



Halton-Hamilton  
Source Protection Region

Work Plan  
for a Comprehensive Review and Update  
of the  
Halton Region and Hamilton Region Source Protection Plans

November 22, 2018  
Prepared and Submitted by  
The Halton Region and Hamilton Region Source Protection Authorities



## Table of Contents

1.	Introduction.....	1
1.1	Halton-Hamilton Source Protection Region.....	1
1.2	Source Protection Plan Implementation Highlights .....	2
2.	Work Plan Development and Consultation.....	2
3.	Work Plan Considerations .....	4
3.1	Results of environmental monitoring programs .....	4
3.2	Growth and infrastructure changes .....	4
3.3	Council resolutions .....	5
3.4	Policy effectiveness.....	5
3.5	Implementation challenges.....	5
3.6	Technical rule changes .....	7
3.7	Impacts of prohibition policies on the agricultural community.....	8
3.8	Specific directions in some source protection plan approval letters .....	8
3.9	Other local considerations. ....	8
4.	Proposed Plan Review and Updates.....	11
4.1	Review and amendments to make the documents current and easily understood.....	11
4.2	Review and amendments to make the documents compliant.....	11
4.3	Review and amendments to water systems and vulnerable areas .....	16
4.4	Technical assessments and amendments.....	16
4.5	Review of threat, local threat, condition and issue identification and amendments to threat inventories .....	17
4.6	Review, consolidation and amendments to source protection plan policies .....	18
5.	Project Management and MECP Support for Plan Review and Updates .....	18
	Table 1 Work plan for necessary reviews, assessments and document updates for the Halton Region and Hamilton Region Source Protection Areas .....	12
	Appendix A S. 36 Order from the Minister of the Environment and Climate Change .....	19

## 1. Introduction

Following the water tragedy that occurred in Walkerton in May 2000, Ontario established a multi-barrier approach to protect drinking water supplies. The first step of this approach is to keep the sources of our drinking water clean and sustainable. The *Clean Water Act, 2006* was introduced to guide communities to undertake studies and develop source protection plans that through implementation will help reduce the risk for water contamination and supply concerns.

Section 36 of the *Clean Water Act, 2006* is intended to ensure that source protection plans and their assessment reports undergo a comprehensive review and update on a periodic basis to keep the plans current in response to community development and changes to water systems. The Act states that when the Minister of the Environment approves a plan he shall, by order, specify which parts of an assessment report and a source protection plan are to be reviewed, the timeframe for the review, and any requirements governing the review. Minister Glen Murray, approved the Source Protection Plans for the Halton Region and the Hamilton Region Source Protection Areas on August 5, 2015 (see Appendix A). He issued an order as part of this approval for the Halton Region Conservation Authority (the lead conservation authority for the source protection region), in consultation with the Halton-Hamilton Source Protection Committee, the Hamilton Region Source Protection Authority, participating municipalities and the ministry to prepare and submit a work plan as a first step for the review and update of the source protection plan that proposes:

- which portions of the plans are to be reviewed
- the timeframes for each step of the review
- the consultation that will be undertaken as part of the review
- the rationale for each step of the review

and includes a summary of how the work plan was developed.

The order explains that the development of the work plan must take into consideration any experience that has been gained from implementing the plans and information from the first annual progress report on plan implementation. A due date of November 30, 2018 was given for work plan submission.

Once the Ministry of the Environment, Conservation and Parks (MECP) has reviewed this submission and following additional consultation, if advisable, a further order will be issued to specify the approved content and timeframes that will govern the source protection plan review in Halton-Hamilton.

### 1.1 Halton-Hamilton Source Protection Region

The Halton Region and Hamilton Region Conservation Authorities jointly manage the source protection program within the source protection region (region). As such, staff retained specifically for the program work on behalf of both source protection authorities and any reference in this work plan to source protection or conservation authority staff can be interpreted as referring to both conservation authorities.

The region lies at the western end of Lake Ontario and comprises urban and rural areas and waters of Lake Ontario and Hamilton Harbour. The population is roughly 970,000 and is expected to grow to over 1.3 million in the next decades. Two municipalities operate drinking water systems within the region – the Region of Halton and the City of Hamilton. The vast majority of the population within the region utilizes Lake Ontario as their drinking water source, while much smaller populations use municipal or their own or communal private well-based systems.

The Region of Halton owns and operates three Lake Ontario intake systems within the region – Burlington (two intakes), Burloak and Oakville, and three well-based systems (Kelso (four wells), Campbellville (two wells) and Walkers Line (one active well)), which supply the built-up areas of Burlington, Oakville and Milton.

Halton Region also operates well-based systems in Halton Hills, in the neighbouring Credit Valley Source Protection Area, that provide water to residents of Acton and Georgetown. A portion of the vulnerable areas associated with the Cedarvale wells in Georgetown extend into the Halton Region Source Protection Area and development is occurring here based on municipal servicing.

The City of Hamilton owns and operates one Lake Ontario intake system within the region – Woodward (three intakes), and three well-based systems – Freelon (two wells), Carlisle (four wells) and Greensville (two wells – one existing and one being commissioned). Hamilton also provides water from their lake-based system to areas of the Region of Halton and Haldimand County.

The Region of Niagara owns and operates one Lake Ontario system in Grimsby, outside of the Hamilton Region Source Protection Area, that supplies water to a portion of the population of Hamilton within the area using the Fifty Road Drinking Water Subsystem.

The Township of Puslinch/County of Wellington is also within the source protection region but landowners use privately owned water systems in this area.

The City of Mississauga/Region of Peel have a small area of land within the most eastern portion of the source protection region. The majority of the area is under development and will be provided water from a Region of Peel water system located outside of the source protection region.

## 1.2 Source Protection Plan Implementation Highlights

The source protection plans for the Halton Region and the Hamilton Region Source Protection Areas were combined into one plan that took effect December 31, 2015. Since the assessment reports for the two areas form part of the source protection plan, reference to the review and/or update or amendment of the plan in this document should be read as including the appropriate review, update or amendment of the corresponding assessment report.

The May 1, 2018 annual report on implementation summarized the activities and progress made on plan policy implementation by all implementing bodies from the effective date until December 31, 2017. It is reported that during that period 89% of the significant drinking water threat policies were either implemented or in progress. These policies addressed 70% of the identified significant drinking water threats within the region. Policies included in the plan were practical and to date there have been few challenges to implementation. Of issue are policies pertaining to nutrient management plans as Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) have indicated that they are not implementable. Some monitoring policies associated with significant threat policies are also identified as not implementable because the data required to be reported is not tracked. Strategic policies that were not implemented, although beneficial, are not required to be implemented. These policy implementation challenges are discussed in Chapter 3.5.

