

Section I – Items for Toronto and Region Source Protection Authority Action

TO: Chair and Members of the Toronto and Region Source Protection Authority
Friday, September 22, 2023 Meeting

FROM: Laurie Nelson, Director, Policy Planning

RE: SUBMISSION OF SECTION 34 AMENDMENTS TO TORONTO AND REGION SOURCE PROTECTION AUTHORITY ASSESSMENT REPORT AND CTC SOURCE PROTECTION PLAN

KEY ISSUE

To obtain endorsement from the Toronto and Region Source Protection Authority (TRSPA) to submit amendments to the TRSPA Assessment Report and the Credit Valley-Toronto and Region-Central Lake Ontario Source Protection Plan (CTC SPP) to the Ministry of the Environment, Conservation, and Parks (MECP).

RECOMMENDATION:

THAT the Toronto and Region Source Protection Authority (TRSPA) endorse the recommendation of the Credit Valley-Toronto and Region-Central Lake Ontario (CTC) Source Protection Committee to submit amendments to the TRSPA Assessment Report and the CTC Source Protection Plan under Section 34 of the Clean Water Act, 2006 to the Ministry of the Environment, Conservation, and Parks (MECP);

AND FURTHER THAT staff be directed to take the necessary actions to prepare and transmit the required documents and information to MECP.

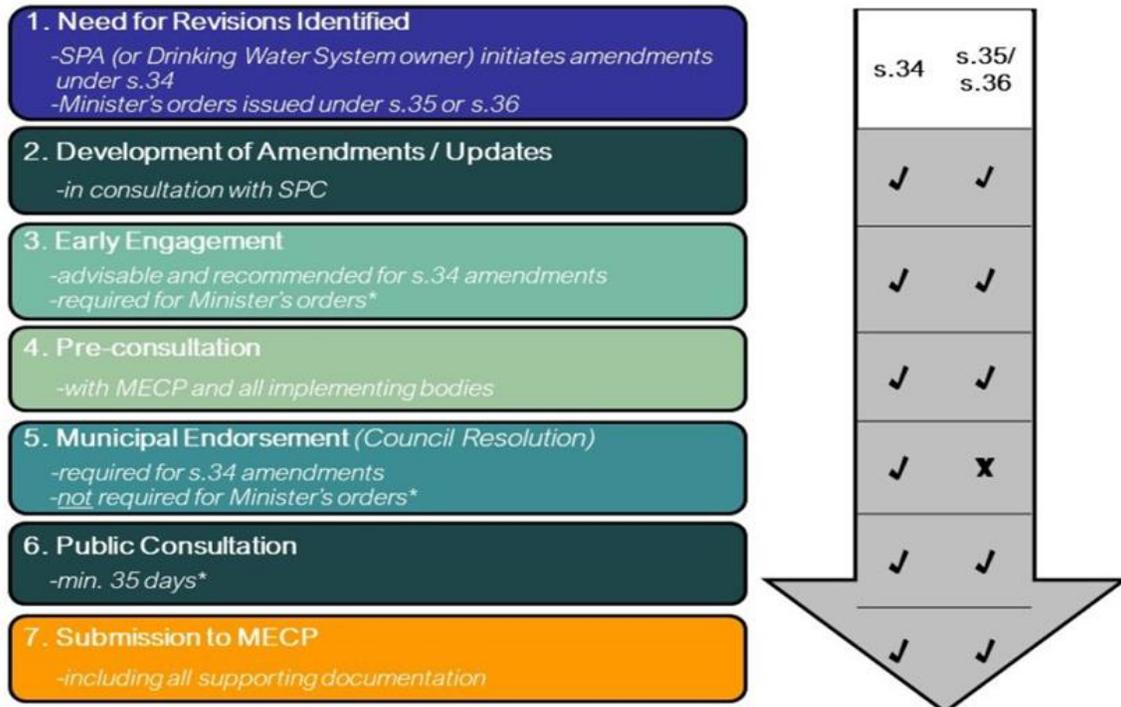
BACKGROUND

Section 34 of the Clean Water Act, 2006 (CWA) provides the process for Source Protection Authorities to carry out locally initiated amendments to Source Protection Authority (SPA) Source Protection Plans and Assessment Reports. The amending process (illustrated in the graphic below) includes comprehensive consultation with stakeholders and the public who are potentially affected by the proposed amendments, outlined in O. Reg. 287/07.

