

Source Protection Annual Progress Report 2024

I. Introduction

The annual progress report summarizes progress made in implementing the source protection plans for the Halton Region and Hamilton Region Source Protection Areas, as required by the Clean Water Act, 2006 and its regulations. The report highlights actions taken to protect the quality of the sources of our drinking water and to sustain them in the future.

The source protection plan is the culmination of extensive science-based assessments, consultation with the community, and collaboration with local stakeholders and the province. The implementation of the policies it contains ensures that activities carried out in the vicinity of municipal wells and lake-based water intakes will not pose a significant risk to the water sources.

Thanks to the efforts of those responsible for implementing the policies, most of the policies have been implemented and work to address significant threat activities is ongoing.

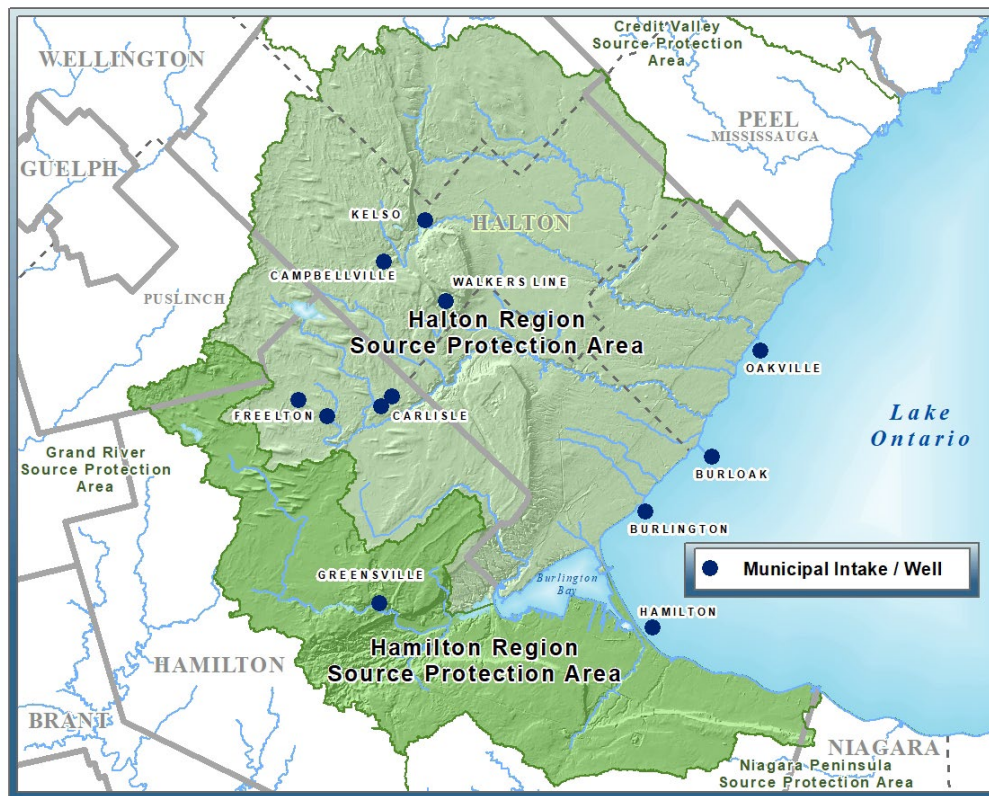


Figure 1: Hamilton-Halton Source Protection Region

II. A message from your local Source Protection Committee

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

This is the eighth Annual Report prepared on the implementation of the source protection plan for the Halton-Hamilton Source Protection Region covering the period from December 31, 2015, to December 31, 2024, and summarizing its progress in the year 2024.