## 2. Work Plan Development and Consultation

The MECP provided guidance and direction on development of this work plan. They clarified that plan updates are to “build in new information that advances understanding of risks to sources of drinking water and incorporates local growth”. They specified that the work plan for the review should consider, at a minimum, the following nine factors that are discussed in Chapter 3 below:

- 1) Results of environmental monitoring programs
- 2) Growth and infrastructure changes

- 3) Council resolutions
- 4) Policy effectiveness
- 5) Implementation challenges
- 6) Technical rule changes
- 7) Impacts of prohibition policies on the agricultural community
- 8) Specific directions in some source protection plan approval letters
- 9) Other local considerations.

Source protection staff began consultation with local municipalities and the Halton-Hamilton Source Protection Committee (source protection committee) on possible content of the work plan in May 2017. A high level discussion was held with municipal representatives at that time to introduce them to the requirement for the development of this work plan and the potential that municipalities may be required to fund any initiatives that they propose. A more detailed preliminary analysis of potential work plan considerations was presented to the municipal representatives at a meeting in November 2017 and to the source protection committee at their meeting in December 2017. At these meetings the Minister's order was discussed, an overview of the planning process and available guidance was provided, municipal engagement was discussed, and a preliminary list of sources of possible updates needed was presented. This list included the nine factors above as well as known concerns from comments received, gaps identified, neighbouring source protection area updates that could affect the plans in Halton-Hamilton Source Protection Region, etc. Each item considered is discussed in Chapter 3.

In January 2018, source protection committee members were asked to review specified chapters of the assessment reports, plan and explanatory document that related to their area of interest/expertise and provide staff with recommendations for work plan items. In March 2018 the source protection committee requested a guest speaker be arranged to provide an overview from a certified agricultural plan developer to assist the committee members with their understanding of nutrient management plans. On May 15, a very informative presentation was made and the requirements of the nutrient management plan policies were specifically discussed. Also at this meeting, the committee gave staff direction to include in the work plan assessments of the

- new Technical Rule for Assessment Reports 95.1 regarding intake protection zone vulnerability scoring
- new road salt threat assessment method available
- new prescribed pipeline threat and the removal of the local threat

Program managers and municipal representatives from neighbouring source protection areas were contacted in August 2018 to determine if work is planned within their areas that would require updates to the Halton-Hamilton documents. Discussions in Chapter 3 reflect the possible required plan updates. Social media and the local source protection website were also used to seek feedback from the public.

Following issuance of a survey to gain insight from municipal partners specializing in planning, water operations, building, storm water, etc., two meetings were held on September 6, 2018 – one lake-based system focused and one well-based system focused. These meetings provided a forum to introduce the program changes, new rules, new methodologies and new threats as well as to have open dialogue on the successes and challenges of program implementation to date.

Source protection staff drafted this work plan for review by the source protection committee, local municipalities, and the MECP and finalized it for source protection authority submission considering comments received.

### 3. Work Plan Considerations

The following specific topics were evaluated for inclusion in this work plan based on the requirement for a review and assessment and the potential for an update to the source protection plan, assessment reports or explanatory document.

#### 3.1 Results of environmental monitoring programs

When the water quality assessment for the Campbellville municipal well system was initially undertaken the data showed elevated concentrations of sodium and chloride to near, but under, their aesthetic objectives. An issue contributing area was not delineated at that time because the concentrations did not appear to be increasing in the last decade and there were no impacts to the water treatment plant operations. The Region of Halton has continued to monitor the raw water quality for these parameters and indicate that the more recent data reflect an increasing trend. An updated analysis of sodium and chloride concentrations is warranted and depending on the results of this analysis, an issue contributing area may be designated and consideration will be given to whether policies under the *Clean Water Act* could be beneficial to protecting source water quality.

The vulnerable areas for the Cedarvale well field, located in the CTC Source Protection Region, extend into the Halton Region Source Protection Area and are included in the plan. The Region of Halton has six additional years of collected data that they now want to use to update the Halton Hills Tier 3 numerical model. This modelling update may alter the wellhead protection areas for quantity and quality and affect the mapping included in the Halton-Hamilton plan. In addition, the Region has been monitoring water quality at the Cedarvale well field, which initially required the delineation of an issue contributing area for chloride. At their meeting held June 27, 2018, the CTC source protection committee directed staff to incorporate into their s. 36 work plan the review of water quality monitoring results and the evaluation of the need for new source protection plan policies to prevent future drinking water threats. Since the vulnerable areas for the Cedarvale well field currently extend into the Halton Region Source Protection Area and are included in its assessment report and plan, an assessment will be necessary to determine if an update to the assessment report and plan for Halton-Hamilton is necessary. However, given the timeframe to complete the modelling and assessment work by Halton Region and the CTC Region staff, an update to the Halton-Hamilton plan will be proposed under s. 34 of the *Clean Water Act*, or in a future s. 36 plan review and update.

#### 3.2 Growth and infrastructure changes

The Halton-Hamilton Source Protection Region has realized development pressure since the assessment reports were first written. Primarily the pressure is in areas serviced by lake-based systems, however, pressures on well-based systems also exist. Land development results in changes to municipal zoning, provincial planning areas, land use, land cover, the hydrologic system and infrastructure (road network, storm sewers, water and wastewater systems). Accordingly, base mapping included in the reports will require updating to reflect current conditions. These changes have the potential to add or remove significant threats to drinking water sources and a thorough review is warranted.

A review of conditions within vulnerable areas will also be required to determine if managed land or livestock density maps also require updating to reflect the transformation of agricultural lands into urban areas. And, if conditions have changed, a re-assessment of threat activities in these areas is required to ensure significant risks to the drinking water sources are reduced.

As development occurs, water systems may require alterations to be able to meet the demands placed on them. One such alteration is currently underway in the community of Freelton. There are two municipal wells in this community and residential development is proposed. The City of Hamilton has

undertaken studies to increase the water taking at one of the wells and is currently completing the technical work required by the *Clean Water Act*. As this work is expected to be completed prior to commencement of the s. 36 review, and to expedite the provincial licensing process under the new regulatory requirements, a plan update under s. 34 of the *Clean Water Act* will be proposed by the source protection authorities to include the findings of the studies.

