



Essex Region Source Protection Authority

Meeting Agenda

Meeting Date: Thursday, April 10, 2025

Time: 6:00pm

Location and Details: Council Chambers, Essex Civic Centre

List of Business	Page Number
1. Call to Order	
2. Land Acknowledgement	
3. Declarations of Pecuniary Interest	
4. Approval of Agenda	1-2
5. Adoption of Minutes	
A. Essex Region Source Protection Authority (ERSPA)	3-6
6. Delegations	
None	
7. Reports for Approval	
A. SPA 01/25 2024 Essex Region Source Protection Authority and Risk Management Services Annual Progress Reports	7-26
B. SPA 02/25 Re-appointment of Source Protection Committee Member	27
8. Committee of the Whole – In-Camera	
None	
9. Correspondence	
None	
10. New Business	

11. Other Business

A. Next Meeting

The next meeting of the Essex Region Source Protection Authority will be held at the Call of the Chair.

12. Adjournment



Tim Byrne
CAO/Secretary-Treasurer



Essex Region Source Protection Authority

Meeting Minutes

Meeting Date: Thursday, November 14, 2024

Time: 6:00 pm

Location and Details: Council Chamber, Essex Civic Centre

Attendance

Members Present:

Jim Morrison (Chair)
Molly Allaire
Peter Courtney
Katie McGuire-Blais
Dennis Rogers
Thomas Neufeld
Tracey Bailey

Michael Akpata
Anthony Abraham
Larry Verbeke
Joe Bachetti
Tania Jobin
Angelo Marignani
Kieran McKenzie

Absent:

Regrets:

Jason Matyi
Ryan McNamara

Sue Desjarlais (Vice-Chair)
Dayne Malloch
Mark McKenzie

Staff Present

Tim Byrne, CAO/Secretary-Treasurer
Nicole Kupnicki, Corporate Services, Human Resources Manager/EA
Shelley McMullen, CFO/Director Finance and Corporate Services
Danielle Stuebing, Director Community and Outreach Services
Kevin Money, Director Conservation Services
James Bryant, Director Watershed Management Services
Katie Stammmler, Water Quality Scientist/Project Manager SWP

Others

none

1. Call to Order

Good evening and welcome to the November 14, 2024, meeting of the Essex Region Source Protection Authority. I will call the meeting to order.

We have regrets this evening from:

- Councillor Jason Matyi, Essex
- Councillor Ryan McNamara, Lakeshore
- Councillor Sue Dejarlais, Lasalle

- Deputy Mayor, Dayne Malloch, Pelee
- Councillor Mark McKenzie, Windsor

2. Land Acknowledgement

I'd like to begin by acknowledging that this land is the traditional territory of the Three Fires Confederacy of First Nations, comprised of the Ojibway, the Odawa, and the Potawatomi Peoples.

We value the significant historical and contemporary contributions of local and regional First Nations and all of the Original Peoples of Turtle Island - North America who have been living and working on the land from time immemorial.

3. Declarations of Pecuniary Interest

There were no declarations of pecuniary interest.

4. Approval of Agenda

ERSPA 23/24 Moved by Angelo Marignani
Seconded by Larry Verbeke

THAT the agenda for the November 14, 2024 Meeting of the Essex Region Source Protection Authority be approved. **Carried**

5. Adoption of Minutes

A. Essex Region Source Protection Authority

ERSPA 24/24 Moved by Dennis Rogers
Seconded by Peter Courtney

THAT the minutes for the September 12, 2024 Meeting of the Essex Region Source Protection Authority (ERSPA) be approved and the recommendations therein be adopted as distributed. **Carried**

6. Delegations

None

7. Reports for Approval

A. ERSPA 07/24 Appointment of Source Protection Committee Members

ERSPA 25/24 Moved by Kieran McKenzie
Seconded by Angelo Marignani

THAT Mr. Kirk Walstedt and Mr. Jason be appointed to the Essex Region Source Protection Committee as described in Report SPA 07/24 and further;

THAT Ms. Antonietta Giofu be re-appointed to the Essex Region Source Protection Committee as described in Report SPA 07/24; and further,

THAT Mr. Steve Simpson Sr. be appointed to the Essex Region Source Protection Committee as described in Report SPA 07/24. **Carried**

8. Committee of the Whole

None

9. Correspondence

None

10. New Business

None.

11. Other Business

A. Windsor International Film Festival

Kieran McKenzie wished to acknowledge Katie Stamler for participating in the panel discussion at the premiere of the documentary film "All Too Clear" as part of WIFF this past month. Her comments and insights as part of the panel brought a regional perspective to water quality issues. With 150 attendees at the first showing and as many more at the second showing, her contributions were a welcome addition. The documentary (and related limited series) could likely be accessed through CBC (Gem) and/or TVO and is well worth watching.

B. Next Meeting

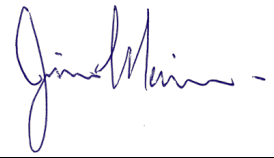
The next meeting of the ERCA Source Protection Authority will be held on at the Call of the Chair.

12. Adjournment

ERSPA 26/24 Moved by Kieran McKenzie

Seconded by Molly Alliare

THAT the November 14, 2024 meeting of the Essex Region Source Protection Authority be adjourned. **Carried**



Jim Morrison, Chair



Tim Byrne, CAO/Secretary-Treasurer



Essex Region Source Protection Authority

Report 01/25

From: Katie Stammler, Project Manager, Source Water Protection

Date: Tuesday, March 25, 2025

Subject: 2024 Essex Region Source Protection Authority and Risk Management Services Annual Progress Reports

Recommendation: THAT the 2024 Essex Region Source Protection Authority Annual Progress Report be submitted to the MECP on or before May 1, 2025, pending suggested changes and additions made by the SPC and further;

THAT the 2024 Risk Management Services Annual Progress Report be received for information.

Purpose

To provide the SPA with a final draft version of the 2024 Essex Region Source Protection Authority Annual Progress Report for endorsement, and the Essex Region Source Protection Area 2024 Risk Management Official Annual Progress Report to be received for information.

