



**TO: Chair and Members of the Source Protection Committee  
Meeting #2/24, March 20, 2024**

**FROM: Behnam Doulatyari, Senior Manager, Watershed Plans and  
Source Water Protection**

**RE: CTC Source Protection Plan Annual Progress Report 2023**

### **RECOMMENDATION**

**THAT** the CTC Source Protection Committee receive the staff report CTC Source Protection Plan Annual Progress Report 2023 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 FURTHER THAT** CTC staff be directed to present the CTC Source Protection Committee's comments along with the Annual Progress Report 2023 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.

### **EXECUTIVE SUMMARY**

CTC Source Protection Plan implementation progress has been analysed by staff and is summarized below. Reports on implementation progress are received from implementing bodies, including municipalities and provincial ministries on an annual basis. The 2023 Annual Progress Report has been prepared for review by the CTC Source Protection Committee and Source Protection Authority Boards prior to its submission to the Ministry of the Environment, Conservation and Parks.

### **Background**

The CTC Source Protection Plan (the Plan) came into effect December 31, 2015, providing a framework of policies to protect the quality and quantity of the source waters for municipal drinking water systems located in the CTC Source Protection Region. The objectives of the Plan are:

1. to protect existing and future drinking water sources in the CTC Source Protection Region
2. to ensure 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 implementation progress to the Ministry of the Environment, Conservation and Parks (MECP) under section 46 of the *Clean Water Act, 2006* (the Act). The 2023 report on implementation progress will be the seventh such report since the Plan came into effect.

Annual progress reports are prepared using data provided by municipalities, provincial ministries, and other implementing bodies as required by the monitoring policies in the Plan and in accordance with section 81 of the Act and section 65 of Ontario Regulation 287/07. Municipal and provincial reports are required to be submitted to SPAs annually by February 1st and reflect implementation efforts from the previous calendar year, January 1 to December 31, 2023.

Staff aggregate and evaluate implementation data to populate two reporting templates provided by the MECP: 1) a summary-level annual progress report and 2) a more detailed supplemental form. Annual reports must be shared with the CTC Source Protection Committee (SPC) at least 30 days before being submitted to the Director, Conservation and Source Protection Branch, of the MECP.

Last year, the CTC migrated to the online Electronic Annual Reporting (EAR) platform to streamline collating and assessing reported data from implementing bodies. For this year, the implementation status of policies are being answered directly in a new online policy interface (<https://policy.swpip.ca/>) instead of through section 2 of EAR. This change provides SPAs with the implementation status of each municipality and meets the intent of section 46 of the Act by also making the information available to the public.

The SPC is required to review the annual progress report and provide written comments to the SPAs about the extent to which, in the opinion of the SPC, the objectives set out in the plan are being achieved by the measures described in the report.

The plain-language draft annual progress report (**Attachment 1**) includes a summary of Plan implementation, highlighting municipal progress in aligning Official Plans with the source protection plan, septic system inspections, and risk management plans, provincial implementation progress, and water quality monitoring results.

The supplemental form (**Attachment 2**) includes two questions that require SPC input.

1. In the opinion of the Source Protection Committee, to what extent have the objectives of the source protection plan been achieved in this reporting period? (Question ID 350)
2. Please provide comments to explain how the Source Protection Committee arrived at its opinion. Include a summary of any discussions that might have been had amongst the Source Protection Committee members, especially where no consensus was reached. (Question ID 351)

The MECP has clarified that notwithstanding the reference to “in this reporting period”, the intent of this question is to reflect progress made in plan implementation since it came into

effect (2015), and not just in the previous year. Three response options are provided by the MECP:

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

Staff recommend the response included in Section II of Attachment 1 and described more fully below.

## Highlights

### Source Protection Plan Policies

As of the end of 2023, 89% of legally binding policies that address significant drinking water threats have been implemented. Similarly, as of the end of 2023, 90% 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 do not require further action. Sixty-nine percent of policies addressing Moderate and Low threats have been implemented and the remainder are in progress.

Furthermore, approximately 98% of existing significant drinking water threats have been addressed through policy implementation or removed through threats verification.

### Septic Inspections

The Ontario Building Code requires that small sewage systems identified as significant drinking water threats be inspected every five years through a mandatory program. Within the CTC Region, 279 septic systems are currently identified as requiring inspections every 5 years to satisfy the requirements of the Ontario Building Code.

In 2023, 108 inspections were completed, representing 39% of the total inspections required over the 5-year cycle. **Table 1** below shows the number of completed and outstanding inspections across the CTC SPR. Of the systems inspected in 2023, 48% did not require any maintenance work, 34% required minor maintenance, and 18% required major maintenance.