Under the Safe Drinking Water Act, 2002, O. Reg. 205/18 and Clean Water Act, 2006, S.48 (1.1)(b), O. Reg. 287/07, drinking water system owners are required to ensure that work to assess the vulnerability of a new or expanding drinking water systems is completed and accepted by the local SPA before the owner can apply for a drinking water works permit/license, and that the water not be provided to the public until the updated source protection plan that protects the system is approved. The local SPA must provide a notice to the drinking water system owner stating that the SPA is satisfied that the technical work has been completed for the purposes of identifying

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updates to the source protection plan that are anticipated to be necessary and the timing to submit any proposed updates to MECP. Please note, the SPA is responsible for a compliance review. MECP remains responsible for technical review and approval of the work.



*Note: unless otherwise specified in Minister's order

RATIONALE

The proposed amendments reflect technical work completed for the Nobleton drinking water system in York Region, the Palgrave - Caledon East and Caledon Village drinking water systems in Peel Region, new Island Intakes and a new outfall for Ashbridge's Bay Wastewater Treatment in the City of Toronto, plus updates to certain definitions and policies.

The Caledon Village drinking water system is located within the Credit Valley Source Protection Area. Accordingly, the Credit Valley Source Protection Authority endorsed the submission of the relevant amendments to the Credit Valley Source Protection Plan and CTC Source Protection Plan on September 8, 2023.

TRSPA Assessment Report

The Toronto Island intake, Ashbridges Bay Treatment Plant, and the Palgrave and Caledon East and Nobleton drinking water systems are located within the Toronto and Region Source Protection Area. A summary of the relevant amendments is provided below.

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York (Nobleton Wellfield)

The Nobleton Drinking Water System currently sources its water from three wells (PW2, PW3, and PW5). All three wells are in the headwaters of the Humber River Watershed within the TRSPA (refer to Attachment 1). The Nobleton Drinking Water System services the community of Nobleton.

The Region of York added PW7 to its existing Nobleton Wellfield. York experienced performance issues with Well PW3, and in 2022 installed a replacement well, herein referred to as PW7. This well was screened at a similar elevation to the adjacent PW3. Water quality at PW3 and PW7 are similar and PW7 will undergo the same pretreatment as PW3 prior to municipal drinking water distribution. There will be no change to the maximum daily or to the annual allocation for water taking and PW3 will now act as a back-up supply with option of concurrent use with PW7, providing operational flexibility and system redundancy. The Wellhead Protection Area (WHPA) for PW7 is identical to PW3 apart from the WHPA-A.

The Region of York conducted the groundwater vulnerability assessment within the WHPA-A. The assessment included the prescribed WHPA-A delineated (a 100 m radius around the well), the prescribed aquifer vulnerability score within a WHPA-A (VS=10), and the calculation of threats within the newly delineated WHPA-A. The technical work was completed under the 2021 Director's Technical Work.

A Section 48 notice under the Clean Water Act was issued by TRSPA on November 30, 2022 for these changes. The Region of York presented the updated intake protection areas to the CTC Source Protection Committee (SPC) on December 7, 2022. CTC SPC Resolution #36/22 accepted the technical work for inclusion in the TRSPA Assessment Report and directed staff to complete the public consultation process and report back to the TRSPA.

Peel (Palgrave & Caledon East Wellfields)

The Palgrave - Caledon East Drinking Water System currently sources its water from three wells for Palgrave (PW2, PW3, PW4) and three wells (PW3, PW4, PW4A) for Caledon East (refer to Attachments 2 and 3). Five of the wells are in the headwaters of the Humber River Watershed within the TRSPA and one of the wells is located north of the TRSPA but is included because the WHPA extends into TRSPA. The Palgrave-Caledon East Drinking Water System services residents in the communities of Palgrave, Palgrave Estates, Caledon East, Mono Road, Albion, Centreville, and Cedar Mills.