Summary

- The Essex Region Source Protection Authority is required to submit an Annual Progress Report to the MECP using a prescribed template by May 1, 2025
- Pending comments and additions by the SPC, the draft Annual Progress Report will be finalized and submitted to the MECP on or before May 1, 2025.
- A supplemental report on implementation of Part IV policies is also provided and will be circulated to municipalities and made available online.

Discussion

The Source Protection Authority is required to submit an annual progress report to the MECP and the SPC under S.46 of the Clean Water Act. The reports are required to describe the measures taken to implement the Source Protection Plan (SPP), the results of any monitoring program, the extent to which the objectives in the SPP are being achieved, and other information required in the Regulations. The Director of the Source Protection Branch of the MECP provided mandatory templates for the Annual Progress Report under S.52(5) of

Regulation 287/07. The supplementary data will be submitted to the MECP via an electronic database.

The information used to prepare the Annual Progress Report comes from Implementing Bodies, who are required by Monitoring Policies in the SPP to prepare and submit a progress report to the SPA by February 1 of each year. All of the Implementing Bodies provided these reports on or before February 1, 2025.

ERSPA staff have reviewed the information submitted by Implementing Bodies and prepared the attached Annual Progress Report. As required by the *Clean Water Act* and its Regulations, we are required to provide the SPC with 30 days for comment. The SPC received the draft Annual Progress Report on March 12, 2025, at their last meeting.

The 2024 Risk Management Official Annual Progress Report is a detailed accounting of activities undertaken by the Risk Management Official on behalf of municipalities in the Essex Region Source Protection Area and the southern part of the Thames-Sydenham and Region Source Protection Region. The report will be circulated to municipalities and made available online on May 1, 2025.

Annual Progress Report highlights

Of the 44 policies in the Essex Region SPP that address significant drinking water threats (SDWTs), 38 (86%) are considered to be fully implemented. Four policies (9%) are considered in progress to highlight ongoing implementation challenges. The remaining two policies have been reviewed and no further action is required. Importantly, all policies are being revised. The entire package of revised policies was provided to the MECP for Early Engagement (review) in 2024 and the Committee has considered responses to their edits and concerns. Pre-consultation with all Implementing Bodies will take place beginning in May 2025.

Municipalities are required to include considerations for Source Water Protection in their next Official Plan update. The County of Essex, Town of Essex, Town of LaSalle, Town of Tecumseh, Town of Kingsville and City of Windsor have completed their Official Plan conformity exercises; the Town of Essex and Town of LaSalle have completed their zoning by-law conformity exercise. The County of Essex as an upper tier municipality does not require ZBL amendments.

The remaining municipalities (5 of 11) have been reporting being in the process of amending their Official Plan to conform with the policies in the Essex Region SPP, with most reporting an intention to begin or complete work in 2025. The advent of Bill 23 and delay in the release of the 2023 Provincial Direction and Provincial Policy Statement have been cited as contributing to this delay. In 2024, at the direction of the SPC and the SPA, Chair Fuerth and Project Manager Katie Stammler attended council meetings for all municipalities in the Essex Region to provide a presentation on the importance of Source Water Protection and the requirement for

OP conformity. As a result of these presentations, the City of Windsor completed an OP Amendment. The SPC provided direction at their last meeting that the example of the OP Amendment be provided to the five municipalities yet to complete their conformity exercise. The Committee also recognizes increased Source Water activity for municipalities through their Consolidated Linear Infrastructure ECAs and Drinking Water Licenses.

The Committee unanimously chose to lower the score on Municipal Progress in 2022 to 'L – Limited Progress' and opted to retain this score in 2023. Given the progress reported and a path forward with OP Amendments, the Committee elevated this score to S – Satisfactory. The Committee encourages the remaining municipalities to incorporate the necessary information to bring their Official Plans into conformity with the Essex Region SPP as soon as possible.

Risk Management Plans (RMPs) are established for all 96 identified existing significant drinking water threats in the Essex Region. Since the SPP took effect, 22 RMPs have been established through the s. 59 process for new (future) threats, one of which was established in 2024. In 2025, the Risk Management Official will focus on compliance checks for all RMPs. Further details can be found in the attached 2024 Risk Management Official Annual Progress Report.

Harmful Algal Blooms (HABs) continue to be an annual occurrence. The MECP reviewed the technical report in which microcystin was identified as a drinking water issue for all intakes, including those in Lake St. Clair and the Detroit River. They raised concerns about the identification in the Detroit River, however, high concentrations of microcystin were observed at the Amherstburg intake in 2024, which is unusual. As such, the Committee has maintained their opinion that microcystin should be considered an issue for all intakes. While the policies in SPP related to HABs are non-legally binding, ERCA is committed to implementing relevant actions to reduce phosphorous in our region, and it is essential that we continue to highlight this international issue as a concern for our drinking water intakes.

Lastly, the Committee wishes to highlight the accomplishments of ERCA staff on securing grants to support ongoing watershed monitoring, implementation of Best Management Practices and construction of habitat projects.



Katie Stammler, PhD., Source Water Protection
Program Manager



Tom Fuerth, P.Eng, Chair, Essex Region Source
Protection Committee

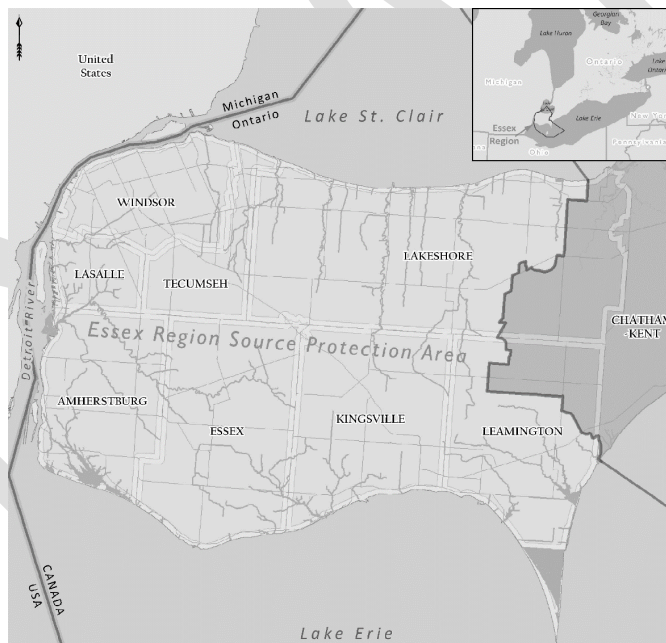
Attachments:

- Draft 2024 Essex Region Source Protection Authority Annual Progress Report
- 2024 Risk Management Official Annual Progress Report

2024 ERSPA Source Protection Annual Progress Report | 1 May 2025

I. Introduction

This annual progress report outlines the progress made toward implementing the policies in the Essex Region Source Protection Plan (SPP) for the Essex Region Source Protection Area (ERSPA), as required by the *Clean Water Act* and its Regulations. Our policies work by either eliminating or managing activities that could be considered a threat to our sources of drinking water and are based on the foundational knowledge that the actions we take on land have an impact on our local waterways and ultimately our sources of drinking water. Following an extensive process that included broad public input, the Essex Region SPP came into effect on October 1, 2015. This report highlights progress made toward implementation up to December 31, 2024, and highlights the actions taken from January 1 to December 31, 2024.



Scoring for certain elements of the Annual Progress Reports is based on the following:

Progressing Well/On Target (P) – Most of the policies have been implemented &/or are progressing.

Satisfactory (S) – Some of the policies have been implemented and/or are progressing.

Limited progress (L) – A few of policies have been implemented and/or are progressing.

II. A message from your local Source Protection Committee

P – Progressing well

The Essex Region Source Protection Committee has reviewed this report and once again it is our unanimous opinion that implementation of the policies in the Essex Region Source Protection Plan is P – Progressing well. We assigned municipal and provincial progress both a score of S – Satisfactory for specific reasons that are outlined in those sections of the text, but overall we feel that the Source Protection Plan and its policies are on track.

In the 2023 Report, we identified that municipal Official Plan (OP) conformity was lagging. The Committee is aware of the challenges that continue to delay the completion of the required review of OP and Zoning By-Law documents that govern development. On the advice of the Committee, the Chair and Program Manager met with our member municipalities directly via council presentations to give them an overview of the 2024 report, stressing the need to address Source Water Protection in their OPs. We provided suggestions and discussed the option of using an Official Plan Amendment (OPA) that would put some of the planning language related to Source Protection in place immediately rather than waiting for the full OP review process to be completed. This suggestion was met with favor by the City of Windsor, who were able to complete their OPA in 2024 as a direct result of our meetings. The example of this process will be shared with those municipalities that have not yet completed the required review exercise as an option to bring their planning documents into compliance with the Source Protection Plan.

The blue-green algae bloom in Lake Erie was once again rated as moderately-severe, and for the first time ever, bloom conditions were observed in the Detroit River at the Amherstburg intake. The Committee is of the opinion that Source Protection staff should continue to monitor the factors that contribute to the annual occurrence of Harmful Algal Blooms, and that microcystin should be considered a topic of ongoing discussion for all Water Treatment Plants in the Essex Region. With uncertainty south of the border, it will be increasingly important for ERSPA staff to facilitate communication amongst local water users.

We are pleased that ERCA was able to secure Federal and Provincial grant funds to reinstate water quality monitoring and stewardship programs that were paused or reduced in 2023/2024, and we are hopeful that municipalities see the value in supporting these endeavors regardless of external funding sources. Section 8 (Source Water Quality: Monitoring and Actions) of this report provides further details of these programs and successes. If we are not able to track conditions in the local environment our hands will be tied in making informed decisions regarding the efficacy of our Source Protection Program. Further, stewardship activities provide frontline interactions to encourage uptake of activities that will reduce nutrient loss to the environment.

III. Our Watershed

The Essex Region Source Protection Area (ERSPA) is approximately 1681 km² and coincides with the watershed boundaries of the Essex Region Conservation Authority (ERCA). The ERSPA is comprised of 28 smaller sub-watersheds, flowing northward into Lake St. Clair, westward into the Detroit River, or southward into Lake Erie. The area predominantly consists of a flat clay plain with the exception of some sandy areas, primarily in the southern portion of the Region. The predominant land use in the watershed is agriculture due to the region's excellent farmland and growing conditions.

Municipal drinking water supplies in the Essex Region Watershed are drawn from surface water intakes in the Great Lakes system - Lake Erie, Lake St. Clair and the Detroit River. There are seven municipal Water Treatment Plants (WTPs) in the ERSPA, and one WTP outside of the ERSPA in Wheatley serving part of the Municipality of Leamington. Stoney Point and Lakeshore (Belle River) WTPs have their water intakes located in Lake St. Clair; the A. H. Weeks (Windsor) and Amherstburg WTPs have their intakes in the Detroit River; and the Harrow-Colchester South, Union, Pelee Island West Shore and the Wheatley WTPs have their intakes in Lake Erie. These municipal WTPs serve over 95 percent of the population in the ERSPA. The remaining population, less than five percent, depends on groundwater or hauled water.

In the ERSPA, the handling and storage of large volumes of liquid fuel (>15,000 L) was identified as a significant drinking water threat (SDWT). Modeling exercises showed that a spill of this volume of fuel close to any body of water could result in contamination of the source water at our drinking water intakes. This resulted in the delineation of an extensive Event Based Area (EBA) in which large volumes of fuel are considered a threat to our drinking water. To mitigate these threats, Risk Management Plans (RMPs) that show actions are being taken to prevent spills are required to be established in consultation with a Risk Management Official (RMO).

To learn more about Source Protection in the Essex Region, please visit our website: <https://essexregionconservation.ca/source-water-protection/>

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

1. Source Protection Plan Policies and Addressing Significant Risks

P – Progressing Well

Of the 44 policies in the Essex Region SPP that address SDWTs, 38 (86%) are fully implemented and 4 (9%) are considered to be in progress. The remaining two policies have been reviewed, and it has been determined that no further action is required.