At the conclusion of 2023, there are fifteen septic systems in Erin whose inspection was outstanding due to landowner refusing entry, and therefore compliance orders are being sought. Halton Hills is awaiting confirmation that one further system has been decommissioned. In York Region, two local municipalities reported ongoing inspection delays for twenty-nine septic systems and are following up on next steps including final notices and possible compliance orders.

Table 1. Septic system maintenance inspections across CTC (2018-2023)

Municipality	2018	2019	2020	2021	2022	2023	Outstanding Inspections
Dufferin (Amaranth, East Garafraxa, Mono)	0	12	0	0	0	0	0
Orangeville	0	0	0	2	0	0	0
Erin	0	0	0	0	0	107	15
Caledon	0	0	0	8	7	0	0
Halton Hills	2	1	1	50	5	1	1
York (Whitchurch-Stouffville, Vaughan)	0	0	0	0	25	0	29
Durham (Uxbridge)	0	0	0	4	0	0	0

### Risk Management Plans

Risk management plans (RMPs) are site specific documents that outline the actions required to address significant drinking water threats. These are negotiated with property owners and businesses by municipal Risk Management Officials (RMOs).

A total of thirty-three RMPs were signed in 2023 in the CTC Source Protection Region, compared to nineteen in 2022. As of the end of 2023, there were 182 RMPs in place across CTC. **Figure 1** illustrates the number of RMPs currently in place, finalized or in-progress, and still required at the end of 2023.

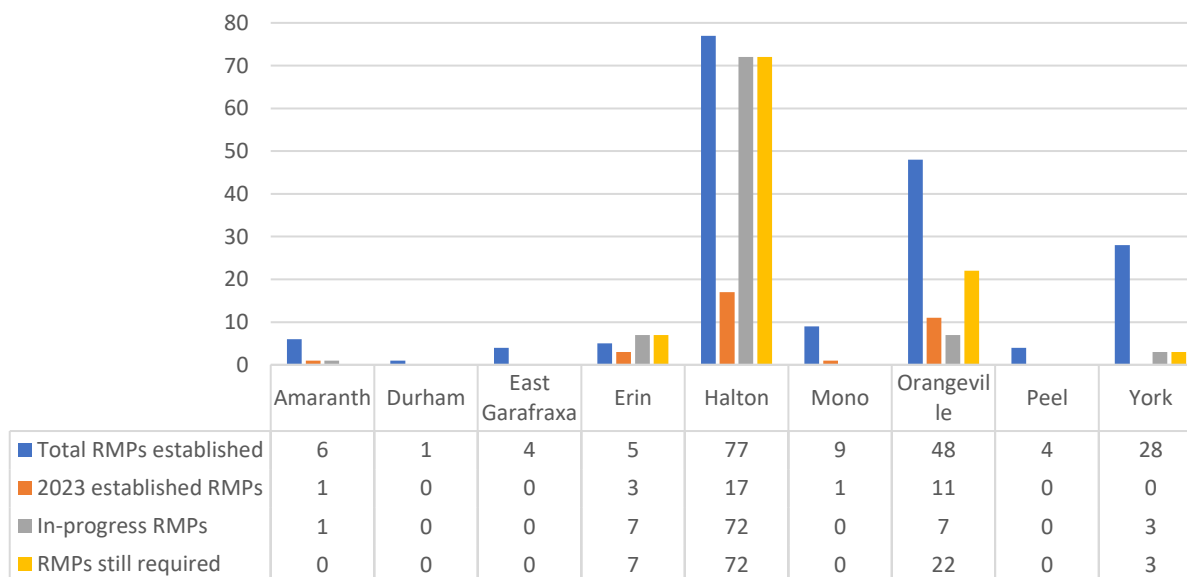


Figure 1. Total RMPs established, RMPs established in 2023, RMPs in-progress at end of 2023, and RMPs still required at end of 2023.

The total number of significant drinking water threats that remain to be addressed in the CTC as of the end of 2023, was 241, down from 301 at the end of 2022. Outstanding significant threats are predominantly associated with application and storage of road salt, snow storage, sewage,

application and storage of agricultural source materials, commercial fertilizer and pesticides, and handling and storage of dense non-aqueous phase liquids.

Of these 241 significant threats, 160 are considered “existing” threats and are identified as requiring RMPs to manage them. “Existing” threats are, in general terms, activities that were occurring on the landscape before the Source Protection Plan was approved. The 2015 approval of the CTC Source Protection Plan, set the deadline for completion of RMPs for existing threats as December 31, 2020, as per policy T-6.

In 2020, following a request by the SPC, the MECP approved a 3-year extension to the original deadline to complete RMPs for existing significant threats identified at the time of the initial Source Protection Plan approval in 2015. The deadline was further revised, to December 31, 2025, after the SPC authorized a 2-year extension that was approved by the MECP in November 2023.