Per the 2011 Sustainable Halton Water and Wastewater Master Plan, the Region of Halton plans to decommission the Walkers Line wellfield. The timing of the decommissioning is under review and if completed within the timeframe of the s. 36 review and plan update, necessary revisions to the source protection plan will be captured. The only other planned system change is an increase to the Burloak water treatment plant in about 2023.

The City of Hamilton has set aside the Class EA process for an additional well and/or water storage capacity within the community of Carlisle to undertake an assessment of the possibility of eliminating the need through community water conservation. The Class EA will be reconsidered once the water conservation data is analyzed in early 2019. As such, there is the possibility of the need for an additional well, which would require an amendment to the source protection plan. However, given the timeline for consultation and to reach provincial approval for a new well, this amendment will likely be considered under s. 34 of the *Clean Water Act* or under a future s. 36 update. The water master planning for the urban area of Hamilton is underway but again, any impact on the source protection plan is unknown at this time and plan amendments will be considered under a different process.

The Guelph-Guelph/Eramosa WHPA-Q delineated for the City of Guelph's municipal well field extends slightly into the Halton-Hamilton Source Protection Region. Discussions are ongoing to write policies that address existing and future threat activities occurring within the vulnerable area in the Grand River Source Protection Area. It is anticipated that the final policies will be ready for public consultation in April/May 2019. There are no existing threats identified in the Halton-Hamilton Source Protection Region's portion of the vulnerable area so the newly developed policies for future threat activities will be discussed by the source protection committee in consultation with the local municipalities and compared with the policies already included in the plan. An amendment to the assessment reports and plan will be completed to include this new vulnerable area and new or amended associated policies, if warranted.

### 3.3 Council resolutions

No municipal council resolutions were received to include additional municipal drinking water systems or add non-municipal systems to the source protection plan.

### 3.4 Policy effectiveness

As noted in the 2016/17 Annual Progress Report on Implementation of the Source Protection Plans for the Halton Region and Hamilton Region Source Protection Areas, it is the opinion of the source protection committee that the policies are effectively addressing significant drinking water threats and achieving the objectives of the *Clean Water Act, 2006*.

To monitor the opinion of municipal partners, a question on policy effectiveness was included in the municipal survey mentioned in Chapter 2. Responses received indicated agreement that the policies included in the Halton-Hamilton plan are effective.

### 3.5 Implementation challenges

The majority of plan policies (89%) are implemented or in process by the majority of implementing bodies. Some policies are fully implemented by some municipalities and not started by others. The



implementation of 11% of the policies has not started. The source protection committee prepared practical, implementable policies in consultation with stakeholders so very few issues have arisen.

Mandatory significant threat policies not implemented relate primarily to agricultural activities and their prescribed instruments and farm inspections. Monitoring policies typically request specific information be reported and in some cases the details are lacking - either omitted with no explanation, reported as not tracked, or tracked not in alignment with the calendar year or the source protection areas, and therefore unusable.

One significant threat policy and the related implementation monitoring policy have been identified by OMAFRA as non-implementable. These policies, T-26-C a. and b., require that OMAFRA ensure that when nutrient management plans are implemented, they ensure that the application of commercial fertilizer will never become a significant drinking water threat. The policies also require that OMAFRA document the number and locations of properties where nutrient management plans were reviewed and record measures taken. However, OMAFRA has informed us that they do not review nutrient management plans. As such, a review of these policies is warranted and amended or new policies written to ensure that commercial fertilizer application does not become a significant threat in the future.

The MECP inspects agricultural properties for compliance with the *Nutrient Management Act, 2002*. Monitoring policy T-22-C b. requires that their annual report document the locations of inspections compliant and non-compliant with nutrient management plans and strategies and non-agricultural source material plans and the actions taken for threat activities related to agricultural source materials, non-agricultural source materials, commercial fertilizer and land used for outdoor confinement areas and farm-animal yards. Unfortunately, no report is provided that mentions commercial fertilizer and lands used by animals. Additional outreach to MECP and a review of the policy is required.

Additional outreach to Ministry of Municipal Affairs and Housing is also required on policy T-53-S c., a strategic policy that has not been implemented. This policy requests that the Ministry enact the regulations under the *Planning Act* to enable the use of conditional zoning. Although a strategic policy, the local planners' working group deemed this an important step to control threat activities where they could be significant.

The Halton-Hamilton Source Protection Committee included policies in their source protection plan requesting that the Ministry of the Environment and Climate Change (now MECP) provide ongoing funding through a stewardship program to assist landowners complying with specific plan policies. With only small, rural municipalities receiving one-time funding to date through the Source Protection Municipal Implementation Fund (SPMIF), no additional funding has been available or used within this source protection region. The MECP has considered the requests made by policies T-16-S a. and T-23-S a. and consider them implemented. However, the source protection committee and our municipal stakeholders still desire to have funding available to assist the agricultural community.

Six percent of the plan policies have had no implementation actions taken. These policies were typically included in the source protection plan to advance protection of drinking water sources through proposed direct actions to manage significant threats and more general actions to protect water resources and inform decision-makers. The strategic policies are considered important but do not require mandatory action. All policies that have not been implemented at the time of the plan review will be reconsidered by the Source Protection Committee for inclusion and/or modification.

The County of Wellington is required to implement five source protection plans. They have requested an amendment to policy G-2, which designates land uses to which the restricted land uses provisions of the *Clean Water Act* apply. They recognize that this policy will not be utilized much within the small area of the wellhead protection area that extends into the Township of Puslinch from the Hamilton

Region Source Protection Area, but are asking for consistency in all plans to give the risk management official greater ability to screen out development applications from requiring a Section 59 notice, under the *Clean Water Act*, and thereby streamline the planning process and reduce their workload. This policy will be discussed by the Halton-Hamilton Source Protection Committee during the plan review.

The County of Wellington also recommended amendments to the framework for the program to include private wells and changes to the Tables of Circumstances for threat activities. Implementation challenges were specifically highlighted concerning the circumstances for the handling and storage of dense non-aqueous phase liquids and equal application of Part IV across commercial and industrial sectors that have the potential to impact drinking water sources. Challenges were also noted when low or moderate threat activities occur in close proximity to municipal wells, i.e., just outside the 100 metre wellhead protection area-A, and the municipality wants to address the potential risk.

Municipalities have requested the development of a manual for the plan for municipal planner use that provides additional guidance on the source protection program to assist new staff with plan implementation, that groups the policies to be implemented by each municipality, that clarifies better the mandatory and strategic policies, that identifies better existing and future policies, and that clearly shows where the policies apply. It is proposed that this manual be an appendix of the plan and provide guidance for all implementing bodies.

