



CTC Source Protection Committee Meeting #3/21

Chair: Douglas Wright

Tuesday September 21, 2021

1:00 – 4:00 p.m.

Zoom Virtual Meeting¹

AGENDA

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1.	Call to Order and Roll Call	
2.	Review of Agenda	
3.	Disclosure of Conflict of Interest	
4.	Minutes of Previous Meetings	
5.	Chair’s Remarks	
	5.1 Introduction of new Source Protection Committee members and thanks to outgoing members	
6.	Updates	
	6.1 Update from the Ministry of Environment, Conservation and Parks Liaison Officer - Beth Forrest	
	6.2 Update from Conservation Ontario Source Water Protection Lead – Debbie Balika	
7.	Presentations	
	7.1 DNAPLs and Organic Solvents – The Basics. Presentation by Rick Gerber, Oak Ridges Moraine Groundwater Program Co-Manager/Senior Hydrogeologist.	
	7.2 DNAPLs – Implementation Challenges in the Field. Presentation by Kyle Davis, Risk Management Official, Wellington Source Water Protection.	
	(Note: Items 7.1 and 7.2 will follow Item 8.1b and precede Item 8.1c)	
8.	Committee Business	
	8.1 Reports to Committee	
	a. Source Protection Committee Rules of Procedure Update	3
	b. CTC Program Update	16
	c. Review of DNAP and OS Policies of the CTC Source Protection Plan	21
	8.2 Other Business	
9.	Correspondence	
	9.1 Letter advising of resolutions passed by Halton Region Council on status of Risk Management Plan establishment. January 26, 2021. From Graham	33

¹ CTC Source Protection Committee meetings are video recorded for the purpose of minute taking.

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Milne, Regional Clerk to Doug Wright, Chair of the CTC Source Protection Committee.	
9.2 Letter accompanying submission of work plan to achieve the extended deadline to implement source protection policies under section 58 of the Clean Water Act. April 29, 2021. From Janet Ivey, CTC Program Manager to Susan Ecclestone, Acting Director, Conservation and Source Protection Branch, Ministry of the Environment, Conservation and Parks.	46
9.3 Email acknowledging receipt of work plan for implementation of section 58 policies. May 7, 2021. From Debbie Scanlon, Manager Approvals Unit, Conservation and Source Protection Branch, Ministry of the Environment, Conservation and Parks, to Janet Ivey, CTC Program Manager.	52
9.4 Letter requesting amendment of Ontario Regulation 284/07 to designate Credit Valley as the lead Source Protection Authority for the CTC Source Protection Region. August 25, 2021. From Janet Ivey, CTC Program Manager to Kirsten Corrigan, Director, Conservation and Source Protection Branch, Ministry of the Environment, Conservation and Parks.	53
9.5 Letter advising of pre-consultation period for s. 36 amendments to Halton-Hamilton Source Protection Region (HHSPR) assessment reports and source protection plan. September 3, 2021. From Robert Edmondson, Chair, HHSPR Source Protection Committee to Doug Wright, Chair, CTC Source Protection Committee.	57
10. Next Meeting December 7, 2021 (via zoom)	
11. Adjourn	

TO: Chair and Members of the Source Protection
Committee Meeting #3/21

DATE: September 21, 2021

FROM: Janet Ivey, Chief Specialist, Watershed Plans and Source Water
Protection, Credit Valley Conservation

RE: Amendments to CTC SPC Rules of Procedure

KEY ISSUE

Amendments to the Credit Valley – Toronto and Region – Central Lake Ontario (CTC) Source Protection Committee (SPC) Rules of Procedure.

RECOMMENDATION

WHEREAS Ontario Regulation 288/07 clearly outlines the requirement for the preparation of Rules of Procedure to govern Committee business;

AND WHEREAS the current Rules of Procedure do not address electronic participation in the meetings of the CTC SPC, where an emergency has not been declared under sections 4 or 7.0.1 of the *Emergency Management and Civil Protection Act*;

AND WHEREAS Credit Valley Source Protection Authority (SPA) has replaced Toronto Region SPA as the lead SPA for the CTC Source Protection Region;

THEREFORE, LET IT BE RECOMMENDED THAT the proposed amendments to the Rules of Procedure be approved;

AND THAT the Credit Valley Source Protection Authority be requested to endorse the revised Rules of Procedure;

AND FURTHER THAT CTC SPR staff take the necessary actions to publish the amended document on the CTC SPR website and send a copy to the Ministry of the Environment, Conservation and Parks.

REPORT

Ontario Regulation 288/07 (Section 14) under the *Clean Water Act, 2006* (CWA), sets out requirements for the CTC Source Protection Committee (SPC) to prepare written Rules of Procedure (henceforth “the Rules”) for conducting the business of the committee that is satisfactory to the lead source protection authority. If required, the Rules of Procedure can be amended by the SPC subject to the same approvals and requirement to post on the CTC Source Protection Region (SPR) website. The Rules were first finalized on January 29, 2008 and most recently

amended on April 29, 2020. Additional revisions are needed to address outdated references to TRCA as the lead SPA for the CTC SPR, and to allow greater flexibility in holding virtual meetings of the SPC.

The April 2020 update to the Rules was driven by the outbreak of novel coronavirus (COVID-19). On March 26, 2020 the Minister of Environment, Conservation and Parks (Minister) issued a Direction pursuant to subsection 19.1(7) of the *Conservation Authorities Act* to enable conservation authorities to meet electronically to amend their administrative by-laws to make provisions for emergency situations, such as allowance of virtual meetings. This Direction also applied to conservation authorities when meeting as a source protection authority under the CWA. At that time, to ensure consistency with changes to the lead SPA's (Toronto and Region Conservation Authority) Administrative By-Laws, the Rules were updated to allow the Committee to meet virtually during emergencies declared under Section 4 or 7.0.1 of the Emergency Management and Civil Protection Act, while ensuring public access to participate.

On September 10, 2020 the Minister amended the Direction to allow conservation authorities to update their by-laws to permit meeting electronically when it is deemed appropriate by the conservation authority to do so. Following the amended Direction provided by the Minister, conservation authorities updated their Administrative bylaws to allow virtual meetings, outside of declared state of emergencies.

Last fall, the three CTC Source Protection Authorities (SPA) signed a letter agreement to transfer lead SPA responsibilities from Toronto and Region SPA (TRSPA) to Credit Valley SPA (CVSPA) for the 2020-2021 fiscal year, for which a transfer payment agreement had already been made between the province and TRSPA on behalf of the CTC SPR. The transfer payment agreement for the 2021-2022 fiscal year has been made between the province and CVSPA.

The Credit Valley, Toronto and Region, and Central Lake Ontario Source Protection Authorities have each passed resolutions requesting that the Minister of the Environment, Conservation and Parks (MECP) designate CVSPA as the lead source protection authority for the CTC Source Protection Region under Ontario Regulation 284/07 (refer to Agenda Item 9.4).

With the updated Minister's Direction regarding electronic meetings, declared states of emergency having ended, and Credit Valley now acting as the lead SPA, there is a need to update the SPC's Rules. A marked-up version of the proposed amendments to the Rules of Procedure are included in **Appendix A**.

Six electronic CTC SPC meetings have been held successfully throughout 2020-2021. SPA staff are monitoring municipal and conservation authority plans across the CTC, as they explore safely and effectively returning to in-person or hybrid (some Members attend virtually/some in-person) meetings. At this time, it is suggested that electronic participation be allowed to continue (e.g., for continued emergency restrictions, health and safety considerations, inclement weather,

accommodating board members) in alignment with the revised Rules.

Report prepared by:

**Craig Jacques, Specialist, Watershed Plans and Source Water Protection,
Credit Valley Conservation**

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Date: September 13, 2021

Attachments: 1

Appendix A: Proposed amendments to CTC SPC Rules of Procedure

Attachment A



CTC Source Protection Committee

Rules of Procedure

Preamble

The functions and operation of the CTC Source Protection Committee (~~SPC~~the Committee) are governed by the *Clean Water Act, 2006* and Ontario Regulation 288/07. The following Rules of Procedure have been adopted by the CTC Source Protection Committee and authorized by ~~the the Toronto and Region~~lead Source Protection Authority (SPA) in accordance with the requirements of Section 14 of Ontario Regulation 288/07. These Rules of Procedure are based on the minimum requirements set out in the *Act* and regulations, with additional requirements that are necessary for the good governance and clarity of ~~committee~~Committee operations.

If necessary, additional Rules of Procedures or amendments to these Rules of Procedure may be made from time to time with the approval of 2/3 of the membership of the Source Protection Committee and authorization of the ~~Toronto and Region~~lead Source Protection Authority (~~TRSPA~~), pursuant to the requirements of the foregoing *Act* and regulation.

Ontario Regulation 284/07 identifies the Toronto and Region Source Protection Authority as the lead SPA for the CTC Source Protection Region. In 2020, the role of lead SPA was assumed by the Credit Valley Source Protection Authority.

1. General Items on Meetings

1.1. Chair

~~1.1.1.1.1.~~ 1.1.1.1.1. The Chair of the ~~S~~source ~~P~~protection ~~committee~~Committee shall preside at all meetings of the Committee;

~~1.1.2.1.2.~~ 1.1.2.1.2. If the Chair is absent or unable to act or the office of the chair is absent, the acting chair shall have the powers and shall perform all duties of the chair;

~~1.1.3.1.3.~~ 1.1.3.1.3. The Acting Chair will be selected by the members of the SPC (see subparagraph 5.1); and

~~1.1.4.1.4.~~ 1.1.4.1.4. The Chair of the ~~s~~source ~~p~~protection ~~committee~~Committee shall determine the time and location of the first meeting of the SPC.

1.2. Robert's Rule of Order

In all matters not regulated by these Rules of Procedure, that part of the latest edition of Robert's Rules of Order shall govern.

1.3. Agenda and Minutes

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- ~~1.3.11.3.1.~~ Full agenda with ~~committee~~Committee reports are to be sent to all members and CAOs of the three source protection authorities in the CTC Source Protection Region (SPR) via email a minimum of one week prior to the meeting; members without access to email will be sent a package via mail or fax or courier;
- ~~1.3.21.3.2.~~ CTC Source Protection Region (CTC SPR) municipalities and other interested parties will be notified by email at the same time as Committee members that the agenda package is available at the CTC SPR website (www.ctcswp.ca);
- ~~1.3.31.3.3.~~ Addenda (added items) to be sent out a minimum of two business days prior to the meeting; additional items may be dealt with at the meeting without prior circulation if they are considered to be a time sensitive matter;
- ~~1.3.41.3.4.~~ Draft minutes will be sent with the agenda for the next SPC meeting and will be posted on the CTC SPR website;
- ~~1.3.51.3.5.~~ Minutes once approved will be posted separately as Approved Minutes on the CTC SPR website;
- ~~1.3.61.3.6.~~ Minutes of in-camera sessions are also to be kept. These minutes are not available to the public, but form part of the official record of the CTC SPC; and
- ~~1.3.71.3.7.~~ At such time as a matter which was dealt with *in camera* is no longer confidential, then the minutes relating to that item shall become part of the public record and posted on the CTC SPR website.

1.4. Delegations and Presentations

- ~~1.4.11.4.1.~~ Parties wishing to make delegations should notify the secretary of the CTC SPC preferably 2 weeks in advance, but no later than three days prior to a scheduled meeting if the request is to be included in the agenda of that meeting;
- ~~1.4.21.4.2.~~ Delegations with written information for consideration of the Committee will provide same 2 weeks prior to the meeting in a digital form to facilitate electronic distribution and posting on the CTC SPR website;
- ~~1.4.31.4.3.~~ The request should comprise a brief statement of the issue or matters involved and indicate the names of the proposed speakers;
- ~~1.4.41.4.4.~~ Delegations are limited to 5 minutes;
- ~~1.4.51.4.5.~~ The purpose of a delegation is to make a deputation, not a presentation;
- ~~1.4.61.4.6.~~ Delegations are limited to one speaker per group sharing a common interest;
- ~~1.4.7~~ When the Chair of the SPC believes that a large number of delegations will request ~~1.4.7~~ an opportunity to address the SPC with respect to a particular matter or matters, the Chair may summon a special meeting of the SPC to deal with the particular matter or matters;
- ~~1.4.81.4.8.~~ Staff preparing any agenda shall:
 - ~~1.4.8.11.4.8.1.~~ List all requests received before the closing of the agenda in a section titled "Delegations" and indicate the source of the request and a brief description of the issue or matter involved; and
 - ~~1.4.8.21.4.8.2.~~ Provide an item at the end of the section of the agenda titled "Delegations" for the meeting to consider hearing any other delegation present.
- ~~1.4.8.21.4.9.~~ The Chair of the SPC or designate shall advise any person or organization applying for an opportunity to address the SPC and not having made a written request in accordance with paragraph 1.4.1, that the applicant may appear before such meeting, but will be heard only if approved by a ruling of the meeting under subparagraph 1.4.15. The SPC Chair or designate shall inform the applicant of the date, time and place of meeting, and obtain a brief statement of the issue or matter involved;
- ~~1.4.8.31.4.10.~~ No delegation, whether or not listed on the agenda pursuant to subparagraph

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1.4.1, shall be heard without a ruling by the Chair of the meeting giving leave, but such ruling may be immediately appealed by proper motion and the ruling of the meeting shall govern. A representative of a Council of a member municipality of the CTC Source Protection Region, duly authorized by resolution of such Council and any member of the SPC shall be heard by the SPC at the appropriate time as of right;

~~1.4.8.4.1.4.11.~~ If the number of delegations present pursuant to subparagraphs 1.4.4 and 1.4.10.2 wishing to address a particular matter or matters is such that the meeting will not be able to deal with its agenda properly, then, on proper motion, the particular matter or matters may be adjourned to a special meeting and, if the time, date and place of the special meeting is included in the motion, no further notice of such meeting will be required;

~~1.4.8.5.1.4.12.~~ Delegations shall be heard only when the meeting is dealing with the item "Delegations" on the agenda except that the meeting may, at that time, by proper motion defer the hearing of any specific delegation until the meeting is considering a particular item or matter;

~~1.4.8.6.1.4.13.~~ With respect to a delegation not listed on the agenda but desiring an opportunity to be heard pursuant to subparagraph 1.4.10.2 hereof, the procedure shall be:

~~1.4.8.7.1.4.13.1.~~ A motion shall be made by a member of the Committee that the delegation be added to the agenda;

~~1.4.8.8.1.4.13.2.~~ If such motion passes, the Chair may immediately rule that the hearing of the delegation would be unfair or prejudicial to members or other persons not present because of lack of advance notice and that the hearing of the delegation be deferred to the next meeting and listed on that agenda pursuant to subparagraph 1.4.10 hereof. The Chair's ruling may be immediately appealed by proper motion and the ruling of the meeting shall then govern;

~~1.4.8.9.1.4.13.3.~~ If the ruling in subparagraph 1.4.15.2 hereof is not made or sustained, the procedure in subparagraph 1.4.14 hereof shall be followed.

~~1.4.8.10.1.4.13.4.~~ Except by leave of the chair or on an appeal by the leave of the meeting:

~~1.4.8.11.1.4.13.4.1.~~ Each speaker shall be limited to five (5) minutes; and

~~1.4.8.12.1.4.13.4.2.~~ Each group of delegates having a common interest shall appoint one speaker to represent the group and such speaker shall be limited to five (5) minutes.

~~1.4.8.13.1.4.14.~~ Presentations are limited to 15 minutes plus discussion time; and

~~1.4.15.~~ Presentations are delivered by requested staff or invited guests.

~~1.4.1.5.~~ Schedule of Meetings

~~1.5.1.1.5.1~~ The Committee shall, at its first meeting, and every meeting, thereafter, establish a meeting schedule for at least the following six months, which shall include at least one meeting each month until proposed terms of reference are submitted to the SPA; and

~~1.5.2.1.5.2~~ The Committee shall give notice of ~~committee~~ Committee meetings to the public by publishing the current meeting schedule on the CTC SPR website and in such other manner as may be determined by the Committee.

~~1.5.3.~~ Notwithstanding the posted meeting schedule, if a storm or like occurrence will prevent the members from attending a meeting, the scheduled meeting may be postponed or held electronically, provided quorum and public participation can be met. Postponement shall not be for any longer than the next scheduled meeting date.

~~1.4.1.6.~~ Public and In Camera Meetings

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~~1.2.1.6.1.~~ All meetings of the ~~S~~source ~~P~~rotection Committee are open to the public, except where the Committee chooses to close a meeting or part of a meeting to the public where the subject matter to be discussed is a personal or financial matter about an identifiable individual or other matters listed in subparagraph 1.6.3;

~~1.3.1.6.2.~~ Where the Committee decides to close all or part of a meeting to the public, it must first pass a resolution that:

~~1.4.1.6.2.1.~~ States that the meeting or part of the meeting is closed to the public; and

~~1.5.1.6.2.2.~~ States the general nature of the subject matter to be discussed in camera.

~~1.6.1.6.3.~~ During any period where an emergency has been declared to exist in all or part of the CTC Source Protection Region (SPR), under section 4 or 7.0.1 of the Emergency Management and Civil Protection Act, staff shall implement best practices to make meetings of the CTC SPC open to the public in accordance with section 18(1) of Ontario Regulation 288/07 under the Clean Water Act, 2006. Where possible, CTC SPR staff shall provide for alternative means to allow the public to participate in any meetings electronically.

~~1.7.1.6.4.~~ Subject to subsection 1.6.3, in times of technological failure (e.g., Internet outage, system crash), failure to open a meeting to the public through means of electronic meeting participation does not call the meeting into question.

~~1.8.1.6.5.~~ All matters arising out of Committee meetings and supporting technical reports shall form part of the public record and shall be posted on the CTC SPR website.

~~1.9.1.6.5.1.~~ Exceptions to the foregoing include the following private matters consistent with the Municipal Freedom of Information and Privacy Act;

~~1.10.1.6.5.2.~~ Personal matters about an identifiable individual, including Source Protection Authority employees, ~~S~~source ~~P~~rotection Committee members or employees of municipalities within the CTC Source Protection Region;

~~1.11.1.6.5.3.~~ A proposed or pending acquisition or disposition of land by a Source Protection Authority or municipality within the CTC Source Protection Region;

~~1.12.1.6.5.4.~~ Labour relations or employee negotiations;

~~1.13.1.6.5.5.~~ Litigation or potential litigation, including matters before administrative tribunals, affecting the Source Protection Authority, the ~~s~~Source ~~P~~rotection Committee or municipality within the CTC Source Protection Region;

~~1.14.1.6.5.6.~~ Advice that is subject to solicitor-client privilege, including communications necessary for that purpose; and

~~1.15.1.6.5.7.~~ A matter in respect of which a Source Protection Authority or ~~S~~source ~~P~~rotection Committee, municipality within the CTC Source Protection Region or other body may hold a closed meeting under another Act.

1.7. Quorum

~~1.7.1.7.1.~~ Quorum of the ~~S~~source ~~P~~rotection ~~committee~~Committee is the Chair or the Acting Chair plus and at least two thirds of the number of members of the ~~committee~~Committee;

~~1.15.~~ Members who have given proxy notice, by sending the signed proxy notice via email or fax to the Committee secretary count towards quorum. In the case of emailed forms, electronic signatures are acceptable; and

~~1.7.2.~~

~~1.7.2.1.7.3.~~ One or more vacancies in the membership of a ~~S~~source ~~P~~rotection ~~committee~~Committee does not prevent the Committee from conducting business as long as the number of members remaining in office is sufficient to maintain quorum.

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1.8. Decision Making

- ~~1.8.1~~1.8.1. The Committee shall attempt to make decisions by consensus among the members;
- ~~1.8.2~~1.8.2. If the Chair determines that reasonable efforts have been made to achieve consensus, but the Committee has been unable to make a decision by consensus, the decision may be made by a vote of the two-thirds of the members present, not counting the Chair; and
- ~~1.8.3~~1.8.3. The Chair shall not vote.

1.9. Proxy to Meetings

- ~~1.9.1~~1.9.1. A member of the source protection ~~committee~~Committee may participate in the meetings of the Committee by proxy;
- ~~1.9.2~~1.9.2. Members participating by proxy must send by either fax or email or hand deliver a signed proxy form to the ~~committee~~Committee secretary or the other member who is to act on their behalf at a specific meeting. In the case of emailed forms, electronic signatures are acceptable;
- ~~1.9.3~~1.9.3. A proxy form should be delivered at least three business days prior to the meetings so that the presence of quorum can be determined;
- ~~1.9.4~~1.9.4. A separate proxy form is required for each meeting;
- ~~1.9.5~~1.9.5. The member who has been sent the proxy form is authorized to speak on behalf of the absent member on any agenda item and vote on any items on behalf of the absent member at that meeting;
- ~~1.9.6~~1.9.6. Members participating via proxy are not eligible to receive *per diem* payment for that meeting; and
- ~~1.9.7~~1.9.7. A member who participates via proxy at more than three consecutive meetings is deemed to not be attending Committee meetings regularly.

