

# 2023 Annual Progress Reports



**DRINKING WATER**  
**SOURCE PROTECTION**  
Our Actions Matter

Essex Region  
Conservation Authority  
*sustaining the place for life*



# Source Water Protection

- Following the Walkerton tragedy in 2000, safeguards were put into place to protect municipal drinking water sources as part of the *Clean Water Act, 2006*
- The CWA fulfills 12 of the 121 recommendations in the Walkerton Inquiry report and is part of a multi-barrier approach
- Objective is to establish a collaborative, locally driven, science-based, multi-stakeholder process to protect sources of municipal residential drinking water.
- Key players: Source Protection Committee, Source Protection Authority, Implementing Bodies

*Clean Water Act, 2006*

*Safe Drinking Water Act, 2006*

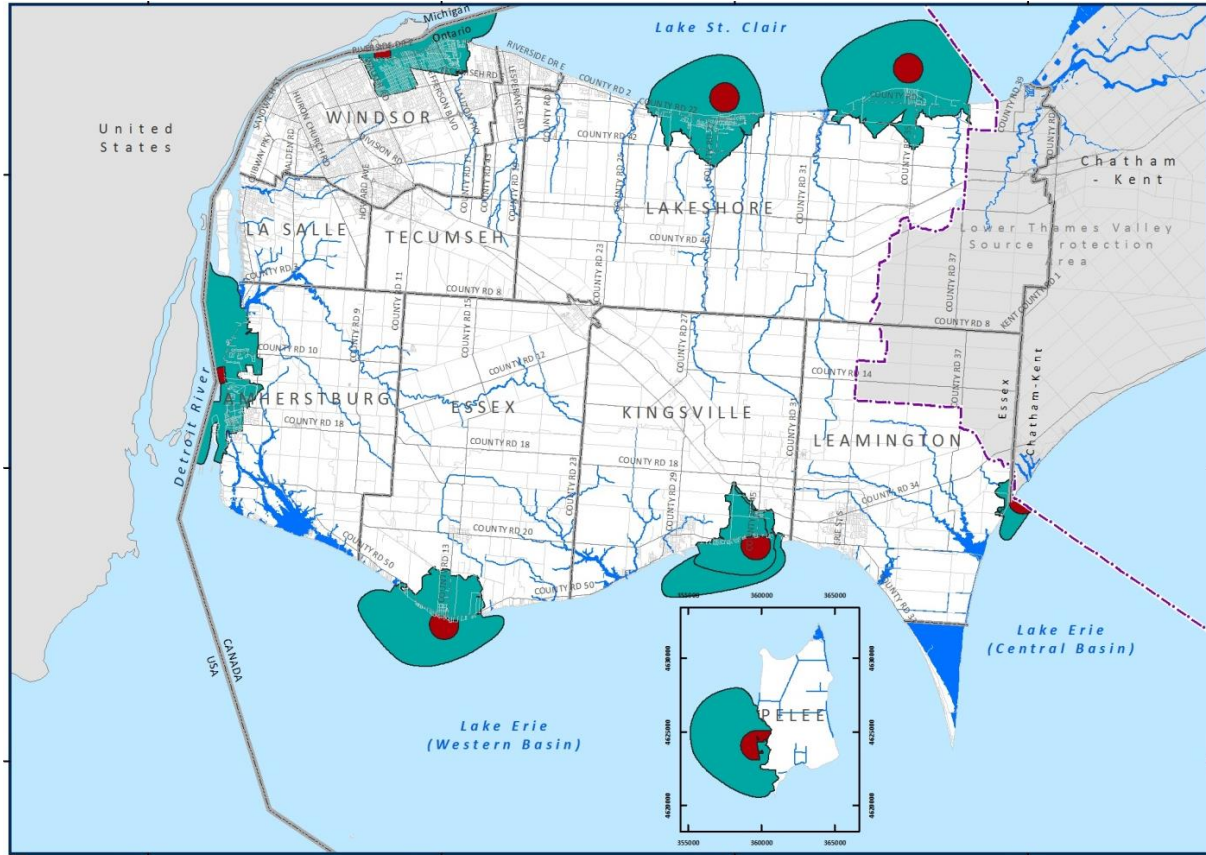