Three (3) in progress policies use s.58 (risk management plans) where the RMO has not encountered any existing SDWTs. However, these policies have been challenging to implement, and the policy approaches will be reviewed in the next SPP update. There will be no change in their implementation status until after the update is complete. Any new potential SDWTs are captured during the s.59 screening process. One (1) in progress policy requires Windsor, Lakeshore and Amherstburg to prohibit sewage treatment tanks in IPZ-1s. This policy is implemented in Windsor and Lakeshore and will be included in Amherstburg's next Official Plan update. Importantly, this activity is also prohibited using a Prescribed Instrument (PI) policy and there are no existing threats.

2. Municipal Progress: Addressing Risks on the Ground

S - Satisfactory

All of the 11 municipalities in the ERSPA have vulnerable areas where SDWT policies apply. Municipalities are required to ensure that their planning and building decisions, and their Official Plan (OP) conform with the Essex Region SPP. Six municipalities have completed their OP conformity exercise (The County of Essex, Town of Essex, LaSalle, Tecumseh, Kingsville and Windsor). Lakeshore has completed their full OP update and is awaiting approval from the County of Essex. Leamington and Amherstburg began the process of updating their OP in 2024. The Township of Pelee is considering doing an OP Amendment, which would be completed in 2025. Chatham-Kent plans to begin the OP updates in 2025.

In 2024, the PM and Chair Fuerth attended council meetings for all municipalities in the Essex Region. They provided verbal and visual presentations highlighting the work of the SPC and SPA, and stressed the importance of completing OP conformity. As a direct result of this Committee's scoring and reports to Council, the City of Windsor has completed an OP Amendment that satisfies the conformity exercise and is written in a way that it will apply to any future amendments of the SPP. At the direction of the Committee, the suggested language for the OP Amendment will be shared with municipalities whose OP is not yet in conformity. Chair Fuerth and the PM will revisit councils as necessary.

All lower tier municipalities are responsible for day-to-day land use planning and building permit decisions and have integrated source protection requirements to ensure that their planning and building decisions conform with the policies in the Essex Region SPP. Municipalities are encouraged to review this process annually to ensure its use and efficacy. The Essex Region Conservation Authority has been delegated by all of these municipalities to implement Part IV policies on their behalf. At the request of municipalities, ERSPA will deliver additional training to municipal staff in 2025.

In 2022 and 2023, the Committee unanimously voted to lower the municipal progress score to L – Limited Progress in order to promote Official Plan conformity. The Committee recognizes the progress that Municipalities have made and unanimously agreed to increase the progress score to S – Satisfactory for the 2024 reporting year.

3. Septic Inspections

Not applicable to the ERSPA. There are currently no policies in the Essex Region SPP that require mandatory septic inspections. However, the Committee notes that high levels of *E.coli* remain a concern for our local waterways and beaches. Landowners are encouraged to have their septic systems inspected and maintained regularly.

4. Risk Management Plans **P – Progressing Well**

As of 2022, risk management plans (RMPs) were established for all 96 existing threats (the handling & storage of fuel) following threat verification inspections carried out in accordance with the *Clean Water Act* (CWA) by the Risk Management Official/Inspector (RMO/I). A screening process using s.59 of the CWA captures new SDWTs. Four (4) s.59 applications were reviewed in 2024 resulting in one (1) RMP established for a new fuel threat, and one RMP was in progress as of December 31, 2024, which has since been completed. Two applications were issued a Notice to Proceed because there were no proposed SDWT activities. Since the SPP took effect, 22 RMPs for new threats have been established through this process. To date, all RMPs established for new fuel tanks have been for greenhouse construction or crude oil and brine operations. There have not been any applications reviewed for the other Part IV policies applicable to Lakeshore IPZ-1, Windsor IPZ-1, Windsor IPZ-2 and Amherstburg IPZ-1.

In 2022, the RMO began conducting compliance reviews for individuals with existing Risk Management Plans issued under a s.58 (existing threats). Due to staffing changes, compliance reviews were not conducted in 2024. A second Risk Management Official/Inspector was appointed, and we anticipate completing several compliance checks 2025. Please refer to the supplementary Part IV 2022 Risk Management Services Report for further information and details.

5. Provincial Progress: Addressing Risks on the Ground

S - Satisfactory

The Essex Region SPP includes 17 policies that use Provincial Instruments (PI) (e.g. Environmental Compliance Approvals) to address SDWTs. As of 2018, all 38 of the existing PIs were reviewed, five were considered to be SDWTs where the PI was sufficient, and no additional conditions were required to mitigate the SDWT. Ontario Ministries screen new applications and amend PIs as needed to address any new SDWTs. In 2024, two new applications for SDWTs were reviewed by Provincial Ministries in vulnerable areas of the Essex Region, specifically for wastewater/sewage works. Since 2016, 40 new applications for PIs have been reviewed in the ERSPA. No new SDWTs have been identified through this process. As a result of this work, all of the policies that use PIs in the Essex Region SPP are fully implemented.

Project Managers across Ontario have begun noting some issues with the Province's approach for addressing SDWTs using Prescribed Instruments. In 2024, the Essex Region Project Manager was approached by two municipalities seeking support with new requirements for Prescribed Instruments – one for Consolidated Linear Infrastructure Environmental Compliance Approvals (sewage) and the other for Municipal Drinking Water Licenses. Both applications now require applicants to conduct an independent Source Water Risk Assessment and provide a strategy for managing or avoiding threats to drinking water, which *may* be reviewed by the Ministry. It is our understanding that all applications for these ECAs are asked to complete this exercise regardless of whether they are in a vulnerable area or proposing a SDWT activity, rather than the Ministry providing screening. In good faith, this Committee and others in Ontario wrote PI policies with the expectation that the Ministry would ensure existing tools adequately protect sources of drinking water. With these changes, the onus is put on municipalities, who turn to their local Project Manager for support, neither of whom received adequate guidance to complete this task. Notably, Project Managers were not consulted on the content and, even with intimate knowledge of Source Protection, found the instructions to be unclear. Further, unlike RMPs, the assessments are not being reviewed by the Implementing Body prior to agreement and are to be made available upon request.