The Region of Peel added PW6 to its existing Caledon East Wellfield. This well was screened deeper than other wells within the Wellfield, within a different aquifer complex. Caledon East Well PW6, in addition to capacity increases at Palgrave PW4, will provide additional capacity, operational flexibility and system redundancy. The WHPA for PW6

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has been delineated for the first time, and the WHPAs for other wells in the Palgrave - Caledon East Drinking Water System have been remodeled.

The Region of Peel retained AqualInsight Inc. to conduct a groundwater vulnerability assessment for municipal wells for Palgrave and Caledon East within TRSPA, as well as for groundwater vulnerability assessment for municipal wells for Caledon Village within Credit Valley Source Protection Authority. The assessment included the application of the model to delineate WHPAs, the evaluation of the aquifer vulnerability, and the calculation of threats within the newly delineated WHPAs. The assessment also included a transport pathways assessment utilizing the pilot project methodology outlined by Credit Valley Conservation staff and the GIS layers provided by the Region of Peel. The technical work was completed under the 2021 Director's Technical Rules.

Section 48 notices under the Clean Water Act were issued by TRSPA, Credit Valley Source Protection Authority, and the Nottawasaga Valley Source Protection Authority on November 30, 2022 for these changes. The Region of Peel presented the updated intake protection areas to the CTC SPC on December 7, 2022. CTC SPC Resolution #34/22 accepted the technical work for inclusion in the TRSPA Assessment Report and directed staff to complete the public consultation process and report back to the TRSPA.

Toronto Island Intakes

The Toronto Drinking Water System sources its water from two intakes for R.C. Harris, one intake for R.L. Clark, one intake F.J. Horgan, and five intakes for Toronto Islands, all located within Lake Ontario.

In 2019, in response to increased demand for lake-water cooling of downtown office towers, a private entity, ENWAVE, retrofitted one of the former shallow intakes for the Toronto Island Water Treatment Plant. This change required the addition of new Intake Protection Zone (IPZ) 1, 2 and 3 for the new intake, and the deletion of the existing IPZ 1, 2, and 3 at the previous shallow location.

The City of Toronto had a consultant undertake focused modelling that included delineation of the new IPZ 1 and 2 extents for the new intake, (refer to Attachment 4), and an IPZ 3 delineation for an anticipated new future location of the Ashbridges Bay Treatment Plant outfall that would affect all intakes. The modelling indicated that the new and existing Ashbridges Bay outfalls are a significant drinking water threat to the new intake.

In addition, the City of Toronto is undertaking a major infrastructure upgrade to create a new Ashbridges Bay outfall with increased capacity and greater diffusion capability further from the lakeshore (note that the current intake will be maintained for emergency use). Construction of the new outfall has been initiated, with an anticipated completion date of late 2024/early 2025.

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A Section 48 notice under the Clean Water Act was issued by the TRSPA on January 17, 2023 for these changes. The City of Toronto presented the updated intake protection areas to the CTC SPC on December 7, 2022. CTC SPC Resolution #35/22 accepted the technical work for inclusion in the TRSPA Assessment Report and directed staff to complete the public consultation process and report back to the TRSPA Board.

CTC Source Protection Plan

CTC Source Protection Plan policies addressing the handling and storage of dense non-aqueous phase (DNAP) liquid and organic solvent, specifically DNAP-1 and OS-1, have been updated to address implementation challenges. This has been accomplished through using a volume-based threshold to determine when the threat will be managed by prohibition or a risk management plan.

Furthermore, existing threat activity definition, transition provision, and timelines for policy implementation have been updated to include reference to amendments and clarify policy effective date.

