

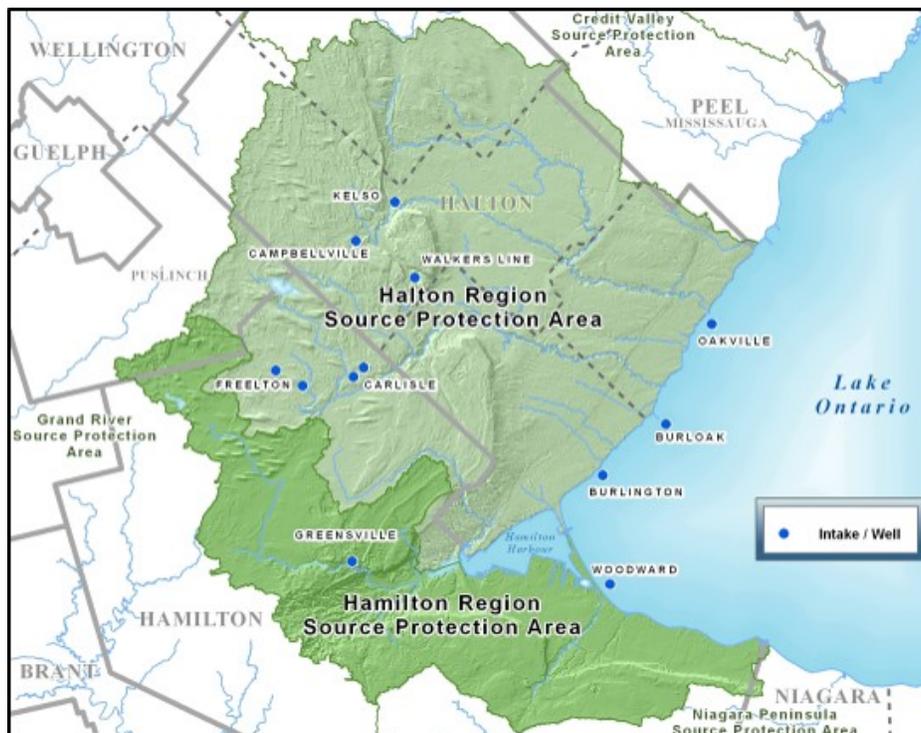
# Source Protection Annual Progress Report

## I. Introduction

This annual progress report briefly summarizes the 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. It is meant to highlight actions taken to protect the quality of the sources of our drinking water and to sustain them into 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 significant risk to the water supplies.

Thanks to the efforts of those responsible for implementing the policies, most of the policies have been implemented and many significant threat activities have been managed.



## 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.**
- S : Satisfactory – Some of the source protection plan policies have been implemented and/or are progressing.
- L : Limited progress – A few of source protection plan policies have been implemented and/or are progressing.

This is the second Annual Report prepared on implementation of the source protection plan for the Halton-Hamilton source protection region covering the period from December 31, 2015 to December 31, 2018 and summarizes its progress in 2018.

There are 162 policies in the Halton-Hamilton Source Protection Plan to address the 191 actual significant drinking water threats that have been identified. Multiple bodies consisting of the municipalities within the source protection region as well as various provincial ministries and other agencies and stakeholders are responsible for their implementation. Continued progress has been made in 2018 on the implementation of the policies to address significant drinking water threats. Approximately 84% of the significant drinking water threats have been addressed compared to 70% in the last reporting period. Further, approximately 95% of the policies are considered to be implemented, in progress or require no further action.

The Committee embarked on an outreach program during 2018 in which it appeared on a local TV cable station and provided presentations to a local Rotary Club and a couple of newly elected members of Provincial Parliament. Continued outreach is considered for 2019.

Based on the review of the annual progress reporting by the bodies implementing the plan, the Halton-Hamilton Source Protection Committee is of the opinion that the policies associated with the plan are effectively addressing significant drinking water threats and achieving the objectives of the Clean Water Act and that a ranking score of progressing well and on target is a fair assessment on its progress.

### III. Our Watershed

The Halton-Hamilton Source Protection Region is located at the western end of Lake Ontario and includes portions of the municipalities 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 sq km of land and 720 sq km of Great Lakes waters.

