

## **Thames – Sydenham and Region Source Protection Region Meeting Agenda**

**Source Protection Authority** Lower Thames Valley  
**Meeting Date:** April 17, 2025  
**Meeting Time:** Directly after the Board of Directors Meeting  
**Meeting Location:** In Person and Remotely

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### ***Agenda***

1. Adoption of the Agenda
2. Minutes from the Previous Meeting
  - a. April 18, 2024
3. Business Arising from the Previous Minutes
4. Business for Approval
  - a. Drinking Water Source Protection 2024 Annual Progress Report
  - b. Lower Thames Valley Source Protection Authority Drinking Water Source Protection Annual Progress Report, April 17, 2025
5. Business for Information
6. Correspondence
7. Other Business
8. Adjourn

## 2. a. Minutes from the Previous Meeting – April 18, 2024



### Thames – Sydenham Source Protection Region LTVCA Source Protection Authority DRAFT Minutes

|                                    |  |
|------------------------------------|--|
| <b>Source Protection Authority</b> | Lower Thames Valley  |
| <b>Meeting Date:</b>               | April 18, 2024   |
| <b>Meeting Time:</b>               | Directly after the Board of Directors Meeting                  |
| <b>Meeting Location:</b>           | LTVCA Administration Building Board Room and via remote access |

A meeting of the LTV Source Protection Authority was held in person and via Zoom at the LTVCA Administration Building in Chatham, Ontario at 3:20 PM on Thursday, April 18, 2024 with the following directors present: S. Emons, A. Finn, T. Thompson, K. Loveland, L. Vogler, P. Tiessen, H. Aerts, M. Vink, and R. Leatham. P. Van Meerenberg, S. Hipple and M. Bondy sent their regrets.

#### 1. Adoption of the Agenda

##### 1. A. Finn – L. Vogler

Moved that the agenda be adopted.

CARRIED

#### 2. Minutes of the Previous Meeting

##### 2. P. Tiessen – M. Vink

Moved that the April 20, 2023 minutes be approved.

CARRIED

#### 3. Business Arising from the Previous Minutes

None noted.

#### 4. Business for Approval

Julie Welker, Source Protection Coordinator for the Thames-Sydenham and Region Drinking Water Source Protection, provided a Power Point Presentation on the 2023 Drinking Water Source Protection Annual Progress Report to the LTVCA's Board of Directors.

- a. Drinking Water Source Protection 2023 Annual Progress Report
- b. Appendix A 2023 TSR Annual Report
- c. Appendix B 2023 TSR Supplemental Form

3. K. Loveland – L. Vogler

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

CARRIED

5. Business for Information

None noted.

6. Correspondence

None noted.

7. Other Business

None noted.

8. Adjourn

4. H. Aerts – M. Vink

Moved that the meeting be adjourned.

CARRIED

  
\_\_\_\_\_  
Sarah Emons  
Chair

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

## 4. a. Drinking Water Source Protection 2024 Annual Progress Report



# Annual Progress Report

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

Reporting Period - January 1, 2024 to December 31, 2024



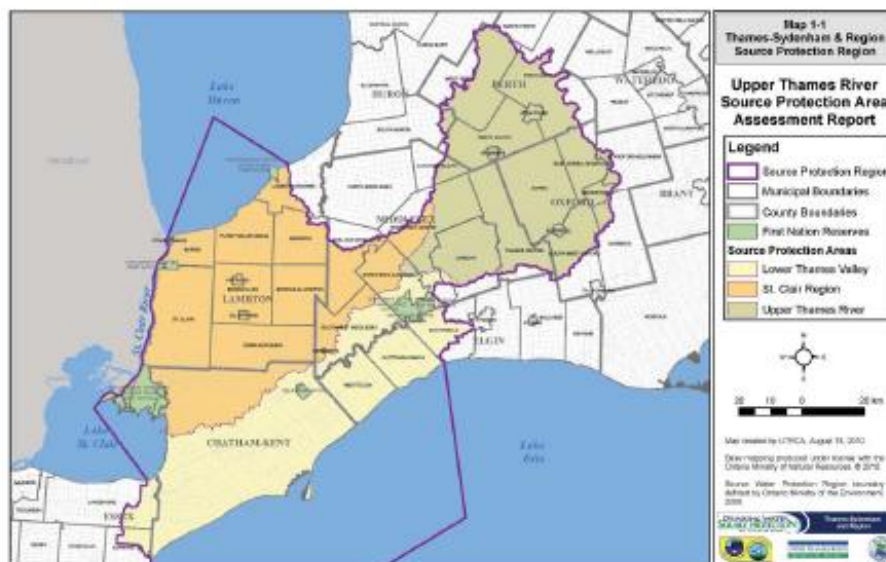


# Source Protection Annual Progress Report

## I. Introduction

This annual progress report outlines the progress made in implementing our source protection plan for the Lower Thames Valley Source Protection Area, St. Clair Region Source Protection Area and Upper Thames River Source Protection Area, as required by the Clean Water Act and regulations. This is the seventh Annual Progress Report released since the Source Protection Plan took effect on December 31st, 2015, and it highlights the actions taken from January 1 to December 31, 2024.