### 3.6 Technical rule changes

The MECP is undertaking a review and analysis of the drinking water source protection program to identify areas for potential improvement. Some program amendments have been implemented, while others are still under consideration. The review and update of the Halton-Hamilton plan, assessment reports and explanatory document will be compliant with the approved legislation, Technical Rules and provincial guidance that is in place at the time the updates are being carried out.

The Director's "Technical Rules: Assessment Report" was amended in March 2017 and again in July 2018 to incorporate new scientific approaches and update the "Tables of Drinking Water Threats". Some of the changes require mandatory action, thus assessments will be completed and amendments to the source protection plan and assessment reports will be made as follows:

- all reference to circumstances that have changed for threat activities, including completing assessments for those drinking water threats that have revised thresholds
- all references to chemicals of concern that have changed
- the addition of liquid hydrocarbon pipelines as a prescribed threat and an assessment to determine existing and future threats within the vulnerable areas of Halton-Hamilton region including the impact on the existing local threat

Some of the changes to the Technical Rules are enabling and the source protection authorities and committee may use their discretion to determine the need for plan amendments for the following:

- adding clarity where definitions have changed
- changing the short form names of prescribed threats for those that have changed
- a change of vulnerability scores for Great Lakes and connecting channel intakes based on local circumstances
- an assessment of conditions that are or could be impacting intake protection zones through contaminated sediment or groundwater

A review of the documents will be undertaken to determine if additional clarity is needed to ensure the meaning of transport pathway, high water mark, monitoring well and the Soil, Groundwater and Sediment Standards is understood in the context of the *Clean Water Act*. A general tidying up of the nomenclature used to describe threat activities and their circumstances will also be undertaken to ensure alignment with the revised Tables of Drinking Water Threats at the time of the assessment.

Local municipalities have requested a review of possible conditions that are or could be impacting the water quality of drinking water sources. Assessments will be completed, if warranted, to identify conditions impacting intake source water and the plan and policies will be updated accordingly.

Technical Rule 95.1 has been added to enable the identification of significant drinking water threat activities affecting the region's Lake Ontario water intakes. The rule provides the flexibility to increase the score that reflects the vulnerability of the intake based on knowledge of local conditions. Previous lake-based modelling has shown that there can be adverse impacts to lake source water quality if certain events occur and some of the prescribed threat activities do occur in the intake protection zones. Furthermore, it is known that one lake intake shuts down during storm events due to water quality concerns and another is impacted by land run-off. Thus, the source protection committee has directed staff to undertake a re-assessment of the scoring based on new knowledge and current source water quality and concerns. The work will be completed in consultation with the appropriate municipalities. If the assessment results in the potential for significant threat activities within the vulnerable area then a threats assessment will be completed and related policies discussed and written by the source protection committee for a plan amendment.

### 3.7 Impacts of prohibition policies on the agricultural community

There are no prohibition policies included in the Halton-Hamilton Source Protection Plan that directly impact agricultural operations. No further analysis is required.

### 3.8 Specific directions in some source protection plan approval letters

There are no specific directions included in the Halton-Hamilton Source Protection Plan approval letter.

### 3.9 Other local considerations.

The approved assessment reports for the Halton Region and the Hamilton Region Source Protection Areas identified technical work, research, data collection and verification of assessments completed to be undertaken and reported on in updated reports. During this Minister ordered review of the source protection plan these items will be re-evaluated and the work completed, if still warranted. The tasks include:

- a) a reassessment of the risk to drinking water sources that the bulk fuel storage in Oakville and the oil pipeline releases pose – these items were included because the source protection committee and the associated stakeholders did not accept the results of the Lake Ontario Collaborative modelling studies as final and credible. As noted in the assessment reports, stakeholder input was not used to finalize the modelling scenarios and additional review indicated that the scenarios modelled are not reflective of real events that could occur. Source protection region staff will enlist the help of conservation authority staff and stakeholders to develop credible scenarios for inland contaminant release and transport to the outlets of the appropriate creeks. The existing results of the in-lake model, i.e. travel times and chemical degradation, will then be used to assess risk to the municipal intake source water. No additional in-lake modelling will be necessary for these reassessments. As the results of these new assessments will impact the source protection plan for the neighbouring CTC Source Protection Region, their staff will be consulted with during the reassessment.
- b) further assessment of the need for and delineation of additional intake protection zone threes for each of the Lake Ontario intakes – Burlington, Burloak, Oakville and Woodward based on event-based modelling – the identification of potential threat activities within intake protection zones and the need for assessments will be undertaken following the reassessment of the zone vulnerability scores under Technical Rule 95.1. This work will involve a review of the already compiled threats database with a brief look for potential threats that have resulted afterwards.

The source protection committee will then discuss the potential threats requiring additional study. Methods to identify significant threats will be used that do not require additional modelling efforts in the lake.

- c) verification of site specific conditions to improve the threats assessment – verification work is primarily being undertaken by local municipal partners. Municipal discussions will be part of the plan review to determine if additional verification work is required. The municipalities have identified a few additional concerns that warrant discussion for potential capturing under existing threats. These activities involve:
- hydrocarbon pipelines
  - bulk fuel storage
  - shoreline activities, i.e. dredging, modifications, in-water development
  - road de-icing (storage or application)
  - marinas with or without fuel storage
  - agricultural activities involving livestock or the application/storage of pesticides and fertilizers
  - Lake Ontario shipping
  - creek and storm sewer discharges
  - blue-green algae
  - contaminated sites

New concerns may also arise prior to submission of the updated plan and all will be assessed in consultation with the committee and our program partners.