Approximately 970,000 people make the source protection region their home and the region is expected to grow substantially 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 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, Freelon and Greensville) 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 water from municipal drinking water systems located in neighbouring areas. In total, these municipal water systems supply about 95 percent of the population within the source protection region with reliable, clean drinking water. About 92 percent of the population receive water from Lake Ontario and 3 percent receive groundwater. Outside the urban area, private wells and cisterns are relied on by the remaining 5 percent 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 business operators.

Studies completed over the past few years have assessed the vulnerabilities and risks to the quality and quantity of the waters that supply the municipal wells and intakes from activities occurring on lands and in waters in their vicinity. Protection areas have been mapped and a plan developed to manage or prohibit certain activities within these areas. Follow-up assessments were completed for the Kelso, Campbellville and Greensville municipal well supplies when new data and more advanced modelling tools became available. Approval of the source protection plan update to include the new assessment for the Greensville well field was outstanding at the end of 2018. New mapping and policies took effect following Ministerial approval in early 2019. All municipal wells have protection areas for threats to water quality, while only those where it was determined that the sustainability of the water source may be in question have protection areas for threats to water quantity. The municipal intakes in Lake Ontario also have protection zones for threats to water quality.

The source protection plan contains policies that require or request action from provincial ministries, federal departments, municipalities, conservation authorities, landowners, and stakeholders. This report summarizes actions taken in 2018 with tracking of implementation between December 31, 2015, when the plan took effect, and December 31, 2018.

For more information about the drinking water source protection program in the Halton-Hamilton Source Protection Region, please visit our website at [www.protectingwater.ca](http://www.protectingwater.ca)

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

### 1. Source Protection Plan Policies

The Halton-Hamilton Source Protection Committee included 162 policies in their source protection plan to address prescribed threats, a local threat, actions thought to be necessary to protect sources of drinking water, and the monitoring of policy implementation. Of the 110 policies that are legally binding, about 98% are implemented, are in process, or have been considered and did not require action in 2018. In addition, 88% of non-binding policies that address significant threats and 88% of strategic policies meet those criteria.

Policies are in place to manage or prohibit future threats or address ongoing activities within the vulnerable areas. Some of each policy type are yet to be implemented but 84% of the existing significant threats have been managed.

Based on a continued advancement of source protection plan implementation in 2018, the progress score given for overall plan implementation status is P: Progressing well.

## 2. Municipal Progress: Addressing Risks on the Ground

There are 12 municipalities within the Halton-Hamilton Source Protection Region but only eight have policies to implement to address significant, moderate and low threat activities outlined in the source protection plan.

These policies primarily require municipalities to update planning documents, update education and outreach programs or initiate new ones to include source protection messaging, consider the offering of incentives to have work required to protect water sources completed in a timely manner, to update spill response and salt management plans, to reduce water consumption to sustain supplies and to ultimately ensure all municipal decisions and actions protect drinking water sources.

The municipalities have either implemented or are implementing most of the policies directed at them. Risk management plans are not yet required to be established and conformity exercises are still underway.

Eight of the municipalities within the Halton-Hamilton Source Protection Region are required to undertake a conformity exercise to update their Official Plan and/or Zoning By-laws to be compliant with the source protection plan land use policies. The City of Hamilton, County of Wellington and Township of Puslinch have completed these updates. Halton Region and the Towns of Milton and Oakville, and the City of Burlington have begun their conformity exercises while Halton Hills as not yet started.

The source protection plan also includes general policies that all 12 municipalities are requested to implement to protect the quality and/or quantity of source water. Actions are requested to limit the flow of contaminants through transport pathways, to collect climate data to better inform studies and assess changes, to educate the public about the potential issues with the importation of fill, and to update spill prevention and emergency response plans and reach out to those that transport dangerous goods near wells and intakes. Although voluntary, the municipalities have implemented most of the policies and are working on the fill and spill outreach.

The municipalities have made great progress in 2018 toward implementing all their policies and are given a progress score of P: Progressing well.