~~1.10.~~ 1.10 — ~~Virtual~~Electronic Meetings

- ~~1.10.1.~~ 1.10.1. ~~Electronic meetings are permitted and must follow/accommodate all Meeting Procedures identified in these Rules of Procedure.~~
- ~~1.10.2.~~ 1.10.2. ~~A Member can participate electronically in a meeting that is open or closed to the public and in either case may be counted in determining whether or not a quorum of members is present at any point in time. Electronic meetings must permit all participants to communicate adequately with each other during the meeting. For open electronic meetings, the public must be able to participate in the meeting electronically.~~

- ~~1.10.3.~~ 1.10.1 — ~~All meetings of the source protection committee are to take place in-person unless an emergent matter requires immediate direction from the committee, or d~~During any period where an emergency has been declared to exist in all or part of the CTC Source Protection Region, under section 4 or 7.0.1 of the Emergency Management and Civil Protection Act, that ~~would may prevent the preclude~~ Committee Members from meeting in person. ~~In such circumstances:~~

- ~~1.10.3.1.~~ 1.10.1.1 — Any Committee Member may participate in meetings electronically and shall have the ability to:

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- ~~1.10.3.1.1.~~ ~~(a) R~~ Register a vote;
- ~~1.10.3.1.2.~~ ~~(b) B~~ be counted towards determining quorum; and
- ~~1.10.3.1.3.~~ ~~(c) P~~ participate in a meeting that is open or closed to the public;

~~1.10.4.~~ ~~1.10.1.2~~ Staff will post direction on the CTC SPR website (www.ctcswp) one week in advance of the meeting advising external stakeholders and the public how to obtain the coordinates to participate in the virtual meeting.

22. Function of Members, Duties and Working Groups

2.42.1. Duties of Chair (or Acting Chair in the absence of the chair)

- ~~2.4.82.1.1.~~ Represent the Committee at such functions as warrant the interest of the ~~committee~~ Committee, except where this responsibility is specifically assigned to some other person;
- ~~2.4.92.1.2.~~ Liaise with designated staff in the day-to-day operation and administration of the Committee;
- ~~2.4.102.1.3.~~ Be "ex-officio", a member of all Working Groups, sub-~~committee~~ Committees and ad hoc Working Groups appointed from time to time by the Source Protection Committee; and
- ~~2.4.112.1.4.~~ Preside over the ~~s~~Source ~~P~~rotection ~~committee~~ Committee meetings.

2.52.2. Duties of Members

- ~~2.5.82.2.1.~~ Attend Committee meetings and training sessions;
- ~~2.5.92.2.2.~~ Become aware and knowledgeable of programs, projects, and activities of the Committee;
- ~~2.5.102.2.3.~~ Become members and/or Chair of working groups as designated by the SPC;
- ~~2.5.112.2.4.~~ Attend public information sessions and participate in public consultation forums;
- ~~2.5.122.2.5.~~ To keep the organizations/municipal group which they represent informed of ~~committee~~ Committee programs, projects and activities;
- ~~2.5.132.2.6.~~ Be prepared to discuss issues at all Committee meetings;
- ~~2.5.142.2.7.~~ Where warranted, and at the discretion of the Chair, request to engage technical staff in the discussion of items pertaining to the implementation of the CTC Source Protection Plan;
- ~~2.5.152.2.8.~~ Respect confidential information and abide by the process in place to safeguard confidential information; and
- ~~2.5.162.2.9.~~ Advise the ~~Toronto and Region~~ Lead Source Protection Authority as early as possible in advance of the member's pending change in eligibility to be a member of the Committee regarding subsections 7(1) to (3) of O. Reg. 288/07.

33. Duties of Source Protection Committee

- ~~3.13.1.~~ Oversee the preparation of Rules of Procedure including a Code of Conduct and Conflict of Interest policy within the required timeframe;
- ~~3.23.2.~~ Oversee the preparation and submission of a Terms of Reference in the prescribed manner and in keeping with Regulation 287/07 within the required timeframe;
- ~~3.33.3.~~ Oversee the preparation and submission of the Assessment Report in keeping with the Regulations, and technical guidance modules within the prescribed timeframe;
- ~~3.43.4.~~ Oversee the preparation and submission of a Source Protection Plan in keeping with the Regulations within the prescribed timeframe;

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- 3.53.5. Undertake public consultation as required by regulation;
- 3.63.6. Co-ordinate with the lead ~~source protection authority~~ Source Protection Authority the authorization of payment of accounts, awarding and entering into contracts where necessary;
- 3.73.7. Determine how and when working groups may be established;
- 3.83.8. Review and provide input on any new technical work for new drinking water systems;
- 3.93.9. Review annual reports and submit comments to the Source Protection Authority before submission to the Minister of the Environment and Climate Change; and
- 3.103.10. Oversee the preparation and submission of all workplans required to amend the CTC Source Protection Plan.

44. Liaison Members

The following persons may attend and participate in discussions at meetings of ~~the s~~ Source p ~~Protection committee~~ Committee including any meetings or part of a meeting that is closed to the public:

- 4.14.1. A person designated by the lead ~~source protection authority~~ Source Protection Authority in writing as a representative(s) of the authority;
- 4.24.2. A person designated by the Minister as a representative of the Ministry of the Environment, ~~Conservation and Parks (MECP) and Climate Change~~; and
- 4.34.3. A person designated by the Minister as a representative of the medical officers of health for the health units in which any part of the source protection area/source protection region is located.

55. Elections and Appointments

- 5.15.1. An Acting Chair will be elected by the members to act as the Chair in his or her absence; and
- 5.25.2. A member of the ~~S~~ s ~~source p~~ Protection ~~committee~~ Committee will be selected by the Committee to Chair each working group that the Committee establishes. If an election for this position as working group Chair is requested by any member, then it shall be conducted by secret ballot.

66. Terms of Appointment/Filling Vacancies

The term of appointment, rules for filling vacancies is governed by Section 7 of the *Clean Water Act, 2006* and Sections 8 and 9 of Ontario Regulation 288/07.

77. Removal of Members from Office

- 7.17.1. The rules governing the removal of a member from office is set out in Section 22 of Ontario Regulation 288/07 under the Clean Water Act, 2006;
- 7.27.2. The ~~Toronto and Region~~ lead Source Protection Authority may on its own, or by request of the Chair of the CTC Source Protection Committee remove a member following due process as set out in the regulation who:
 - 7.2.17.2.1. ~~H~~ H has failed to comply with a condition of appointment set out in Section 7 of the Regulation which pertains to residing, owning or renting land or being employed within the source protection region;
 - 7.2.27.2.2. ~~H~~ H has failed to comply with the Committee's Rules of Procedures, Code of Conduct or Conflict of Interest policy;
 - 7.2.37.2.3. ~~W~~ W who does not regularly attend meetings, i.e. misses more than three meetings in a row; or
 - 7.2.47.2.4. ~~F~~ F for other reasons which in the opinion of the Chair or the ~~lead source protection authority~~ Source Protection Authority warrant the member's removal from

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office.

~~7.37.3.~~ If a member is removed from office, the ~~Toronto and Region~~lead Source Protection Authority shall as soon as reasonably possible, appoint a replacement member in accordance with the Rules set out in the Act and regulation.

~~88.~~ Freedom of Information and Privacy

~~8.18.1.~~ The ~~S~~source ~~P~~rotection ~~committee~~Committee members shall be governed at all times by the provisions of the *Municipal Freedom of Information and Protection of Privacy Act (MFIPPA)*; and

~~8.28.2.~~ In the instance where a Committee member vacates their position on the ~~s~~Source ~~p~~rotection ~~committee~~Committee they will continue to be bound by *MFIPPA* requirements.

~~99.~~ Per Diems and Expenses

~~9.19.1.~~ The per diem for CTC SPC members is set at \$200 by the ~~Toronto and Region~~lead Source Protection Authority;

~~9.29.2.~~ CTC Source Protection Committee members will receive a per diem for:

~~9.2.19.2.1.~~ Each CTC Source Protection Committee meeting attended, including when the member arrives at a meeting that is subsequently cancelled due to lack of quorum or other reasons;

~~9.2.29.2.2.~~ Training sessions as identified by the Ministry of the Environment, ~~C~~onservation and Parks and Climate Change; and

~~9.2.39.2.3.~~ Other meetings where members have been assigned to represent the CTC Source Protection Committee (such as public consultation meetings, meetings with other source protection committees).

~~9.39.3.~~ There is no separate reimbursement beyond the per diem for preparation and travel time for meetings;

~~9.49.4.~~ Travel expenses, in the form of mileage, to and from meetings, will be reimbursed for members at the rate set out by the ~~Toronto and Region Conservation~~lead Source Protection Authority, as adjusted from time to time;

~~9.59.5.~~ Members are required to record their mileage on a form provided by the ~~TRSPA~~lead Source Protection Authority and reimbursement will be paid out twice yearly (March and September);

~~9.69.6.~~ Payment will be automatically deposited into members' bank accounts; and

~~9.79.7.~~ Payment for attendance at meetings other than the SPC and ~~MOECC-MECP~~ training sessions will require the prior approval of the Chair.

~~1010.~~ Indemnity

~~10.110.1.~~ The ~~Toronto and Region~~lead Source Protection Authority is responsible for acquiring and maintaining insurance coverage for Committee members in keeping with Section 99 of the Clean Water Act, 2006, that:

~~10.210.2.~~ ~~k~~Keeps every member of the Committee and his/her heirs, executors, administrators and estate and effects respectively shall from time to time and at all times indemnified and saved harmless out of the funds of the Committee from and against all costs charges, and expenses whatsoever which member of the ~~committee~~Committee sustains or incurs in or about any action, suit or proceeding which is brought, commenced, or prosecuted against him for or in respect of any act, deed, matter or thing whatsoever made, done or permitted by him/her in or about the execution of the duties of his/her office; and

~~10.310.3.~~ ~~C~~covers all other costs, charges and expenses he or she sustains or incurs in or about or

Attachment A

in relation to the affairs thereof, except such costs, charges or expenses as are occasioned by his/her own willful neglect or default.

11.11. Media Contact

11.11.1. Members shall consult with the Chair in advance and provide written information as soon as possible afterwards on any media interviews, including the name of media outlet, person doing interview, date of expected publication/broadcast, the questions asked and answers given;

11.211.2. The Chair is the designated spokesperson on behalf of the Committee unless another member is assigned the responsibility by the Chair;

11.311.3. If a member is the designated spokesperson on any matter, they must speak on behalf of the Committee as a whole; and

11.411.4. If a member is not the designated spokesperson, then they must clarify for the media that they are speaking only for themselves.

12.12. Source Protection Authority

12.1—~~Subject to annual confirmation of funding~~Through funding from the Province of Ontario specifically for these purposes, the

12.1. ~~lead source protection authority~~Source Protection Authority is responsible for:

12.1.112.1.1. ~~pro~~Providing administrative support and funding for the operations of the CTC SPC, including paying *per diems* and mileage costs per paragraph 9;

12.1.212.1.2. ~~O~~btaining and maintaining insurance coverage per paragraph 10;

12.1.312.1.3. ~~P~~aying for technical work on behalf of the Committee according to the provincially approved Terms of Reference, including transfers to municipalities, conservation authority staff and consultants;

12.1.412.1.4. ~~M~~aintaining the CTC SPR website, including posting all mandatory information, information as directed by the Committee or on behalf of the CTC Source Protection Region;

12.1.512.1.5. ~~M~~aintaining Committee's files and records;

12.1.612.1.6. ~~R~~esponding to any requests under the *Municipal Freedom of Information and Privacy Act* for information related to the Committee's operations; and

12.1.712.1.7. ~~a~~Any other duties required under the *Clean Water Act, 2006* and associated regulations, e.g. appointing members of the SPC, approving Rules of Procedure, etc.

12.212.2. In accordance with the Memorandum of Agreement amongst the source protection authorities in the CTC Source Protection Region, ~~each~~ source protection authoritySource Protection Authority is responsible for:

12.2.112.2.1. ~~pro~~Providing technical support to the Committee to undertake technical work under the current provincially-approved work plans as well as work assigned by the Committee under the provincially approved Terms of Reference reviewing;

12.2.212.2.2. ~~C~~ommenting on Terms of Reference, Assessment Report and Source Protection Plans;

12.2.312.2.3. ~~S~~ending these products to the Province for approval, along with other comments received from public consultations and municipal council resolutions; and

12.2.412.2.4. ~~a~~Any other duties required under the *Clean Water Act, 2006* and associated

Attachment A

regulations.

DRAFT

TO: Chair and Members of the Source Protection Committee Meeting #3/21

DATE: September 21, 2021

FROM: Janet Ivey, Chief Specialist, Watershed Plans and Source Water Protection, Credit Valley Conservation

RE: CTC Program Update

KEY ISSUE

A CTC Source Protection Region program update.

RECOMMENDATION

IT IS RECOMMENDED THAT the CTC Source Protection Committee receive the staff report CTC Program Update for information.

REPORT

Committee Member Re-Appointments and Recruitment

Beginning in April 2021, CTC program staff initiated a recruitment process to fill gaps in the membership of the Source Protection Committee (SPC). New and re-appointed members have been endorsed by the Credit Valley Source Protection Authority.

Program staff welcome new citizen-at-large members Ken Dion and Jeff Light, and new member Elvis Oliveira, Director, Water and Wastewater Infrastructure Planning, Partnerships & Compliance, Region of Peel, representing Peel Region, City of Brampton, Town of Caledon, and City of Mississauga.

We are grateful to the following members returning for another 5-year term:

- Chris Gerrits, Deputy Mayor, Township of Amaranth and Councillor, County of Dufferin, reappointed to represent the Towns of Mono and Orangeville, Dufferin and Simcoe Counties, and the Townships of East Garafraxa, Amaranth, and Adjala-Tosorontio.
- Lee Gould, Executive Director, Smart About Salt Council, representing the economic sector (winter maintenance).
- Geoff Maltby, representing the economic sector (agriculture).
- Rosemary Keenan, representing the public interest sector.

An updated list of SPC members is included as **Attachment A**.

Following these appointments, there remain three vacant positions on the SPC: two public interest sector (1 citizen at large, 1 environmental nongovernmental organization) and one economic sector (aggregate industry). An additional economic sector position, held by Deon Bridge representing the petroleum industry,

is expected to become vacant later in 2021. A second phase of recruitment has been launched to fill the remaining public interest and economic sector positions, including a notice posted to ctcswp.ca, a social media campaign, and outreach to industry associations.

Recruitment of a new representative is underway to replace Mahesh Patel, Manager, Healthy Environments, Toronto Public Health, whose term ends September 23, 2021.

Lake Ontario Collaborative Group

Through the Lake Ontario Collaborative Group (LOCG), Peel and Durham Regions and the City of Toronto collaborate with the Ministry of Environment, Conservation and Parks and Environment and Climate Change Canada on projects to protect the western basin of Lake Ontario as a source of drinking water. Key projects include improving instrumentation and monitoring of nearshore circulation and water quality and developing a hydrodynamic model and decision support system for spills. In 2021, the Canadian Water Network was engaged by municipal members to support the LOCG's work and will be reconvening the Technical Committee over the coming year.

Transport Pathways – Credit Valley Pilot Study

A transport pathway is an anthropogenic feature at or below ground surface that increases the vulnerability of drinking water supply sources, by circumventing the natural protection provided by overlying soil or rock. When the CTC Assessment Reports were approved in 2015, only pits and quarries were included as identified transport pathways; and it was recognized that additional work needed to be done to identify and include other types of transport pathways. The objective of this study is to create the consistent methodology to identify different types of transport pathways in WHPAs within the Credit Valley Source Protection Area. A draft methodology has been developed and undergone several review phases by municipal and CA staff since late 2020. On June 28th, an overview of the study was brought to the Amendments Working Group; while initial results were presented to the Municipal Implementation Working Group on July 14th and subsequently distributed to municipal staff for their review. Next steps included further revising the methodology and follow-up discussions on initial results with municipal staff this fall. A report to the Committee to consider endorsement of the method for use across the CTC will be brought to an upcoming SPC meeting.

Highly Vulnerable Aquifers – Municipal Workshop

Highly Vulnerable Aquifers (HVAs) are one of four types of vulnerable areas identified in source protection areas. Provincial technical rules allow for four methods for delineating HVAs. HVAs were mapped for the 2015 assessment reports using an aquifer vulnerability index (AVI), a method that measures the relative amount of protection provided by the type of materials above the aquifer (e.g., depth to aquifer, soil type and thickness). As municipalities undertake technical work to support planned changes to municipal drinking water systems, new mapping products and numeric modelling tools may become available to update HVA mapping. A workshop with municipal and source protection authority staff was

held on August 26th to receive a presentation on Durham Region’s draft HVA mapping, developed using a surface to aquifer advection time (SAAT), a method that considers the travel time from ground surface to the top of aquifer or water table. Discussions continue with municipalities to determine whether additional updates to HVA mapping are needed and what method(s) could be employed.

Upcoming Changes to Municipal Water Systems

Under section 34 of the *Clean Water Act, 2006*, a source protection authority may propose amendments to assessment reports and the source protection plan under certain circumstances, including when a municipality intends to apply for a new, replacement, or altered municipal drinking water system under section 32 of the *Safe Drinking Water Act*. Changes to drinking water systems need to be incorporated into approved assessment reports for the source protection plan policies to apply. Updated timelines for anticipated amendments within the CTC Source Protection Region are presented in Table 1. Staff will continue to work with municipalities to support completion of technical work and provide updates to the Committee on the status of anticipated amendments.

Proposed amendments to the Toronto and Region Assessment Report and CTC Source Protection Plan for the Newmarket-Aurora wellfields were submitted to the Ministry of the Environment, Conservation and Parks for review and approval in August 2021, as described in a report to the CTC Source Protection Committee on November 23, 2020.

Table 1. Anticipated timeline of upcoming CWA s. 34/s. 36 updates

Drinking Water System	Anticipated Timeline		
	Pre-Consultation	Public Consultation	Submission Date
York Region (Stouffville well 3) issue contributing area for Na and Cl	Early 2022	2022	2022-2023
Peel Region (Palgrave, Caledon East, Caledon Village)	Mid-2022	Late 2022	2022-2023
Town of Erin water supply	Mid-2022	2022	2022-2023
Town of Orangeville new water supply (Pullen well)	Mid-2022	2022	2022-2023
New Toronto Island intakes	2022	2022	2022-2023
Durham Region groundwater model update (Uxville WHPAs, highly vulnerable aquifers, significant groundwater recharge areas) – s. 36	2023-2024	2024	2024

York Region (Nobleton Water and Wastewater Class EA)	2024	2024	2024
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Website Update

Since the March 23rd, 2021, SPC meeting, SPA staff have been working to update the ctcswp.ca website to ensure currency and compliance with the *Clean Water Act, 2006*. These revisions include:

- posting of the updated Credit Valley Assessment Report to reflect the approved 2019 "Alton" s.34 revisions and associated Source Protection Plan (SPP) updates
- posting of the 2020 Annual Progress Report on SPP implementation
- information supporting SPC recruitment efforts
- correcting figures, text and links that were outdated or non-functional

Forthcoming revisions include:

- SPC membership/biographies
- ensuring all required content posted
- advancing compliance with the *Accessibility for Ontarians with Disabilities Act, 2005*

Proposed upcoming meeting schedule

Dec. 7th, 2021 1 p.m.
 Feb. 15th, 2022 1 p.m.
 Mar. 22, 2022 1 p.m.
 Format to be determined

Report prepared by:

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Date: September 13, 2021

Attachments: 1

ATTACHMENT A: CTC Source Protection Committee

ATTACHMENT A: CTC SOURCE PROTECTION COMMITTEE

Per section 10 of Ontario Regulation 288/07, this summary serves as the **Notice of CTC Source Protection Committee Member Appointments**.

Chair: Douglas Wright, Appointed in August 2020 by the Minister of the Environment, Conservation and Parks; Appointment expires August 2022.