The Committee received this information and discussed options for voicing our concern with the Province's approach to implementation. It was our unanimous decision to lower the Provincial Implementation score to S – Satisfactory. While the implications are minimal for the Essex Region because of the small areas where SDWTs can occur and our Project Manager's close relationship with and ability to provide support to our municipalities, we are concerned about the potential ramifications of these shortcomings in larger Source Protection Areas. We are also concerned about the potential for overlooking a threat to sources of drinking water through lack of oversight and/or completion by unqualified persons, and if this trend continues beyond municipal licenses, the opportunity for the policies to be circumvented by individuals.

6. Source Protection Awareness and Change in Behaviour

Road signs have been installed across the ERSPA as part of a provincial awareness initiative. The Ontario Ministry of Transportation (MTO) installed five signs in the Essex Region on Hwy 401, Hwy 77 and Hwy 3. Municipalities coordinated installation of more than 60 signs on local municipal and county roads. The Town of Essex installed 3 new signs in 2024.

Road signs identify areas where accidental spills could contaminate sources of drinking water. As part of the Essex Region Source Protection Plan implementation, emergency responders have been notified about these areas. The use of standardized signs throughout Ontario helps raise public awareness about the importance of protecting local sources of drinking water.

The main risk to drinking water in our local area is the handling and storage of liquid fuel. If a spill is observed, residents are advised to contact the [Spills Action Center](#). To learn more about these road signs in the Essex Region, [check out our video!](#)

7. Source Protection Plan Policies: Summary of Delay

There have been no significant delays in the implementation of the Essex Region SPP.

8. Source Water Quality: Monitoring and Actions

Harmful algal blooms (HABs) are an annual occurrence in Lake Erie and Lake St. Clair. HABs are formed by blue-green algae (or cyanobacteria) that produce a neurotoxin called microcystin, which is a parameter listed on Schedule 2 of the Ontario Drinking Water Quality Standards. The Essex Region SPC determined that microcystin was a drinking water issue for Lake Erie intakes in 2014. The data were reviewed for all of the intakes in the Essex Region in 2023, including those in Lake St. Clair, the Detroit River and Lake Erie. The SPC recommended that microcystin be identified as a drinking water issue for all intakes based on that review.

Through Early Engagement, MECP technical staff advised that the data for intakes in the Detroit River do not support the identification of microcystin as an issue. ERSPA staff anticipated this response because the concentrations are typically below the half maximum allowable concentration ($\frac{1}{2}$ MAC = 0.75ug/L). The Committee's initial decision was based largely on the opinion and responses from municipalities and water treatment operators, who flagged it as an ongoing concern. The SPC has reviewed updated data and analysis that included 2023 and 2024 for both intakes. Concentrations were below the $\frac{1}{2}$ MAC for both intakes in 2023, and at A.H. Weeks in 2024. However, in 2024, microcystin was detected in the Detroit River at the Amherstburg intake during the entire month of August, reaching a maximum concentration of 4.8ug/L, which is above the maximum allowable concentration of 1.5ug/L. The Committee had a productive discussion and ultimately decided to continue to recommend microcystin as a

drinking water issue for both A.H. Weeks and Amherstburg. One member reminded the Committee that their role is to look forward beyond the current data to be prepared for eventualities, particularly when there are known issues upstream and downstream. We did not anticipate seeing high concentrations of microcystin in the Detroit River, but it has now been shown to be possible. Importantly, the associated policies apply to the entire region regardless of this decision. This updated decision and analysis will be included in a report that will be part of public consultation and further consultation with the MECP before it is finalized.

Each fall, NOAA releases a final seasonal assessment for the severity of the Lake Erie HAB. The severity index ranges from zero to 10 and indicates the amount of bloom biomass over the peak 30 days of the bloom. The models are not able to predict nor report on the toxicity of the bloom. In 2024, the Lake Erie HAB received a score of 6.6, making it a moderately severe bloom. It was both more severe and larger than the bloom in 2023 and was more similar to the bloom 2022. The bloom in 2024 had the earliest start date (1 July) since 2002, with the peak bloom in mid-August, finally dissipating in mid-October. The bloom largely remained on the US side of the western basin of Lake Erie, however Union Water in Kingsville reported higher concentrations of microcystin than in years past and there were observations of bloom conditions in the central basin near Wheatley in September. Importantly, the peak bloom period lasted roughly one week, whereas the peak bloom in 2022 was 20-30 days. It is not possible to declare any trend in bloom severity nor to determine whether on-the-ground actions are responsible for lowering bloom severity as there is a great deal of variability dependant on numerous factors. It should be noted here, that under the current US Administration, NOAA has lost the capacity to communicate about HABs and other important topics. ERCA staff are well connected to the community of practitioners who work on HABs and will work toward collaborative solutions so that this messaging remains available.

The SPP includes a monitoring policy for phosphorus and microcystin, and a regional education and outreach policy for phosphorus, microcystin as a drinking water issue, and algae blooms in general. ERCA continues to be a leader in phosphorus monitoring and has integrated HABs into educational programs directed at a variety of target audiences. In our 2023 annual report we reported that many of the funding streams ERCA relies upon for monitoring were not available. We are pleased to share that ERCA staff were able to secure renewed and new sources of funding for monitoring in 2024. This includes a \$6.3 million grant from the Canada Water Agency, of which approximately half will be used for an incentive program to support local solutions like cover crops, replacement of lateral drain outlets with header tiles, installation of buffer strips and more. This grant also includes enhanced monitoring in the Ruscom and Canard watersheds – two of ERCA's larger, agriculturally dominated watersheds that have previously been under studied. ERCA will also be offering learning and engagement opportunities through in-person meetings, online discussions and on-farm demonstrations. In addition, the funding to support monitoring of greenhouse influenced streams was re-instated.

9. Science-based Assessment Reports: Work Plans

The ERSPA continues to make progress towards completing our s.36 update. All 50 policies in the SPP have been reviewed and appropriately amended (30 policies), deleted (16 policies), edited (4 policies) or added (15 new policies) to align with the 2021 Technical Rules, and the number of Monitoring policies has been reduced from 45 to 5. Early Engagement with the Province was completed for all policies and two technical projects - correction of the Event Based Area and re-evaluation of microcystin as a drinking water issue. The SPC reviewed these comments and addressed suggestions as they deemed appropriate. Pre-consultation with Implementing Bodies is expected to begin in the spring of 2025 with a goal for completion of the update by the end of 2025. This process is about a year delayed in part due to the late release of the 2021 Director Technical Rules by the MECP and Covid-19. Staffing shortages and increased workload in other areas has also contributed to this delay.