At the conclusion of 2023, there were about 104 RMPs that remain to be negotiated to manage existing significant threats. A quarterly update on the number of outstanding existing significant drinking water threats and risk managements plans can be found in **Table 1**.

**Table 1. CTC outstanding existing significant drinking water threat and risk management plan progress\***

<b>Municipality</b>	<b>Outstanding existing significant threats or risk management plans</b>	<b>As of January 1, 2023</b>	<b>As of June 30, 2023</b>	<b>As of January 1, 2024*</b>
Town of Erin	# of significant drinking water threats	29	25	18
Town of Erin	# of risk management plans	11	7	7
Halton Region	# of significant drinking water threats	165	124	95
Halton Region	# of risk management plans	116	95	72
Town of Orangeville	# of significant drinking water threats	66	39	42
Town of Orangeville	# of risk management plans	34	30	22

\*York Region identified three RMPs that are required to address existing significant threats due to property ownership changes. These properties had previously had RMPs established.

There were 185 inspections carried out by municipal Risk Management Inspectors in 2023 for prohibited or risk managed activities. Three of these inspections identified persons engaging in a drinking water threat activity without a risk management plan as required by the CTC Source Protection Plan. Municipal staff worked with these property owners to negotiate new or amended Risk Management Plans to cover the newly identified significant threats.

**Provincial Prescribed Instruments**

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 the CTC Source Protection 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.

Provincial ministries screen 100% of applicable incoming applications in accordance with CTC Source Protection Plan prescribed instrument policies. In 2023, ministries conducted detailed review of nine new applications within CTC: one Fuel Handling/Storage, one Permit To Take Water, six Wastewater/Sewage Works and one Nutrient Management Strategy. One Fuel Handling/Storage, one Permit To Take Water and one Nutrient Management Strategy were determined to be significant drinking water threats and had conditions included within the instrument to manage the threat. The six Wastewater/Sewage Works applications were reported as not being significant drinking water threats.

The ministries have reported 100% completion of review of previously issued provincial approvals in our source protection region. Three newly identified existing ECAs for wastewater/sewage works were identified as requiring a detailed review for source protection within the CTC in 2023, all were determined not be a significant threat.

**Source Water Quality**

SPA staff have been working with municipal partners on development of updated statistical method to better assess trends in groundwater quality, specifically focused on nitrate, sodium and chloride. The following summary of CTC issues is based on the results of that approach as presented in the *CTC SPR Water Quality Assessment Technical Report* at Meeting #3/23.

Thirteen drinking water issues are currently identified 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. Chloride concentrations continue to increase in all five wells (6, 9A, 9B, 10, and 11). Sodium concentrations in the affected wells continue to increase (6, 9A, and 9B).

In the Acton DWS, Davidson 1 and 2 wells have been identified with nitrate issues, analysis suggests concentrations appear to be decreasing.

In the Georgetown DWS, Cedarvale 1A, 4 and 4A wells have been identified with chloride issues and concentrations continue to increase.

As part of the comprehensive review of the CTC Source Protection Plan under section 36 of the *Clean Water Act, 2006*, current drinking water issues are being reassessed. As noted above, the

first phase of an investigation to consider these issues and water quality concerns for municipal supplies was presented at Meeting #3/23. The second phase is included in Agenda Item 7.1c with the intention to support water quality trend analysis, and issue identification, monitoring and potential delisting. Work on the third phase involving hydrogeological assessment of wells with existing *issues* to determine the likely cause of the observed statistical trend based on all available data will start in the second quarter of 2024. Work on phase 4 of the project to develop an automated water quality reporting tool in collaboration with ORMGP platform is anticipated to be completed in the second quarter of 2024.

## Discussion

Results presented above show good overall progress in implementation of the plan. Progress on RMP establishment and septic inspections are below targets in a few municipalities but have improved compared to the past three years. Recognizing, among other things, the resources and time required for inspections and negotiations, staff recommend an overall assessment of “progressing well, but short of target” for 2023. This is consistent with the modified language used in the 2019 through 2022 annual reports.

## Next Steps

The annual progress report and the SPC’s assessment and comments on CTC Source Protection Plan implementation will be presented to the Credit Valley, Central Lake Ontario, and Toronto and Region Source Protection Authorities (SPAs) for their consideration at meetings in April 2023. Following SPA direction, staff will submit the annual progress report and supplementary form to MECP by May 1, 2024. Following submission to the province, the annual progress report will be posted to the CTC website (ctcswp.ca).

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### Attachments (2):

**Attachment 1:** 2023 CTC Source Protection Plan Annual Progress Report

**Attachment 2:** 2023 CTC Source Protection Plan Supplementary Report