Municipal Sector Representatives		Date of Appointment	Appointment Expiry
Chris Gerrits	Municipal Sector	September 23, 2016	September 23, 2021
David Kentner	Municipal Sector	June 21, 2019	June 20, 2024
Scott Lister	Municipal Sector	June 21, 2019	June 20, 2024
Frank Quarisa	Municipal Sector	June 21, 2019	June 20, 2024
Mahesh Patel	Municipal Sector	September 23, 2016	September 23, 2021
John Presta	Municipal Sector	June 21, 2019	June 20, 2024
VACANT	Municipal Sector	-	-
Economic Sector Representatives			
Deon Bridge	Petrochemical/Petroleum Sector	June 21, 2019	June 20, 2024
Dan Bunner	Chemical Sector	June 21, 2019	June 20, 2024
Lee Gould	Road Salt Sector	September 23, 2016	September 23, 2021
Louise Foster	Land Development Sector	June 21, 2019	June 20, 2024
Geoff Maltby	Agriculture Sector	September 23, 2016	September 23, 2021
Gary Mountain	Agriculture Sector	June 21, 2019	June 20, 2024
VACANT	Aggregate Sector	-	-
Public Sector Representatives			
Julie Abouchar	Citizen-At-Large	June 21, 2019	June 20, 2024
Ken Dion	Citizen-At-Large	September 10, 2021	September 10, 2026
Rosemary Keenan	ENGO	September 23, 2016	September 23, 2021
Jeff Light	Citizen-At-Large	September 10, 2021	September 10, 2026
Peter Miasek	Citizen-At-Large	June 21, 2019	June 20, 2024
VACANT	Citizen-At-Large	-	-
VACANT	ENGO	-	-

TO: Chair and Members of the Source Protection Committee Meeting #3/21

DATE: September 21, 2021

FROM: Janet Ivey, Chief Specialist, Watershed Plans and Source Water Protection, Credit Valley Conservation

RE: Review of DNAP and OS Policies of the CTC Source Protection Plan

KEY ISSUE

A proposal to amend the CTC Source Protection Plan policies for dense non-aqueous phase liquids (DNAPLs) and organic solvents (OS).

RECOMMENDATION

IT IS RECOMMENDED THAT the CTC Source Protection Committee receive the staff report Review of DNAP and OS Policies of the CTC Source Protection Plan for information.

AND FURTHER THAT the CTC Source Protection Committee direct Source Protection Authority staff to prepare an amendment to DNAP-1 consistent with the direction provided by the Committee.

REPORT

Background

Organic solvents are liquid organic compounds with the power to dissolve solids, gases, or liquids; and most have lower density than water (will float on top). Organic solvents are typically used in industrial and commercial applications but can also be found in small quantities in common household products such as paints, adhesives, degreasers, and cleaning agents. The handling and storage of organic solvents can pose a significant threat to drinking water sources depending on location within the wellhead protection area, chemicals of concern in the solvent, and the quantity and method of storing the solvent. The provincial Tables of Drinking Water Threats identify four organic solvents of concern:

- carbon tetrachloride,
- chloroform,
- methylene chloride (dichloromethane), and
- pentachlorophenol.

Dense non-aqueous phase liquids (DNAPLs) are liquids that are denser than water, will not easily dissolve in water, and when spilled are very difficult to remove as they sink below the water table and penetrate deep into the groundwater system. The handling and storage of any amount of DNAPLs is considered a significant drinking water threat anywhere within the wellhead protection area up to a 5-year

time-of-travel (WHPA-A, B, and C) and for areas with a vulnerability score of 10 within an intake protection zone (IPZ) and wellhead protection area for wells under the direct influence of surface water (WHPA-E). The provincial Tables of Drinking Water Threats identify five DNAPLs of concern:

- dioxane-1,4,
- one or more polycyclic aromatic hydrocarbons (PAHs),
- tetrachloroethylene (PCE),
- trichloroethylene or another DNAPL that could degrade to trichloroethylene, and
- vinyl chloride or another DNAPL that could degrade to vinyl chloride.

As an indication of the toxicity of these chemicals, the Ontario Drinking Water Standards (Ontario Regulation 169/03) for some are summarized in **Table 1**.

TABLE 1: ONTARIO DRINKING WATER STANDARDS (O. REG 169/03) FOR SELECTED DNAPLS AND ORGANIC SOLVENTS.

Chemical parameter	Standard (mg/L)
carbon tetrachloride	0.002
dichloromethane	0.05
pentachlorophenol	0.06
tetrachloroethylene	0.01
trichloroethylene	0.005
vinyl chloride	0.001

In practice, organic solvents and DNAPLs often are found in solution or mixtures, a situation not directly addressed by the Tables of Drinking Water Threats. Further, the provincial *Technical Bulletin: DNAPLs and Organic Solvents* (Ontario, August 2011) notes that some chemicals that behave as DNAPLs and organic solvents have been classified in the Tables of Drinking Water Threats only as organic solvents, rather than DNAPLs. The overlap has generated discussion, but not been resolved.

The CTC Source Protection Plan (the Plan) policy framework prohibits future significant drinking water threats from DNAPLs and organic solvents. Existing (in 2015) significant threats from these chemicals are to be addressed by risk management plans (RMPs). Education and outreach policies target individuals and industrial and commercial users of these chemicals. The education and outreach policy, DNAP-2, is the only policy that addresses significant DNAPL threats for quantities described as "incidental for personal use". Non-legally binding policies direct municipalities to promote best practices for handling and storage of these chemicals in areas where they would be moderate or low drinking water threats. Current DNAPL and OS policies are reproduced in **Attachment A**. The Explanatory Document for the CTC Source Protection Plan describes the rationale for this policy framework.

In 2015, when the Plan was approved, 283 significant DNAPL and 68 significant organic solvent threats were enumerated within vulnerable areas in the CTC Source

Protection Region (the CTC Region). At the end of 2020, municipalities reported 70% of existing DNAPL and 55% of existing organic solvent significant threats had been addressed through implementation of the Plan. RMPs had not yet been completed for 35 existing DNAPL and 4 existing organic solvent significant threats, mostly in Halton Region and the Town of Orangeville.

General RMP implementation challenges identified by municipalities include the time-consuming nature of the threat verification and RMP negotiation process, the priority placed on RMPs initiated through the land use planning and building permit process, additional complexities in negotiating agricultural RMPs (seasonal availability, multiple threats, regulatory burden), and COVID-19 pandemic impacts. The Ministry of the Environment, Conservation and Parks has approved a 3-year extension to the deadline to complete RMPs for existing significant threats to December 31, 2023.

All municipalities reported having implemented the education and outreach policies (DNAP-2 and OS-2) and about half have implemented the voluntary policies for moderate/low threats (DNAP-3 and OS-3).

In 2017-2018, during development of the work plan for a comprehensive review of the Plan (under section 36 of the *Clean Water Act, 2006*), the Amendments Working Group identified a need to review the DNAP (-1, -2, -3) and OS (-1, -2 -3) policies. In particular, the review was to determine:

1. Whether future prohibition of DNAPLs and organic solvents is necessary or whether a risk management approach would achieve the desired result more efficiently; and
2. Whether a clearer exception for small quantities of DNAPLs and organic solvents should be added to the policies to exclude situations where the storage and handling of these materials are unlikely to result in a risk to sources of drinking water.

Policy Review

CTC Source Protection Authority staff have undertaken a review of the CTC DNAP and OS policies and considered policies from 7 other source protection regions (SPRs), with a focus on neighbouring regions and those that have recently reviewed or amended DNAPL or organic solvent policies. CTC staff have also consulted with the Amendments Working Group and Municipal Implementation Working Group on potential changes.

The jurisdiction scan found that most SPRs have a policy framework similar to the CTC Region, prohibiting future significant threats and employing a risk management approach for existing threats. However, some regions' policies identify a volumetric threshold that informs applicability of education and outreach, risk management, or prohibition approaches. Some regions' policies vary by type of DNAPL (e.g., allowing a risk management approach for PAHs whereas prohibition is required for other DNAPLs).

South Georgian Bay Lake Simcoe Source Protection Region (SGBLS SPR) is also reviewing DNAPL policies and related implementation challenges (for reference: SGBLS SPR [Staff Report Number: SPC-2020-03-01](#)). Its review found there are gaps in existing processes to prohibit new businesses using DNAPLs from being established in vulnerable areas. For example, change-of-use permits under the Ontario Building Code are not always triggered if the occupancy classification does not change when businesses change (e.g., a shoe store changing to a paint store would not trigger a permit) and is sometimes triggered only after a new use has already started.

Further, SGBLS SPR notes that implementing a prohibition on DNAPLs is extremely difficult because the business or the activity itself is not prohibited (e.g., auto repair), rather the handling and storage of DNAPL-containing products is prohibited. As a result, constant oversight is needed to ensure DNAPLs are not being used or stored. In contrast, if a Risk Management Plan is used, measures are put in place (i.e., spills response, training, proper disposal, etc.). Further, risk management plans may have the effect of mitigating the potential risks from other chemicals that may be present but not managed under the source water program. Therefore, a shift from a prohibition to risk management approach for future threats may mitigate the potential for changeover in businesses to be missed, resulting in introduction of new threats, and have the effect of greater protection of drinking water sources.

The CTC policy review was presented as a work-in-progress to the Amendments Working Group on June 28, 2021. Key points made during the discussion included:

- The COVID-19 pandemic continues to impact progress in development of RMPs for existing significant threats and the associated economic impacts may result in a wave of changeover in businesses.
- Within the CTC Region, new businesses using DNAPLs have begun operating in vulnerable areas before risk management officials (RMOs) were made aware and where, as a future threat, the activity should have been prohibited.
- There was general support to consider prohibition of future threats in the areas closest to municipal drinking water wells, and a risk management approach further out. Prohibition could be considered for specific types of DNAPLs or activities. Finally, there was support for clarifying the existing policy reference to “incidental quantities for personal use” with a 25L volume threshold.
- The proposed amendments to the Director’s Technical Rules ([ERO number 019-2219](#)) includes a list of activities where DNAPLs are likely stored or handled. If the proposed amendment is approved, the list may be used voluntarily by RMOs to assist in identifying businesses to which the DNAP and OS policies apply or in updating threat enumerations. It was noted that the list is not comprehensive and is missing some types of businesses that may use these chemicals (e.g., chemical processing and manufacturing). The list does not resolve a previously noted overlap between organic solvents and DNAPLs.

A policy discussion was brought forward to the July 14, 2021, meeting of the CTC Municipal Implementation Working Group. The group reviewed policy amendment options for DNAP-1 and OS-1, including establishing a minimum volume (25L) to clarify “incidental quantities for personal use” and adoption of an RMP approach for future significant threats in WHPA-C and -E (VS=10) for DNAPs and in WHPA-B (VS =10) and -E (VS=10) for organic solvents. No changes were proposed for policies DNAP-2, -3 and OS-2, -3. Through discussion:

- There was broad support for amending the DNAP-1 policy to replace “incidental quantities for personal use” with a 25 L threshold for future and existing significant threats.
- There was broad support for prohibiting future significant threats from DNAPs in WHPA-A and -B and adopting a risk management approach for future significant threats in WHPA-C and -E (VS=10).
- There was some support for prohibiting future significant threats from organic solvents in WHPA-A and adopting a risk management approach for future significant threats in WHPA-B (VS=10) and -E (VS=10).
- There was some interest in maintaining prohibition policies for all future significant threats for large quantities of DNAPs (i.e., establishing a volumetric threshold for “large quantities”).
- There was some interest in prohibiting future threats from some types of DNAPs and allowing a risk management approach for other types (e.g., as Wellington County has done in the Lake Erie Source Protection Region for PAHs).

CTC staff undertook further research and review and developed a draft policy proposal that was circulated for review by the Amendments Working Group in August 2021. The proposal included the following changes to DNAP-1:

- Replacement of “incidental quantities for personal use” with a 25L volume threshold to clarify when a significant threat (existing or future) is managed by DNAP-1 (prohibition/risk management) or DNAP-2 (education/outreach). Twenty-five litres is consistent with the lowest quantity threshold for the handling and storage of organic solvents identified in the 2017-2018 table of drinking water threats. The volume is also consistent with surveys undertaken in some SPRs that suggest 25L is a practical threshold based on visits to actual properties with DNAPs. This will allow risk management officials to focus on volumes of greatest concern.
- Introduction of a 25-250L volume category for future significant threats. This would ensure large quantities of DNAPs (>250L) remain prohibited wherever they would be a significant threat. It would also allow a hybrid approach for DNAPs of volumes 25-250L whereby they are prohibited up to the 2-year time of travel and addressed by risk management plans beyond. The 250L threshold is consistent with one of the thresholds for the handling and storage of organic solvents identified in the 2017-2018 table of drinking water threats. A partial shift from a prohibition to risk management approach for future threats may mitigate the potential for missed changeover in businesses to result in the introduction of new threats, with the effect of greater protection of drinking water sources.

Comments on the policy proposal were received from 7 members of the Amendments Working Group. There was general support for introduction of the 25 and 250L volume thresholds and a hybrid risk management/prohibition approach for future significant threats. Additionally, three reviewers suggested greater alignment between DNAP and OS policies as they relate to storage of chemicals above or below grade. A reviewer suggested considering a risk management approach specifically for above-grade storage of PAHs >250L in WHPA-B and -C (future significant threats). Another reviewer noted that the table of drinking water threats already accounts for varying levels of risk presented by different types of DNAPLs, recommending a common policy approach for all DNAPLs.

Policy Alternatives and Discussion

Attached **Table 2** presents a track-changes draft of proposed changes to DNAP-1 for discussion by the CTC SPC. The proposed changes to the policy are consistent with those reviewed by the Amendments Working Group and are intended to address the implementation challenges noted above.

No changes are proposed to DNAP-2 and -3 or the OS policies. CTC staff recommend no changes to OS-1, as the volume of organic solvents already is considered in determination of significant threats per the 2017-2018 table of drinking water threats. More discussion is required to identify barriers to the implementation of DNAP-3 and OS-3 (voluntary policies for low to moderate threats).

Members of the CTC Source Protection Committee are requested to consider the following discussion questions:

1. Is there support for the draft revised DNAP-1 policy proposed in **Table 2**?
 - a. Is there support for introduction of volume-based thresholds to determine when DNAPLs will be managed by prohibition, risk management, or education and outreach?
 - b. Is there support for adopting a risk management approach for DNAPLs of a total volume of 25-250L (future significant threats) in WHPA-C and -E?

The following policy suggestions were proposed for further discussion by members of the Amendments Working Group upon review of the changes proposed in **Table 2**:

2. Regarding alignment of DNAP-1 with circumstances for above-ground storage of organic solvents: Is there support for adopting a risk management approach for DNAPLs of a total volume of 25-250L (future significant threats)?
 - a. stored above-grade in WHPA-A and -B; and
 - b. stored above-grade, below-grade, or partially below-grade in WHPA-C and -E.
3. Is there support for adopting a risk management approach specifically for above-grade storage of PAHs of a total volume >250L in WHPA-B and -C (future significant threats)?

Summary and Next Steps

Based on discussions of the CTC SPC on the draft revised DNAP-1 policy presented in this report, and further consultation with the Amendments Working Group if needed, CTC staff will finalize a proposed amendment to DNAP-1 for consideration by the CTC SPC at the next meeting in December 2021. Minor revisions to DNAP and OS policies to remove or clarify references to vulnerability scoring will be included where appropriate. Through discussion with the Amendments Working Group and the MECP, a timeline for amending the DNAP/OS policies in the CTC SPP will be determined (i.e., may proceed with an upcoming s. 34 amendment or as part of the comprehensive s. 36 amendment in 2024-2025).

Report prepared by:

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Date: September 13, 2021

Attachments: 2

Table 2: Proposed changes to policy DNAP-1 for discussion by the CTC SPC

Attachment A: CTC Source Protection Plan Policies (approved December 5, 2019)

Table 2: Proposed Changes To Policy DNAP-1 For Discussion By The CTC SPC.

Policy ID	Threat Description	Implementing Body	Legal Effect	Policy	Where Policy Applies	When Policy Applies	Related Policies	Monitoring Policy
DNAP-1	Handling and Storage of a Dense Non-Aqueous Phase Liquid	RMO	G	<p>Part IV, s.57, s.58</p> <p>Where the handling and storage of a DNAPL is, or would be, a significant drinking water threat, the following actions shall be taken:</p> <p>1) a) The handling and storage of a DNAPLs of a total in any quantity of 250L or greater (excluding incidental quantities for personal use) is designated for the purpose of s.57 under the <i>Clean Water Act</i>, and is therefore prohibited where the threat would be significant in any of the following areas:</p> <ul style="list-style-type: none"> • WHPA-A (future); or • WHPA-B (future); or • WHPA-C (future); or • WHPA-E (VS - 10) (future). <p>b) The handling and storage of DNAPLs of a total quantity of 25L or greater, but less than 250L, is designated for the purpose of s.57 under the Clean Water Act, and is therefore prohibited where the threat would be significant in any of the following areas:</p> <ul style="list-style-type: none"> • WHPA-A (future); or • WHPA-B (future). <p>c) The handling and storage of DNAPLs of a total quantity of 25L or greater, but less than 250L, is designated for the purpose of s.58 under the Clean Water Act, requiring risk management plans, where the threat would be significant in any of the following areas:</p> <ul style="list-style-type: none"> • WHPA-C (future); or • WHPA-E (future). 	See Maps 2.1 - 2.21	Future: Immediately (T-5)	GEN-1	MON-2
			H	<p>2) The handling and storage of a) DNAPLs of a total quantity of 25L or greater in any quantity (excluding incidental quantities for personal use) is designated for the purpose of s.58 under the <i>Clean Water Act</i>, requiring risk management plans, where the threat is significant in any of the following areas:</p> <ul style="list-style-type: none"> • WHPA-A (existing); or • WHPA-B (existing); or • WHPA-C (existing); or • WHPA-E (VS - 10) (existing). 		Existing: 1 year/ 5 years (T-6)	GEN-1 GEN-2	MON-2

Attachment A: CTC Source Protection Plan Policies (approved December 5, 2019)

Policy ID	Threat Description	Implementing Body	Legal Effect	Policy	Where Policy Applies	When Policy Applies	Related Policies	Monitoring Policy
DNAP-1	Handling and Storage of a Dense Non-Aqueous Phase Liquid	RMO	G	<p>Part IV, s.57, s.58</p> <p>Where the handling and storage of a DNAPL is, or would be, a significant drinking water threat, the following actions shall be taken:</p> <p>1) The handling and storage of a DNAPL in any quantity (excluding incidental quantities for personal use) is designated for the purpose of s.57 under the <i>Clean Water Act</i>, and is therefore prohibited where the threat would be significant in any of the following areas:</p> <ul style="list-style-type: none"> • WHPA-A (future); or • WHPA-B (future); or • WHPA-C (future); or • WHPA-E (VS = 10) (future). 	See Maps 2.1 - 2.21	Future: Immediately (T-5)	GEN-1	MON-2
			H	<p>2) The handling and storage of a DNAPL in any quantity (excluding incidental quantities for personal use) is designated for the purpose of s.58 under the <i>Clean Water Act</i>, requiring risk management plans, where the threat is significant in any of the following areas:</p> <ul style="list-style-type: none"> • WHPA-A (existing); or • WHPA-B (existing); or • WHPA-C (existing); or • WHPA-E (VS = 10) (existing). 		Existing: 1 year/ 5 years (T-6)	GEN-1 GEN-2	MON-2

Policy ID	Threat Description	Implementing Body	Legal Effect	Policy	Where Policy Applies	When Policy Applies	Related Policies	Monitoring Policy
DNAP-2	Handling and Storage of a Dense Non-Aqueous Phase Liquid	Municipality MOECC	E K	<p>Education and Outreach</p> <p>The municipality shall deliver education and outreach materials and programs where the handling and storage of a DNAPL is, or would be, a significant drinking water threat, targeted towards:</p> <p>a) an individual for personal use to promote the use of non-toxic products and additional opportunities for participation in household hazardous waste disposal and to advise the owner/tenant about the actions to take to ensure that the activity ceases to be, or does not become, a significant drinking water threat; and</p> <p>b) industrial and commercial users to promote the use of alternatives to DNAPLs (including non-toxic products), pollution prevention approaches, best management practices, and safe disposal; in any of the following areas:</p> <ul style="list-style-type: none"> • WHPA-A (existing, future); or • WHPA-B (existing, future); or • WHPA-C (existing, future); or • WHPA-E (VS = 10) (existing, future). <p>Where appropriate education and outreach materials prepared by the Ministry of the Environment and Climate Change are available, the municipality shall deliver those materials.</p>	See Maps 2.1 - 2.21	Existing & Future: Implement within 2 years (T-10)	GEN-8	MON-1 MON-4

