

CENTRAL LAKE ONTARIO SOURCE PROTECTION AUTHORITY

AGENDA FOURTEENTH CLOSPA MEETING

Tuesday, April 18, 2023 – 5:00 p.m.

HYBRID MEETING LOCATION: VIRTUAL THROUGH ZOOM (ACCESS DETAILS TO BE PROVIDED)
OR 100 WHITING AVENUE, OSHAWA, AUTHORITY'S ADMINISTRATIVE OFFICE, BOARDROOM

CIRCULATION LIST

Authority	Elizabeth Roy, Chair	Authority	C. Darling, Chief Administrative Officer
Members:	Bob Chapman, Vice Chair	Staff:	B. Boardman, Executive/Accounting Administrator
	Marilyn Crawford		R. Catulli, Director, Corporate Services
	Sami Elhajjeh		J. Davidson, Director, Watershed Planning & Natural Heritage
	Bruce Garrod		L. Hastings, Communications Specialist
	Ron Hooper		D. Hope, Conservation Lands & Education Manager
	Rick Kerr		C. Jones, Director, Planning & Regulation
	Chris Leahy		P. Sisson, Director, Engineering, Field Operations & Education
	Tito-Dante Marimpietri		L. Vaja, Executive Assistant/Health & Safety Administrator/ Recording Secretary
	Ian McDougall		R. Wilmot, Information Management & Technology Manager
	Rhonda Mulcahy		
	John Neal		
	David Pickles	Others:	Benham Doulatyari, Senior Manager, Watershed Plans & Source Protection, Credit Valley Conservation
	Corinna Traill		
	Steve Yamada		

AGENDA ITEM:

SUPPORTING DOCUMENTS

- 1. CALL TO ORDER**
- 2. DECLARATIONS of interest by members on any matters herein contained**
- 3. ADOPTION OF MINUTES of April 12, 2022** pg. SP-1
- 4. CHIEF ADMINISTRATIVE OFFICER**
 - (1) Staff Report #SP-022-23 pg. SP-3
Re: Annual Reporting – Drinking Water Source Protection

Presentation - Benham Doulatyari, Senior Manager, Watershed Plans & Source Protection, Credit Valley Conservation
- 5. CONFIDENTIAL MATTERS – None**
- 6. NEW AND UNFINISHED BUSINESS**

ADJOURNMENT

A G E N D A

SUPPORTING DOCUMENTS

MEETING OF: CLOSPA

DATE: Tuesday, April 18, 2023

TIME: 5:00 p.m.

LOCATION: Hybrid Meeting

CENTRAL LAKE ONTARIO SOURCE PROTECTION AUTHORITY

MINUTES NO. 13 THIRTEENTH CLOSPA MEETING

Tuesday, April 12, 2022 – 5:00 p.m.

MEETING LOCATION: VIRTUAL MEETING THROUGH ZOOM

Authority Bob Chapman, Chair

Members: Dave Barton

Ron Hooper

Chris Leahy

Sterling Lee

Don Mitchell

Brian Nicholson

David Pickles

Corinna Traill

Authority C. Darling, Chief Administrative Officer

Staff: B. Boardman, Executive/Accounting Administrator

R. Catulli, Director, Corporate Services

J. Davidson, Director, Watershed Planning & Natural Heritage

D. Hope, Land Management & Operations Supervisor

C. Jones, Director, Planning & Regulation

R. Mosher, Restoration Coordinator

P. Sisson, Director, Engineering & Field Operations

L. Vaja, Executive Assistant/Health & Safety Administrator/Recording Secretary

R. Wilmot, GIS Systems Supervisor

Absent: Elizabeth Roy, Vice Chair

Janice Jones

Tito-Dante Marimpietri

Ian McDougall

John Neal

Steve Yamada

Others: Janet Ivey, CVC

The Chair called the meeting to order at 5:02 p.m.

DECLARATIONS of interest by members on any matters herein contained – None

C. Traill joined the meeting at 5:02 p.m.

ADOPTION OF MINUTES of April 20, 2021 (Agenda pg. SP-1)

Res. #SP-1 Moved by S. Lee

Seconded by D. Pickles

THAT the minutes of April 20, 2021 be adopted as circulated.