10. More from the Watershed

In addition to the successful grant funding noted above, the Committee would also like to highlight upcoming projects in the Detroit River. ERCA, in partnership with the Detroit River Canadian Cleanup, received \$5.2 million dollars from the Great Lakes Freshwater Ecosystem Initiative (GLFEI) from the Canadian government to build two habitat projects. The first, planned for Summer 2025, is the restoration of a finger dyke, which has been breached due to high water levels and strong river currents, at a wetland complex located north of where the Canard River flows into the Detroit River. The dyke protects the wetland habitat behind it, including the largest wild celery beds in the Detroit River. Restoring this dyke ensures that the largest marsh complex on the Canadian side of the Detroit River is protected.

The second habitat project involves the creation of six sheltering islands at the south end of Fighting Island in the Detroit River to re-establish a natural cattail marsh behind the islands. The island has experienced high rates of erosion due to currents and freighter waves, reducing the establishment of submerged and emergent vegetation in the area. The sheltering islands will allow for the slowing of the current, thereby allowing submergent and emergent vegetation to establish, creating habitat for both fish and marsh birds.

The Committee would also like to stress the importance of consistent, ongoing funding that supports monitoring of current and emerging threats. Given the restrictions under the Conservation Authorities Act, it is necessary for CAs to seek out external sources of funding through competitive grant applications, which carries a heavy administrative burden. Additionally, we are dependant on data and reporting from the US to model and track harmful algal blooms. With growing uncertainty in their ability to provide these resources, it will become increasingly important that we find local solutions, while also supporting our colleagues in the US who may also be affected by these administrative changes.

To learn more about our source protection region/area, visit our homepage:
<https://essexregionconservation.ca/source-water-protection/>



Have you seen this Drinking Water Protection sign?

These signs are appearing across Ontario to raise awareness about the vulnerability of our municipal drinking water sources. Governments at the local and provincial level placed signs along roadways where a pollution spill could have a negative impact on our drinking water sources. The main risk to drinking water in the Essex Region Source Protection Area is the handling and storing of liquid fuel. These signs indicate areas where a spill of a large volume of liquid fuel could impact one of our drinking water intakes. If a spill is identified or if you observe what you suspect to be a harmful algal bloom (classic description is that it looks like green paint and often has a white/yellow scum on top), residents should contact the Spills Action Centre at 1-800-268-6060 or online: [Spills Action Centre](#).

DRAFT

2024 Risk Management Official Annual Progress Report

Prepared by: The Essex Region Conservation Authority

PART IV IMPLEMENTATION – RISK MANAGEMENT SERVICES

INTRODUCTION

Source water is the water that supplies our drinking water treatment plants. Following the Walkerton Inquiry, the *Clean Water Act, 2006* (CWA) became part of the Ontario government's commitment to protect municipal drinking water systems from contamination and overuse, now and into the future. The CWA led to the creation of Source Protection Plans (SPPs) across Ontario. The [Essex Region SPP](#) came into effect on Oct 1, 2015 and the [Thames-Sydenham and Region SPP](#) on Dec 31, 2015.

The SPPs contain policies to ensure that [Significant Drinking Water Threat \(SDWT\) activities](#) in vulnerable areas near surface water intakes cease to be or never become a threat to source water. Municipalities are required to have a specially trained and certified Risk Management Official and Risk Management Inspector (RMO/I) to implement policies written under Part IV of the CWA. The municipalities in the Essex Region Source Protection Area (ERSPA) and the Municipality of Chatham-Kent in the Thames-Sydenham and Region Source Protection Region (TSRSPR) delegated these obligations to the Essex Region Conservation Authority (ERCA). This agreement began in 2015 and was renewed on a three-year cycle until December 31, 2024 when a new perpetual agreement was struck. This reduces the administrative burden of renewals but still allows for amendments and/or withdrawals for any party to the agreement.

There are eight municipal surface water intake systems serving the municipalities in the ERSPA and the southernmost portion of the TSRSPR that have vulnerable areas where Part IV policies apply:

- Stoney Point Intake (Lake St. Clair)
- Lakeshore (Belle River) Intake (Lake St. Clair)
- Windsor (A.H) Weeks Intake (Detroit River)
- Amherstburg Intake (Detroit River)
- Harrow - Colchester Intake (Lake Erie)
- Union Intake (Lake Erie)
- Wheatley Intake (Lake Erie)
- Pelee Island (Lake Erie)

This annual progress report details the progress made by the RMO/I toward the implementation of Part IV policies in both the ERSPA and TSRSPR Source Protection Plans, as required annually by the *Clean Water Act* and its Regulations. The report includes actions taken by the RMO/I between October 1, 2015 and December 31, 2024, highlighting actions between January 1 and December 31, 2024.

SIGNIFICANT DRINKING WATER THREATS

Activities on the land can pose threats to sources of municipal drinking water through spills and runoff. The above grade handling and storage of large volumes of fuel was determined to be a SDWT in both the ERSPA and TSPR in the modelled Event Based Areas. There are additional SDWT activities in Lakeshore IPZ-1, Windsor IPZ-1, Windsor IPZ-2 and Amherstburg IPZ-1. The land portion of these areas are small and permitted land uses preclude the existence of the identified activities.

PART IV POLICIES, *CLEAN WATER ACT*

Part IV policies can be used to prohibit (Section 57) or manage (Section 58) activities identified as SDWTs. These policies apply to both existing and new SDWTs located within vulnerable areas identified as Intake Protections Zones (IPZs) or Event Based Areas (EBAs). Policies using restricted land uses (Section 59) provide a screening tool for municipal planning and building staff to identify any potential new SDWTs that would be subject to s.57 or s.58 policies. In the ERSPA, activities are only prohibited if they do not currently occur in identified vulnerable areas and are not likely to occur in the future. Most of the policies written to address identified and future SDWTs use s.58, which requires the development of a Risk Management Plan to minimize the risks to sources of municipal drinking water.