# Essex Region Source Protection

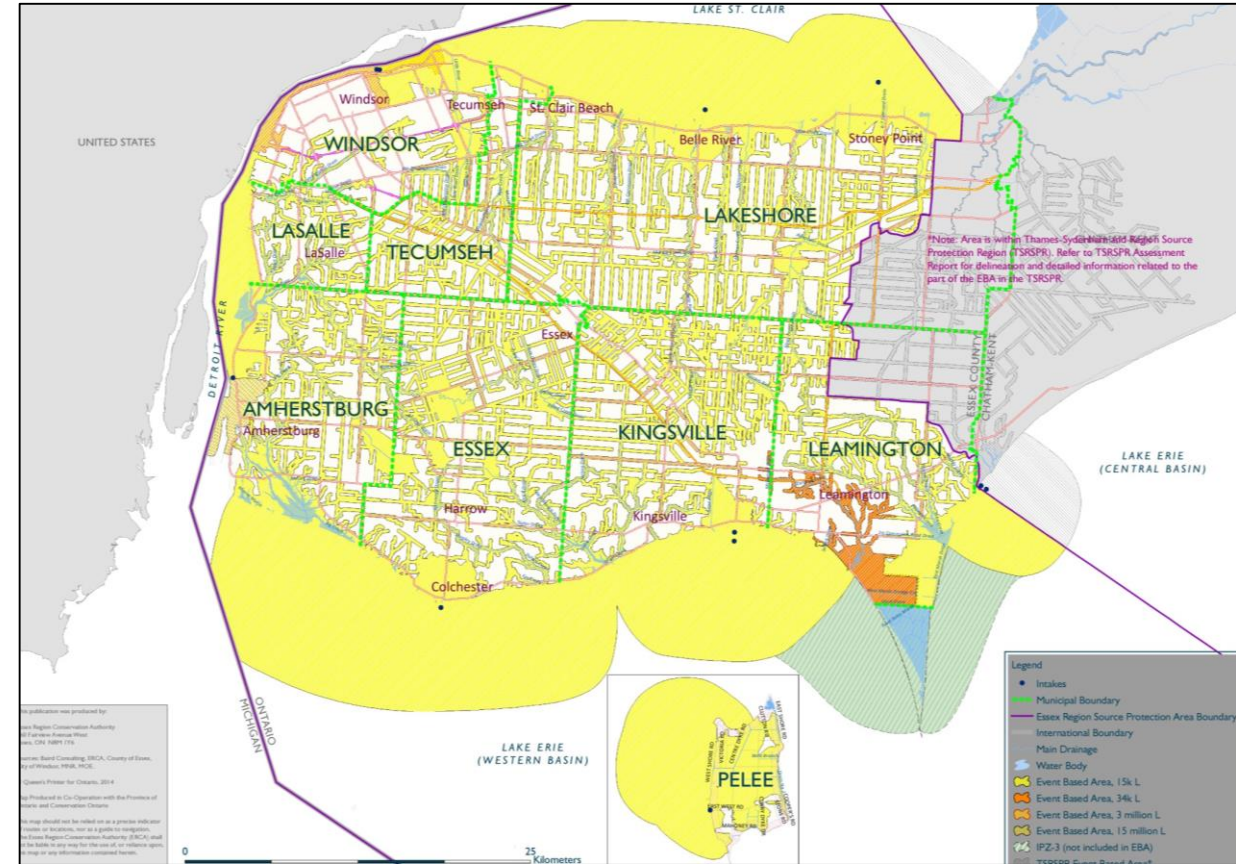


DRINKING WATER  
SOURCE PROTECTION  
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Implementation date October 1, 2015



Microcystin-LR (toxin produced by blue green algae) is a drinking water issue



The storage of large volumes of liquid fuel identified as a SDWT in the EBA

# Annual Progress Reports

- Annual Progress Reports are required by May 1<sup>st</sup> each year
- Reports are generated from data collected from Implementing Bodies, received by February 1
- The Report covers progress toward implementation cumulatively from October 1, 2015 (effective date) to December 31, 2023
- Progress in 2023 is highlighted
- Reports are produced using a template provided by MECP
- The first Annual Progress Report was produced in 2017 and all reports are available online