Policy ID	Threat Description	Implementing Body	Legal Effect	Policy	Where Policy Applies	When Policy Applies	Related Policies	Monitoring Policy
DNAP-3	Moderate/Low Threats Handling and Storage of a Dense Non-Aqueous Phase Liquid	Municipality	J	<p>Specify Action</p> <p>Where the handling and storage of a DNAPL is, or would be, a moderate or low drinking water threat, the municipality is encouraged to specify and promote best management practices for the handling and storage of a DNAPL for Industrial, Commercial and Institutional (ICI) land uses in any of the following areas:</p> <ul style="list-style-type: none"> • WHPA-D (existing, future); or • WHPA-E (VS ≥ 4.8 and <10) (existing, future); or • HVA (existing, future); or • SGRA (VS = 6) (existing, future). 	See Chapter 5 of the respective Assessment Report	Existing & Future: Consider within 2 years (T-15)	N/A	N/A

Policy ID	Threat Description	Implementing Body	Legal Effect	Policy	Where Policy Applies	When Policy Applies	Related Policies	Monitoring Policy
OS-1	Handling and Storage of an Organic Solvent	RMO	G	<p>Part IV, s.57, s.58</p> <p>Where the handling and storage of an organic solvent is, or would be, a significant drinking water threat, the following actions shall be taken:</p> <p>1) The handling and storage of an organic solvent is designated for the purpose of s.57 under the <i>Clean Water Act</i>, and is therefore prohibited where the threat would be significant in any of the following areas:</p> <ul style="list-style-type: none"> • WHPA-A (future); or • WHPA-B (VS = 10) (future); or • WHPA-E (VS = 10) (future). 	See Maps 1.1 - 1.21	Future: Immediately (T-5)	GEN-1	MON-2
			H	<p>2) The handling and storage of an organic solvent is designated for the purpose of s.58 under the <i>Clean Water Act</i>, requiring risk management plans, where the threat is significant in any of the following areas:</p> <ul style="list-style-type: none"> • WHPA-A (existing); or • WHPA-B (VS = 10) (existing); or • WHPA-E (VS = 10) (existing). 		Existing: 1 year/ 5 years (T-6)	GEN-1 GEN-2	MON-2

Policy ID	Threat Description	Implementing Body	Legal Effect	Policy	Where Policy Applies	When Policy Applies	Related Policies	Monitoring Policy
OS-2	Handling and Storage of an Organic Solvent	Municipality MOECC	E K	<p>Education and Outreach</p> <p>The municipality shall deliver education and outreach materials and programs where the handling and storage of an organic solvent is, or would be, a significant drinking water threat, targeted towards:</p> <p>a) an individual for personal use to promote the use of non-toxic products and additional opportunities for participation in household hazardous waste disposal and to advise the owner/tenant about the actions to take to ensure that the activity ceases to be, or does not become, a significant drinking water threat; and</p> <p>b) industrial and commercial users to promote the use of alternatives to these chemicals (including non-toxic products), pollution prevention approaches, best management practices, and safe disposal; in any of the following areas:</p> <ul style="list-style-type: none"> • WHPA-A (existing, future); or • WHPA-B (VS = 10) (existing, future); or • WHPA-E (VS = 10) (existing, future). <p>Where appropriate education and outreach materials prepared by the Ministry of the Environment and Climate Change are available, the municipality shall deliver those materials.</p>	See Maps 1.1 - 1.21	Existing & Future: Implement within 2 years (T-10)	GEN-8	MON-1 MON-4

Policy ID	Threat Description	Implementing Body	Legal Effect	Policy	Where Policy Applies	When Policy Applies	Related Policies	Monitoring Policy
OS-3	Moderate/ Low Threats Handling and Storage of an Organic Solvent	Municipality	J	<p>Specify Action</p> <p>Where the handling and storage of an organic solvent is, or would be, a moderate or low drinking water threat, the municipality is encouraged to specify and promote best management practices for the handling and storage of an organic solvent for Industrial, Commercial and Institutional (ICI) land uses in any of the following areas:</p> <ul style="list-style-type: none"> • WHPA-B (VS < 10) (existing, future); or • WHPA-C (existing, future); or • WHPA-D (existing, future); or • WHPA-E (VS ≥ 4.8 and <10) (existing, future); or • HVA (existing, future); or • SGRA (VS ≥ 6) (existing, future). 	See Chapter 5 of the respective Assessment Report	Existing & Future: Consider within 2 years (T-15)	N/A	N/A



VIA EMAIL

January 26, 2021

Legislative & Planning Services
Department
Office of the Regional Clerk
1151 Bronte Road
Oakville ON L6M 3L1

Chair of the CTC Source Protection Committee, Douglas Wright
Chair of the Halton-Hamilton Source Protection Committee, Bob Edmondson
Chair of the Lake Erie Source Protection Committee, Wendy Wright Cascaden
Source Protection Liaison from the Ministry of the Environment, Conservation and
Parks, Tea Pesheva
Wellington County, Donna Bryce
Town of Erin, Lisa Campion
City of Burlington, Kevin Arjoon
Town of Milton, Meaghen Reid
Town of Halton Hills, Valerie Petryniak
Town of Oakville, Vicki Tytaneck

Please be advised that at its meeting held Wednesday, January 20, 2021, the Council of the Regional Municipality of Halton adopted the following resolution:

RESOLUTION: PW-02-21 - Status of Establishing Risk Management Plans for Source Water Protection

1. THAT Report No. PW-02-21 re: "Status of Establishing Risk Management Plans for Source Water Protection" be received for information.
2. THAT the Regional Clerk forward a copy of Report No. PW-02-21 to the City of Burlington, the Town of Halton Hills, the Town of Milton, the Town of Oakville, the Town of Erin, Wellington County, the Chair of the CTC Source Protection Committee, the Chair of the Halton-Hamilton Source Protection Committee, the Chair of the Lake Erie Source Protection Committee, and the Source Protection Liaison from the Ministry of the Environment, Conservation and Parks for their information.

Included please find a copy of Report No. PW-02-21 for your information.

If you have any questions please contact me at extension 7110 or the e-mail address below.

Sincerely,

A handwritten signature in blue ink, appearing to read 'G. Milne', with a large loop at the end.

Graham Milne
Regional Clerk
graham.milne@halton.ca



Report To:	Regional Chair and Members of Regional Council
From:	Andrew Farr, Commissioner, Public Works
Date:	January 20, 2021
Report No:	PW-02-21
Re:	Status of Establishing Risk Management Plans for Source Water Protection

RECOMMENDATION

1. THAT Report No. PW-02-21 re: "Status of Establishing Risk Management Plans for Source Water Protection" be received for information.
2. THAT the Regional Clerk forward a copy of Report No. PW-02-21 to the City of Burlington, the Town of Halton Hills, the Town of Milton, the Town of Oakville, the Town of Erin, Wellington County, the Chair of the CTC Source Protection Committee, the Chair of the Halton-Hamilton Source Protection Committee, the Chair of the Lake Erie Source Protection Committee, and the Source Protection Liaison from the Ministry of the Environment, Conservation and Parks for their information.

REPORT

Executive Summary

- As noted in Report No. PW-34-15/LPS113-15 re: "Source Protection Plan Implementation Requirements Under the *Clean Water Act, 2006*", Halton Region is located within three Source Protection Regions: Halton-Hamilton; Lake Erie; and Credit Valley - Toronto and Region - Central Lake Ontario (CTC) (Attachment #1). Each of the Source Protection Regions has its own Source Protection Plan that applies within its jurisdiction within Halton Region.
- Since approval of the Source Protection Plans, staff have been collaborating with the local municipalities and the Province of Ontario on implementing the Source Protection Plans policies. To date approximately 95 per cent of significant drinking water threat activities have been addressed. All of the remaining drinking water threats to be addressed by Halton Region staff will require the establishment of Risk Management Plans with landowners.

- The CTC and Halton-Hamilton Source Protection Plans both included policies that required that Risk Management Plans for existing significant drinking water threats be established by December 31, 2020. The Ministry of Environment, Conservation and Parks subsequently extended the deadlines within the CTC and Halton-Hamilton Source Protection Regions to December 31, 2023 and December 31, 2021, respectively.
- The CTC and Halton-Hamilton Source Protection Committees also require staff to provide work plans that describe how Halton Region will establish Risk Management Plans with landowners. Where efforts to engage landowners in voluntary negotiation are not successful, the Risk Management Official may need to utilize enforcement tools within the *Clean Water Act, 2006* to establish Risk Management Plans. The outreach efforts and consideration of the use of enforcement tools will be carried out in consultation with Halton Region's Communications and Legal Services staff.

Background

As reported to Regional Council over several reports in the past, the Province of Ontario has implemented a regulatory framework that provides a proactive, multi-barrier approach to safeguard municipal drinking water. The *Clean Water Act, 2006* provides a protective framework that focuses on protecting municipal drinking water at its source through the mandatory implementation of Source Protection Plans.

As noted in Report No. PW-34-15/LPS113-15 re: "Source Protection Plan Implementation Requirements Under the *Clean Water Act, 2006*", the three Source Protection Plans (CTC, Halton-Hamilton, and Lake Erie) that impact Halton Region were approved by the Ministry of Environment, Climate Change and Parks (then Ministry of Environment and Climate Change) in 2015 and came into effect between December 2015 and July 2016.

As part of the approved Source Protection Plans, Halton Region and other municipalities are mandated to implement several Source Protection Plan policies to protect municipal drinking water sources using tools such as: Risk Management Plans negotiated with landowners; land use planning policies and development application review; education and outreach; and prohibitions on a small number of activities within close proximity to municipal drinking water supplies. Staff also coordinates with Local Municipal staff to implement the Source Protection Plan policies, with Local Municipal staff employing additional tools such as inspections of private septic systems in areas that may pose risks to municipal drinking water supplies. The Province of Ontario also implements Source Protection Plan policies through some of the conditions in the permits and approvals it issues for activities such as water takings, waste management, and sewage works.

As noted in Report No. LPS52-20 re: "Regional Official Plan Review - Natural Heritage Discussion Paper", Source Protection Plans also include policies that must be

implemented through land-use planning and require that official plans be updated to conform to the Source Protection Plans as part of a Regional Official Plan review. The land use policies contained in the applicable Source Protection Plans will replace the need for some of Halton Region's existing Regional Official Plan policies. The Regional Official Plan review process will determine the best approach to implementing the Source Protection Plan policies into the Regional Official Plan in a clear and concise way.

The technical work that was completed by the three Source Protection Authorities in Halton Region was documented in the Assessment Reports that preceded the development of the Source Protection Plans. Based on the completed technical work, the Assessment Reports estimated the number and location of potential drinking water threat activities. More than 4,400 properties within Halton Region were initially identified to have potential drinking water threat activities.

Through threat verification work (e.g., site visits), collaboration with Local Municipal staff, and ongoing implementation of Source Protection Plan policies, staff have been able to confirm that approximately 95 per cent of the identified threat activities within Halton Region have been addressed. The remaining significant drinking water threats need to be addressed by Risk Management Plans. The Risk Management Plans are binding agreements that are negotiated between a municipality's Risk Management Official (the Supervisor, Municipal Water Resources of the Public Works Department, as described in Report No. PW-34-15/LPS113-15) and landowners, and identify the risk management measures to be implemented so that activities cease to be, or never become, significant drinking water threats.

As of November 2020, there are an estimated 158 properties with significant drinking water threat activities remaining that the Risk Management Official must address through working with landowners to establish Risk Management Plans. The majority of these properties are either located in Georgetown where winter maintenance activities on parking lots may constitute significant drinking water threats due to the potential to increase chloride concentration in groundwater, or in the agricultural areas north of Acton.

The CTC and Halton-Hamilton Source Protection Plans both included policies that required that Risk Management Plans for existing significant drinking water threats be established by December 31, 2020 (the Lake Erie Source Protection Plan does not include a deadline for establishing Risk Management Plans). In recognition of the significant amount of time required to negotiate most Risk Management Plans, and the challenges of working closely with landowners during COVID-19, the CTC and Halton-Hamilton Source Protection Committees requested that the Ministry of Environment, Conservation and Parks grant extensions to the deadlines for establishing Risk Management Plans (Attachment #2).

The overall progress towards addressing all of the significant drinking water threat activities in Halton Region is summarized in Table #1 below.

Table #1: Comparison of Initial Estimate of Properties with Drinking Water Threats to the Estimate of the Number of Properties that Still Require Risk Management Plans

Source Protection Region	Initial Number of Properties with Identified Threats (2015)	Estimated Remaining Properties with Threats – To Be Addressed by Region with Risk Management Plans (2020)
CTC	4,392	147
Lake Erie	16	8
Halton-Hamilton	40	3
Total	4,448	158

Discussion

In order to address the remaining significant drinking water threat activities within Halton Region, staff have been seeking to work with landowners to negotiate and establish Risk Management Plans. Towards this objective, staff from Public Works, Communications, and Legal Services have been working collaboratively in the preparation of outreach letters that notify landowners of the Source Protection Plan policies that may apply to their properties and activities, and encourage landowners to contact staff to initiate discussions towards negotiating and establishing Risk Management Plans.

To better engage landowners, until early 2020 staff sought to hand-deliver letters as often as possible, which provided an opportunity for landowners to ask questions and for staff to address any concerns landowners may have regarding municipal drinking water, managing threat activities and the process to establish Risk Management Plans.

After providing education and outreach materials, along with one-on-one conversations, staff have been able to negotiate and establish Risk Management Plans with some landowners. The Risk Management Plans document the best management practices and risk management measures that landowners are required to implement to ensure that activities undertaken at the property cease to be significant drinking water threats. Landowners are always invited to provide their input on the measures that will be required by the Risk Management Plans, and in most cases Risk Management Plans do not require landowners to significantly alter their practices.

Staff have found that working collaboratively with landowners is the best approach to ensure that landowners understand and agree to implement the required risk management measures in the Risk Management Plans. The process of working with landowners to establish Risk Management Plans typically can take from a few weeks to more than one year.

Despite outreach efforts, the majority of contacted landowners remain hesitant to initiate Risk Management Plan discussions with staff, to sign off on draft Risk Management Plans, or simply do not reply to outreach efforts. Additionally, most outstanding Risk Management Plans will apply to agricultural and winter maintenance activities, leading to

seasonal challenges in establishing contact with landowners and their operators. These challenges have been exacerbated by COVID-19, although staff continue to follow up with landowners and operators by phone, email and virtual meeting technology where possible.

As noted above, the deadlines to establish Risk Management Plans in the CTC and Halton-Hamilton Source Protection Regions were extended from December 31, 2020 to December 31, 2023 and December 31, 2021, respectively. These extensions were granted with the expectation that staff would prepare and submit a work plan outlining steps needed to establish Risk Management Plans with landowners who are engaged in the remaining significant drinking water threat activities.

Staff anticipate continuing to use appropriate outreach tools to inform and engage the landowners with properties that still require Risk Management Plans as much as possible, as staff have found this approach to be successful in achieving landowner implementation of the risk management measures in the Risk Management Plans.

Due to the reluctance of some landowners to respond to outreach efforts or engage with staff to discuss Risk Management Plans, it is anticipated that the Risk Management Official will need to rely on enforcement tools in order to establish all of the required Risk Management Plans by the deadlines. These enforcement tools, in the form of notices to the landowners of the Risk Management Official's intent to establish a Risk Management Plan for their property, still allow for a period of several months during which discussion and negotiations with the landowners may occur. It is anticipated that these tools would only be used where repeated outreach efforts have been unsuccessful, and Public Works staff will continue to work collaboratively with Communications and Legal Services staff on this approach.

FINANCIAL/PROGRAM IMPLICATIONS

There are no financial impacts arising from this report. Costs associated with the establishment of Risk Management Plans for Source Water Protection are included in the rate-supported operating budget.

Respectfully submitted,



Mark Connell
Acting Director, Infrastructure Planning and
Policy



Andrew Farr
Commissioner, Public Works

Approved by



Jane MacCaskill
Chief Administrative Officer






If you have any questions on the content of this report,
please contact:

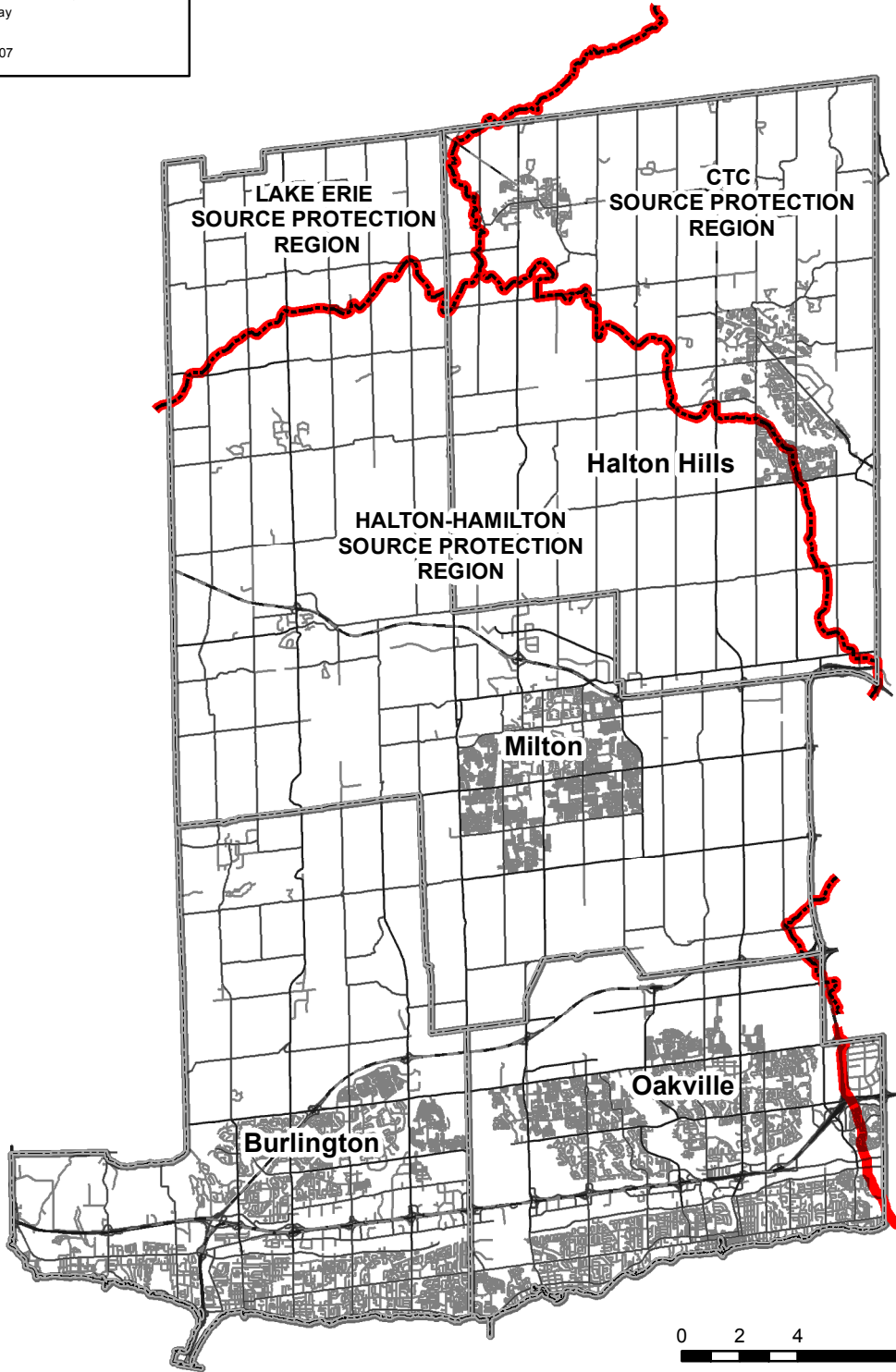
Mark Connell

Tel. # 7322

Attachments: Attachment #1 – Credit Valley, Toronto and Region, Central Lake Ontario (CTC) Source Protection Region within Halton Region
Attachment #2 – Recommendations to Halton-Hamilton and CTC Source Protection Committees on Risk Management Plan Timeline Extensions

Legend

-  Source Protection Region Boundary
-  Municipal Boundary
-  Highway
-  Roads
-  ETR 407



**Source Protection Regions
Within Halton Region**

PUBLIC WORKS

NOV 2020

TO: Chair and Members of the Source Protection Committee
Meeting #1/20, April 29, 2020

FROM: Jennifer Stephens, Manager, Source Water Protection

RE: Implementation of CTC Source Protection Plan in 2019

KEY ISSUE

To provide the CTC Source Protection Committee (SPC) with an overview of implementation progress and seek the Committee's opinion in accomplishing source protection plan objectives in 2019. The Committee is also asked to provide comments on implementation progress that would then be conveyed to source protection authorities, the Ministry of Environment, Conservation and Parks, stakeholders, and the public. The discussion which is expected to occur during the assessment of implementation progress will render options from the Committee for directing future work to achieve source protection objectives in the CTC Source Protection Region. Lastly, the Committee will decide whether to seek an extension to the deadline for risk management plan (RMP) completion.