CARRIED

Cont'd

CHIEF ADMINISTRATIVE OFFICER

(1) Staff Report #SP-021-22 (Agenda pg. SP-3)
Re: Annual Reporting – Drinking Water Source Protection

Res. #SP-2 Moved by D. Barton
Seconded by B. Nicholson

***THAT Staff Report #SP-021-22 be received for information, and
THAT the CLOSPA endorses the recommendation of the CTC SPC to report to the Ministry of the Environment, Conservation and Parks that the CTC Source Protection Plan is progressing well, but short of target, and
THAT that the comments from the CTC Source Protection Committee be incorporated into correspondence from the Chair of the CLOSPA to the Ministry of the Environment, Conservation and Parks by the May 2nd reporting deadline and that staff be directed to submit the Annual Progress Report and accompanying endorsement documents.***
CARRIED

ADJOURNMENT

Res. #SP-3 Moved by R. Hooper
Seconded by S. Lee

THAT the meeting adjourn.
CARRIED

The meeting adjourned at 5:03 p.m.

BOB CHAPMAN, CHAIR

CHRIS DARLING, CHIEF ADMINISTRATIVE OFFICER

REPORT

CENTRAL LAKE ONTARIO SOURCE PROTECTION AUTHORITY

DATE: April 18, 2023
FILE: NSPG1
S.R.: SP-022-23 **APPROVED BY C.A.O.** _____
MEMO TO: Chair and Members, CLOSPA Board of Directors
FROM: Chris Darling, Chief Administrative Officer
SUBJECT: **Annual Reporting – Drinking Water Source Protection**

BACKGROUND:

The Credit Valley – Toronto and Region – Central Lake Ontario (CTC) Source Protection Plan (the Plan) has been in effect since December 31, 2015, having the objectives:

1. Protecting the quality and quantity of existing and future drinking water sources in the CTC Source Protection Region,
2. Ensuring that existing activities cease to be, or do not become significant drinking water threats and that new activities never become significant drinking water threats.

Source Protection Authorities (SPAs) are required to submit annual reports on source protection plan implementation to the Ministry of the Environment, Conservation and Parks (the Ministry), under section 46 of the Clean Water Act, 2006. The 2022 annual report will be the sixth such report since the plan came into effect.

Annual reports are prepared using the information provided by municipalities, provincial ministries, and other implementing bodies, as required by the monitoring policies in the Plan and accordance with section 81 of the Clean Water Act, and section 65 of Ontario Regulation 287/07. Reports from implementing bodies are submitted to the SPA annually by February 1st and reflect implementation efforts from the previous calendar year, January 1 to December 31, 2022.

Staff assess implementation and populate two reporting templates provided by the Ministry: 1) a public-facing annual progress report and 2) a more detailed supplemental form submitted only to the Ministry.

To streamline collating and assessing reported data from implementing bodies, in 2022 the reporting process was fully migrated from customized document templates to an online Electronic Annual Reporting (EAR) platform across the CTC.

The annual progress report is presented to the CTC Source Protection Committee (the Committee) for its review. The Committee is required to comment on the extent to which, in its opinion, the objectives set out in the Plan are being achieved. The Ministry provides three standard options for Source Protection Committees to select from:

- 1) Progressing well/on target – The majority of the source protection plan policies have been implemented and/or are progressing.
- 2) Satisfactory – Some of the source protection plan policies have been implemented and/or are progressing.
- 3) Limited progress – A few source protection plan policies have been implemented and/or are progressing.

The annual progress report and comments received from the Committee are being presented to the Credit Valley, Central Lake Ontario, and Toronto and Region Source Protection Authorities for endorsement in April 2023, before submission of the annual report to the Ministry by May 1st.

ANALYSIS:

Within the Central Lake Ontario Source Protection Area (CLOSPA), the policies municipalities are required to apply to address significant drinking water threats have either been implemented or are in the process of being implemented. At the time the CTC Source Protection Plan was made effective, 14 significant drinking water threats were present in the Central Lake Ontario part of the source protection region. These threats have all been removed as a result of actions taken by the Region of Durham, the Township of Uxbridge, and the Province. A summary of these actions follows below:

- Ontario ministries review applications for new or amended provincial approvals (i.e., prescribed instruments, such as environmental compliance approvals under the Environmental Protection Act) where they have been identified as a tool in our plan to address activities that pose a significant risk to sources of drinking water. The Province has established Standard Operating Policies to ensure that approvals take into account the science generated through the Drinking Water Source Protection Program and policies in the plan. Where necessary, conditions are added to approvals to ensure that the activity does not pose a significant threat to sources of drinking water. The Ministries have reported 100% completion of review of previously issued provincial approvals in our source protection region.
- Provincial ministries also consider source protection vulnerability when prioritizing sites for planned or proactive inspections. Ministry staff continue to receive training on the source protection program, their annual reporting requirements, and recent amendments to the Director's Technical Rules.
- Durham Region has established business processes to identify potential significant drinking water threats, including a thorough review of Planning Act/Building Permit applications.
- The Lake Ontario Collaborative Group partners (Peel, Toronto, Durham) continued to enhance the Lake Ontario Hydrodynamic and Water Quality Forecasting System. Phase 1 has been completed and the system is currently operational, with data validation completed in 2022. Phase 2 work is currently underway which includes improvements to model calibration and tributary time of travel, as well as the incorporation of additional lake monitoring equipment.
- CLOSPA municipalities have reported that amending Official Plans for conformity with the CTC SPP is 'in progress' or 'complete'. Most CLOSPA municipalities are expected to align their conformity obligations under the Clean Water Act, of 2006 when completing their conformity with the Growth Plan for the Greater Golden Horseshoe as part of the Municipal Comprehensive Review.

The CTC Source Protection Committee reviewed a draft of the annual report at Meeting #1/23 held on March 23, 2023. Following discussion, the Committee concluded that the Plan implementation is progressing well, but short of target. This is consistent with the modified language used in the 2019 through 2021 annual reports.

SOURCE PROTECTION PLAN POLICIES

As of the end of 2022, almost all (88%) of the Plan's legally binding policies to address significant drinking water threats have been implemented, and all municipalities have established processes to ensure that land use planning decisions conform to the Plan. Of the more than 10,000 significant drinking water threats identified in the CTC Region when the Plan came into effect in 2015, only 301 remain to be addressed, all within the Credit Watershed. This means, approximately 97% of existing significant drinking water threats have been addressed through policy implementation or removed through threats verification. For these reasons, the Committee determined that the implementation of the Plan is progressing well overall.

RISK MANAGEMENT PLANS

Of the 301 significant drinking water threats, 260 are identified as requiring Risk Management Plans. Outstanding threats are predominantly associated with the application and storage of road salt, snow storage, application and storage of agricultural source materials and pesticides, and handling and storage of dense non-aqueous phase liquids. The distribution of existing SDWTs still requiring management, as of December 2022, was as follows:

- Town of Orangeville – 78 threats
- Town of Erin – 29 threats
- Region of Halton – 147 threats
- Region of Peel – 4 threats
- Town of Mono - 2 threats

The Committee expressed concern that fewer than half of the required risk management plans (RMPs) have been established to address significant threats. There are 150 RMPs currently in place across CTC and an estimated 169 RMPs were outstanding at the end of 2022. Figure 1 illustrates the number of RMPs currently in place, finalized or in-progress, and still required at the end of 2022. As no significant prescribed drinking water threats were originally identified for the City of Toronto, that municipality does not appear in the figure.

The deadline to complete RMPs for existing significant threats identified at the time of the initial Source Protection Plan was set to December 31, 2020, 5 years after approval in 2015. Following a request by the Committee in 2020, the MECP approved a 3-year extension to this deadline. Of the 169 RMPs still to be completed, 163 require completion by Dec. 31, 2023. They are in Halton Region, and the Towns of Orangeville and Erin.

100% compliance was reported from 118 inspections carried out by Risk Management Inspectors for prohibited or regulated activities. The single required Risk Management Plan within the part of Durham Region within the CTC SPR was inspected in 2022 and found to be in compliance.

Recognizing, amongst other things, the extent of COVID-19 pandemic challenges associated with in person inspections and negotiation, and limited RMO resources compared to program demands; the Committee has endorsed a further deadline extension request to be submitted on behalf of Halton Region, and the Towns of Orangeville and Erin for completion of remaining RMPs. It should be noted that, so far 6 new RMPs have been signed in 2023. The Committee will continue to work with source protection authority and municipal staff to review source protection plan policies requiring RMPs and seek ways to advance risk management plan completion.