# Scoring in Annual Progress Report

**P** – Progressing Well

**S** – Satisfactory

**L** – Limited progress

- Overall Score - **P**
- Implementation Progress – **P**
  - **45 of 50 policies fully implemented**
- Provincial Progress – **P**
  - **All policies implemented, new projects screened**
- ***Municipal Progress – L***
  - ***6 of 11 municipalities have NOT completed OP conformity***
- Risk Management Plans – **P**
  - **All existing threats are managed, new threats are addressed**



# Municipal Progress

Score since 2018: **P – progressing well**

Score in 2022/23: **L – Limited Progress**

Municipalities have:

- Delegated Part IV to ERCA – agreement extended to December 2024
- Have screening mechanisms in place for s.59 policies
- Completed or working on road sign installation
- County of Essex, Town of Essex, Town of Tecumseh, Town of LaSalle, Municipality of Kingsville have completed OP conformity
- Remaining municipalities have not completed OP conformity
- Only one municipality has completed Zoning By-Law conformity

\*Municipalities self report on progress

# Official Plan

- To ensure that decisions on planning matters meet the requirements of the *Planning Act*, they must be consistent with 2.2.1(e) of the PPS

2.2.1 Planning authorities shall protect, improve or restore the *quality and quantity of water* by:  
e) implementing necessary restrictions on *development and site alteration* to:  
1. protect all municipal drinking water supplies and *designated vulnerable areas*;  
2. protect, improve or restore *vulnerable surface and ground water, sensitive surface water features and sensitive ground water features*, and their *hydrologic functions*.

- At a minimum ALL vulnerable areas (IPZ, EBA, SGRA, HVA) are to be included in the OP both in text and as maps
- Can be an issue-specific amendment under s.17, or under the mandatory comprehensive five-year review of the OP under s.26 of the *Planning Act*
- The ERSPA provided comments on the ‘Draft Town of Lakeshore OP (September 2019)’ on June 26, 2020

# Risk Management Progress

Score since 2018: **P – progressing well**

- Essex Region Source Protection Authority was delegated by all municipalities to provide Risk Management Services
- RMO/I implements all policies under Part IV of the CWA in the Essex Region and parts of the Thames-Sydenham and Region
- The RMO reviews s.59 applications and determines whether a RMP is required and establishes RMPs on an accelerated timeline when they are needed

## Summary

- **384** threats identified in the Assessment Report
  - **96** properties required a RMP for existing threats
  - **3** RMPs for new threats established in 2023 (all in Leamington)
  - **117** RMPs established overall (Existing + New)

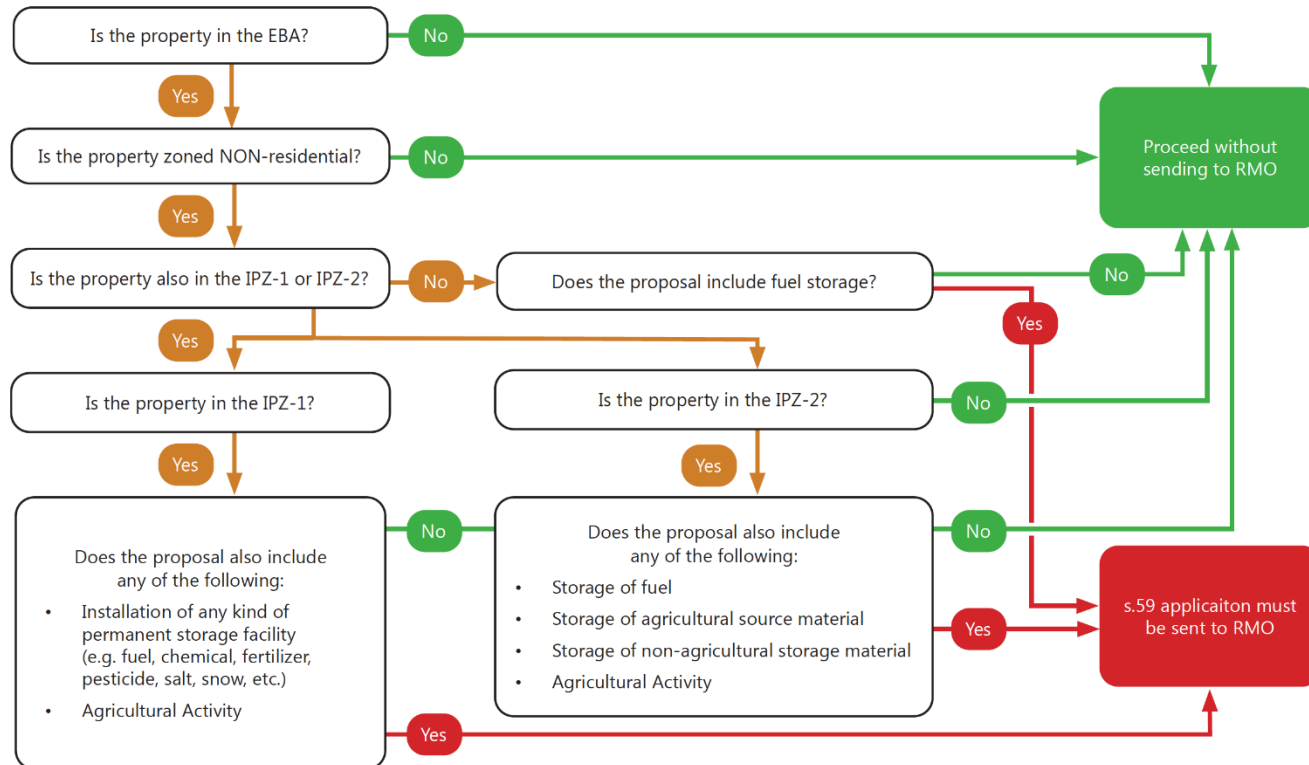
**All new threats are for greenhouse construction or crude oil and brine operations**