PROHIBITION (SECTION 57, PART IV POLICIES)

The Essex Region SPP contains six policies that prohibit specific SDWT activities using s.57 of the Clean Water Act. These prohibition policies currently only apply to Lakeshore IPZ-1, Windsor IPZ-1 and Amherstburg IPZ-1. Prohibited activities include the following:

- The application and storage of Agricultural Source Material (ASM)
- The application and storage of Non-Agricultural Source Material (NASM)
- The storage of road salt (>5000 tonnes)
- The storage of snow (>1 ha)

There is no agriculturally zoned land in any of the subject vulnerable areas, therefore the application and storage of both ASM and NASM as defined in the policies cannot occur. The RMO has confirmed that there are no existing storage structures for salt, nor large areas for snow storage in the subject vulnerable areas that meet the criteria to be a SDWT. The RMO is satisfied that there are no existing activities that would be prohibited. Municipalities have received training to screen for potential SDWTs that meet these criteria, and none have been identified since the Plan came into effect.

RISK MANAGEMENT PLANS (SECTION 58, PART IV POLICIES)

Risk Management Plans (RMPs) are agreements between the RMO and the landowner or business operator that allow the activity to continue to occur on the property provided the appropriate risk management measures (RMMs) that have been agreed upon are followed. RMPs include existing RMMs and identify additional RMMs required to prevent spills and contain one should it occur. The person engaged in the activity is responsible for maintaining RMMs on site. The RMO/I monitors the implementation of established RMPs and conducts occasional compliance inspections. RMPs can be amended at any time to accurately reflect any changes on the site or to the SDWT activity.

The RMO/I provides guidance and assistance in the development of RMPs through site visits, emails, and phone calls. Resources and templates were developed and are maintained by the RMO/I and are provided to the proponent during the negotiation of the RMP. The following risk management measures are typically included in RMPs: documentation of regular fuel tank inspections, a spill prevention and containment plan, spill emergency response plan and training for staff, and documentation that fuel storage tanks adhere to applicable fuel regulations and remain safe for refueling and storage.

RESTRICTED LAND USE (SECTION 59, PART IV POLICIES)

Section 59 (Restricted Land Use) policies serve as a screening process to identify new potential SDWTs through incoming municipal building and planning applications before they are established. If a project meets the criteria outlined in the Written Direction, proponents are notified that they must complete and submit a Section 59 Application to the RMO for review. Building or planning applications cannot proceed until the applicant has demonstrated that a SDWT activity will not pose a risk to drinking water sources (e.g. RMP established) and a written notice to proceed from the RMO/I has been issued.

RISK MANAGEMENT PLAN ENUMERATION

Existing threats are any SDWT activity that was present prior to the SPPs coming into effect. There were 384 potential existing SDWTs identified in the ERSPA Assessment Report (AR) and 33 in the TSRSPR AR when the Plans were written. Threat verification inspections confirmed that 96 existing SDWTs in the ERSPA and 9 in the TSRSPR required RMPs (e.g. capacity, location in relation to the EBA and contents of the fuel tanks). In addition, several other existing fuel SDWTs were identified during these early surveys and RMPs were developed as required (designated as AR+ in the tables below). Of the existing SDWTs, six RMPs were issued by Order in the ERSPA and six in the TSRSPR in either 2021 or 2022. Eight of these properties are owned and operated by a corporation that oversees crude oil and brine operations. The remaining four RMPs issued by Order were for absentee owners of greenhouse cannabis operations. No further Orders have been necessary to date. As of October 2022, RMPs have been established for all existing SDWTs in the TSRSPR and ERSPA.

New or future threats are any SDWT activity established after the SPPs came into effect. Between October 1, 2015, and December 31, 2024, the RMO has received 59 applications in the ERSPA and 4 in the TSRSPR through s.59 screening for new SDWTs. Of these, there were 21 instances in the ERSPA and 2 in the TSRSPR where an application required an RMP. In these cases, the development of the RMP is expedited and a notice to proceed issued once the RMP is finalized and agreed to. Four (4) s.59 applications were reviewed in 2024 resulting in one (1) RMP established for a new fuel threat, one (1) RMP was in progress as of December 31, 2024, which was completed early in 2025. The remaining applications were issued a Notice to Proceed because there were no proposed SDWT activities. To date, the RMPs established for new fuel tanks have been for greenhouse construction and crude oil and brine operations. There have not been any applications reviewed for the other Part IV policies applicable to Lakeshore IPZ-1, Windsor IPZ-1, Windsor IPZ-2 and Amherstburg IPZ-1.

The total number of RMPs established for existing and new significant drinking water threats, and the number of RMPs issued by Order in each municipality are reported in Table 1a and Table 1b. Table 2 provides a detailed annual accounting of the activities the RMO/I is required to report to the MECP in compliance with Section 81 of the *Clean Water Act* for the ERSPA. The RMO/I provides responses to the TSRSPR for inclusion in their report to the MECP.

COMPLIANCE MONITORING

No compliance checks were completed in 2024 due to staffing restrictions. ERCA has now hired a second certified RMO/I who will address this gap in 2025. A self-assessment compliance checklist was developed that allows the RMO to ensure that all documents are up to date and that appropriate Risk Management Measures continue to be implemented. The checklist includes the following items: Proof of adherence to the applicable fuel regulations (ensuring fuel tanks are certified to obtain fuel and/or installed by a TSSA technician), proof of fuel tank inspections, updates to the spill prevention and containment plan, updates to the spill and emergency response plan, and proof of employee training.

MUNICIPAL INTEGRATION

The RMO will be providing refresher training to Planning and Building staff for municipalities in 2025 at their request. In addition, [training was recorded](#) that applies to all municipalities and is available on YouTube for new municipal staff or those wishing a refresher.

