

Proposed Amendments to the CTC Source Protection Plan and the TRSPA Assessment Report Necessitated by City Infrastructure Projects

Date: April 11, 2023
To: Infrastructure and Environment Committee
From: General Manager, Toronto Water
Wards: All

SUMMARY

The purpose of this report is to seek City Council's endorsement of proposed amendments to the Credit Valley - Toronto and Region - Central Lake Ontario ("CTC") Source Protection Plan ("CTC Source Protection Plan") and the Toronto and Region Source Protection Area ("TRSPA") Assessment Report ("Assessment Report") in response to a Notification of Consultation pursuant to section 34 of the Clean Water Act, 2006 (Ontario) (the "Act") and Ontario Regulation 287/07 (the "Consultation Notice") delivered to the City Clerk by the CTC Program Manager.

The Amendments are necessitated by technical work in connection with two City infrastructure projects, the Island Water Treatment Plant fourth intake (the "Fourth Intake") undertaken by Enwave Energy Corporation ("Enwave") as part of the Council authorized expansion of the Deep Lake Water Cooling system and the Ashbridges Bay Treatment Plant outfall (the "ABTP Outfall") undertaken by Toronto Water.

This report further seeks City Council's authorization to release the proposed amendments for public consultation, and requests that City Council direct the City Clerk to send to the CTC Program Manager, no later than 5:00 p.m. on Friday, May 19, 2023, a certified copy of City Council's resolution in this matter.

RECOMMENDATIONS

The General Manager, Toronto Water, recommends that:

1. City Council receive the correspondence dated February 17, 2023, set out in Attachment A to this report, from the Credit Valley -Toronto and Region - Central Lake Ontario ("CTC") Source Protection Region Program Manager to the City Clerk of the City of Toronto, regarding Notification of Consultation pursuant to Sections 34 of the Clean Water Act, 2006 and Ontario Regulation 287/07, and the request for written comments by Friday, April 14, 2023 and the Municipal Council resolution by Monday, May 21, 2023.

2. City Council endorse the proposed amendments to the Credit Valley - Toronto and Region - Central Lake Ontario ("CTC") Source Protection Plan and the Toronto and Region Source Protection Area ("TRSPA") Assessment Report set out in Attachment A, to this report, and authorize the release of these proposed amendments for public consultation to the CTC.

3. City Council direct the City Clerk to deliver a certified copy of City Council's resolution in this matter, by no later than 5:00 p.m. on Friday, May 19, 2023, to the Toronto and Region Source Protection Authority in care of the Toronto and Region Conservation Authority, and to the Program Manager of the CTC Source Protection Region.

FINANCIAL IMPACT

There is no financial impact associated with the adoption of the recommendations in this report.

The Chief Financial Officer and Treasurer has reviewed this report and agrees with the financial impact information.

DECISION HISTORY

At its meeting of August 25, 26, 27, and 28, 2014, City Council confirmed its endorsement of the Lake Ontario policies contained in the CTC Source Protection Plan submitted to the Ontario Minister of the Environment on October 22, 2012 and updated at the CTC Source Protection Committee meeting of June 24, 2014.

The City Council decision document can be found at:

<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2014.PW33.14>

At its meeting of October 5 to 7, 2016, City Council authorized the Deputy City Manager, in consultation with the General Manager of Toronto Water and the Medical Officer of Health, to designate the City's two representatives on the CTC Source Protection Committee.

The City Council decision document can be found at:

<https://www.toronto.ca/legdocs/mmis/2016/ex/bgrd/backgroundfile-95896.pdf>

At its meeting of November 6, 2018, Bid Award Panel, pursuant to Section 195-8.3(2) of the Municipal Code, Chapter 195, Purchasing, exercising the power of a Standing Committee, granted authority to award the contract for the construction of the ABTP Outfall in accordance with the Contract Details set out in the report (November 5, 2018) from the Chief Purchasing Officer:

The Bid Committee decision document can be found at:

<https://secure.toronto.ca/council/report.do?meetingId=15109&type=decisions>

At its meeting of May 9, 2019, City Council authorized the General Manager of Toronto Water, to enter into an agreement with the Regional Municipality of Peel and the Regional Municipality of Durham for the purposes of developing, implementing, administering and sharing costs for a Lake Ontario based Monitoring System.