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



## II. A message from your local Source Protection Committee

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

December 31st, 2024 marked nine 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, 92% of the policies in the plan that address significant drinking water threats have been fully implemented, with the remaining 8% progressing well.

An additional 15 Risk Management Plans were established over the reporting period bringing the Region's total Risk Management Plans to 116.

Approximately 92% of the 1058 originally identified significant drinking water threats along with those that have been identified after the originally approved SPP have been successfully managed or eliminated. While there is still a considerable amount of work to do to address the remaining threats, the Thames-Sydenham and Region Source Protection Committee is pleased to see that policy implementation is moving steadily forward. For that reason, they believe that a ranking score of progressing well and on target is a fair assessment on our implementation progress.

### III. Our Watershed

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

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

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

The residents of the Lower Thames Valley Source Protection Area receive most of their municipal drinking water from Lake Erie through 3 intakes. The communities of Ridgeway 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, 96% have being fully implemented. Another 4% are currently in progress. Further progress was also made to implement the significant non-legally binding policies with 69% implemented and 31% with some progress made.

### 2. Municipal Progress: Addressing Risks on the Ground

P : Progressing Well/On Target:

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

Of the 26 municipality, 17 must undertake a completion of a Official Plan. 10 of the municipalities in the TSR that have an official plan have completed their required Official Plan conformity exercises. Of the remaining 7 municipalities, 6 are in the process of amending their Official Plan, 1 has their OP under appeal.

### 3. Septic Inspections

P : Progressing Well/On Target: Under the Ontario Building Code, any on-site sewage system which has been identified as a significant drinking water threat is required to be inspected once every five years. In the Thames-Sydenham and Region there are seven municipalities which have on-site sewage systems that require mandatory inspection. Of those seven municipalities, six have completed all of the required inspections for 2024, while one municipality has not completed them due to dealing with further delays due to staffing turnover and staffing constraints. The municipality is re-evaluating the program and will make it a priority.

### 4. Risk Management Plans

P : Progressing Well/On Target

Fifteen new Risk Management Plans were agreed to in 2024, bringing the Region's total Risk Management Plans to 116.

Based on the responses provided by Risk Management Officials, 47 (Section 58)

Inspections were carried out in 2024 and 7 new RMPs are currently in-progress. None of which are in contravention or non-compliance.

## 5. Provincial Progress: Addressing Risks on the Ground

P : Progressing Well/On Target

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

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

## 6. Source Protection Awareness and Change in Behaviour

New, provincial standard road signs mark locations where well-used roads cross into zones where municipal drinking water sources are the most vulnerable to contamination. The road signs provide general public awareness about the sensitivity of the area. They will also alert first responders of the need to quickly inform the appropriate authorities so action can be taken to keep contaminants out of the public water treatment and distribution system. A total of 177 Drinking Water Protection Zone signs have been installed on roadways in the Thames-Sydenham Source Protection Region.

## 7. Source Protection Plan Policies: Summary of Delays

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

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



## 8. Source Water Quality: Monitoring and Actions

### Nitrogen at the Woodstock Well System

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

The County will be moving forward with delineating a Nitrate Issue Contributing Area for the Thornton wellfields.

## 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. b. Lower Thames Valley Source Protection Authority Drinking Water Source Protection Annual Progress Report, April 17, 2025



Report to Lower Thames Valley Source Protection Authority

Cc SP Management Committee Date April 17, 2025

From Julie Welker, Source Protection Coordinator

Re: Drinking Water Source Protection Annual Progress Report

### Purpose

To approve the submission of the 2024 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, 2024 to December 31, 2024.

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. 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?

|   |   |
|---|---|
| <b>Progressing well/on target –</b><br>Majority of the source protection plan policies have been implemented and/or are progressing well. | ✓ |
| <b>Satisfactory –</b><br>Some of the source protection plan policies have been implemented and/or are progressing well.                   |   |
| <b>Limited progress made –</b><br>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, 2024 marked nine 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, 92% of the policies in the plan that address significant drinking water threats have been fully implemented, with the remaining 8% progressing well. An additional 15 Risk Management Plans were established over the reporting period bringing the Region's total Risk Management Plans to 116. Approximately 92% of the 1058 originally identified significant drinking



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

### ***Recommendation***

That the Lower Thames Valley Source Protection Authority direct staff to submit the 2024 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.