- d) an assessment of issues to drinking water systems in the highly vulnerable aquifer and significant recharge areas – the source protection committee chose to focus on significant threat areas during writing of the current approved versions of the assessment reports and plans. However, recommendations were made by local municipalities to look beyond these areas during future reviews and updates. Much of the area to the west of the Niagara Escarpment is highly vulnerable aquifer and significant recharge area. An assessment of water quality and water quantity threat activities within the respective areas would help the committee provide guidance to the municipalities to assist with the protection of these key hydrologic areas, as required under the Provincial Policy Statement. Municipal staff have requested that the source protection committee provide a link between highly vulnerable aquifers and significant groundwater recharge areas within the source protection plan to assist with conformity to other planning policy documents.
- e) consideration of the inclusion of local threats in updated assessments – when the assessment reports were being written the source protection committee identified the transportation of hazardous goods through vulnerable areas as an activity that required further consideration as a local threat. Strategic policies were included in the plan to address this potential threat but additional discussion is warranted during the plan review.
- f) an assessment of constructed pathways to improve the vulnerability scoring, particularly within the wellhead protection areas – transport pathways did not factor into the current vulnerability scores in the wellhead protection areas. Additional discussion of transport pathways is needed as they relate to the vulnerability of the source waters. This discussion could lead to a reassessment of the vulnerability scores in wellhead protection areas and, if they change, the need to inventory threat activities.
- g) research to reduce the uncertainty surrounding the use of travel times through the unsaturated zone as part of the vulnerability assessment within the wellhead protection areas – the necessary additional data to reduce uncertainty are not available. Therefore, this task cannot be completed at this time.

- h) research and identification of conditions that may exist due to past land use activities – the municipalities have recently identified contaminated sites and their influence on source water quality as an item for additional review. Only two sites were evaluated when the source protection plan was written in 2010. Since that time, some of the wellhead protection areas have been redelineated and a reassessment of the proximity of contaminated sites to the vulnerable areas is required.
- i) monitoring and assessment of the impacts of climate change on water resources in the source protection areas as predictive science improves and local studies are completed – a project is underway to develop a semi-qualitative climate change impact approach with a science-based best practices guidance document, an assessment tool, and case studies. Should the new tool be adopted by the MECP with an associated new rule to enable its use, then it will be used to reassess the significance of water quality risk from the prescribed activities.
- j) an assessment of impacts on water budget components due to development within the source protection area – a high level look at the areas of development and their associated impacts on the water balance for the source protection area is required due to the development pressures experienced in the region. New water balances were developed for the two Tier 3 water budget studies completed in the region and these will inform a review to assess the need for an update. Should an update be recommended, additional discussions with MECP will occur on its timing and funding.
- k) a redelineation of the intake protection zone two for the Woodward intakes – when the current intake protection zone mapping was completed the consultant indicated that flow rates were not available for the storm sewer system and creeks of Hamilton. Thus, a random geographic point was used to define the extent of the zone rather than a time of travel. These flow data are available now and should be used to better define the protection zone. Technical Rule 95.1 will be used to reassess the vulnerability score for this zone, which could lead to the identification of significant threats and the application of policies. Therefore, the protection zone should be mapped using all available data prior to a reassessment of the vulnerability scores.

Additional items for review have been identified through daily operations or stakeholder consultation. These items include:

- l) an evaluation of the new methodology to assess the risk that road salt application poses to drinking water sources. The methodology is currently draft but is expected to be adopted by the MECP formally during the review period. If not, a request for use of the alternate method will be submitted to the MECP should that be deemed beneficial. Sodium and chloride are the chemicals of concern within the region that have a broad impact on drinking water source quality. Many municipal and private water sources have elevated concentrations of these chemicals and some are at or above the aesthetic values and residents say their water tastes salty. Accordingly, the source protection committee would like to evaluate the new methodology to be able to identify the concern and reflect current conditions.
- m) a reformatting of the source protection plan, assessment reports and explanatory document to be compliant with the *Accessibility for Ontarians with Disabilities Act, 2005*, including adding geographic references for policy implementation in addition to the mapping in the plan.
- n) adding clarity to the source protection plan for users to understand better the effect of the policies
- o) the potential to include policies to address information sharing and communications between MECP and municipalities around spill reports to the Spills Action Centre in source protection vulnerable areas

- p) the potential to include policies regarding the sharing of information about blue-green algae tracking
- q) policy amendments to acknowledge that implementation has occurred and to now require periodic reviews and updates, such as to salt management plans, if needed, as new data, knowledge or methodologies become available.

#### 4. Proposed Plan Review and Updates

Based on the preliminary analysis and consultations with various stakeholders, the Halton Region and Hamilton Region Source Protection Authorities recommend that a thorough review of the two assessment reports, source protection plan and the explanatory document be completed under s. 36 of the *Clean Water Act, 2006* and amendments be proposed as necessary. Some document amendments are known at this time while others may result following assessments undertaken as part of the plan review. The proposed review is summarized as discussed below and listed in Table 1.

Table 1 outlines the necessary reviews, assessments and document updates required to be completed to ensure the documents are current and effective at protecting drinking water sources within the Halton Region and Hamilton Region Source Protection Areas. These items summarize the results of stakeholder and source protection committee consultation carried out in 2017/2018.

The overall timeframe to complete the work outlined below is two years, i.e. starting April 1, 2019 and ending March 31, 2021.

##### 4.1 Review and amendments to make the documents current and easily understood

Based on the time lapse between writing and submission of the currently approved plan and when the proposed plan update will be submitted by March 31, 2021, many references and mapping in the plan require updating. Also, users of the source protection plan have requested amendments/additions to provide clarity and to make the plan and its policies more easily understood. The following lists the known updates required, however, others may be identified as the plan review takes place:

- a. base mapping on all figures
- b. references to legislation, regulations, policies, standard practices, best management practices
- c. a manual for the plan for municipal planner use will be developed as part of the plan
- d. clarity will be added where definitions have changed prior to or during the review
- e. the short form names of prescribed threats will be changed to align with the Tables of Circumstances at the time of the review
- f. the source protection plan, assessment reports and the explanatory document will be reformatted to be compliant with the *Accessibility for Ontarians with Disabilities Act, 2005*, including geographic references for policy implementation in addition to mapping
- g. clarity will be added to the source protection plan for users to understand better the effect of the policies

##### 4.2 Review and amendments to make the documents compliant

Recent changes to the *Clean Water Act, 2006* and its regulations, the Technical Rules: Assessment Reports and the Tables of Drinking Water Threats are mandatory requirements for plan updates. All

Section 36 Work Plan  
Halton Region and Hamilton Region Source Protection Areas

Table 1. Work plan for necessary reviews, assessments and document updates for the Halton Region and Hamilton Region Source Protection Areas