The City Council decision document can be found at:

<https://www.toronto.ca/legdocs/mmis/2019/ie/bgrd/backgroundfile-132934.pdf>

At its meeting of December 17 and 18, 2019, City Council authorized the General Manager, Toronto Water, to finalize negotiations with Enwave, and enter into and execute an amending agreement to the Energy Transfer Agreement between Enwave and the City dated January 18, 2002, as amended, to permit the expansion of the Deep Lake Water Cooling system on terms and conditions. City Council also authorized, among other things, the General Manager, Toronto Water, to undertake, on behalf of the City, any necessary related environmental assessment(s) as may be required for the Deep Lake Water Cooling expansion, at Enwave's sole expense.

The City Council decision document can be found at:

<https://secure.toronto.ca/council/agenda-item.do?item=2019.IE10.9#>

COMMENTS

CTC Source Protection Plan

A source protection plan is a strategy and series of locally developed policies designed to protect municipal sources of drinking water from contamination and overuse. Its primary purpose is to protect source water quality and quantity. Under the Act, each source protection area in Ontario must develop a plan for keeping sources of drinking water clean and encouraging prudent water use. The source protection plan for the CTC Source Protection Region is the CTC Source Protection Plan which came into effect on December 31, 2015. It has been amended from time to time since. The CTC Source Protection Plan applies to all three source protection areas in the CTC Source Protection Region: **C**redit Valley, **T**oronto and Region and **C**entral Lake Ontario.

The CTC Source Protection Plan has policies that address, among other things, drinking water threats and how to either avoid or reduce such threats. These threats are identified through technical work described in an Assessment Report. Assessment Reports address all the factors influencing the quality and quantity of water within a watershed. The CTC Source Protection Committee is responsible for proposing amendments to the Assessment Reports for each of the source protection areas within the CTC Source Protection Region.

The Assessment Report

The Assessment Report, which also came into effect on December 31, 2015, describes the physical features and water resources within the Toronto and Region Source Protection Area jurisdiction. Lake Ontario is the water body from which Toronto derives its drinking water supply. The Toronto and Region Assessment Report has been amended from time to time since 2015, but this is the first amendment sought by the City of Toronto. Using scientific methods, it identifies vulnerable areas and assesses activities that pose potential drinking water threats within these vulnerable areas. Where a drinking water threat has been identified as significant, the CTC Source Protection Plan outlines what policies apply.

City Projects Impacting CTC Source Protection Plan & the Assessment Report

Toronto Water's two major infrastructure projects under construction in Lake Ontario affecting the 2015 Assessment Report and the CTC Source Protection Plan are the new Island Water Treatment Plant fourth intake (the "Fourth Intake") and the new ABTP Outfall.

The Fourth Intake

A Schedule "B" Municipal Class Environmental Assessment ("MCEA") study was undertaken by the City and Enwave as co-proponents to examine expanding the existing Deep Lake Water Cooling system. The MCEA Study was initiated in January 2020 and the Notice of Completion was issued on September 11, 2020. Project construction began on March 15, 2021 and is anticipated to be complete and commissioned by May 2024.

The Enwave-Island intake project involves rehabilitating and lengthening one of the existing (non-operational) intakes and putting it back into service following the alterations. This fourth intake is designed to be shallower and shorter (3.2 km long) than the three existing deep intakes (each approximately 5.5 km long) and will service both the Island Water Treatment Plant ("Island WTP") and Enwave's new raw water-cooling system.

The existing three deep intakes at the Island WTP were included into the 2015 Assessment Report and CTC Source Protection Plan documents. With the addition of the Fourth Intake that will supply water to both Enwave and the Island WTP Plant, an amendment to these source protection documents is now required to include this infrastructure.

The ABTP Outfall

The new outfall for the ABTP is one of several major upgrades being undertaken to address the facility's state of good repair backlog. It is also part of the Don River and Central Waterfront Project and the City's Wet Weather Flow Masterplan, the largest and most significant stormwater management program in the City's history.

The Environmental Assessment ("EA") process for the new ABTP outfall commenced in 1989 and was approved by the Ministry of the Environment, Conservation and Parks ("MECP") in 2008. The EA established the general location for the new outfall and was amended by a 2015 Conceptual Design Study which updated the design to address new MECP regulatory requirements and the EA conditions.

The new ABTP Outfall is needed to address hydraulic limitations in the existing ABTP Plant outfall originally built in the 1950's. The new ABTP Outfall extends 3.5 km into the lakebed, has a diameter of 7 m, and the final 1000 m will function as a diffuser. Construction of the new ABTP Outfall commenced in January 2019 and it is expected to be operational in early 2025.