RECOMMENDATION

IT IS RECOMMENDED THAT a summary of implementation activities in 2019 obtained through Annual Reports submitted by February 1, 2020 be received by the CTC SPC for input on progress achieved in accomplishing source protection plan objectives;

AND THAT CTC Source Protection Region (CTC SPR) staff be directed to take the necessary action to request a formal 3-year extension to the December 31, 2020 deadline for the completion of Risk Management Plans (RMPs) in the CTC SPR to address the remaining existing significant drinking water threats;

AND THAT CTC SPR staff be directed to advise all Risk Management Officials in the source protection region of the revised timeline to complete RMPs and communicate the desire of the CTC SPC for the use of Part IV powers under the *Clean Water Act, 2006* to establish outstanding RMPs;

AND THAT CTC SPR staff be directed to take the necessary action to communicate the Committee's assessment of implementation progress as well as any feedback from the CTC SPC to the Credit Valley, Toronto & Region, and Central Lake Ontario Source Protection Authorities at meetings scheduled for May 8th, May 12th, and May 22nd, 2019.

AND FURTHER THAT the CTC SPR staff be directed to take the necessary action to submit the 2019 Annual Progress Report and 2019 Annual Report – Supplemental Form to the Ministry of the Environment, Conservation and Parks, along with any Source Protection Committee comments, in accordance with Section 46 of the *Clean Water Act, 2006* and any Director's instructions established under O. Reg. 287/07 S.52.

REPORT TO: Halton-Hamilton Source Protection Committee

REPORT NO: SPC-20-09-05

FROM: Chitra Gowda, Senior Manager, Watershed Planning and Source Protection
cgowda@hrca.on.ca

DATE: August 26, 2020

SUBJECT: S. 58 Risk Management Plans Policy Timeline Extension

Recommendation

THAT the Halton-Hamilton Source Protection Committee **endorses the Staff report S. 58 Risk Management Plans Policy Timeline Extension**

AND THAT the Halton-Hamilton Source Protection Committee **direct Staff to seek a one-year extension on the deadline for risk management plan completion.**

Executive Summary

The deadline for risk management officials to establish risk management plans for existing significant threats in the Halton-Hamilton Source Protection Region is December 31, 2020. Work was progressing well, however the unexpected COVID-19 global pandemic and a few other factors will cause a delay to complete a limited number of risk management plans. Staff recommend an extension to the policy timeline by one year.

Report

The effective date of the Halton-Hamilton (HH) Source Protection Plan is set as December 31, 2015 by the Minister, Environment, Conservation and Parks (previously known as Environment and Climate Change). The HH source protection plan contains polices that utilise Part IV of the Clean Water Act, including the establishment of risk management plans by risk management officials, and also a policy setting a deadline. The policy G-1 states that risk management plans for existing significant threats must be established within five years of the date that the HH source protection plan comes into effect. Therefore all risk management plans for existing threats within the HH Source Protection Region (SPR) must be established by December 31, 2020.

As described in the 2019 Annual Progress Report for the HH source protection plan, municipalities have made great progress in establishing risk management plans for significant threat activities. Risk management officials and inspectors continued to verify threat activities occurring in the region in 2019. Screening processes are in place at municipalities to ensure applications for future

development are reviewed appropriately for potential threat activities and source protection policy application. In 2019, two significant threat activities were added (commercial fertilizer application and use of land by livestock). The municipal risk management officials continue to put full effort into establishing the last few risk management plans. However the unexpected and unprecedented COVID-19 global pandemic and a few other factors caused delays in work required including site visits. Work is carefully being resumed using modified procedures including physical distancing during site visits, and multiple phone interactions with the property landowners to explain emailed maps and other scientific and policy information, in lieu of in-person meetings. As well, negotiations for certain types of activities require more time than others.

A few other source protection regions have requested policy timeline extensions from the Ministry of Environment, Conservation and Parks (MECP) and obtained approval for the same. The extensions requested range from one to three years. It is noted that at the time of writing the source protection plans, the extent of the work and time to be taken to establish a risk management plan were unknown. The COVID-19 pandemic is a major reason for the policy timeline extension requests, along with the fact that negotiations for certain types of activities, for example activities on farms and at small industrial-commercial companies, require more time than others.

If a risk management official encounters persons (undertaking significant threat activities) who are uncooperative there are methods outlined in the Clean Water Act to establish a risk management plan, and it may become necessary to issue an order. Risk management officials are keen on continuing their collaborative, negotiated process with the landowner. An order that imposes a risk management plan is a last resort tool.

It is anticipated that there are two risk management plans in the HHSPR that will likely be delayed beyond 2020 due to the COVID-19 pandemic and the nature of the activities which require more time for negotiations with the persons undertaking the activities. Staff will send a letter to MECP requesting an extension to risk management plan policy timelines to December 31, 2021. It is expected that risk management officials will be required, as condition of the extension approval, to work with the source protection region to prepare a plan to move forward. Risk management officials would eventually submit a simple plan to the source water protection program manager similar to that shown in **Attachment 1**. As well, during the S. 36 update of the source protection plan, revisions will be made to the text of the policy G-1 to reflect the extended policy timelines.

Signed & respectfully submitted:

Chitra Gowda, Senior Manager
Watershed Planning and Source Protection
cgowda@hrca.on.ca

Attachments

1. Plan to establish risk management plans in the Halton-Hamilton Source Protection Region

Attachment 1: Plan to establish risk management plans in the Halton-Hamilton Source Protection Region

Risk Management Official Name:		
Task For Risk Management Officials	<i>Suggested Timelines</i>	Risk management Official's Timeline
Develop Workplan and submit to Program Manager at Halton-Hamilton Source Protection Region	<i>October 8-20</i>	September-30-20
Contact all persons requiring risk management plans	<i>November-30-20</i>	
Complete initial site visits	<i>February-30-21</i>	
Issue Orders if necessary	<i>May-01-21</i>	
Negotiate risk management plans	<i>September-01-21</i>	
Completion Date (mandatory)	December-31-21	December-31-21

April 29, 2021

Susan Ecclestone
Acting Director, Conservation and Source Protection Branch
Ministry of the Environment, Conservation and Parks
40 St. Clair Ave West, 14th Floor
Toronto, ON, M4V 1M2

Dear Susan Ecclestone,

On July 29, 2020, a request by the CTC Source Protection Region for a 3-year extension to the policy timeline for implementing source protection plan policies for activities designated under section 58 of the *Clean Water Act, 2006* was approved by the Source Protection Programs Branch of the Ministry of the Environment, Conservation and Parks.

The Ministry further requested that the source protection authority submit a summary of the work necessary to achieve the extended December 31, 2023 deadline. Originally due February 1, 2021, the deadline to submit the summary was later revised to May 1, 2021.

Affected municipal risk management officials (RMOs) submitted work plans to the source protection authority in January 2021. A summary of the work plans was prepared for the CTC Source Protection Committee and reviewed at meeting #1/21 on January 21, 2021. The Committee passed the following resolutions:

IT IS RECOMMENDED THAT the CTC Source Protection Committee receive the report on municipal work plans to complete risk management plans for existing significant drinking water threats for information;

AND FURTHER THAT CTC staff be directed to submit the municipal work plans, accompanied by this report, to the Ministry of the Environment, Conservation and Parks by May 1, 2021.

A summary of the municipal work plans and the report received by the Committee are provided to the Ministry as attached.

Establishment of risk management plans (RMPs) remains a challenging activity in the CTC Region. Implementation challenges identified by RMOs include the time-consuming nature of the threat verification and negotiation process, the priority placed on RMPs initiated through the land use planning and building permit process, additional complexities in negotiating agricultural RMPs (seasonal availability, multiple threats, regulatory burden), and COVID-19 pandemic impacts. Further, RMOs noted that use of the legal instruments under s. 58 could be an equally lengthy process.

RMOs elaborated on COVID-19 pandemic effects experienced in 2020:

- RMOs are working remotely with limited field work due to health and safety considerations. While RMOs continue to engage property and business owners through letters, emails, phone calls, and available virtual tools, communications are

requiring additional time to ensure the RMP process is fully understood and will be successfully implemented.

- Provincial restrictions have coincided in some cases with availability of property or business owners (e.g., lockdown during the November – March window for working with farmers).
- Municipal staff are mindful of the economic impact and stress of the pandemic on business owners and have, in some cases, elected to postpone engagement on RMPs.
- The pandemic has affected recruitment for vacant staff positions, with resulting impacts on municipal capacity.

While RMOs identified mitigation strategies including filling staff vacancies, it is expected that the continued impacts of the COVID-19 pandemic will affect progress in 2021 and substantive efforts will be required to achieve the extended deadline.

Sincerely,



Janet Ivey
Program Manager, CTC Source Protection Region
Chief Specialist, Watershed Plans and Source Water Protection
Credit Valley Conservation

Copy to:

Tea Pesheva, Liaison Officer, Conservation and Source Protection Branch, MECP
Douglas Wright, Chair, CTC Source Protection Committee
Deborah Martin-Downs, CAO, Credit Valley Conservation
Kyle Davis, Risk Management Official, Wellington Source Water Protection
Daniel Banks, Risk Management Official, Halton Region
Ryan Post, Risk Management Official, Nottawasaga Valley Conservation Authority
Irena Kontrec, Risk Management Official (Acting), Town of Orangeville
Scott Lister, Risk Management Official, York Region

Attachment 1: Summary of municipal work plans to achieve December 31, 2023 deadline for completion of risk management plans.

Attachment 2: Municipal work plans to complete risk management plans for existing significant drinking water threats. Report to Meeting #1/21 of the CTC Source Protection Committee.

Attachment 1: Summary of municipal work plans to achieve December 31, 2023 deadline for completion of risk management plans.

Instructions

Work Plan: Fill in Blue Cells. This template assumes RMOs will establish annual targets for RMP completion, and may employ notices and/or impose RMPs, as needed, to achieve annual targets. Add additional milestone tasks to Column A as appropriate (e.g., # site visits).

Date:	11-Mar-21
Municipality:	Erin, Halton, Mono, Orangeville, York
Risk Management Official(s):	Various
# Outstanding Existing SDWTs:	339
Summary of Outstanding SDWTs by type:	Application, handling, and storage of Agricultural Source Material Application, handling, and storage of Commercial Fertilizer Application, handling, and storage of pesticides Application, handling, and storage of road salt Application of NASM Handling and storage of Fuel Handling and storage DNAPL Handling and storage of Organic Solvents Storage of Snow Livestock grazing or pasturing, and outdoor confinement area
# of Outstanding Risk Management Plans:	205

Work Plan	
RMO Tasks	Targets/Dates
Develop Workplan and submit to CTC Program Manager	Monday January 11, 2021
2021	
Target # RMPs to be completed Jan 1 - Dec 31 2021	42
OPTIONAL: Send warning letter to all persons requiring risk management plans	In advance of issuing S. 58 (7) Notices-Halton 06/30/2021- Orangeville 12/31/2021-Erin This is possible, contingent on the duration of COVID and will be explored in early Q3-Mono
Issue s. 58 (7) notices, if necessary	12/31/2021-Halton 1/17/2022-Orangeville not anticipating this to be required-Mono
2022	
Target # RMPs to be completed Jan 1 - Dec 31 2022	97
OPTIONAL: Send warning letter to all persons requiring risk management plans	In advance of issuing S. 58 (7) Notices-Halton 05/16/2022-Orangeville
Issue s. 58 (7) notice, if necessary	02/28/2022-York 12/1/2022-Orangeville 12/30/2022-Halton 12/31/2022-Erin not anticipating this to be required-Mono
Issue s. 58 (10) order, if necessary	12/22/2022-York
2023	
Target # RMPs to be completed Jan 1 - Dec 31 2023	66
OPTIONAL: Send warning letter to all persons requiring risk management plans	03/15/2023-Orangeville 07/03/2023-Halton 07/17/2023-Orangeville
Issue s. 58 (7) notice, if necessary	08/01/2023-Halton not anticipating this to be required-Mono
Completion Date	Sunday, December 31, 2023

Attachment 2: Municipal work plans to complete risk management plans for existing significant drinking water threats. Report to Meeting #1/21 of the CTC Source Protection Committee

TO: Chair and Members of the Source Protection Committee
Meeting #1/21

DATE: January 21, 2021

FROM: Janet Ivey, Chief Specialist, Watershed Plans and Source Water Protection,
Credit Valley Conservation

RE: Municipal Work Plans to Complete Risk Management Plans for Existing
Significant Drinking Water Threats

KEY ISSUE

Municipal work plan to complete Risk Management Plans for existing Significant Drinking Water Threats by the extended deadline of December 31, 2023.

RECOMMENDATION

IT IS RECOMMENDED THAT the CTC Source Protection Committee receive the report on municipal work plans to complete risk management plans for existing significant drinking water threats for information;

AND FURTHER THAT CTC staff be directed to submit the municipal work plans, accompanied by this report, to the Ministry of the Environment, Conservation and Parks by May 1, 2021.

BACKGROUND

At meetings #1/20 and #2/20 on April 29 and May 13 of 2020, respectively, the Credit Valley - Toronto and Region - Central Lake Ontario (CTC) Source Protection Committee (SPC) received reports and presentations on the status of implementation of the CTC Source Protection Plan (SPP) between January 1 and December 31, 2019. At that time, of the 10,583 significant drinking water threats (SDWTs) that were enumerated in December 2015 when the CTC SPP came into effect, 424 of the threats remained to be addressed by policies in the SPP. As a result, the committee chose to report the status of SPP implementation as "Progressing well, but short of target" in its submission to the Province for 2019.

In 2019, 41 Risk Management Plans (RMPs) were established in the CTC Source Protection Region, the most RMPs finalized in any one calendar year to date. On an annual basis, there is great variation across municipalities in the number of RMPs that can be developed based on: the complexity of these documents; the number of threats being addressed through the RMP; and the willingness of the parties carrying out the activity(ies) to negotiate the parameters of the RMP.

The timeline to complete all Risk Management Plans to address existing activities designated under section 58 of the Clean Water Act was December 31, 2020, five (5) years from the effective date of the SPP (Policy T-6). At meeting #2/20, the CTC SPC authorized a 3-year extension to the December 31, 2020 deadline to complete RMPs for existing SDWTs. This decision acknowledged the number of SDWTs remaining to be addressed, typical RMP development timelines, Risk Management Official (RMO) capacity for SPP implementation, anticipated clarifications to the Director's Technical Rules for threats identification, and

challenges and delays anticipated in RMP development as a result of the COVID-19 pandemic. The deadline extension was contingent on submission of municipal work plans to the SPC at Meeting #1/21 and annual updates on workplan progression by February 1st of each calendar year through 2024.

The 3-year extension to December 31, 2023, was further approved by the Ministry of Environment, Conservation and Parks. The CTC Source Protection Region is required to submit a work plan on establishing the RMPs by the updated deadline, to the Ministry by May 1, 2021 (recently amended from February 1, 2021).

CTC SPR staff provided a template for municipal work plans in late December 2020. In early January, municipal RMOs submitted work plans and accompanying letters summarizing implementation challenges and proposed mitigation strategies to address challenges.

As a result of 2020 implementation efforts, municipalities have reduced outstanding existing SDWTs from the original SPP to 344, requiring approximately 208 RMPs. Outstanding RMPs are predominantly associated with application of road salt; livestock grazing, pasturing, or outdoor confinement areas; and agricultural source materials. Some outstanding RMPs are needed to address commercial fertilizer, pesticides, road salt, fuel, non-agricultural source materials, dense non-aqueous phase liquids and organic solvents, and snow storage. Table 1 summarizes municipal targets for RMP completion over the 3 years to the extended December 31, 2023 deadline. Due to challenges related to negotiating RMPs during the COVID-19 pandemic, targets for RMP completion in 2021 are modest, reflecting the expectation that the pandemic will continue to impact activities through much of this year.

TABLE 1: ANNUAL TARGETS FOR RISK MANAGEMENT PLAN COMPLETION

	2021	2022	2023	Total
Target # of RMPs to be completed	41	95	66	202 ¹

¹ Total RMPs excludes the 6 outstanding RMPs in the Town of Mono as of December 31, 2019. The Town of Mono s. 58 work plan was not received prior to report finalization.

Municipal work plans generally identified annual timelines for issuance of warning letters, notices or orders under s. 58 of the Clean Water Act. Section 58 notices allow RMOs to give a person notice that if no RMP is agreed to by a specified date, the RMO intends to impose a RMP. RMOs must allow at least 120 days after the notice is given for a person to agree to a RMP, prior to the RMO establishing a RMP by order.

Implementation challenges identified by municipal RMOs through presentations to the SPC in Spring 2020 included the time consuming nature of the threat verification and RMP negotiation process, the priority placed on RMPs initiated through the land use planning and building permit process, additional complexities in negotiating agricultural RMPs (seasonal availability, multiple threats, regulatory burden), and COVID-19 pandemic impacts. Further, RMOs noted that use of the legal instruments under s. 58 could be an equally lengthy process.

RMOs elaborated on COVID-19 pandemic effects in the letters accompanying their section 58 work plans:

- RMOs are working remotely with limited field work due to health and safety considerations. While RMOs continue to engage property and business owners through letters, emails, phone calls, and available virtual tools, communications are requiring

additional time to ensure the RMP process is fully understood and will be successfully implemented.

- Provincial restrictions have coincided in some cases with availability of property or business owners (e.g., lockdown during the November – March window for working with farmers).
- Municipal staff are mindful of the economic impact and stress of the pandemic on business owners and have, in some cases, elected to postpone engagement on RMPs.
- The pandemic has affected recruitment for vacant staff positions, with resulting impacts on municipal capacity.

Mitigation strategies identified by RMOs include:

- Filling vacant staff positions for which recruitment was put on hold in 2020.
- Pacing annual RMP completion targets to reflect anticipated greater potential for field work and engaging of property and business owners in 2022 and 2023, when it is hoped pandemic-related restrictions will lessen.

DETAILS OF WORK TO BE DONE

Annual implementation progress reporting for January 1 to December 31, 2020, is underway. Municipal progress reports are due February 1, 2021, and the draft progress report will be brought forward to the SPC for endorsement in March. CTC staff will submit the provided s. 58 municipal work plans to the Ministry of Environment, Conservation and Parks by May 1, 2021, along with the annual progress report. RMOs will continue to be engaged in resolving implementation challenges through Municipal Implementation Group Meetings in 2021.

Report prepared by:

Janet Ivey, Chief Specialist, Watershed Plans and Source Water Protection, Credit Valley Conservation

T: 905-670-1615, ext. 379

Email: Janet.ivey@cvc.ca

Date: January 14, 2021

Ivey, Janet

From: protection, source (MECP) <source.protection@ontario.ca>
Sent: Friday, May 7, 2021 4:05 PM
To: Ivey, Janet
Cc: Jacques, Craig; Ecclestone, Susan (MECP); Pesheva, Tea (MECP); Douglas S. Wright; Martin Downs, Deborah; kdavis@centrewellington.ca; Daniel.Banks@halton.ca; Ryan Post; Irena Kontrec; Scott Lister; CSPB Coordinator (MECP); Scanlon, Debbie (MECP); Moulton, Jennifer L. (MECP)
Subject: [External] RE: CTC SPR - submission of municipal workplans for s 58 extension

[CAUTION] This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe. If in doubt contact help211@cvc.ca

Dear Ms. Ivey:

Thank you for your email providing our office with the summary of work necessary to complete the RMPs by the new policy timeline of December 21, 2023. I have been asked to respond on behalf of the Director.

I appreciate that 2020 was an especially difficult year and that a number of challenges affecting implementation progress also remain. I also recognize that the CTC source protection authority and municipalities are aware that substantive efforts will be required to achieve the completion of RMPs by the new timeline. My Branch is always willing to help out in any way we can to help you reach this goal. We encourage you to maintain regular check-ins with the RMOs responsible for the pending RMPs and continue to encourage actions which will further protect sources of drinking water.