<b>Task No.</b>	<b>Task Description</b>	<b>Work Description</b>	<b>Applicable Document</b>	<b>Led by SPAs in Consultation With</b>	<b>Timeframe</b>
1	Review and amendments to make the documents current and easily understood	1. Update base mapping on all figures	ARs, SPP, ED		2019/20
		2. Update references to acts, regulations, policies, etc.	ARs, SPP, ED		2019/20
		3. Prepare a manual for the plan that clearly outlines the requirements placed on each implementing body by plan policies	SPP	Implementing bodies	Early 2021
		4. Reformat documents to be compliant with the <i>Accessibility for Ontarians with Disabilities Act, 2005</i> , including adding geographic references for where policies apply	ARs, SPP, ED		2019/20
		5. Add clarity to the effect of the policies	SPP		2019/20
		6. Remove reference to the Walkers Line well field if decommissioned during the review period	ARs		2020/21
2	Amendments to make the documents compliant	1. Update documents to align with revisions to the Technical Rules and the Tables of Drinking Water Threats regarding circumstances and chemicals of concern	ARs, SPP, ED		2019/20
3	Liquid hydrocarbon pipelines	1. Add as a prescribed threat and remove local threat	ARs, SPP, ED		2020/21
		2. Identify threat locations and assess significance following re-assessments to vulnerability scores of intake protection zones	ARs, SPP, ED	Pipeline owners	2020/21
		3. Refine the modelled scenarios for the event-based modelled areas of the local threat to tie to the new prescribed threat assessment	ARs, SPP	Pipeline owners	2020/21
4	Campbellville well field	1. Analyze water quality data and determine the need for an issue contributing area	Halton AR	Halton Region	2019/20

Section 36 Work Plan  
Halton Region and Hamilton Region Source Protection Areas

<b>Task No.</b>	<b>Task Description</b>	<b>Work Description</b>	<b>Applicable Document</b>	<b>Led by SPAs in Consultation With</b>	<b>Timeframe</b>
4 con't	Campbellville well field	2. If so, update mapping and complete a threats assessment.	AR, SPP	Halton Region	2019/2020
5	Guelph-Guelph/Eramosa wellhead protection area for water quantity	1. Add mapping and text, and source protection committee to discuss policies to address future threat activities.	AR, SPP	Township of Puslinch, County of Wellington, City of Guelph	2020/2021
6	Technical Assessments	1. Update managed lands and livestock density maps as needed based on changes in land use. If changes are made, a re-assessment of agricultural threat activities in these areas.	AR		2019/2020
		2. Use Technical Rule 95.1 to re-assess the vulnerability scores of the Lake Ontario intake protection zones. If significant threats are possible, undertake a threats assessment.	AR, SPP, ED	Halton Region and the City of Hamilton, landowners	2019/2020
		3. Identify conditions that could be affecting drinking water sources. If identified, include in source protection plan.	AR, SPP	Municipalities	2020/2021
		4. Refine the modelled scenarios used for the bulk fuel storage and the off-loading of fuel from ships threat activities to lake source water with the assistance of conservation authority staff.	AR, SPP	Suncor Energy	2019/2020
		5. If significant threats are not possible within intake protection zones based on the Technical Rule 95.1 re-assessment, then consult on the need for additional intake protection zone threes. If the need is identified, these will be delineated based on existing in-lake modelling results and inland flows from the conservation authorities.	AR, SPP	Conservation Authorities, municipalities	2019/2020
		6. Review transport pathways in wellhead protection areas and their influence on the	AR, SPP	Municipalities	2020/2021



Section 36 Work Plan  
Halton Region and Hamilton Region Source Protection Areas

<b>Task No.</b>	<b>Task Description</b>	<b>Work Description</b>	<b>Applicable Document</b>	<b>Led by SPAs in Consultation With</b>	<b>Timeframe</b>
6 con't	Technical Assessments	vulnerability of the source water. Alter scoring as necessary and reassess threat activities in those areas.			
		7. Use the new assessment tool for climate change impacts to source water quality, if adopted by the MECP, and refine threats assessment accordingly.	AR	Halton Region and the City of Hamilton water operators	2020/2021
		8. Undertake a high level assessment of the water budget components used for the Tier 1 water budget assessment and propose an update, if warranted, to MECP.	AR	Municipalities	2019/2020 In discussion with MECP
		9. Redelineate the intake protection zone two for Hamilton's Woodward intakes using current available data and amend mapping.	AR	City of Hamilton, Hamilton Conservation Authority	2019/2020
		10. Use the new road salt methodology to assess the risk that road salt application poses to drinking water sources in the region. Request its use if deemed advisable and not adopted by the MECP. Revise mapping as needed.	AR, SPP, ED	Municipalities	2020/2021
7	Threats Assessment Updates	1. Source protection committee to discuss additional concerns raised through consultation for potential research, stakeholder engagement, and identification as significant threat activities.	AR, SPP, ED	Municipalities, stakeholders, landowners	2020/2021
		2. Assess threats in highly vulnerable aquifers and significant groundwater recharge areas and link these vulnerable areas to other provincial policy documents.	AR	Municipal planners	2019/2020
		3. Source protection committee will discuss the need for additional local threats, including the transportation of hazardous goods through	AR, SPP, ED	Municipalities, stakeholders, landowners	2020/2021

Section 36 Work Plan  
Halton Region and Hamilton Region Source Protection Areas

<b>Task No.</b>	<b>Task Description</b>	<b>Work Description</b>	<b>Applicable Document</b>	<b>Led by SPAs in Consultation With</b>	<b>Timeframe</b>
7 con't	Threats Assessment Updates	vulnerable areas. If threats are identified, MECP approval will be sought.			
8	Policy Amendments	1. Source protection committee will review policies not implemented by the end of 2019/2020 fiscal year for potential action.	SPP, ED	Implementing bodies	2020/2021
		2. Source protection committee will revise policy G-2 to meet the intent of the Township of Puslinch/County of Wellington request.	SPP	Municipal Risk Management Officials	2020/2021
		3. Source protection committee will discuss new policies regarding the sharing of information and communications around spills in vulnerable areas and blue-green algae tracking.	SPP, ED	City of Hamilton, Halton Region	2020/2021
		4. Source protection committee will review policies with implementation timeframes and amend for periodic reviews and updates, as needed.	SPP		2020/2021
		5. Source protection committee will review all policies in the plan for current applicability and add, replace, amend or remove policies as required by work outlined in Tasks 1 through 7.	SPP		2020/2021

In this table:

- AR means assessment report and will be preceded by Halton or Hamilton to indicate when only one is impacted
- ARs means assessment reports meaning both reports require updating
- SPP means the source protection plan
- ED means the explanatory document
- CAs means the Halton Region and Hamilton Region Conservation Authorities, as required
- All work will be completed by Halton-Hamilton source protection staff in consultation with and/or working with the stakeholders noted and the Halton-Hamilton Source Protection Committee

mandatory changes in effect when the proposed updated plan is submitted will be included. The known updates required are:

- a. circumstances for threat activities that have changed will be amended and threat activity significance will be reassessed
- b. lists of chemicals of concern will be revised and the discussion of such edited
- c. liquid hydrocarbon pipelines will be added as a prescribed threat

#### 4.3 Review and amendments to water systems and vulnerable areas

Upgrades to drinking water systems are not scheduled in this planning horizon. The needs of Greensville and Freerton are being met through upgrades currently in process that will be finalized likely before this review and plan update is complete. Other systems are projected to meet the demands placed on them for the next few years. The following is the work required to be undertaken during this plan update:

- a. Campbellville well field – water quality monitoring data will be analyzed and it will be determined if an issue contributing area is warranted. If so, a threats assessment will be completed and policies developed to address the threat activity.
- b. Walkers Line well field – the source protection plan will be updated if the well field is decommissioned within the review period
- c. Guelph-Guelph/Eramosa wellhead protection area for water quantity – the assessment reports will be updated to include the findings of the water quantity risk assessment and mapping will be added to the source protection plan. The source protection committee will consider the intent of policies developed by local municipalities to address future water quantity threat activities and compare these with the policies already included in the plan, amending as required.

#### 4.4 Technical assessments and amendments

Studies are required when the base conditions, assumptions and methodologies used in the previous studies have changed due to inherent issues with the previous work and/or the advancement of science. The Halton-Hamilton Source Protection Committee has requested that staff pursue new opportunities to enhance protection of drinking water sources in the region by evaluating the new methodologies and Technical Rules released by MECP and updating base conditions. As such, the following assessments will be completed and the findings considered by the committee for inclusion or amendment of the source protection plan.

- a. The wellhead protection areas will be reviewed for changes in land cover/uses and managed land and livestock density maps will be updated, as needed.
- b. A study of the risk posed by liquid hydrocarbon pipelines under the new prescribed threat activity will be completed and reference to the local threat, now redundant, removed.
- c. An assessment of the application of Technical Rule 95.1 to change the vulnerability scores for the Lake Ontario intakes will be completed. If this results in the possibility of significant threat activities then a threats assessment will be completed and policies developed to address the risk.
- d. An assessment of the presence of conditions that are or could be affecting drinking water sources and if conditions are identified, the source protection plan will be amended to identify them and the committee will develop policies to address the risk they pose.
- e. A refinement of the modelled scenarios used to delineate the event-based modelled area for bulk fuel storage in Oakville and the off-loading of fuel from ships will be completed in

- consultation with the landowner to develop credible scenarios and reassess the significance of the activity on the municipal water intakes. Stakeholders will be consulted on existing site activities and the development of realistic scenarios for release of contaminants to the environment. From there, CA staff will use existing models to determine travel times in creeks and storm sewers to the lake. The existing in-lake modelling results will be used to determine travel times to the intakes and significance of the threat activity.
- f. If the assessment under Technical Rule 95.1 does not lead to the possibility of significant threats in the intake protection zones then a reassessment of the need for additional study of potential threats along the shoreline of Lake Ontario will be completed. Intake protection zone threes will be delineated based on existing modelling results for the lake with input from conservation authority staff on inland flows.
  - g. A review of transport pathways in wellhead protection areas and the need for their consideration in scoring the vulnerability of the area will be completed.
  - h. The new assessment tool for water quality impacts due to climate change will be used to refine the significance of current threat activities or add new activities under a changing climate. This work is subject to adoption of the tool by the MECP.
  - i. The water budget components used for the Tier 1 water budget assessment and updated in local areas by the Tier 3 assessment will be reviewed and a determination made if land use/cover changes have altered the water balance to warrant an update to better predict impacts on drinking water sources. An update will be completed in discussion with the MECP.
  - j. The intake protection zone two will be redelineated for Hamilton's Woodward intakes. Data will be provided by the Hamilton Conservation Authority and City of Hamilton, which will be used in combination with the known in-lake travel times to determine the two-hour on-land delineation. Updated figures will be produced.
  - k. The new road salt methodology will be used to assess the risk that road salt application poses to drinking water sources. If the method is not adopted by MECP for use and it is deemed advisable to use the new method, a request for use of the alternate method will be submitted to the MECP. New mapping will be produced and policies reconsidered.

#### 4.5 Review of threat, local threat, condition and issue identification and amendments to threat inventories

The revisions to provincial documents mentioned previously and work undertaken to update the plan have resulted in the need for additional assessment of threats to the municipal water sources. Altered mapping, changes in circumstances for threat activity significance, changes in threat associated chemicals of concern, and the addition of a new prescribed threat may result in changes to the significant threat inventory. Furthermore, new knowledge may reveal threats deemed significant but not included in regulation as a prescribed threat. Under this situation, a local threat will be requested. Additional monitoring and improved data sources may also reveal issues and conditions not previously identified.

- a. If managed land and livestock density maps have been revised, a reassessment of the applicable agricultural threat activities in the vulnerable areas and a reassessment of the relative significant threat mapping and plan policies will be completed.
- b. An assessment of the liquid hydrocarbon pipeline threats will be undertaken following the reassessment of the vulnerability scores for the Lake Ontario intakes.
- c. A few activities have been identified by the municipalities, stakeholders, or the source protection committee as possible concerns potentially not fully captured by existing

- policies (see 3.9 c). Additional concerns may also arise during the plan review process. These activities will be reviewed in the context of the prescribed drinking water threats and the Tables of Circumstances, along with current policies for these or related activities. The plan policies will be updated to reflect all new concerns carried forward.
- d. A review of potential threats and issues in areas delineated as highly vulnerable aquifers and significant groundwater recharge areas will be completed and a link made between the vulnerable areas under the *Clean Water Act, 2006* and other provincial policy documents.
  - e. The source protection committee will discuss the need for additional local threats, including whether the transportation of hazardous goods should now be identified. A request will be submitted to the MECP if approval of a local threat is warranted to protect local drinking water sources.
  - f. If new vulnerability scores are assigned within portions of wellhead protection areas following the consideration of transport pathways, then an updated threats assessment will be completed.
  - g. Potential conditions affecting source water quality will be assessed more thoroughly in consultation with local municipalities.

#### 4.6 Review, consolidation and amendments to source protection plan policies

The work described above could ultimately result in the need to amend or remove current policies in the source protection plan for Halton-Hamilton region or for the source protection committee to write new policies for the risks from activities that are not adequately managed.