# Municipal Training

- Municipalities screen for new threats through s.59 policy following the Written Direction.
- Municipalities are given the opportunity to receive annual refresher training. Training video is now also available online: [bit.ly/SWP-Workshop2022](https://bit.ly/SWP-Workshop2022)



# Lakeshore Event Based Area (EBA)



- 3 existing fuel tanks have RMPs established
- 3 s.59 notices issued (two in 2016, one in 2019)

# Risk Management in 2024

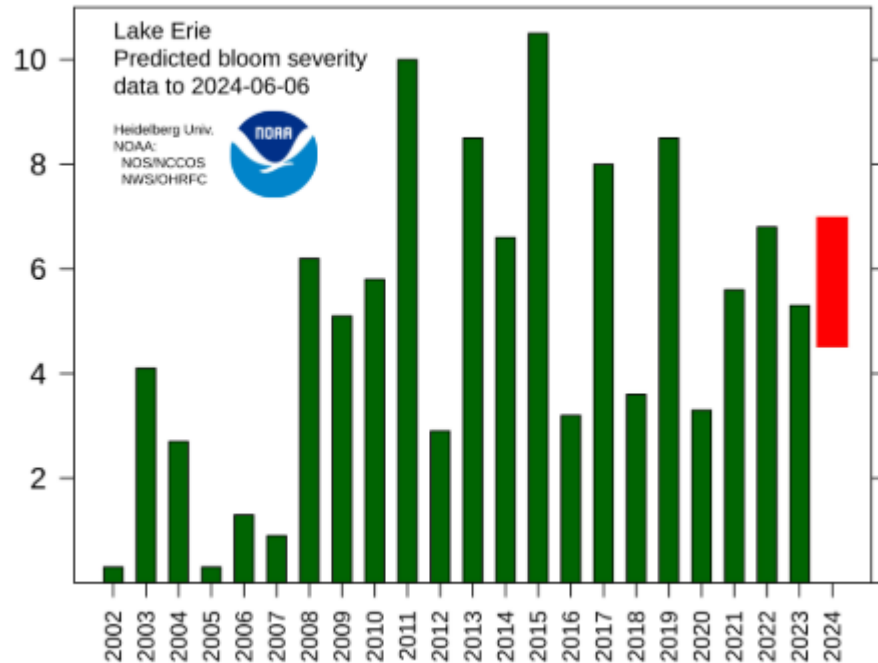
- Continue compliance procedures with established risk management plans to ensure compliance with RMP
- Continue to review Section 59 Applications
- Deliver municipal training sessions on Section 59 processes
- Respond to requests from developers, consultants and municipal staff during pre-planning for sites identified through Section 59 processes
- 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
- Renegotiate agreement to continue providing Risk Management Services

