sydenham and Region

Implementation Status - Moderate/Low Policies

| Implementation Status Category | Count of Plan Policies | Percent of Plan Policies |
|--------------------------------|------------------------|--------------------------|
| Implemented | 110 | 81 % |
| In progress/some progress made | 26 | 19 % |
| TOTAL | <hr/> 136 | <hr/> 100 % |



Source Water Protection Annual Report 2020 - Policy Implementation Status Summary SPR - Thames, Sydenham and Region

Implementation Status – Non-threat specific policies

Implementation Status Category

Implemented
In progress/some progress made
No response required/not applicable
TOTAL

| Count of Plan Policies | Percent of Plan Policies |
|------------------------|--------------------------|
| 40 | 67 % |
| 18 | 30 % |
| 2 | 3 % |
| <hr/> 60 | <hr/> 100 % |