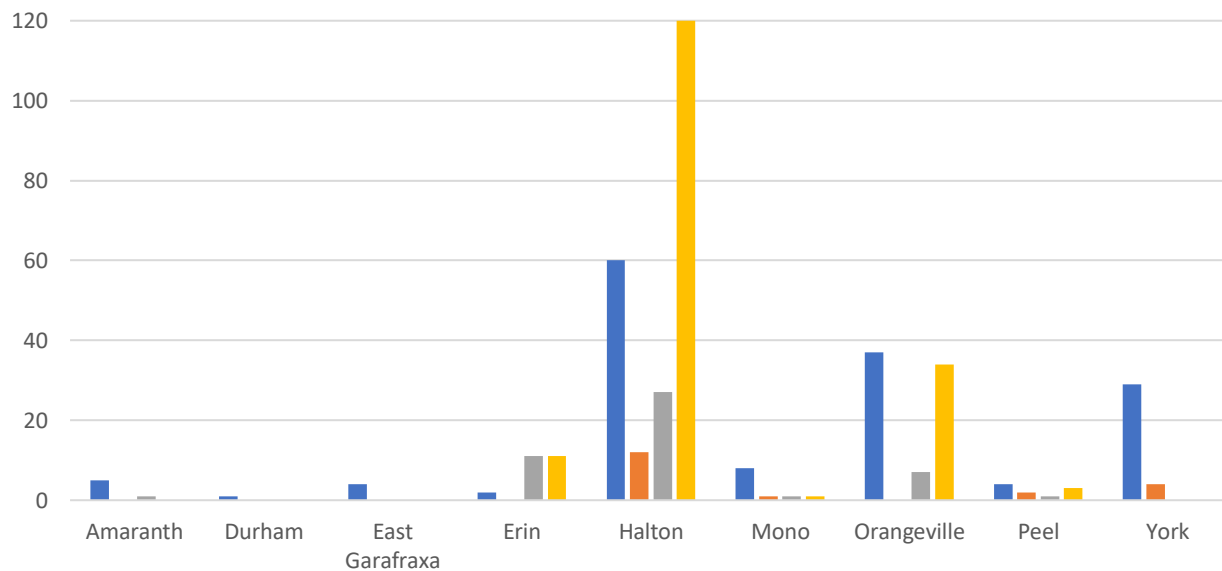


Figure 1. Number of risk management plans in place, newly created in 2022, in-progress in 2022, and still required to address significant drinking water threats as of December 31, 2022.

SEPTIC INSPECTIONS

The Committee also noted that some municipal septic system inspection programs were delayed 2022 because of COVID-19 pandemic and resource limitations. Within the CTC Region, 295 septic systems are expected to be inspected every 5 years to satisfy the requirements of the Ontario Building Code. In 2022, 37 inspections were completed, representing 13% of the total inspections required over the 5-year cycle. 175 inspections are now overdue in Town of Erin and across Regional Municipality of York. Both municipalities are prioritizing the outstanding inspections in 2023. No inspections are required within CLOSPA jurisdiction.

SOURCE WATER QUALITY

Water quality analysis identified thirteen drinking water issues at wells in three drinking water systems in the CTC Source Protection Region.

In the Orangeville Drinking Water System (DWS), five wells have been identified with chloride issues and three wells with sodium issues. While chloride concentrations in three of the wells continue to rise (9A, 10, 11), they appear to have stabilized in two wells (6, 9B). Sodium concentrations in the affected wells continue to increase (6, 9A, 9B).

In the Acton DWS, Davidson 1 and 2 wells have been identified with nitrate issues though concentrations appear to have stabilized and may be potentially decreasing.

In the Georgetown DWS, Cedarvale 1A, 4 and 4A wells have been identified with chloride issues and concentrations show an increasing trend.

As part of the comprehensive review of the CTC Source Protection Plan under section 36 of the Clean Water Act, 2006, the already identified water quality issues will be reassessed and the need for new policies to address the issues will be considered. Staff will also review water quality data from other DWSs in CTC to identify any new potential issues and additional monitoring requirements.

DISCUSSION

Results presented above show good overall progress in the implementation of the plan, with RMP and septic inspection metrics below targets in a few municipalities. Recognizing, among other things, the extent of COVID-19 pandemic challenges associated with in-person inspections and negotiation and limited RMO resources compared to program demands, staff recommend an overall assessment of “**progressing well, but short of target**” for 2022. This is consistent with the modified language used in the 2019 through 2021 annual reports.

The Committee’s comments are summarized in a letter from Chair Nathan Hyde and with the final plain-language annual progress report, are appended as Schedule ‘A’. The CLOSPA may, at its discretion, submit its own comments on the progress toward implementation of the CTC Source Protection Plan.