Analysis

At its December 7, 2022, meeting, the CTC Source Protection Committee passed the following resolution:

THAT staff be directed to incorporate the proposed amendments, to the Approved Toronto and Region Assessment Report, Approved Credit Valley Assessment Report, and the CTC Source Protection Plan, previously endorsed by the CTC Source Protection Committee for inclusion within this section 34 amendment;

AND THAT staff be directed to take the necessary actions to proceed with the mandated pre-consultation with impacted stakeholders and 35-day public consultation required when making amendments to Source Protection Plans;

AND THAT the CTC Source Protection Committee authorize the Amendments Working Group to reconvene to undertake a review of the feedback obtained as a result of the pre-consultation and mandated 35-day consultation period;

AND FURTHER THAT staff be directed to take the necessary actions to acquire endorsement of amendments to the Approved Toronto and Region Assessment Report, Approved Credit Valley Assessment Report, and the CTC Source Protection Plan prior to submission to the Ministry.

Consultation

The Ministry provided early engagement comments between December 6 to 9, 2022 for the Section 34 amendments. For the City of Toronto, early engagement comments were received from the Ministry on December 6, 2022. For the Region of Peel, early engagement comments were received from the Ministry on December 9, 2022. For the Region of York, no early engagement comments were received from the Ministry. The

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Ministry also provided early engagement comments on December 7, 2022 with respect to the Source Protection Plan policy amendments.

The discussion points were all minor in nature, and the Ministry was satisfied with the responses from City of Toronto, Region of Peel, and CTC Source Protection staff.

Pre-Consultation

The Region of Peel provided pre-consultation comments between March 14 to 22, 2023 in relation to its s.34 amendments and policy amendments. The City of Toronto noted on April 11, 2023 that it did not have any comments on the s.34 amendments and/or policy amendments. The Town of Erin, the Town of Caledon, the Town of Mono, and the County of Wellington provided pre-consultation comments on April 14, 2023 in relation to the s.34 amendments and/or policy amendments.

The discussion points were all minor in nature, with only the Region of Peel's comment requiring action on the part of CTC Source Protection staff. Staff worked closely with Region of Peel staff and all parties were satisfied with the subsequent changes.

Public Consultation

CTC staff conducted a 38-day public consultation between June 5 to July 12, 2023. As part of this consultation, ads were placed in 3 newspapers and letters were mailed out to 92 property owners based on discussions with municipal staff. In addition, CTC staff have been supporting a social media campaign. No comments were received from the public.

Relationship to TRCA's 2023-2034 Strategic Plan

This report supports the following Pillars and Outcomes set forth in TRCA's 2023-2034 Strategic Plan:

Pillar 1 Environmental Protection and Hazard Management:

- 1.3 Managing healthy and resilient ecosystems in the face of a changing climate

Pillar 1 Environmental Protection and Hazard Management:

- 1.4 Balance development and growth to protect the natural environment ensuring safe sustainable development

Pillar 2 Knowledge Economy:

- 2.4 Integrate environmental considerations and science into decision making

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FINANCIAL DETAILS

The CTC Drinking Water Source Protection Program is funded by the MECP through a Transfer of Payment Agreement. The latest agreement funds the program for the period of April 2022 to March 2024. The agreement includes a list of deliverables, which include among other things, leading the development and implementation of amendments to the CTC Source Protection Plan and Assessment Reports. Any technical work required because of changes to drinking water systems is funded by the implementing municipality.

DETAILS OF WORK TO BE DONE

Once endorsement of the proposed amendments by the TRSPA has been obtained, staff will prepare the materials for submission to the Province. This includes the proposed amendments, together with the resolutions (endorsements) passed by municipal councils and any written comments received by the Source Protection Authorities after publication of the amendments. When the materials are reviewed by MECP, and following any further consultation that the Ministry considers advisable, the Ministry will advise that they have been approved. Amendments to the Toronto and Region Assessment Report and the CTC Source Protection Plan will be posted on the Environmental Registry of Ontario with a date that they will become effective.

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Attachments: 4

Attachment 1: Figure 4.12 Nobleton Wellhead Protection Areas

Attachment 2: Figure 4.6 Caledon East Wellhead Protection Areas

Attachment 3: Figure 4.9: Palgrave Wellhead Protection Areas

Attachment 4: Figure 4.28 Toronto Islands (Toronto) Intake Protection Zones with Vulnerability Scoring