# Lake Erie HAB Bulletin

- NOAA produces bulletins predicting the severity of HABs in the Spring
- During the HAB, bulletins show current and forecast conditions
- Season forecast will be released June 27, 2024

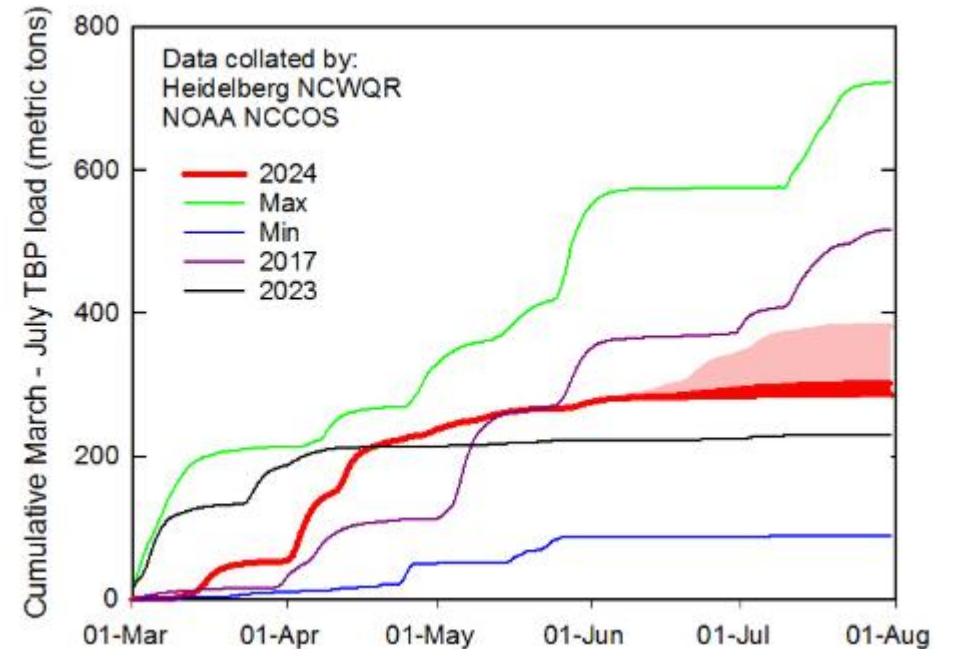
[https://www.glerl.noaa.gov/res/HABs\\_and\\_Hypoxia/bulletin.html](https://www.glerl.noaa.gov/res/HABs_and_Hypoxia/bulletin.html)