NEXT STEPS

The annual progress report and the Committee’s comments will be presented to the Credit Valley, Central Lake Ontario, and Toronto and Region Source Protection Authorities (SPAs) for endorsement at meetings in April 2023. Following SPA approval, staff will submit the annual progress report and supplementary form to MECP by May 1, 2023. Following submission to the province, annual progress reports are posted to the CTC website (ctcswp.ca).

RECOMMENDATIONS:

THAT the CLOSPA endorses the recommendation of the CTC SPC to report to the Ministry of the Environment, Conservation and Parks that the CTC Source Protection Plan is progressing well, but short of target, and

THAT that the comments from the CTC Source Protection Committee be incorporated into correspondence from the Chair of the CLOSPA to the Ministry of the Environment, Conservation and Parks by the May 1st reporting deadline and that staff be directed to submit the Annual Progress Report and accompanying endorsement documents.

Attach.

CD/lv
s:\source water protection\reports\2023\sp_022_23.docx

March 30, 2023

Sent via email

Elizabeth Roy

Chair, Central Lake Ontario Source Protection Authority

100 Whiting Avenue

Oshawa, ON

L1H 3T3

Dear Elizabeth Roy:

The Credit Valley – Toronto and Region – Central Lake Ontario (CTC) Source Protection Plan has been in effect since December 31, 2015, having the primary objective of protecting current and future sources of drinking water from contamination and overuse.

In accordance with Ontario Regulation 287/07, the Central Lake Ontario Source Protection Authority (CLOSPA) is required to submit an annual progress report to the Ministry of the Environment, Conservation and Parks (MECP) by May 1, 2023. The sixth CTC annual progress report documents the status of policy implementation, progress in achieving the source protection plan objectives, and implementation efforts between January 1 and December 31, 2022 (see attached).

On March 23, 2023, the CTC Source Protection Committee (the Committee) reviewed the annual progress report and passed the following resolutions:

THAT the CTC Source Protection Committee receive the staff report CTC Source Protection Plan Annual Progress Report 2022 for information.

AND THAT in the opinion of the CTC Source Protection Committee, implementation of the Source Protection Plan has progressed well but is short of target in achieving the plan's objectives.

AND THAT CTC staff be directed to present the CTC Source Protection Committee's comments along with the Annual Progress Report 2022 to the Credit Valley, Toronto and Region, and Central Lake Ontario Source Protection Authorities for submission to the Ministry of the Environment, Conservation and Parks.

At the time the Plan was made effective in 2015, over 10,000 significant drinking water threats were identified in the CTC Source Protection Region. At the end of the current reporting period, approximately 97% of existing significant drinking water threats have been addressed through policy implementation or removed through threats verification. Additionally, 88% of legally binding policies that address significant

drinking water threats have been implemented. Only 301 significant threats remain to be addressed within the CTC, all are located within the Credit River watershed. Therefore, the Committee determined that implementation of the CTC Source Protection Plan is progressing well overall.

However, the Committee expressed concern regarding the limited progress made in 2022 in some areas:

- Some policies in the Plan require the establishment of risk management plans (RMPs) to address significant drinking water threats. At the conclusion of 2022, 150 RMPs had been established in the CTC Region, while another 169 RMPs remained to be negotiated, all within the Credit River Watershed. Of those outstanding, 163 require completion by Dec. 31, 2023. There has been 6 new RMPs signed in 2023 so far, but it is unlikely the remainder can be completed by the implementation deadline. Recognizing, amongst other things, the extent of COVID-19 pandemic challenges associated with in person inspections and negotiation, and limited RMO resources compared to program demands; the Committee has endorsed a further deadline extension request to be submitted on behalf of Halton Region, and the Towns of Orangeville and Erin for completion of remaining RMPs. The Committee has further required the affected municipalities to submit a report to their councils on the proposed extension to ensure adequate resources are made available to achieve their work plans for completing the outstanding RMPs.
- Within the CTC Region, 295 septic systems are currently identified as requiring inspections every 5 years to satisfy the requirements of the Ontario Building Code. Completion of septic system inspections have been delayed by the pandemic. In 2022, 37 inspections were completed, representing 13% of the total inspections required over the 5-year cycle ending in 2022. There are 175 outstanding septic inspections in the Credit River and Toronto and Region Source Protection Areas; these are expected to be completed in 2023. There are no septic system inspections required within the CLOSPA jurisdiction.
- Under the source protection plan, municipalities monitor and report on raw water quality from wells in vulnerable areas with known drinking water issues. Trend analysis suggests concentrations continue to increase for most of the municipal wells with identified issues for two drinking water systems (Orangeville and Georgetown) in the Credit River watershed.