### 3. Septic Inspections

The Ontario Building Code requires that small sewage systems be re-inspected every five years through a mandatory minimal program or a discretionary more advanced program. The City of Hamilton and the Town of Milton established inspection programs in 2016 and owners of properties within the wellhead protection areas where sewage systems could be a significant threat received letters to have third party contractors complete the inspection and to submit the required certificate to the municipality following completion of any required works.

Of the 113 properties requiring inspections in the Kelso, Campbellville, Carlisle, Freelon and Greenville areas, 111 (98%) of the participants have complied and the municipal inspectors have followed-up with those outstanding. Only two major repairs were required and have been completed. The inspection program included outreach materials about proper care and use of septic systems that also satisfied the requirements of an education and outreach policy.

The City of Hamilton has proposed the addition of another municipal supply well in Greenville, which has altered the water quality protection area there. Properties included in the re-inspection program will change when next implemented.

A progress score of P: Progressing well is given to the two municipal sewage re-inspection programs.

## 4. Risk Management Plans

Risk management officials and inspectors continued their site visits in 2018 to verify activities occurring on properties located within the wellhead protection areas where significant threats are possible. Three properties were visited to verify five prescribed threat activities.

Of the 24 threat activities that were identified in the assessment reports with risk management plans as the tool to manage their risk, six threat activities have been removed through field verification and five have been added. One or two threats have been removed or added for the application and/or handling and storage of agricultural source material, commercial fertilizer, pesticide, dense non-aqueous phase liquids and lands used for livestock.

Screening processes are in place within the planning and building departments of the municipalities to ensure applications for future development are reviewed appropriately for potential threat activities and source protection policy application. Applicants with properties where significant threats are possible must receive a notification from the risk management official that no plan policies apply and the planning and permitting processes may proceed. A total of 17 notices were issued in 2018.

The establishment of risk management plans for existing significant drinking water threats must be completed by December 31, 2020. To date, no plans have been completed but the City of Hamilton has started the necessary work.

Procedures initiated by the municipalities to screen development applications for potential threat activities are working well and verification of existing activities requiring risk management plans continued in 2018.

Accordingly, the progress score given for the development of risk management plans is P: Progressing well.

## 5. Provincial Progress: Addressing Risks on the Ground

Provincial ministries, including MECP, MNRF, MMAH, MTO and OMAFRA, are responsible for the implementation of source protection policies included to reduce the risk of significant threat activities or to inform decision makers, collect and share data and lessons learned with others, or provide incentives to advance policy implementation.

The ministries successfully implemented the prescribed instrument policies within the set timeframe of three years by reviewing existing conditions included in environmental compliance approvals and nutrient management strategies and ensuring they are protective of drinking water sources, and by establishing procedures to review applications for new or amended instruments to ensure significant threats to the water sources are managed or prohibited. OMAFRA also developed guidance and training for risk management officials, farmers and certified individuals that prepare nutrient management plans to help them determine if an instrument conforms to the significant drinking water threat policies.

MECP Environmental Officers will assess compliance with source protection terms/conditions in prescribed instruments as part of their regular farm inspections for the agricultural and non-agricultural source material subprograms. The officers were offered an overview of the source protection program and this overview is included in the training of new officers.

Provincial ministries are given a progress score of P: Progressing well.

## 6. Source Protection Awareness and Change in Behaviour

Outreach programs were initiated in 2018 to improve awareness of people living and working within the Halton-Hamilton Source Protection Region, in addition to the 22 road signs. It is hoped that by increasing awareness of what water sources we use for drinking water, why they need our protection and how we are protecting them, that the decisions and actions of others will change to always consider the protection of drinking water.

A communications plan was developed by the Chair of the source protection committee to expand our outreach aligned with the implementation of the source protection plan. With both provincial and municipal elections held in 2018 an opportunity arose to reach out to elected officials and provide an overview of the local source protection program. An appearance on the Hamilton Cable 14 talk show, City Matters, and a presentation to the Rotary Club of Burlington also helped to reach a broader audience. This outreach continues in 2019.