Sent on behalf of

Debbie Scanlon (she/her) | Manager Approvals Unit | Conservation and Source Protection Branch | Ministry of the Environment, Conservation and Parks | 647.627.5917

From: Ivey, Janet <janet.ivey@cvc.ca>
Sent: April 29, 2021 2:03 PM
To: Ecclestone, Susan (MECP) <Susan.Ecclestone@ontario.ca>
Cc: Pesheva, Tea (MECP) <Tea.Pesheva@ontario.ca>; Douglas S. Wright <dswright@bell.net>; Martin Downs, Deborah <deb.martindowns@cvc.ca>; kdavis@centrewellington.ca; Daniel Banks (Daniel.Banks@halton.ca) <Daniel.Banks@halton.ca>; Ryan Post <rpost@nvca.on.ca>; Irena Kontrec <ikontrec@orangeville.ca>; Lister, Scott <scott.lister@york.ca>; Jacques, Craig <craig.jacques@cvc.ca>
Subject: CTC SPR - submission of municipal workplans for s 58 extension

CAUTION -- EXTERNAL E-MAIL - Do not click links or open attachments unless you recognize the sender.

Hi Susan,

Please find attached a letter and two attachments that together constitute the CTC Source Protection Region's submission of a summary of the work required for Risk Management Officials to achieve the approved 3-year extension to the deadline to implement source protection plan policies for activities designated under section 58 of the Clean Water Act.

Best regards,

CTC Source Protection Region

August 25, 2021

Kirsten Corrigan
Director, Conservation and Source Protection Branch
Via email to: keley.katona@ontario.ca

Dear Ms. Corrigan,

Under Ontario Regulation 284/07, the Credit Valley source protection area is grouped with the Central Lake Ontario and Toronto and Region source protection areas as the CTC Source Protection Region (CTC SPR). The Toronto and Region Conservation Authority is identified in Table 3 of the regulation as the lead Source Protection Authority (SPA) for the CTC SPR.

In May 2020, the CTC CAOs Management Committee directed staff to submit a request to the Ministry of Environment, Conservation and Parks (MECP) to shift the lead SPA for the CTC SPR from the Toronto and Region SPA to the Credit Valley SPA. The request acknowledged that almost all of the remaining significant drinking water threats in the CTC SPR are within the Credit Valley jurisdiction. The proposed change was endorsed by Doug Wright, Chair of the CTC Source Protection Committee. In June 2020, CTC staff discussed options to facilitate the transfer with MECP staff.

As a result of the discussion, the three SPAs signed a letter agreement to transfer lead SPA responsibilities from TRSPA to CVSPA for the 2020-2021 fiscal year, for which a transfer payment agreement had already been made between the province and TRSPA on behalf of the CTC SPR. The transfer payment agreement for the 2021-2022 fiscal year has been made between the province and CVSPA.

The Credit Valley, Toronto and Region, and Central Lake Ontario source protection authorities have each passed resolutions requesting that the Minister of the Environment, Conservation and Parks designate Credit Valley Source Protection Authority as the lead source protection authority for the CTC Source Protection Region under Ontario Regulation 284/07 (Attachment A).

CTC source protection authorities and program staff are pleased to continue to work in partnership with the Ministry and staff of the Conservation and Source Protection Branch to ensure the protection of drinking water sources. CTC program staff are available to discuss the process and timeline for amending O. Reg. 284/07.

Best regards,



Janet Ivey
Program Manager, CTC Source Protection Region
Chief Specialist, Watershed Plans and Source Water Protection
Credit Valley Conservation

CC:

Olga Yudina, Liaison Officer, Conservation and Source Protection Branch, Ministry of the Environment, Conservation and Parks

Deborah Martin-Downs, Chief Administrative Officer, Credit Valley Source Protection Authority

John MacKenzie, Chief Executive Officer, Toronto and Region Source Protection Authority

Chris Darling, Chief Administrative Officer, Central Lake Ontario Source Protection Authority

Attachment A:

On December 11, 2020, the Credit Valley Source Protection Authority passed the following resolutions:

WHEREAS 422 of the 424 remaining significant drinking water threats that are within the CTC Source Protection Region are located within the Credit Valley Source Protection Authority; and

WHEREAS the CTC Management Committee consisting of the CAOs of the Credit Valley, Toronto and Region, and Central Lake Ontario Conservation Authorities have directed staff to transfer lead source protection authority responsibilities from the Toronto and Region Conservation Authority to the Credit Valley Conservation Authority;

THEREFORE BE IT RESOLVED THAT report entitled "CTC Source Protection Region Change In Lead Source Protection Authority" be received and appended to the minutes of this meeting as Schedule 'A'; and

THAT the Credit Valley Source Protection Authority endorse the transfer of Lead Source Protection Authority responsibilities from Toronto and Region Conservation Authority to Credit Valley Conservation Authority for the 2020-2021 Provincial fiscal year, as described in the letter agreement dated October 21, 2020; and further

THAT the Credit Valley Source Protection Authority endorse the request that the Minister of the Environment, Conservation and Parks designate Credit Valley Source Protection Authority as the lead source protection authority for the CTC Source Protection Region under Ontario Regulation 284/07.

On January 29, 2021, the Toronto and Region Source Protection Authority passed the following resolutions:

WHEREAS 422 of the 424 remaining Significant Drinking Water Threats that are within the Credit Valley-Toronto and Region-Central Lake Ontario (CTC) Source Protection Region are located within the Credit Valley Source Protection Authority jurisdiction;

AND WHEREAS the CTC Management Committee consisting of the CEO/CAOs of the Credit Valley, Toronto and Region, and Central Lake Ontario Conservation Authorities have directed staff to transfer Lead Source Protection Authority responsibilities from the Toronto and Region Conservation Authority to the Credit Valley Conservation Authority;

THEREFORE, LET IT BE RESOLVED THAT the Toronto and Region Source Protection Authority endorse the transfer of Lead Source Protection Authority responsibilities from Toronto and Region Source Protection Authority to Credit Valley Source Protection Authority for the 2020-2021 Provincial fiscal year, as described in the Letter Agreement dated October 21, 2020;

AND FURTHER THAT the Toronto and Region Source Protection Authority endorse the request that the Minister of the Environment, Conservation and Parks designate Credit Valley Source Protection Authority as the Lead Source Protection Authority for the CTC Source Protection Region under Ontario Regulation 284/07.

On April 20, 2021, the Central Lake Ontario Source Protection Authority passed the following resolutions:

WHEREAS almost 100% of the remaining Significant Drinking Water Threats that are within the CTC Source Protection Region are located within the Credit Valley Source Protection Authority, and

WHEREAS the CTC Management Committee consisting of the CAOs of the Credit Valley, Toronto and Region, and Central Lake Ontario Conservation Authorities have directed staff to transfer Lead Source Protection Authority responsibilities from the Toronto and Region Conservation Authority to the Credit Valley Conservation Authority;

THEREFORE, BE IT RESOLVED THAT the Central Lake Ontario Source Protection Authority endorse the request that the Minister of the Environment, Conservation and Parks designate Credit Valley Source Protection Authority as the Lead Source Protection Authority for the CTC Source Protection Region under Ontario Regulation 284/07.

Subject: Source Protection Plan Pre-Consultation, Section 36 Updates

Deadline for Comments: October 4, 2021

Send comments to email: sourceprotection@hrca.on.ca

On behalf of the Source Protection Committee for the Halton-Hamilton Source Protection Region, it is my pleasure to provide **proposed updates to the assessment reports and source protection plan** that result from a review carried out under section 36 of the *Clean Water Act, 2006*. These proposed updates are being provided as part of the **pre-consultation** process required by Regulation 287/07 of the Act, where the Committee must consult with bodies responsible for the implementation of source protection plan policies, before a public consultation period.

Ontario's *Clean Water Act, 2006* provides for a community initiative where municipalities, residents, business owners, provincial agencies, conservation authorities and others work together to protect existing and future municipal drinking water sources. Under the Act, Conservation Halton and the Hamilton Conservation Authority together form the Halton-Hamilton Source Protection Region that supports the multi-stakeholder Committee.

Source Protection Region staff have been leading comprehensive updates to the science and policies over the past two years, working closely with the Committee, municipalities and others. The proposed updates to the source protection plan and assessment reports include:

- Updated drinking water vulnerable areas, vulnerability scores and potential significant threats.
- Updated policy format and updated and new policies of the source protection plan.

See further below for a summary of the proposed updates. Comments received as part of the pre-consultation process will be reviewed by the Source Protection Region staff and the Committee, and possible changes made to the assessment reports and source protection plan policies prior to public consultation.

Clean and tracked-changes versions of the proposed updated source protection plan, explanatory document and assessment reports are available at: <https://bit.ly/38BmKA6>

These documents are for pre-consultation only and not for public sharing.

Source Protection Region staff are available for virtual meetings during the pre-consultation process if necessary. Should questions arise, please contact **Chitra Gowda, Senior Manager, Watershed Planning and Source Protection** by email at sourceprotection@hrca.on.ca or phone: 905-336-1158 ext. 2237.

Sincerely,



Robert Edmondson, Chair

Source Protection Committee for the Halton-Hamilton Source Protection Region

cc:

- Mary Wooding, Liaison Officer, Ministry of the Environment, Conservation and Parks
- Erin Harkins, Program Analyst, Ministry of the Environment, Conservation and Parks
- Barbara Veale, Director, Planning and Watershed Management, Conservation Halton
- Scott Peck, Deputy Chief Administrative Officer/Director, Watershed Planning & Engineering, Hamilton Conservation Authority.

Date of notice: September 3, 2021

Deadline for comments: October 4, 2021.

Halton-Hamilton Source Protection Region Comprehensive Updates to the Source Protection Plan (including Assessment Reports) Per Section 36 of the Clean Water Act

Background

The Clean Water Act, 2006 enables source protection plans and assessment reports to be revised using one of four methods listed below.

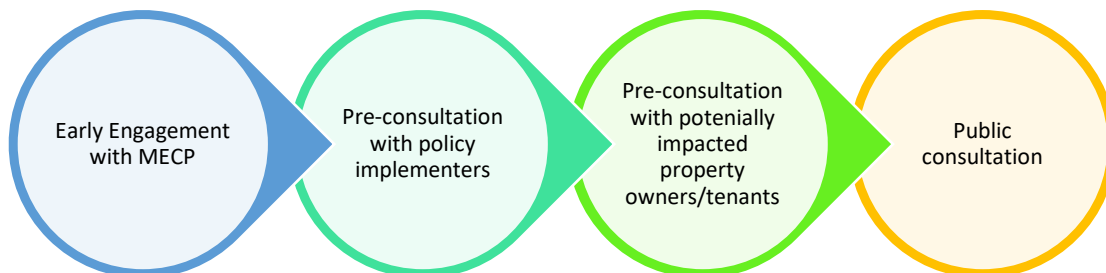
- a locally initiated amendment under section 34;
- a Minister ordered amendment under section 35;
- an update resulting from the review under section 36; or
- an amendment under section 51 of O. Reg. 287/07 for minor/administrative revisions.

Conservation Halton and the Hamilton Region Conservation Authority are the local Source Protection Authorities (SPAs) under the Clean Water Act and are grouped into one source water protection region known as the Halton-Hamilton Source Protection Region (HHSPR).

Upon approval of the first source protection plan for the Halton-Hamilton Source Protection Region (HHSPR) on December 31, 2015, the Minister of the Ministry of the Environment, Conservation and Parks (MECP) issued an order requiring the subsequent submission of a workplan by November 30, 2018 to review source protection plans per Section 36 of the Clean Water Act. These workplans were required across Ontario, leading to the second round of source protection planning across the province.

The HHSPR workplan includes tasks to review both science and policies, to support the continued protection of drinking water sources. It is available at: <https://bit.ly/3k6pyu0>. The HHSPR workplan was reviewed by MECP, resulting in the Minister issuing an amended order in March 2019 pursuant to Section 36 of the Clean Water Act. This amended order specifies the mandatory items from the workplan.

The early engagement and consultation steps are shown below.



The key proposed updates include:

Assessment Reports

- Updated vulnerability scores for the Wellhead Protection Areas of the Campbellville, Kelso, Walkers Line, Carlisle and Greensville municipal drinking water systems (and related background technical studies)
- Updated Wellhead Protection Areas delineation and vulnerability scores for the Freelton municipal drinking water system (and related background technical studies)
- Updated mapping for managed lands, livestock density and impervious surfaces
- Updated potential significant threat activity counts
- Updated Intake Protection Zones and vulnerability scores for the Burlington, Burloak and Oakville municipal drinking water systems and updates scores for the Woodward municipal drinking water system (and related background technical studies)
- Updates to align with the 2017 Technical Rules, including adding the “establishment and operation of a liquid hydrocarbon pipeline” as a prescribed threat (and removed from descriptions as a local threat) and conducting a threats assessment; removal of sodium and chloride references from the circumstances related to on-site sewage systems and holding tanks, etc.

Source Protection Plan

- Updated policy format for the source protection plan.
- Updated and new policies of the source protection plan to address implementation challenges, reflect the updated list of prescribed drinking water threat activities under the *Clean Water Act, 2006*, and address early comments received in July 2021 from the Ministry of the Environment, Conservation and Parks and municipal staff.

The clean and tracked-changes versions of the proposed updated source protection plan, explanatory document and assessment reports are lengthy, large size files and are made available at the large file transfer website indicated on page I and in the accompanying email. The background technical studies are also available at the same webpage. The documents available at the file transfer website are for pre-consultation purposes only and not for public sharing. Change logs are also provided.

A summary of the key updates are provided in this document, however other changes may be of interest and all updates are available at the website indicated on page I and the accompanying email. Numerous other updates were made to enhance the clarity and content of the assessment reports and source protection plan. These include an updated watershed characterization section in both assessment reports (including land use planning and watershed descriptions, and surface water and groundwater monitoring data trends).

ASSESSMENT REPORTS

CHANGE LOG - Section 36 Updates for the Halton Region Assessment Report

Table 1

No.	Nature of the Change (Proposed Amendment)	Sections (page numbers are approximate)
1	Change to document version number, description, date to reflect a S. 36 update	After the cover page; Appendix A page 335
2	Reference to Technical Rules 2009 updated to Technical Rules 2017	Page 5, 295, bibliography
3	Change MOECC to MECP where appropriate, and Environment Canada to Environment and Climate Change Canada	Throughout
4	Land use section minor updates based on new land use map information	Section 2.2.3, page 44
5	Updated PPS and Greenbelt Plan policy numbers and dates	Section 2.2.1, page 33-34
6	Updated Table 2.1 with the most recent population data	Section 2, page 10
7	Description on Hamilton Harbour Area of Concern is updated	Section 3.11, page 80, Section 4 page 97
8	Permit To Take Water (PTTW) information was updated per S. 36 work	Tables 4.3 and 4.4 pages 105 and 106
9	Updated Surface Water Quantity using most recent data and interpretation	Section 4.2.1 page 89-91
10	Adding charts and editing Surface Water Quality section	Section 4.2.2 page 93-95
11	Minor updates to sections 4.3 Groundwater Monitoring,	Section 4.3 page 104
12	Removal of sodium and chloride references from the circumstances related to on-site sewage systems and holding tanks, per the 2017 Technical Rules	Section 4.3 page ,109 Section 7.1.2 page 248-251
13	Updated section 4.3.2 Water quality, added nitrate and chloride concentration charts (4.4 and 4.5) and edited text	Section 4.3.2 page 109-110
14	Updated section 4.5 text and Table 4.1 using September 2020 PTTW database	Section 4.5 page 115-116
15	Updated Groundwater Levels and Flow - minor addition to groundwater flow characterization	Section 4.3.1 page 108
16	The “establishment and operation of a liquid hydrocarbon pipeline” added as a prescribed threat (and removed as a local threat) per the 2017 Technical Rules. Threats were assessed per the Table of Drinking Water Threats	Section 6.1: 192, 198-199, Section 7.2: 252, 254, 270-272, 279-280, 298
17	Lake Ontario IPZ-2 re-delineation and vulnerability reassessment of IPZ-1 and IPZ-2	Section 6.1: 182 – 191, 195 - 198
18	Technical Study: Lake Ontario intake protection zone re-delineation and vulnerability reassessment	This is a separate technical study

No.	Nature of the Change (Proposed Amendment)	Sections (page numbers are approximate)
19	Transport pathway assessment information updated in Section 6.2	Section 6.2, page 207-208
20	Transport pathways assessment in wellhead protection areas per S. 36 work	Section 6.2.3: 227-230
21	Technical Study: Transport pathways assessment in wellhead protection areas	This is a separate technical study
22	Removal of references to vulnerability scoring in significant groundwater recharge areas (SGRAs), per the 2017 Technical Rules	Section 7.3: Table 7.1 page 267, Section 7.5: page 271, Table 7.5 page 283.
23	Updated Section 7.3 Conditions in terms of criteria (using 2017 Technical Rules), sources of data and conditions assessment results	Section 7.3 page 273-276
24	Table 7.2 updated with the most recent threat count	Section 7.4.1 page 277
25	Table 8.2 updated with the most recent threat count	Section 8.4 page 299
26	Updated Appendix B.1 with the newest data	Appendix B.1 page 348
27	HYDAT Station summary table and hydrographs updated/ replaced with the most current data	Appendix B3 page 350-362
28	Groundwater Quality – PGMN Wells was updated with the most recent available data	Appendix B8 page 397 - 401
29	Groundwater Monitoring Network – PGMN Wells table updated	Appendix B6 page 383
30	Updated Appendix B.4 Surface Water Quality	Appendix B.4, page 363-380
31	Groundwater Level data hydrographs updated up to 2020	Appendix B.7 page 385-395
32	Municipal Raw Water Quality update with the most recent data for Halton Region systems	Appendix B.9 page 402-409

Additional changes to the Halton Region Assessment Report from Early Engagement in summer 2021 with Ministry of the Environment, Conservation and Parks (MECP) and others
Table 2

No.	Nature of the Change (Proposed Amendment)	Sections (page numbers are approximate)
1	Updated threat count for the Freelon municipal system based on County of Wellington and the City of Hamilton staff's verification	Table 7.2 and Table 8.2, page 227 and 239, respectively
2	Corrected Burlington intakes depths to 5 meters from water surface based on Stantec Consulting Ltd. 2008 technical studies and confirmed by Halton Region water treatment plant staff in August 2021	Section 4.5.1 page 117; Table 6.2 page 184 and separate Technical Study
3	Replaced Halton OP write-up with text provided by Halton Region	Section 2.2.1, page 49

No.	Nature of the Change (Proposed Amendment)	Sections (page numbers are approximate)
4	Replaced population distribution and density write-up with text provided by Halton Region	Section 2.2.2, page 50
5	Replaced a paragraph with text provided by Halton Region	Section 2.2.3, page 55
6	Updated estimated number of users in Table 4.2 based on the feedback from Halton Region	Table 4.2, page
7	Minor edits to text based on feedback from Halton Region	Section 4.5.1, page 124
8	Text edits on municipal wastewater treatment plants based on feedback provided by Halton Region	Section 4.6.1, page 127
9	Table 4.5 updates on municipal wastewater treatment plants based on feedback from Halton Region	Table 4.5, page 128
10	Lake Ontario vulnerability reassessment of IPZ-1 and IPZ-2 to address MECP early engagement comments and Technical Study: Lake Ontario intake protection zone re-delineation and vulnerability reassessment	Section 6.1: page 182 – 199, Table 7.2 and separate Technical Study
11	Description on DNAPLs enhanced and list of examples corrected from feedback from Wellington Source Water Protection	Section 7.2.1: page 269
12	Updated general information on biosolids treatment in Halton and Hamilton from feedback from Halton Region and City of Hamilton	Section 7, threat: NASM, page 266

CHANGE LOG - Section 36 Updates for the Hamilton Region Assessment Report

Table 3

No.	Nature of the Change (Proposed Amendment)	Sections (page numbers are approximate)
1	Change to document version number, description, date to reflect a S. 36 update	After the cover page, Appendix A page 199
2	Change MOECC to MECP where appropriate and Environment Canada to Environment and Climate Change Canada	Throughout
3	Reference to Technical Rules 2009 updated to Technical Rules 2017	Section 1.2 page 4, Section 8.2 page 176, bibliography, Appendix A page 193
4	Table 2.1 updated with 2016 Census data	Section 2, page 10
5	Changed PPS and Greenbelt Plan policy numbers and dates	Section 2.2.1 page 29
6	Updated Section 4.2.1 Surface Water Quantity using most recent data and interpretation	Section 4.2.1 page 57-59
7	Adding charts and text to Section 4.2.2 Surface Water Quality	Section 4.2.2 page 60-63
8	Minor updates to Section 4.3 Groundwater Monitoring	Section 4.3 page 71
9	Removal of sodium and chloride references from the circumstances related to on-site sewage systems and holding tanks, per the 2017 Technical Rules	Section 4.3.2 page 74, Section 7.1 page 152
10	Updated section 4.3.2 Groundwater quality, added figures 4.6 and 4.7 and edited text	Section 4.3.2 page 74-75
11	Updated section 4.5 Water Use with the 2020 PTTW data	Section 4.5 page 77
12	The “establishment and operation of a liquid hydrocarbon pipeline” added as a prescribed threat (and removed as a local threat) per the 2017 Technical Rules. Threats were assessed per the Table of Drinking Water Threats	Section 6.1: 130-133; Section 7.2: 153-169, 171
13	Transport pathway assessment information updated in Section 6.2	Section 6.2 page 133
14	Updated Section 7.3 Conditions in terms of criteria (using 2017 Technical Rules) and sources of data	Section 6.3 page 169-170
15	Transport pathways assessment in wellhead protection areas per S. 36 work	Section 6.2.3: 144-146
16	Technical Study: Transport pathways assessment in wellhead protection areas	This is a separate technical study provided.
17	Table 7.1 updated with the most recent threat count	Section 7.4.1 page 221
18	Removal of references to vulnerability scoring in significant groundwater recharge areas (SGRAs), per the 2017 Technical Rules	Section 7.5: Table 7.3 page 172
19	Appendix B.1 edits	Appendix B.1 page 212