For these reasons, the Committee concluded that progress in achieving the Plan's objectives falls short of target for 2022. Enhanced monitoring and assessment of raw water quality is required to determine whether the policies in the Plan are sufficient to prevent future drinking water issues. The Committee will continue to work with source protection authority and municipal staff to review and update source protection plan policies to tackle these challenges.

The CLOSPA is now tasked with considering the annual progress report and submitting it to the MECP together with any comments the CLOSPA wishes to make. Similarly, both Toronto and Region and Credit River SPAs are reviewing the comments received from the CTC Source Protection Committee and will report their assessment of implementation status to the Ministry within the same timeframe.

If you have any questions regarding this letter, or the CTC Source Protection Plan 2022 Annual Progress Report, please contact Behnam Doulatyari at 437-993-1153 or Behnam.Doulatyari@cvc.ca.

Sincerely,

Nathan Hyde

Nathan Hyde

Chair, CTC Source Protection Committee

Attachment A: Source Protection Annual Progress Report (2022)

Copy to:

Chris Darling, Chief Administrative Officer, Central Lake Ontario Conservation Authority

Behnam Doulatyari, Sr. Manager, Watershed Plans and Source Water Protection, Credit Valley Conservation



CTC Source Protection Region 2022 Annual Progress Report

I. Introduction

Source protection plans are created under the *Clean Water Act, 2006*. This annual report summarizes the progress made by December 31, 2022 in implementing the source protection plan for municipal drinking water systems in the Credit Valley, Toronto and Region, and Central Lake Ontario (CTC) Source Protection Region.

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, and collaboration with local stakeholders and the provincial government. When policies in the plan are implemented it ensures that activities carried out near municipal wells and lake-based intakes will not pose significant risk to drinking water supplies.

We acknowledge and recognize the efforts made by municipalities, stakeholders and the CTC Source Protection Committee in the development and implementation of the Source Protection Plan.



II. A message from your local Source Protection Committee

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

This is the sixth Annual Report on implementation of the CTC Source Protection Plan (Plan) since it took effect on December 31, 2015. All stakeholders responsible for Plan policy implementation reported on their progress in 2022.

Most of the legally binding policies (88%) that address significant drinking water threats are implemented in the CTC Region. All municipalities have established processes to ensure that land use planning decisions conform to the Plan.

At the time the Plan came into effect in 2015, over 10,000 significant drinking water threats were identified in the CTC Region. Since then, field verification has reduced that number to 6,159 significant threats. Only 301 significant drinking water threats remain to be addressed, all of these within the Credit River Watershed. Furthermore, approximately 97% of existing significant drinking water threats have been addressed through policy implementation or removed through threats verification.

The COVID-19 pandemic has constrained the ability of municipalities to engage property and business owners, conduct site visits and septic system inspections.

Fewer than half of the required risk management plans (RMPs) have been established to address significant threats and several municipalities will not achieve the 2023 deadline for completion of RMPs.

Further, the Committee noted its concern about increasing sodium and chloride concentrations in the raw water from most of the municipal wells with identified issues in the drinking water systems for Orangeville and Georgetown and expressed concern about rising levels across the CTC.

As a result, the Committee concluded that implementation of the Plan is progressing well, but short of target.

The Committee will continue to work with source protection authority and municipal staff, as well as the province to identify ways to advance RMP completion.

III. Our Watershed

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

The CTC Source Protection Region contains over 25 large and small watersheds and spans over 3,800 km² of land, from the Oak Ridges Moraine in the north to Lake Ontario in the south. The region contains portions of the Niagara Escarpment, Oak Ridges Moraine, Greenbelt, Lake Ontario, and the most densely populated area of Canada. The CTC Source Protection Region includes 25 local municipalities and eight single tier, regional or county municipalities, 67 municipal supply wells, and 16 municipal surface water intakes in Lake Ontario. The region is complex and diverse in terms of geology, physiography, population, and development pressures. There are many, often conflicting, water uses including, drinking water supply, recreation, irrigation, agriculture, commercial and industrial uses, and ecosystem needs.