MOVING FORWARD IN 2025

Continuing actions and next steps for Risk Management Services in 2025 include:

- Continue monitoring established risk management plans to ensure compliance
- Review Section 59 Applications circulated to riskmanagement@erca.org as a result of incoming municipal building and planning applications for new developments
- Deliver municipal training sessions on Section 59 processes and Source Protection Plan policies
- Respond to requests from developers, consultants and municipal staff during pre-planning for sites identified through the Section 59 process
- Continue working with local businesses and landowners on negotiating and establishing Risk Management Plans; continue to assist and provide guidance to those affected by Part IV policies

There are three Part IV policies that remain in progress. These policies address the storage of hazardous waste and pesticide in Lakeshore, Windsor and Amherstburg IPZ-1 and the application of pesticide in Lakeshore, Windsor and Amherstburg IPZ-1 and Windsor IPZ-2. The RMO has conducted a thorough review of available information and did not find any existing SDWTs. These policies remain 'in progress' to highlight implementation challenges posed by specified volumes and/or materials in the Technical Rules. Importantly, these policies will be updated to align with the 2021 Director Technical Rules.

Table 1a – Total number of Risk Management Plans established for existing threats (AR and AR+) and new (s.59) significant drinking water threats in each municipality in the ERSOA since October 1, 2015. The table also indicates the number of those RMPs that were issued by Order.

Essex Region Source Protection Area (ERSOA)										
	Amherstburg	Essex	Kingsville	Lakeshore	LaSalle	Leamington	Pelee	Tecumseh	Windsor	Total
Total identified threats in the AR	16	31	93	29	3	164	3	12	33	384
No RMP required (AR)	16	28	62	26	3	121	1	10	29	296
RMPs Required (AR)	-	3	31	3	-	43	2	2	4	88
Threats identified after the AR through field verification (AR+)	-	-	6	-	-	2	-	-	-	8
RMPs established (AR+)	-	3	37	3	-	45	2	2	4	96
RMPs established (s.59)	-	1	2	-	-	19	-	-	-	22
Number of RMPs Issued by Order under Part IV of the CWA	-	-	3	-	-	3	-	-	-	6
Total RMPs established	0	4	39	3	0	64	2	2	4	118

Table 1b – Total number of Risk Management Plans established for existing threats (AR and AR+) and new (s.59) significant drinking water threats in each municipality in the TSRSPR since October 1, 2015. The table also indicates the number of those RMPs that were issued by Order.

Thames Sydenham and Region Source Protection Region (TSRSPR)				
	Lakeshore	Leamington	Chatham Kent	Total
Total identified threats in the AR	6	9	18	33
No RMP required (AR)	5	6	13	23
RMPs Required (AR)	1	3	5	9
Threats identified after the AR through field verification (AR+)	-	-	-	-
RMPs established (AR)	1	3	5	9
RMPs established (s.59)	-	2	-	2
Number of Orders Issued Under Part IV of the CWA	-	3	3	6
Total RMPs established	1	5	5	11

Table 2 – Detailed activity report for the ERSPA provided by the RMO/I to the MECP to comply with Section 81 of the *Clean Water Act*. The RMO/I provides responses to TSRSPR for inclusion in their report to the MECP.

Essex Region Source Protection Area (ERSPA)									
Additional Part IV Reportables under Section 81 of the <i>Clean Water Act</i> (ERSPA)	2016	2017	2018	2019	2020	2021	2022	2023	2024
RMPs established for existing threats (s.58)	0	1	14	34	38	7	2	0	0
RMPs established for new threats (s.59)	4	0	1	1	2	8	1	3	1
Total RMPs agreed to or established	4	1	15	35	40	15	3	3	1
s.59 Applications Received	18	2	2	4	7	12	9	4	4
s.59 notices issued for activities to which neither s.57 nor s.58 policies applied	14	2	1	3	5	4	6	2	2
s.59 notices issued for activities to which a s.58 policy applied	4	0	1	1	2	8	1	2	2
Total s.59 notices issued	18	2	2	4	7	12	7	4	4
Inspections* carried out for activities that are prohibited under s.57	0	0	0	0	0	0	0	0	0
Inspections* carried out for activities that require a RMP under s.58	14	32	47	63	32	0	2	0	0
Inspections* carried out for activities that were determined not to require a RMP under s.58	55	160	82	7	3	0	1	0	0
Total number of inspections	69	192	129	70	35	0	3	0	0
Notices issued where there were cases of contraventions and/or non-compliance with s.57	0	0	0	0	0	0	0	0	0
Notices issued where there were cases of contraventions and/or non-compliance s.58	0	0	0	0	0	0	0	0	0
Orders issued for contraventions and/or non-compliance found with s.57	0	0	0	0	0	0	0	0	0
Orders issued for contraventions and/or non-compliance found with s.58	0	0	0	0	0	4	8	0	0
Total number of notices and/or orders issued under Part IV of the CWA	0	0	0	0	0	4	8	0	0

*Inspections imply that the RMO/I had a physical presence on the site, including follow-up site visits, e.g., threats verification visit, including drive-bys, if applicable. Phone calls and emails are not considered to be an inspection.



Essex Region Source Protection Authority

Report 02/25

From: Katie Stammler, Project Manager, Source Water Protection

Date: Wednesday, February 26, 2025

Subject: Re-appointment of Source Protection Committee Member

Recommendation: THAT Mr. Matthew Merritt be re-appointed to the Essex Region Source Protection Committee for a 5-year term ending April 10, 2030, as described in Report SPA 02/25.

Purpose

To recommend the re-appointment of one member to the Essex Region Source Protection Committee (SPC).

Discussion

The term of appointment will expire for one non-municipal Source Protection Committee member on September 10, 2025 as per O.Reg 288/07. This member was given the option to retire from or be re-appointed to the SPC for a 5-year term ending April 10, 2025. Mr. Merritt has requested to be reappointed to the SPC.

Matthew Merritt (Economic Sector) has been a member since 2020 and represents the fuel sector. His extensive knowledge on this topic and his enthusiastic participation on the SPC has been very much appreciated and we are pleased to recommend his re-appointment for an additional 5-year term.

Katie Stammler, PhD., Source Water Protection Program Manager

Tom Fuerth, P.Eng, Chair, Essex Region Source Protection Committee