As the existing 1950's outfall is referenced in the CTC Source Protection Plan as a significant threat to one or more water treatment plant intakes, studies were initiated in conjunction with the Enwave-Island WTP MCEA to assess the new ABTP Outfall. These studies provide the basis for developing an amendment to the TRSPA Assessment Report and to the CTC Source Protection Plan.

Amendments Initiated by Source Protection Authority and The Process

A source protection authority may propose amendments to source protection plans and assessment reports in the circumstances prescribed by section 34 of the Act and the regulations under the Act including O. Reg. 287/07.

Under section 34 of the Act, the source protection authority is required to give copies of the proposed amendments to the clerk of each municipality in which any part of the source protection area is located, if the municipality is affected by the amendments, for the purpose of obtaining a municipal council resolution endorsing the proposed amendments. If municipal council resolutions from every affected municipality are obtained and received by the source protection authority, the source protection authority shall publish the proposed amendments and invite written comments on the amendments to the source protection authority as part of the public consultation process. This public consultation process is separate and distinct from any public and stakeholder consultation through the Environmental Assessment ("EA") process and is undertaken after EA completion.

Following public consultation, the amendments are received by the CTC Source Protection Authorities for endorsement and authorization to submit the documents to the Ministry of the Environment, Conservation and Parks, together with the resolutions passed by the municipal councils, and any written comments received by the source protection authority as part of the public consultation. The proposed amendments will then be considered by the Minister for approval.

At its December 7, 2022 meeting, the CTC Source Protection Committee received a presentation on changes needed to the Toronto and Region Assessment Report and the CTC Source Protection Plan resulting from the Fourth Intake and the ABTP Outfall. The CTC Source Protection Committee also received a written report and authorized CTC and TRSPA staff to initiate the process for a Section 34 amendment.

Notification of Consultation Received by the City

The City has received the letter dated February 17, 2023, set out in Attachment A to this report, from the CTC Source Protection Region Program Manager to the City Clerk regarding Notification of Consultation pursuant to Sections 34 of the Act and O. Reg. 287/07, the request for written comments by Friday, April 14, 2023, if any, and the Municipal Council resolution by Monday, May 21, 2023 in connection with the proposed amendments to the CTC Source Protection Plan and the TRSPA Assessment Report necessitated by technical work in connection with the Fourth Intake and the ABTP Outfall (the "Notification").

The Proposed Amendments

The Notification provides details regarding the proposed amendments to the CTC Source Protection Plan and the TRSPA Assessment Report. Links to the proposed amendments in their entirety are provided in the Notification. While the proposed amendments also include changes to other Drinking Water Systems for the Regional Municipality of York ("York") and the Regional Municipality of Peel ("Peel") that do not affect the City, Appendix A to the Notification provides a detailed summary of the proposed amendments specific to the City only which are all technical in nature.

The proposed amendments affecting the City include amendments to update the CTC Source Protection Plan and the TRSPA Assessment Report to include the location of the Fourth Intake and the ABTP Outfall, and to reflect the addition of the ABTP Outfall as a significant drinking water threat to the Toronto Island intakes.

To allow for the section 34 public consultation to proceed, this report therefore requests that City Council endorse the proposed amendments, and authorize the release of these amendments, for the purposes of public consultation by the CTC which is anticipated to take place between June 5, 2023 and July 12, 2023.

In addition, as required by the Notification, this report further requests that City Council direct the City Clerk to deliver a certified copy of City Council's resolution in this matter, by no later than 5:00 p.m. on Friday, May 19, 2023, to the CTC Program Manager.

No Written Comments

As part of the pre-consultation process under the Act and O. Reg. 287/07, the Notification requests that the City deliver any written comments it might have regarding the proposed amendments by Friday, April 14, 2023 following which submitted comments will be reviewed by the CTC Source Protection Committee's Amendments

Working Group and, if necessary, changes will be made to the CTC Source Protection Plan and the Assessment Report.

For purposes of this pre-consultation process, Toronto Water staff will not be delivering any written comments regarding the proposed amendments affecting the City, as Toronto Water staff worked cooperatively with and lead by CTC and TRSPA staff in developing the amendments. In addition, Toronto Water staff will not be delivering any comment on the proposed amendments affecting York and Peel as they are related to groundwater sources of water supply and do not affect the City's source of drinking water supply, Lake Ontario.

CONTACT

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SIGNATURE

Lou Di Gironimo
General Manager, Toronto Water

ATTACHMENTS

Attachment A - Correspondence from the CTC Source Protection Region Program Manager, dated February 17, 2023.