The Credit Valley Source Protection Area is formed by one main watercourse, the Credit River, and a number of smaller Lake Ontario tributaries. Nearly 1500 km of streams and creeks empty into the Credit River including Black Creek, Silver Creek, West Credit River, Shaw's Creek, East Credit River, Fletchers Creek, Caledon Creek, and several others. There are thirteen municipal water systems operating in the source protection area, two are surface water based – accessing Lake Ontario as the source; the remainder are groundwater-based. There are no municipal drinking water sources taking from the Credit River. About 1 million people make the Credit watershed their home.

The Toronto and Region Source Protection Area comprises numerous watersheds, plus their collective Lake Ontario waterfront shorelines, to incorporate portions of six upper-tier and 15 lower-tier municipalities. The nine major watersheds are Carruthers, Duffins, Etobicoke, Highland, Mimico, and Petticoat Creeks, and also the Don, Humber and Rouge Rivers. More than 5 million people live within the source protection area with the population expected to grow significantly in the years to come. There are ten municipal water systems operating in the source protection area, five are surface water based – accessing Lake Ontario as the source; the remainder are groundwater-based.

The Central Lake Ontario Source Protection Area is fully contained within the Regional Municipality of Durham. There are numerous watersheds within its boundaries, with the five major watersheds originating at the Oak Ridges Moraine. These major watersheds are Lynde, Oshawa, Farewell, Bowmanville, and Soper Creeks. There are no municipal wells within the source protection area; all municipal drinking water comes from Lake Ontario. There are three municipal drinking water systems: Whitby, Oshawa, and Bowmanville.

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

1. Source Protection Plan Policies

P : Progressing Well/On Target

There are 129 policies in the CTC Source Protection Plan. The policies address: 21 types of threats prescribed in regulation and 2 types of local drinking water threats; other actions considered necessary to protect drinking water sources; and implementation monitoring. Some policies are implemented by a single stakeholder, others by multiple stakeholders.

As of the end of 2022, 88% of legally binding policies and 82% of non-legally binding policies that address significant drinking water threats have been implemented, and the rest are in progress, or have been considered and did not require further action. 74% of policies addressing moderate and low threats have been implemented and the rest are in progress. Furthermore, approximately 97% of existing significant drinking water threats have been addressed (i.e., eliminated or managed).

2. Municipal Progress: Addressing Risks on the Ground

P : Progressing Well/On Target

It is a requirement that municipalities ensure their Official Plan (OP), and where appropriate Zoning by-law, conforms with the local source protection plan. As of December 2022, out of 33 municipalities in CTC Source Protection Region, 31 municipalities have completed or are in the process of completing their OP conformity exercise. With regards to Zoning by-laws, 12 municipalities have completed or are in the process of completing their conformity exercise.

3. Septic Inspections

S: Satisfactory (inspection progress varies across the CTC)

Within the CTC Region, 295 septic systems are expected to be inspected every 5 years to satisfy the requirements of the Ontario Building Code. In 2022, 37 inspections were completed, representing 13% of the total inspections required over the 5-year cycle.

Municipal septic inspection programs experienced delays in recent years because of the COVID-19 pandemic and resource limitations. One hundred and seventy-five inspections are now overdue in Town of Erin and across Regional Municipality of York. Both municipalities are prioritizing the outstanding inspections in 2023. Of the systems inspected in 2022, 95% did not require any maintenance work, while 5% required minor maintenance. None required major maintenance.

4. Risk Management Plans

S: Satisfactory (progress varies across CTC)

The CTC Source Protection Plan contains policies that require the development of Risk Management Plans (RMPs) to manage some drinking water threats. Screening processes are in place at municipalities to ensure applications for future development are reviewed appropriately for potential threat activities and source protection policy application.

Overall, 150 RMPs are in place within the CTC. Nineteen of these RMPs were established in 2022, with an additional 48 RMPs in the process of being completed as of the end of the year. In 2022 risk management efforts continued to be affected by pandemic related restrictions, lengthy negotiations, and other source protection related demands on limited staff time. There are 169 RMPs that remain to be negotiated to address significant threats, with 163 required to be in place by the end of 2023 in Halton Region, and the Towns of Orangeville and Erin. Despite good progress in the first quarter of 2023, it is not likely the 2023 deadline can be met, and therefore the affected municipalities will be requesting an extension for completion of remaining RMPs.

There were 118 inspections carried out in 2022 by Risk Management Inspectors for prohibited or regulated activities; the most inspections completed in any year to date. There was 100% compliance with RMPs and prohibited activities that were inspected.