A total of 840 potential significant threats to sources of municipal drinking water systems have been identified. Through field verification exercises, municipal staff have determined that 183 potential activities are no longer a significant threat to municipal drinking water. 175 of the remaining potential threats have been confirmed and addressed through policy implementation. This represents 43% progress in addressing significant drinking water threats – an increase of 1% since 2023. Of the 483 remaining threats, 224 are potential sewage threats and will be verified or addressed in the next septic inspection cycle, beginning in 2026. Due to unforeseen circumstances surrounding a severe cybersecurity incident at the City of Hamilton, staff's ability to address potential threats was slightly delayed. Despite the hindrance, municipal staff have made progress addressing potential significant drinking water threats in the Halton-Hamilton Source Protection Region.

As of December 31, 2024, 100% of the policies in the source protection plan are implemented, in progress, or require no further action. Municipalities, provincial ministries, and other agencies and stakeholders are responsible for the implementation of policy.

The Halton-Hamilton Source Protection Committee continued its communication and outreach program in 2024 with a presentation to Scouts at the Blue Springs Scout Reserve, an information table set up at Milton Sports Centre, and an exhibit at the annual Halton Children's Water Festival.

Based on the review of the annual progress reporting by the implementing bodies, the Halton-Hamilton Source Protection Committee recognizes the progress made addressing significant drinking water threats to achieve the objectives of the Clean Water Act. A ranking score of progressing well and on target is a fair assessment of overall progress.

III. Our Watershed

The Halton-Hamilton Source Protection Region is located at the western end of Lake Ontario and includes portions of the Cities of Hamilton, Burlington and Mississauga; the Regions of Halton, Peel and Niagara; the Towns of Milton, Halton Hills, Oakville, and Grimsby; the County of Wellington; and the Township of Puslinch. The region covers an area of 1,417 km² of land and 720 km² of Great Lakes waters.

Approximately 970,000 people make the source protection region their home and the region is expected to grow over the next decades. The landscape is changing due to this growth and the source protection plan is in place to help guide this growth in a way that protects our vulnerable drinking water sources.

The Regional Municipality of Halton and the City of Hamilton own and operate municipal drinking water systems within the source protection region. These systems include six intakes in Lake Ontario (Woodward (2), Burlington (2), Burloak, and Oakville), three municipal well systems in Hamilton (Carlisle, Freulton, and Greenville) and three municipal well systems in Halton Region (Kelso, Campbellville, and Walkers Line). In addition, some homes and businesses within the source protection region are supplied with water from municipal drinking water systems located in neighbouring areas. In total, these municipal water systems supply about 95% of the population within the source protection region with reliable, clean drinking water. About 92% of the population receives water from Lake Ontario and 3 percent receive groundwater. Outside the urban area, private wells and cisterns are relied on by the remaining 5% of the population. Private well systems and the natural environment use the same sources of water that, under the current program, the government seeks to protect for municipal supplies. In this way, maintaining a sustainable supply of clean water within the aquifers of Halton-Hamilton Source Protection Region and in Lake Ontario will benefit all residents and businesses.

In November 2022, the Minister of the Environment, Conservation and Parks (MECP) approved a comprehensive plan update under Section 36 of the Clean Water Act. The source protection plan contains policies that require or request actions from municipalities, provincial ministries, federal departments, conservation authorities, landowners, and stakeholders. This report summarizes actions taken to implement the amended Halton-Hamilton Source Protection Plan.