- a. The source protection committee will discuss and write policies to address gaps resulting from the work summarized in items 4.1 through 4.6.
- b. The source protection committee will discuss and keep, amend, remove or replace plan policies identified that are challenging implementation. These include T-26-C a. and b., T-22-C b., T-53-S c., T-16-S a., T-23-S a., G-2 and any other policies that have not been implemented at the time of the plan review.
- c. The source protection committee will discuss new policies regarding the sharing of information and communications around spills in source protection vulnerable areas and blue-green algae tracking.
- d. Policies that include timeframes for initial implementation will be reviewed to assess the need for periodic reviews and updates. The source protection committee will consider amending these policies as needed.

### 5. Project Management and MECP Support for Plan Review and Updates

Staff working on behalf of the Halton Region and the Hamilton Region Source Protection Authorities will lead the source protection plan review and updating. It is anticipated that current staffing levels can manage the work proposed with the assistance of other conservation authority staff, as needed. The work will be undertaken in consultation with local municipalities, applicable implementing bodies, stakeholders, and the MECP. Consultation will also take place with landowners affected by proposed plan amendments. The timeframes provided are based on having the staffing and financial resources available to complete the work.

The continuation of financial support by MECP will be necessary to undertake the proposed review and updates outlined in this work plan prepared under a s. 36 order and the required consultation. This includes staff capacity and expertise, and meetings of the source protection committee, municipal working groups, and stakeholders.

S. 36 Order from the  
Minister of the Environment and Climate Change

Ministry of the Environment  
and Climate Change

Ministère de l'Environnement et de  
l'Action en matière de changement  
climatique

Office of the Minister

Bureau du ministre

77 Wellesley Street West  
11th Floor, Ferguson Block  
Toronto ON M7A 2T5  
Tel.: 416-314-6790  
Fax: 416-314-6748

77, rue Wellesley Ouest  
11<sup>e</sup> étage, edifice Ferguson  
Toronto ON M7A 2T5  
Tél. : 416-314-6790  
Télééc: 416-314-6748



ENV1283MC-2012-2366

AUG - 5 2015

Mr. Ken Phillips  
Chief Administrative Officer  
Conservation Halton  
2596 Britannia Road  
Burlington, Ontario  
L7P 0G3

Mr. Chris Firth-Eagland  
Chief Administrative Officer  
Hamilton Conservation Authority  
838 Mineral Springs Road, Box 81067  
Ancaster, Ontario  
L9G 4X1

Mr. Robert Edmondson  
Chair, Halton-Hamilton Source Protection Committee  
2071 Deer Run Avenue  
Burlington ON L7M 2S7

Dear Mr. Phillips, Mr. Firth-Eagland, and Mr. Edmondson:

It is a pleasure to inform you that the review of the source protection plans for the Halton Region and Hamilton Region source protection areas, developed under the Clean Water Act, 2006, has been completed. Pursuant to section 29 of the Clean Water Act, I approve the plans for the Halton Region and Hamilton Region source protection areas.

I appreciate the efforts undertaken by the Halton-Hamilton source protection committee, the two source protection authorities, and all stakeholders to assess and develop plans to protect drinking water sources in your community. Thank you for all your hard work, leadership and commitment.

Your community is to be commended on the achievement of this important milestone. This is an example of the local, inclusive, community-based approach to protecting source water envisioned by the Clean Water Act. The Province has been pleased to support the assessment and development of the source protection plans for the areas within the Halton-Hamilton source protection region with an investment of \$8.56 million since 2004. An additional \$507,718 was provided within the Halton-Hamilton source protection region for various projects under the Ontario Drinking Water Stewardship Program for voluntary measures taken to protect the municipal drinking water sources.

Following today's approval of the plans, in order to allow time to prepare for implementation, the Halton Region and Hamilton Region source protection plans will take effect on December 31, 2015. Please ensure that this date is clearly stated in the plans.

Under section 36 of the Clean Water Act, when a source protection plan is approved, an order must also be given that governs the review of the plan. Pursuant to clauses 36 (1) (c) and (d), and as an initial step in the development of detailed requirements to govern the plans' review, the lead source protection authority for the region (Halton Region conservation authority) shall prepare and submit a workplan to the ministry. The workplan shall propose the detailed steps for the review of the plans, including which portions of the plans are to be reviewed, the timeframes for each step of the review, the consultation that would be undertaken as part of the review, and rationale for each step. A summary of how the workplan was developed shall also be included. The workplan shall be developed in consultation with the Halton-Hamilton source protection committee, the Hamilton Region source protection authority, participating municipalities of the source protection areas, and the Ministry of the Environment and Climate Change.

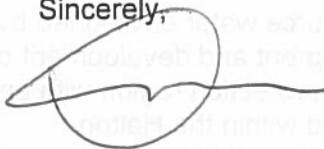
The development of the workplan must take into consideration any experience that has been gained from implementing the source protection plans and information from the first annual progress reports on plan implementation (due May 1, 2018). Accordingly, the workplan shall be submitted to the ministry no later than November 30, 2018. Once the workplan is submitted and reviewed by the ministry, and following any further consultation that the ministry considers advisable, a further order can be issued under section 36 that specifies more detailed requirements outlining the content and timeframes that will govern the review of the Halton Region and Hamilton Region source protection plans.

The committee has included a number of policies in the plans that request the province create or modify programs, or introduce new legislation. The ministry very much appreciates the advice of the source protection committee on how it may protect drinking water sources. The province will conduct an analysis on how to best achieve the policy objectives. The results of this analysis will be communicated to the Halton Region source protection authority when the province reports on its implementation of policies in the plans.

I appreciate the recommendations on the future of the program submitted with the source protection plan. As implementation gets underway, we will begin to receive annual reports, which along with the recommendations from this and other committees will help us plan our path forward. With your commitment, significant progress has been made in source protection and we look forward to working with you to address the challenges and opportunities ahead.

Once again, thank you for your work to protect Ontario's source waters, and please accept my best wishes.

Sincerely,



Glen Murray  
Minister

- c: Sue Lo, Assistant Deputy Minister, DWMD, Ministry of the Environment and Climate Change
- Ling Mark, Director, SPPB, Ministry of the Environment and Climate Change
- Robert Pasuta, Chair, Hamilton Region Source Protection Authority
- John Vice, Chair, Halton Region Source Protection Authority
- Diane Bloomfield, Project Manager, Halton-Hamilton Source Protection Region