5. Provincial Progress: Addressing Risks on the Ground

P : Progressing Well/On Target

Ontario ministries review applications for new or amended provincial approvals (i.e., Prescribed Instruments, such as Environmental Compliance Approvals under the *Environmental Protection Act*) where they have been identified as a tool in our plan to address activities that pose a significant risk to sources of drinking water. Where necessary, conditions are added to approvals to ensure that the activity does not pose a significant threat to sources of drinking water.

For CTC Source Protection Region, the ministries have reported 100% completion of review of previously issued provincial approvals in our source protection region. In 2022, MECP conducted detailed review of 9 new applications: 7 Fuel Handling/Storage and 2 Wastewater/Sewage Works. The 2 Wastewater/Sewage Works Environmental Compliance Approval applications were determined to be significant drinking water threats to be managed through Prescribed Instrument conditions. At the conclusion of 2022, these Prescribed Instruments had yet not been issued.

Provincial ministries also consider source protection vulnerability when prioritizing sites for planned or proactive inspections. Ministry staff continue to receive training on the source protection program, their annual reporting requirements, and recent amendments to the Director's Technical Rules.

6. Source Protection Awareness and Change in Behaviour

Municipalities, conservation authorities and other implementing bodies within the CTC Source Protection Region work with landowners and business owners to help safeguard our sources of drinking water. Municipalities across the CTC have established education and outreach programs, which contribute to enhancing awareness of source water protection. Examples of 2022 efforts to build awareness include:

- Phase 1 of the Lake Ontario Collaborative Group partners (Peel, Toronto, Durham) Lake Ontario Water Quality Forecasting System was completed, allowing forecasting of potential impacts from contaminant spills to their water treatment plant intakes.
- Wellington County municipalities collaborated on 3 Smart about Salt training events for municipal staff and 2 sessions for private contractors
- Peel Region endorsed a Source Water Protection Incentive Program to help reduce costs incurred by affected landowners and business owners who must comply with a Risk Management Plan
- Credit Valley Conservation is promoting source water protection best practices thorough education and outreach to owners of non-municipal drinking water sources

7. Source Protection Plan Policies: Summary of Delays

The development of a Joint Municipal Water Supply Management Model (policy DEM-6) for the municipalities of Mono, Amaranth, Orangeville, and East Garafraxa is nearing completion as all 4 municipal councils have passed resolutions to execute the agreement; final sign-off is expected in 2023.

Provincewide, all Source Protection Plans were required to include policies to address significant drinking water threats. The CTC Source Protection Committee chose to also include policies to address moderate and low drinking water threats. These moderate and low drinking water threat policies relate to the application of road salt, the handling and storage of certain chemicals and provision of education and outreach materials. Since the implementation of these moderate and low threat policies (SAL-12, SAL-13, DNAP-3) are non-legally binding, their implementation status varies across the source protection region.

A number of policies associated with implementation of Risk Management Plans to address existing threats, also remain in progress.

8. Source Water Quality: Monitoring and Actions

Thirteen drinking water issues have been identified at wells in three drinking water systems in our Source Protection Region. For these drinking water systems, the Source Protection Plan requires that the municipality establish more frequent raw water quality monitoring to help further characterize concentrations and trends. All municipalities have monitoring and treatment systems in place to ensure that municipal drinking water meets the requirements under the *Safe Drinking Water Act, 2002*.

In the Orangeville Drinking Water System, five wells have been identified with chloride issues and three wells with sodium issues. While chloride concentrations in three of the wells continue to rise, they appear to have stabilized in two wells. Sodium concentrations in the affected wells continue to increase.

In the Acton Drinking Water System, two wells have been identified with nitrate issues though concentrations appear to have stabilized.

In the Georgetown Drinking Water System, three wells have been identified with chloride issues and concentrations are increasing.

Over time, appropriate monitoring will help determine if implementation of plan policies and other actions are improving the raw water quality for these systems. Further assessment of water quality trends across the CTC Region will be implemented in the coming years.

9. Science-based Assessment Reports: Work Plans

No work plans were required to be implemented for our assessment report(s).

Review of the 2021 Technical rules is ongoing and the Source Protection Committee is guiding a multi-year comprehensive review and update of the CTC Source Protection Plan and Assessment Reports under s.36 of the *Clean Water Act, 2006*.

10. More from the Watershed

To learn more about our source protection region, visit our website at <https://ctcswp.ca/>