Municipalities are protecting water sources through internal processes. In Hamilton, over 600 development applications were reviewed for locations of stormwater ponds and septic systems and over 40 source protection relevant comments were made on other development applications and permits to take water.

Halton Region and the Township of Puslinch risk management office continue to expand their outreach initiatives through meetings, workshops, and with information kiosks at events/festivals. Halton Region presented their salt management initiatives to attendees of an Ontario Water Works Association workshop and Puslinch offered training to municipal staff and consultants and ran newspaper ads on road salt, water conservation, fertilizer, and who protects our water.

## 7. Source Protection Plan Policies: Summary of Delays

Of the legally binding policies that address significant drinking water threats directly, only two policies are recorded as not started yet. Two of these policies, T-20-C b. and T-47-C b., require the development of risk management plans, however, the source protection plan sets out a deadline of five years from the date the plan took effect, i.e. by December 31, 2020. Therefore, the risk management plans aren't expected to be finalized yet and the policies will not be implemented until that happens. Some municipalities have implementation of this policy in process and some do not.

Unfortunately, we've been unable to contact all the implementing bodies for a pesticide storage threat and a road salt threat. Outreach will continue in this regard. The road salt threat requires a more in-depth review because our research has shown that liability issues regarding human safety and working to fulfill the excessive requirements of clients are the priorities of contractors and municipal staff applying road salt.

Other strategic action policies that were considered by provincial ministries but not implemented include the re-establishment of a stewardship program to assist landowners with plan implementation and the establishment of regulations under the Planning Act to enable the use of conditional zoning. Municipal planners and the source protection committee identified these tools as important and effective additional tools for plan implementation and the protection of drinking water sources. However, the ministries have considered the policies, without action, and consider them implemented.

A strategic action policy to address the local hydrocarbon carrying pipeline threat requires contact with the National and Ontario Energy Boards and this has not occurred. The Province added a prescribed hydrocarbon pipeline threat in 2018, which the Source Protection Committee must assess and the local threat must be removed. Following this assessment as part of the source protection plan review and amendment, the policy will be implemented.

## 8. Source Water Quality: Monitoring and Actions

The Cedarvale well field is located in Georgetown, part of Halton Hills, and its protection areas for quality and quantity extend slightly into the Halton Region Source Protection Area. Well numbers 1A, 4 and 4A in this well field have rising trends in chloride concentrations and an issue contributing area has been delineated. The CTC Source Protection Committee identified the need for chloride management measures and 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. However, it is acknowledged that it will take time for the benefits of the implementation of associated policies to be realized.

The water source for the Campbellville well field also has elevated chloride concentrations and in recent years a rising trend persists. As such, an assessment is planned to determine if an issue contributing area for this well field should be mapped and for policies to apply that could improve water quality. This assessment and policy development, if needed, will be completed over the next two years.

## 9. Science-based Assessment Reports: Work Plans

No work plans were required to be implemented for our assessment reports in 2018, however, a work plan to undertake a review and amendment of the source protection plan and assessment reports was submitted for ministerial review in November 2018. The Minister of the MECP issued an order requiring this work plan be developed to ensure that the source protection plan and the assessment reports undergo a comprehensive review and update to keep them current in response to community development, changes to water systems and new data. The work plan will be implemented between April 1, 2019 and March 31, 2021. A copy of the work plan is available at [www.protectingwater.ca](http://www.protectingwater.ca).

## 10. More from the Watershed

The source protection plan for the Halton-Hamilton Source Protection Region includes policies to be implemented by other stakeholders in addition to those mentioned above. This includes agencies, businesses, landowners, and Environment Canada. Some of the policies have been implemented, some are in progress, and some have not been started. Most of these policies are optional for implementation and it is good to see the engagement and willingness of the local community to protect drinking water sources.

In 2018 the Hamilton Port Authority implemented a policy that requested that they advise vessel operators using Hamilton Harbour and the companies that lease space on port lands about the proximity of municipal drinking water intakes and to update their spill control plans.

We will continue to contact implementing bodies and stakeholders to encourage them to review programs or regulatory requirements for activities within vulnerable areas and to make necessary improvements to their actions and procedures as they are identified and to implement the most current and relevant best management practices.