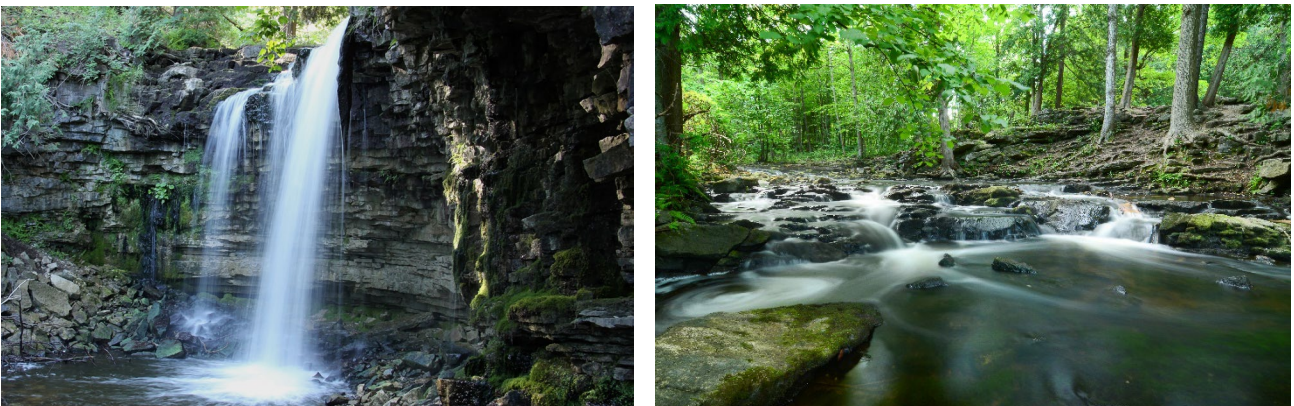


Figure 2: Hilton Falls Conservation Area

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

1. Source Protection Plan Policies and Addressing Significant Risks

S: Satisfactory

The Halton-Hamilton Source Protection Committee included policies in the source protection plan to address prescribed drinking water threats through actions necessary to protect sources of drinking water, and the monitoring of policy implementation. 100% of the legally binding and non-legally binding policies in the Halton-Hamilton Source Protection Plan aimed to address significant drinking water threat activities have been implemented or are being implemented.

Policies are in place to manage or prohibit existing or future activities that may occur in vulnerable areas that could pose a risk to the quality or quantity of sources of drinking water. Approximately 43% of the existing significant threats have been managed and no longer pose a significant risk to municipal drinking water sources. This is an increase of 1% compared to the 42% reported in 2023. The City of Hamilton experienced a cybersecurity incident in 2024 that significantly affected City staff's ability to make progress addressing drinking water threat activities. Field verification of potential threats identified during the comprehensive Section 36 updates to the Halton-Hamilton Source Protection Plan is ongoing and within the prescribed timelines. Any verified threats will be addressed and managed through the source protection plan policies.

Based on a continued advancement of source protection plan implementation in 2024, the progress score given for overall plan implementation status is S: Satisfactory.

2. Municipal Progress: Addressing Risks on the Ground

P: Progressing Well/On Target

The Halton-Hamilton Source Protection Region includes twelve municipalities. Policies are directed at eight of those municipalities to cover the activities of all twelve. It is a requirement that municipalities ensure their Official Plan conforms with the local source protection plan. At the end of this reporting period, all eight municipalities have completed or are in the process of completing their Official Plan updates.

As of July 1, 2024, Regional Municipalities (upper tier) are no longer responsible for the Regional Official Plan. Planning Authority and Official Plan updates are now the responsibility of lower tier municipalities.

Three municipalities have completed their Zoning By-law updates. The remaining municipalities will update their Zoning By-laws upon completion of Official Plan updates.

Municipal progress in implementing policies is given a progress score of P: Progressing Well.



3. Septic Inspections

P: Progressing Well/On Target

The Ontario Building Code requires that small sewage systems be inspected every five years through a mandatory on-site sewage system inspection program. The City of Hamilton and the Town of Milton established inspection programs in 2016. Currently, there are 354 properties included in the sewage re-inspection program. The second five-year cycle is underway, and all systems have been inspected.

Through the Section 36 plan amendment process, the Freelon WHPA was re-delineated and resulted in a significant increase in identified potential on-site sewage threats. All newly identified potential threats will be included in the next re-inspection cycle, scheduled to commence in 2026.

The municipal sewage re-inspection programs are given a progress score of P: Progressing Well.