No.	Nature of the Change (Proposed Amendment)	Sections (page numbers are approximate)
20	HYDAT station summary table and hydrographs updated with the latest data.	Appendix B.3 page 214-2026
21	PGMN groundwater level hydrographs updated with the most recent available data.	Appendix B.7 page 239-247
22	Groundwater Quality – PGMN Wells updated with the most recent data available.	Appendix B.8 page 248-249
23	Municipal Raw Water Quality updated	Appendix B.9 page 250
24	PWQMN Surface Water Quality table update	Appendix B.4 page 227-236

Additional changes to the Hamilton Region Assessment Report from Early Engagement in summer 2021 with Ministry of the Environment, Conservation and Parks (MECP) and others
Table 4

No.	Nature of the Change (Proposed Amendment)	Sections (page numbers are approximate)
1	Lake Ontario vulnerability reassessment of IPZ-1 and IPZ-2 to address MECP early engagement comments and Technical Study: Lake Ontario intake protection zone re-delineation and vulnerability reassessment	Section 6.1: page 159 – 168; Table 7.3
2	Description on DNAPLs enhanced and list of examples corrected from feedback from Wellington Source Water Protection	Section 7.2: page 214
3	Updated general information on biosolids treatment in Hamilton from feedback from City of Hamilton	Section 7, threat: NASM, page 210

Proposed Updated Wellhead Protection Area (WHPA) Vulnerability Scores

A comprehensive technical study was carried out in 2021 by Conservation Authority staff: Technical Report on the Transport Pathway Assessment for the Halton-Hamilton Source Protection Region, August 30, 2021. A consistent methodology was applied to all WHPA of the source protection region. This led to the identification of a few contaminant transport pathways in some of the WHPAs and the removal of two previously identified transport pathways in one WHPA. Under Ontario's *Clean Water Act, 2006*, a transport pathway to groundwater sources of municipal drinking water is a human-made feature that increases the vulnerability of the sources. Transport pathways bypass the natural protection provided by soil and rock layers and natural processes, resulting in a greater risk of contamination of our water sources. Applicable source protection plan policies would apply.

a) Campbellville drinking water system

In parts of WHPA-B and C, the vulnerability scores were increased as a result of identifying a well transport pathway and delineating an area of influence around it. The Figure 1 shows the updated vulnerability scores (see the Transport Pathway Area of Influence). Based on the land uses, there are **no** policy implications from the identification of transport pathways.

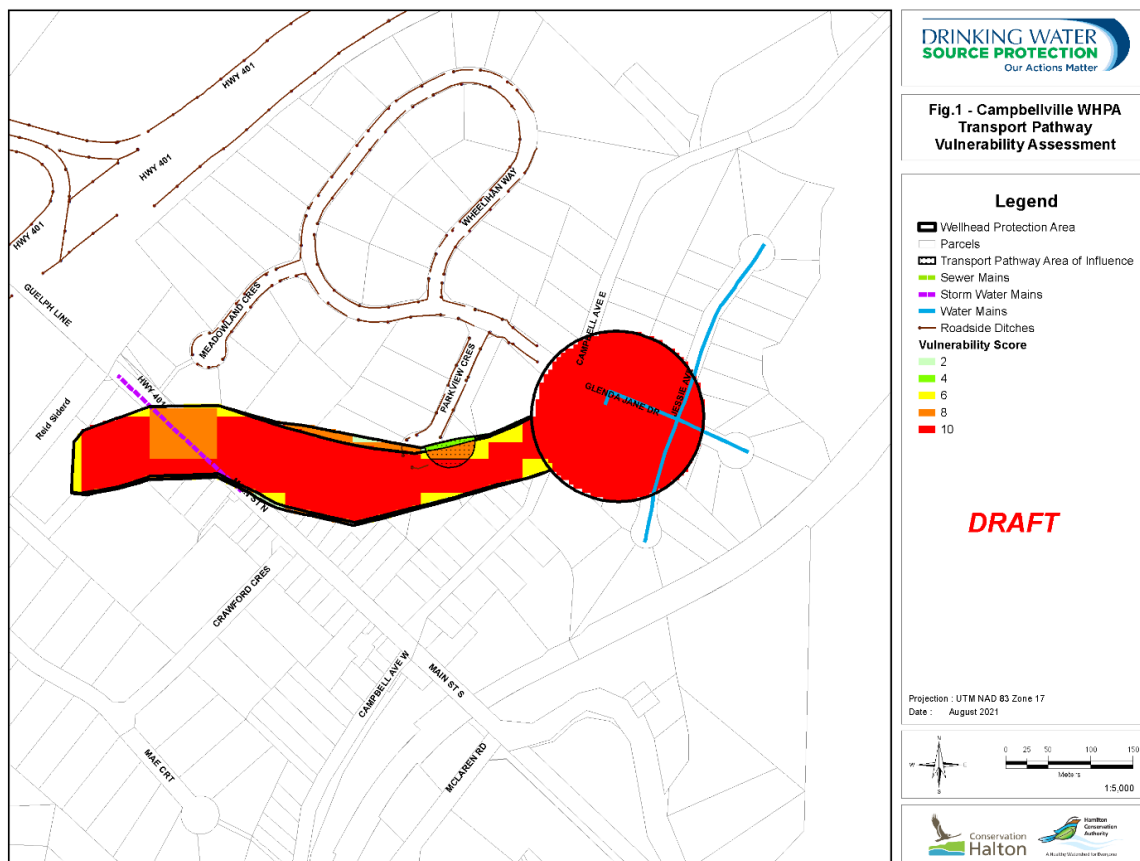


Figure 1: Campbellville Transport Pathway Vulnerability Assessment

b) Kelso drinking water system

In part of WHPA-B, the vulnerability score was increased as a result of identifying a well transport pathway and delineating an area of influence around it. The Figure 2 shows the updated vulnerability scores (see the Transport Pathway Area of Influence). The potential policy implication as a result of technical work is summarized further below in the significant threats counts section.

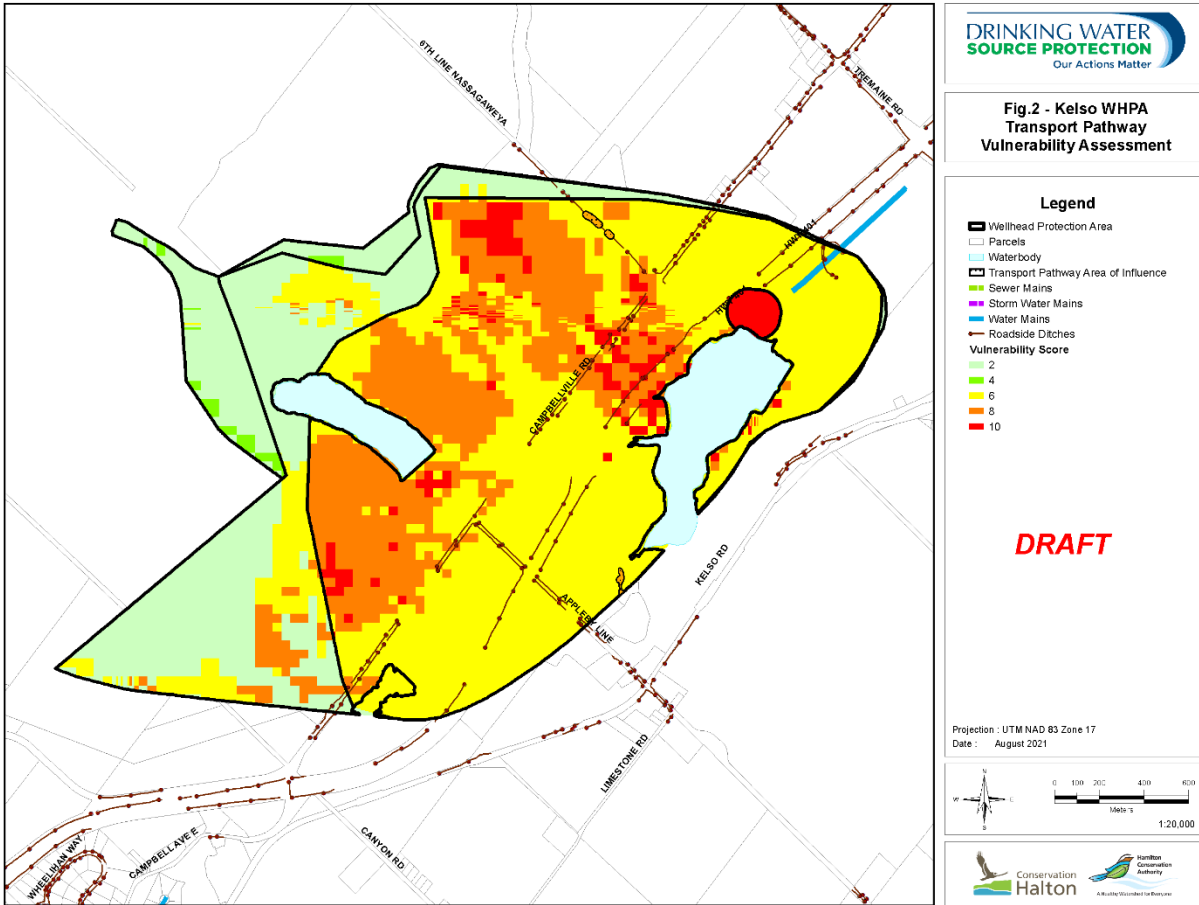


Figure 2: Kelso Transport Pathway Vulnerability Assessment

c) Walkers Line drinking water system

From the transport pathways identification work carried out, vulnerability scores of parts of WHPA-B, C and D were increased. The Figure 3 shows the updated vulnerability scores (see the Transport Pathway Area of Influence). The potential policy implication as a result of technical work is summarized further below in the significant threats counts section.

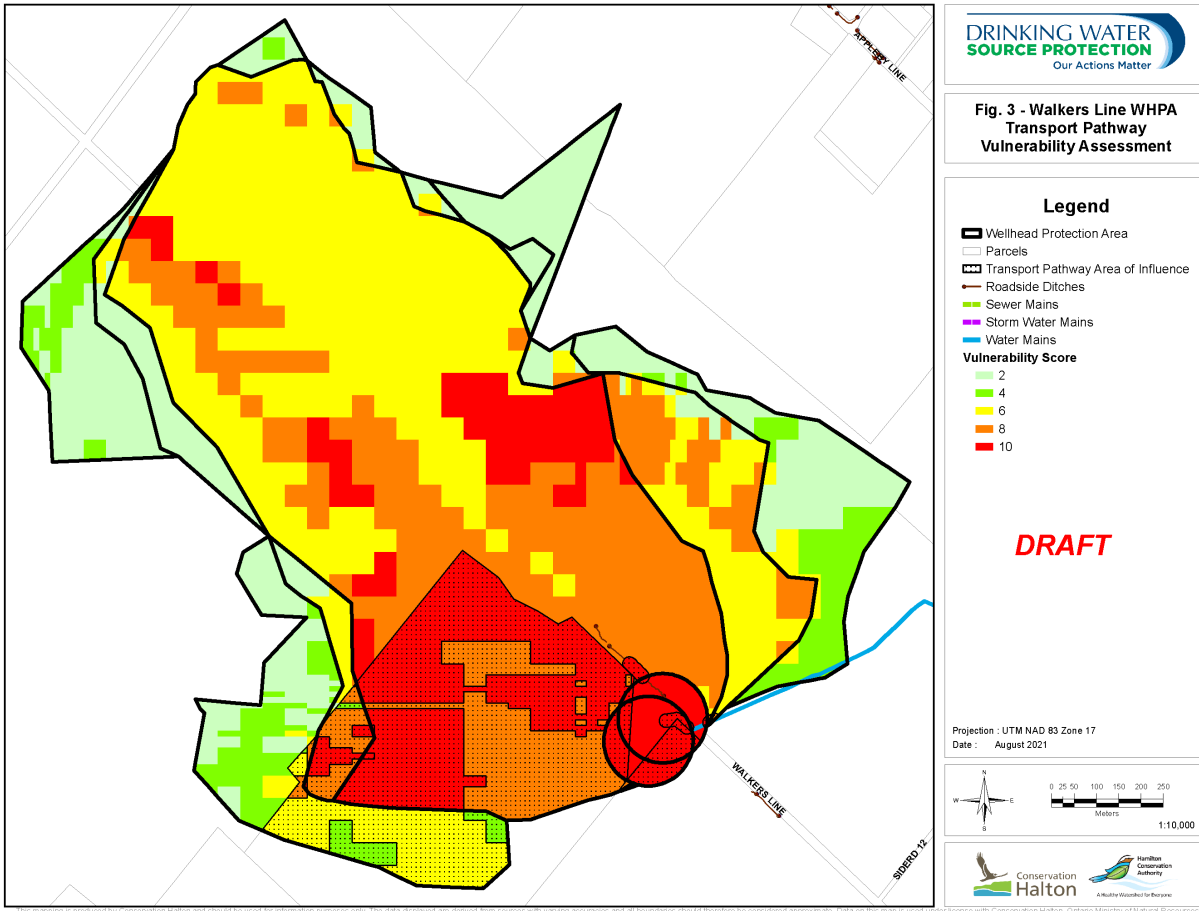


Figure 3: Walkers Line Transport Pathway Vulnerability Assessment

d) Greensville drinking water system

Due to the recent enhanced analysis applying a consistent methodology across all WHPAs of the source protection region, two previously identified wells transport pathways were removed from consideration within the WHPA-B. The vulnerability score in a part of WHPA-B is decreased from 10 to 8 accordingly near Birch Crescent. These wells were previously identified as transport pathways in 2017. Figure 4 shows the updated vulnerability scores. An additional transport pathway was identified in WHPA-A which is already at the highest possible vulnerability score and therefore there are no policy implications within the WHPA-A. The potential policy implication as a result of technical work is summarized further below in the significant threats counts section.

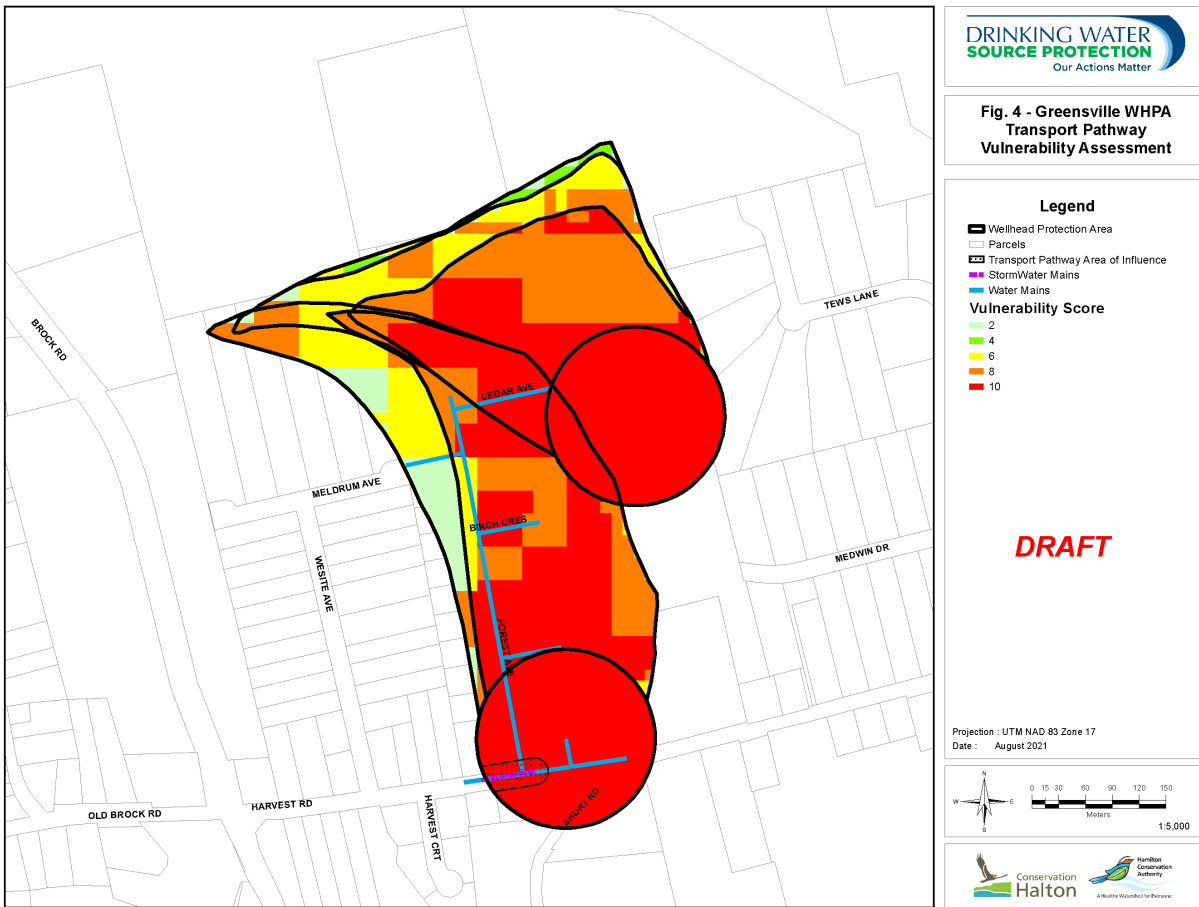


Figure 4: Greensville Transport Pathway Vulnerability Assessment

e) Carlisle drinking water system

The vulnerability score increased in parts of WHPA-B and WHPA-C as a result of the transport pathways analysis. The Figure 5 shows the updated vulnerability scores (see the Transport Pathway Area of Influence). The potential policy implication as a result of technical work is summarized further below in the significant threats counts section.

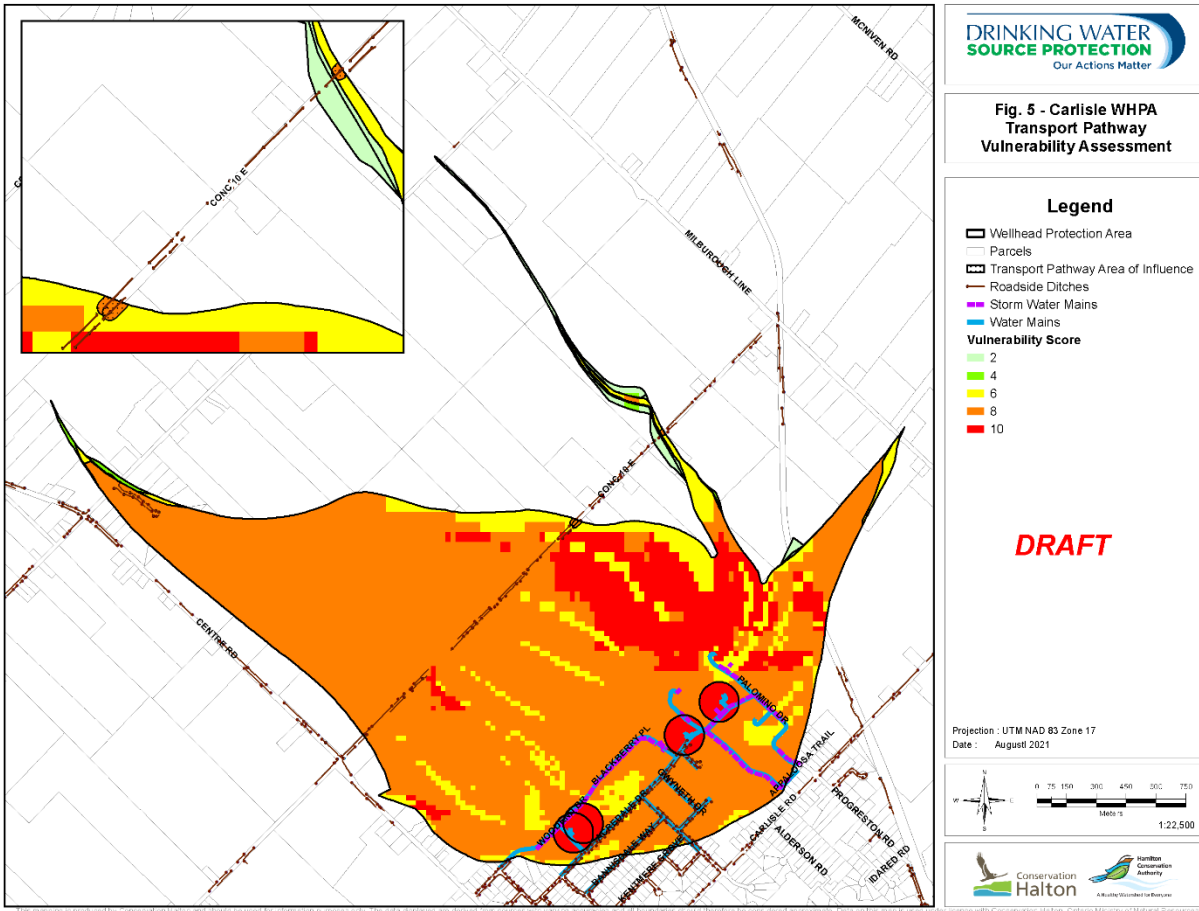


Figure 5: Carlisle Transport Pathway Vulnerability Assessment

f) Freelon drinking water system

The Freelon WHPA was re-delineated and the vulnerability re-assessed as described in the next section. Transport pathways were included in the analysis, applying the same methodology as the other WHPAs.