## Predicted Bloom Severity



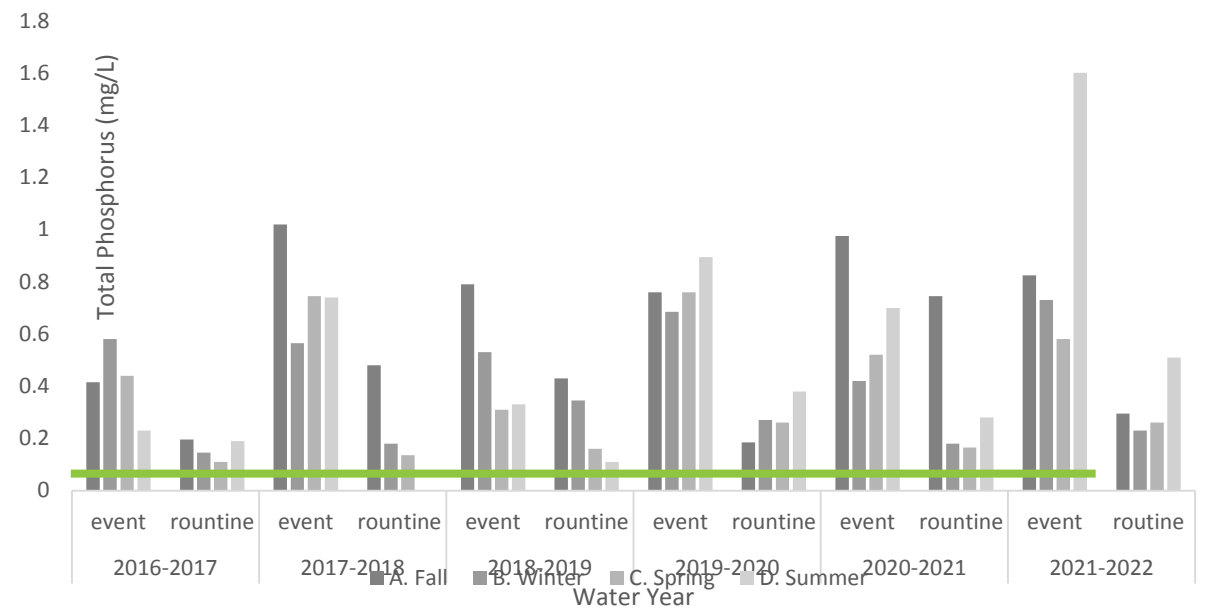
Project 06  
2023-06-08

## Cumulative Total Bioavailable Phosphorus



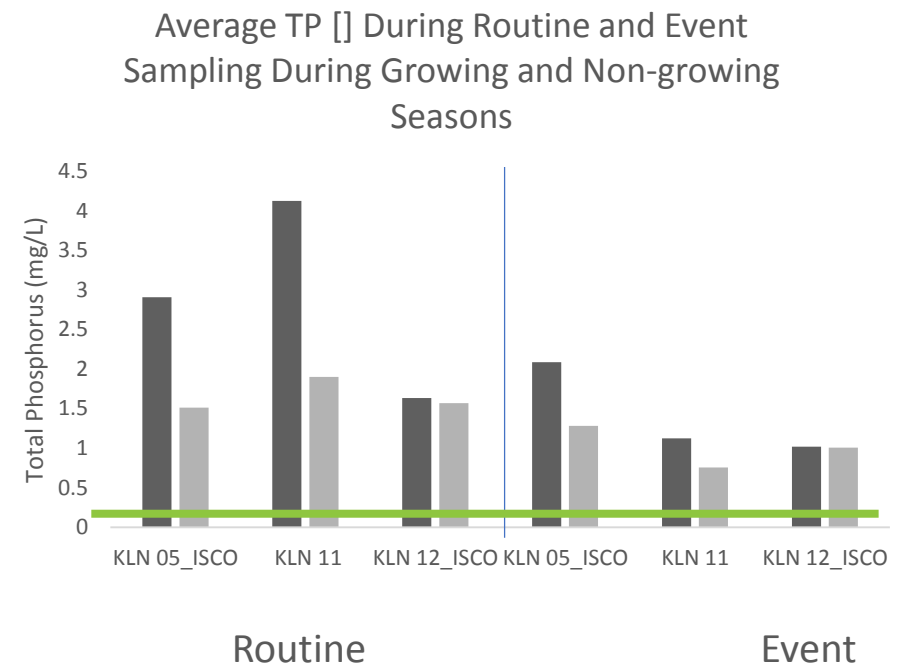
# Total Phosphorus

Row Crop agriculture - Highest TP concentrations during non-growing season events



PWQO = 0.03 mg/L

Greenhouse - Highest TP concentrations during routine sampling in the growing season



# Tributary Comparison

Reported results based on 5-year average for Canada (2018-2022 WY; 2300 MTA)

Tributary	Watershed Size (km <sup>2</sup> )	2008WY Annual TP Load (MTA)	TP Load (MTA)	Annual Contribution to Lake Erie (%)	Annual FWMC (mg/L)	
Thames River	5708	196	523	22.8	0.22	0.09kg/km <sup>2</sup>
Sydenham River	2747	48	205	9.0	0.21	0.075kg/km <sup>2</sup>
Leamington Tributaries	58	-	36	1.6	3.64	0.62kg/km <sup>2</sup>

# Source Water in 2024

- Comprehensive review and update to Source Protection Plan and Assessment Report
- New and amended policies to align with 2021 Director Technical Rules under review
  - All policies have been amended, some new policies written
  - Potential for identification of new threat activities
- Consultation on updated documents is expected late 2024

# More from the SPC

- The SPC and ERCA staff created a new video to help explain signage in vulnerable areas: <https://www.youtube.com/watch?v=MwO3V1zsUAs>
- To learn more about our source protection region/area: <https://essexregionconservation.ca/source-water-protection/>