4. Risk Management Plans

P: Progressing Well/On Target

No new risk management plans were established in this reporting year. The cumulative total remains at seven established risk management plans to date. Seven inspections (including follow-up site visits) were conducted, with no instances of non-compliance or contravention found.

Implementation of risk management plan policies is given a progress score of P: Progressing Well.

5. Provincial Progress: Addressing Risks on the Ground

P: Progressing Well/On Target

Ontario ministries review applications for new or amended and previously issued provincial approvals (e.g., Environmental Compliance Approvals issued 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 source water. The provincial approvals are either being issued, denied, amended, or revoked, where necessary, to conform with plan policies.

During this reporting period, three Environmental Compliance Approval (ECA) applications required a detailed review for source protection purposes; one by the MECP – Wastewater/Sewage Works and two by the MECP – Landfilling and Storage. The MECP determined that the applications were not governing a significant drinking water threat activity.

All Ministries have completed their reporting for 2024. However, the level of detail provided by the Ministries makes assessing the progress of provincial implementation of Prescribed Instrument policies in the Halton-Hamilton Source Protection Region difficult.

While more detailed reporting would be valuable when assessing progress, Ministries continue with their efforts to evaluate and implement Prescribed Instruments. The implementation of Prescribed Instrument policies by Ontario ministries is given a progress score of P: Progressing Well.

6. Source Protection Awareness and Change in Behaviour

The awareness and protection of drinking water sources continues to be a priority of the Halton-Hamilton Source Protection Region. The Halton-Hamilton Source Protection Committee and municipal partners participated in public engagement and outreach opportunities, including:

- Presentation of the Amazing Aquifer model at the Halton Children's Water Festival
- Participation at the City of Hamilton Children's Water Festival
- Information table at the Milton Sports Centre to engage patrons and present information about source water protection
- Presentation and Amazing Aquifer model demonstration to local scouts at the Blue Springs Scout Reserve
- Participation in World Water Day activities

Staff continue to find new ways to promote and share information about source water protection.

7. Source Protection Plan Policies: Summary of Delays

At the completion of this reporting period, all Halton-Hamilton Source Protection Plan policies that directly address significant drinking water threats are implemented or in progress.

8. Source Water Quality: Monitoring and Actions

Several wells in the Cedarvale wellfield located outside of the Halton-Hamilton Source Protection Region in Georgetown have rising trends in chloride concentrations. As a result, an Issue Contributing Area was delineated and extends slightly into the Halton-Hamilton Source Protection Region. The neighbouring Credit Valley, Toronto and Region and Central Lake Ontario (CTC) Source Protection Committee identified the need for chloride management measures. The Halton-Hamilton Source Protection Committee included policies in their plan to manage or prohibit the storage and application of road salt and the storage of snow.

Halton Region reported that the chloride concentration trends at the wells have not changed since reporting began in 2016. The Region acknowledges that it will take time for the benefits of the implementation of associated policies to be realized.

Halton Region also identified elevated or rising chloride concentrations in the source water of the Campbellville wellfield. To better understand the sources of chloride contributing to the rising concentrations, Halton Region constructed six groundwater monitoring wells in the Campbellville area in 2019. These wells are integrated into Halton Region's existing groundwater monitoring program. A two-year monitoring and sampling program is underway. Results will be reviewed and reported at the end of the two years.

In 2022, Halton Region hired consultants to assess potential salt loading activities near the Campbellville wellfield. Sources considered included road salt where applied to roads, sidewalks and parking lots, saltwater pools, and septic systems as a result of impacts from water softeners.

9. Science-based Assessment Reports: Work Plans

A comprehensive review of the 2021 Technical Rules is ongoing, and any technical work and policy updates associated with the new technical rules will be submitted to the Ministry of the Environment, Conservation and Parks in a future Section 34 update. No work plans were required to be implemented for our assessment report(s).

10. More from our Watershed

To learn more about our source protection area/region, please visit protectingwater.ca.