Proposed Updated Freelon Wellhead Protection Area (WHPA) Delineation and Vulnerability Scores

The Freelon drinking water system is owned by the City of Hamilton and has two wells FDF01 and FDF03. The pumping rate of one of the wells is being increased, to provide operational flexibility and redundancy. The increase is within the amended Permit to Take Water limit. The City of Hamilton retained EarthFx Inc. consulting services to undertake the required WHPA re-delineation technical study.

The draft technical study was commented upon by Halton-Hamilton Source Protection Region staff, MECP and Wellington Source Water Protection during 2020-2021. EarthFx Inc. addressed the comments and finalized the proposed WHPA delineation, which is larger than the current delineation and has a larger area of increased vulnerability scores. In the re-delineated WHPA of well FDF01 (south, smaller WHPA), there are 264 properties, compared to 173 properties from the current approved assessment report. In the re-delineated WHPA of well FDF03, there are 161 properties compared to 145 properties from the current approved assessment report. "Current" refers to the Assessment Reports approved in 2015, and amended in 2017 for edits unrelated to the Freelon WHPA delineation and vulnerability scores.

A number of transport pathways were identified in areas of WHPA-A and WHPA-B of the well FDF01; however, the entire WHPA-A and most of these areas in the WHPA-B have a maximum vulnerability score of 10 with no possibility of further increase. Vulnerability in a few small areas with medium vulnerability was increased to high and the vulnerability score changed accordingly. In the WHPA-A, B, C and D of well FDF03, transport pathways were identified and vulnerability scores increased. See Figure 6 for the re-delineated Freelon WHPA with updated vulnerability scores. The potential policy implication as a result of technical work is summarized further below in the significant threats counts section.

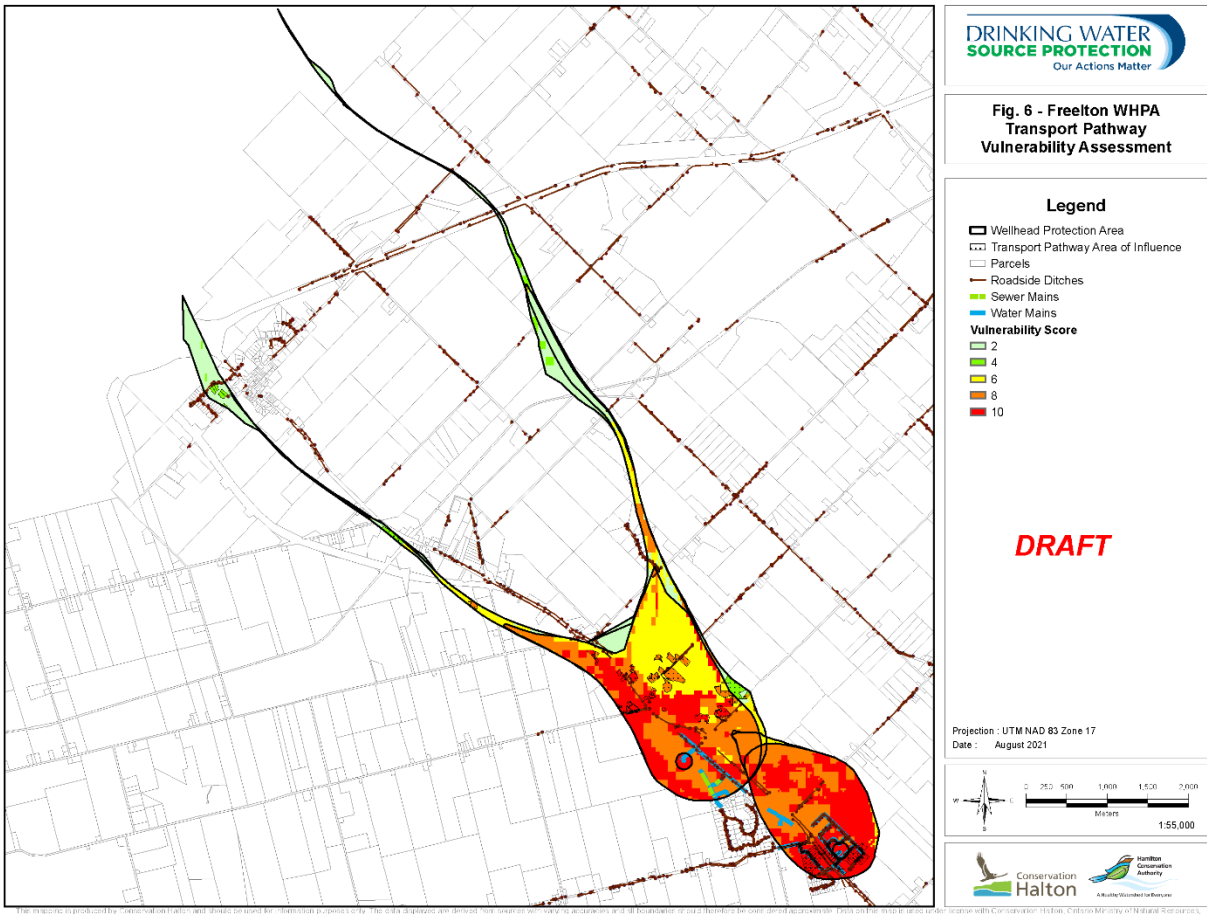


Figure 6: Updated Freelon Wellhead Protection Area with Transport Pathways Assessment

Proposed Updated Managed Lands and Livestock Density Mapping

Managed lands are defined by the *Clean Water Act, 2006* Technical Rules (overarching technical framework) to include lands to which agricultural source material, commercial fertilizer, or non-agricultural source material is applied. Livestock density is an estimate of the number of farm animals on a property, and is equated to nutrient units per acre. The managed lands and livestock density calculations are used to identify potential risks from agricultural activities. The methodology used in the first approved Assessment Report was followed to develop the maps, with the following updates: 2019 Ortho photography, GIS symbology per MECP guidance, and other minor updates such as logos and dates. A summary of changes from the approved assessment reports are provided below, along with Figures 7-9 showing the updated maps.

In the WHPA of Greensville well FDG02, the managed lands percent increased but there are no policy implications based on the land use. In the Kelso WHPA and the Carlisle WHPA, the livestock density increased and the potential policy implication as a result of technical work is summarized further below in the significant threats counts section.

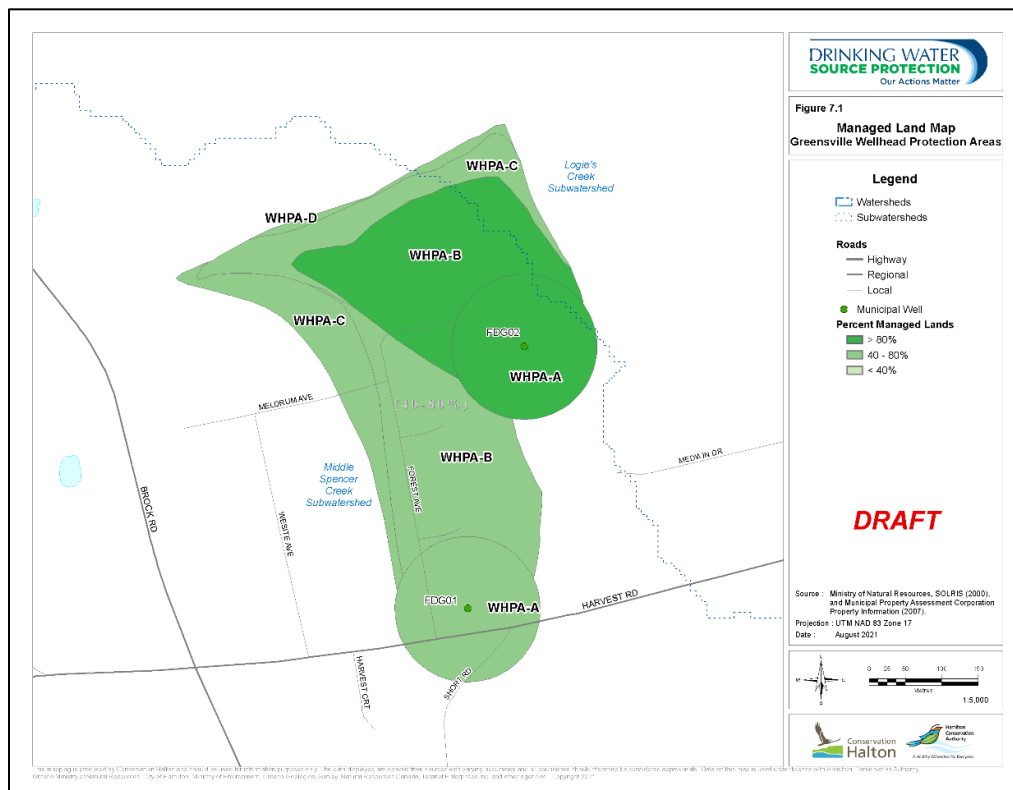


Figure 7: Greensville Managed Lands Map (Figure 7.1 of the Hamilton Assessment Report)

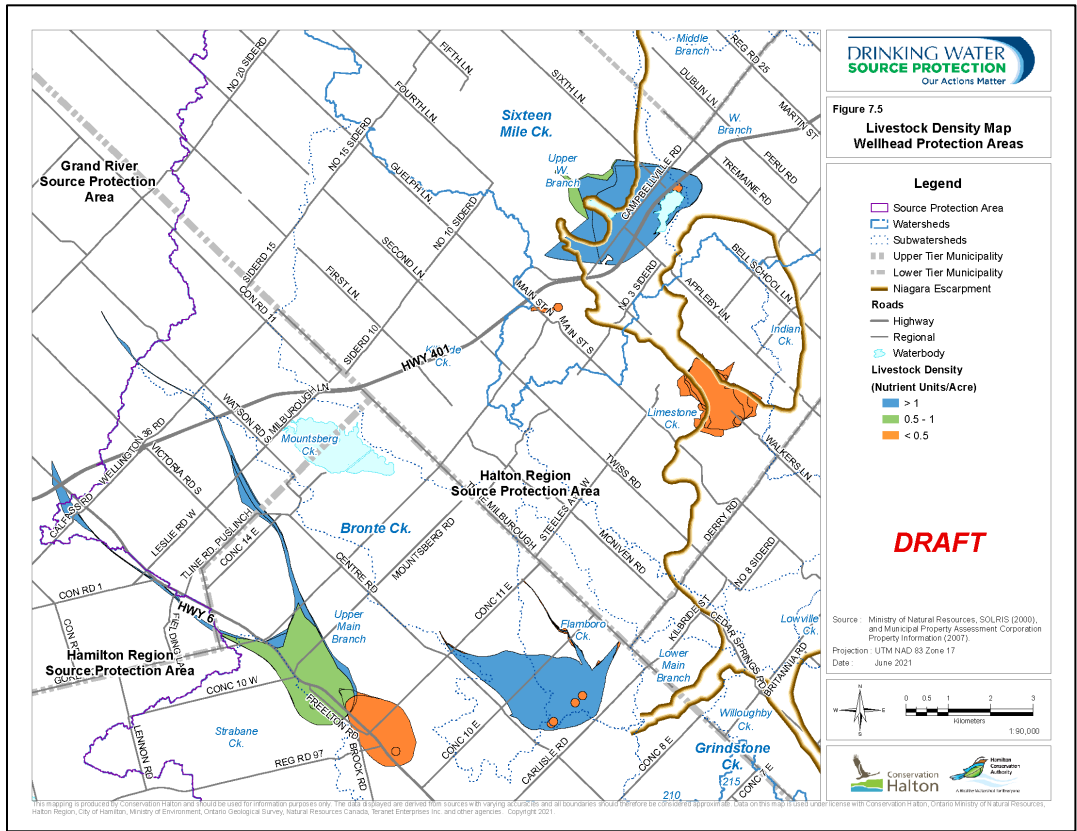


Figure 8: Halton Region Source Protection Area WHPA Livestock Density Map (Figure 7.5 of the Halton Assessment Report; Kelso WHPA overlaps Campbellville Road and Sixth Ln.; Carlisle WHPA overlaps Conc. 10 E)

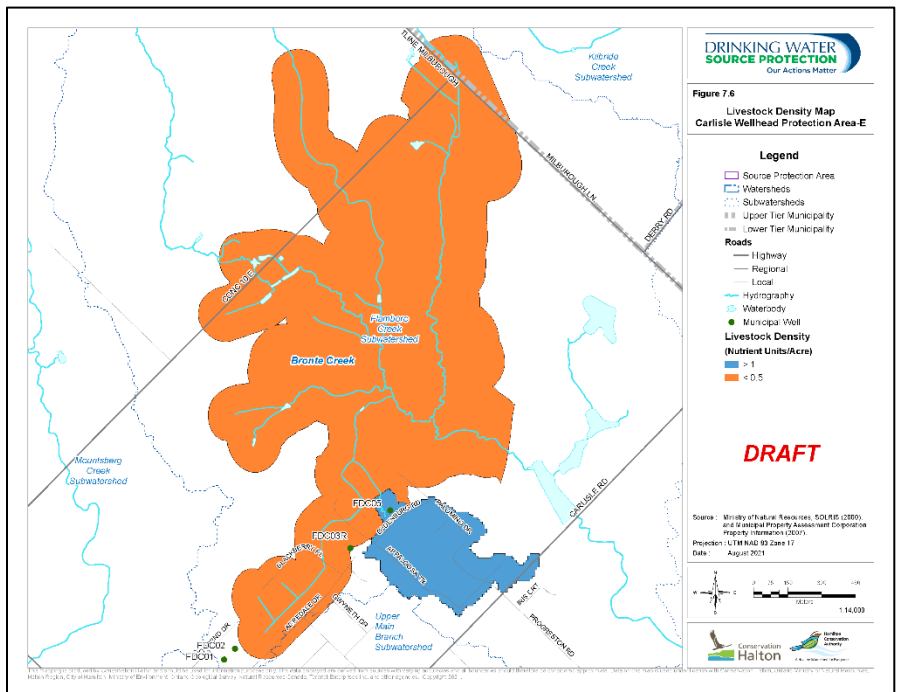


Figure 9: Carlisle WHPA-E Livestock Density Map (Figure 7.6 of the Halton Assessment Report)

Proposed Updated Impervious Surfaces Mapping

Total impervious surface area maps are based on the surface area of all highways and other impervious land surfaces used for vehicular traffic and parking, and pedestrian paths where road salt can be applied. These maps help assess the risks posed to municipal drinking water sources from the application of road salt. The method to develop these maps are provided in the *Clean Water Act, 2006* Technical Rules. Source Protection Region staff updated the impervious surfaces maps to reflect landscape changes since the first approved assessment reports, using 2019 digital ortho photo imagery. In the WHPAs, there are no major landscape changes except for a new subdivision in the City of Hamilton overlapping the Greenville WHPA; however there are **no** new significant risk level road salt application threats identified in WHPAs. In the intake protection zones and highly vulnerable aquifers, there are a few areas where impervious surfaces have changed; however there are **no** new significant risk level road salt application threats identified in these vulnerable areas either.

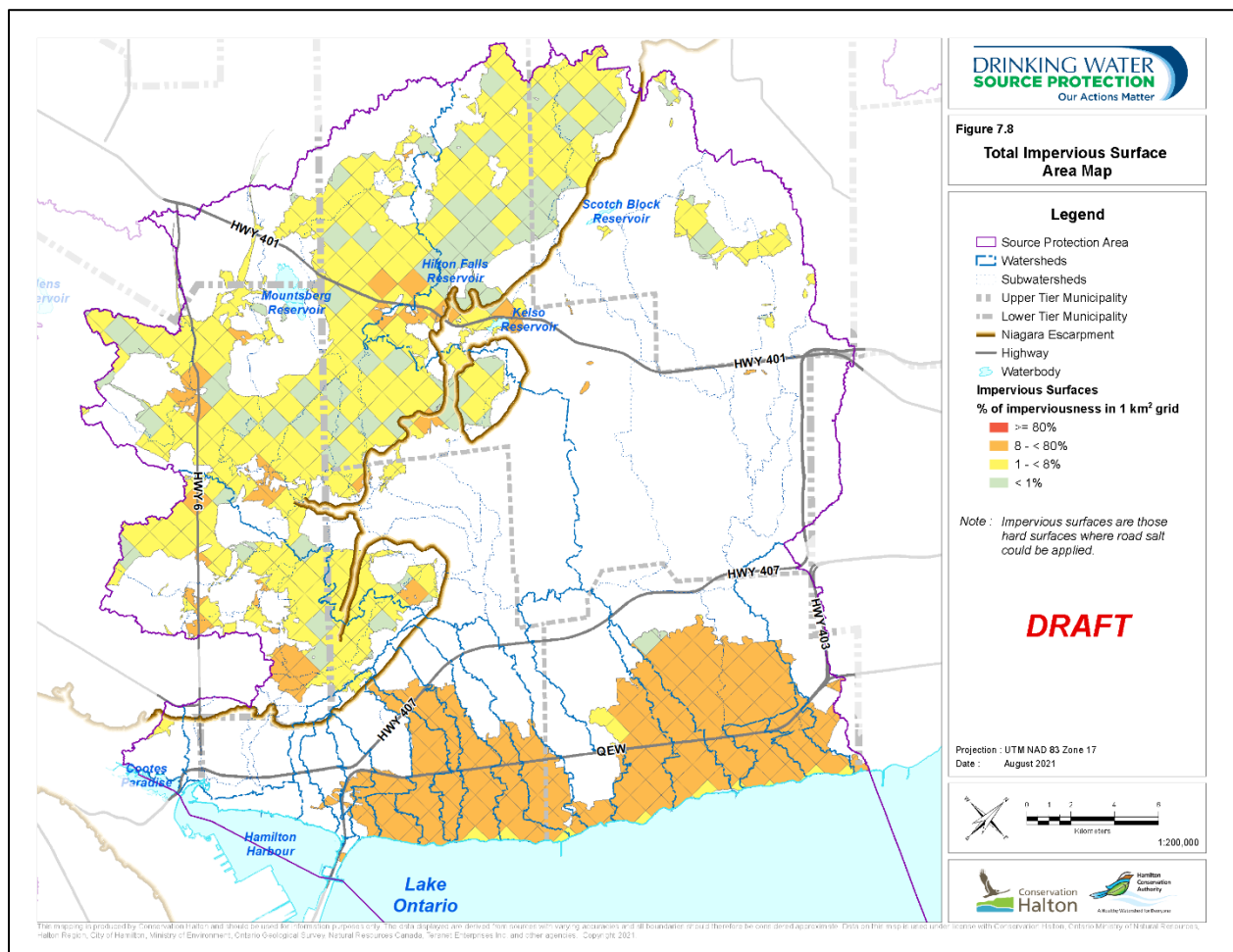


Figure 10: Total Impervious Surfaces Map (Figure 7.8 of the Halton Assessment Report)

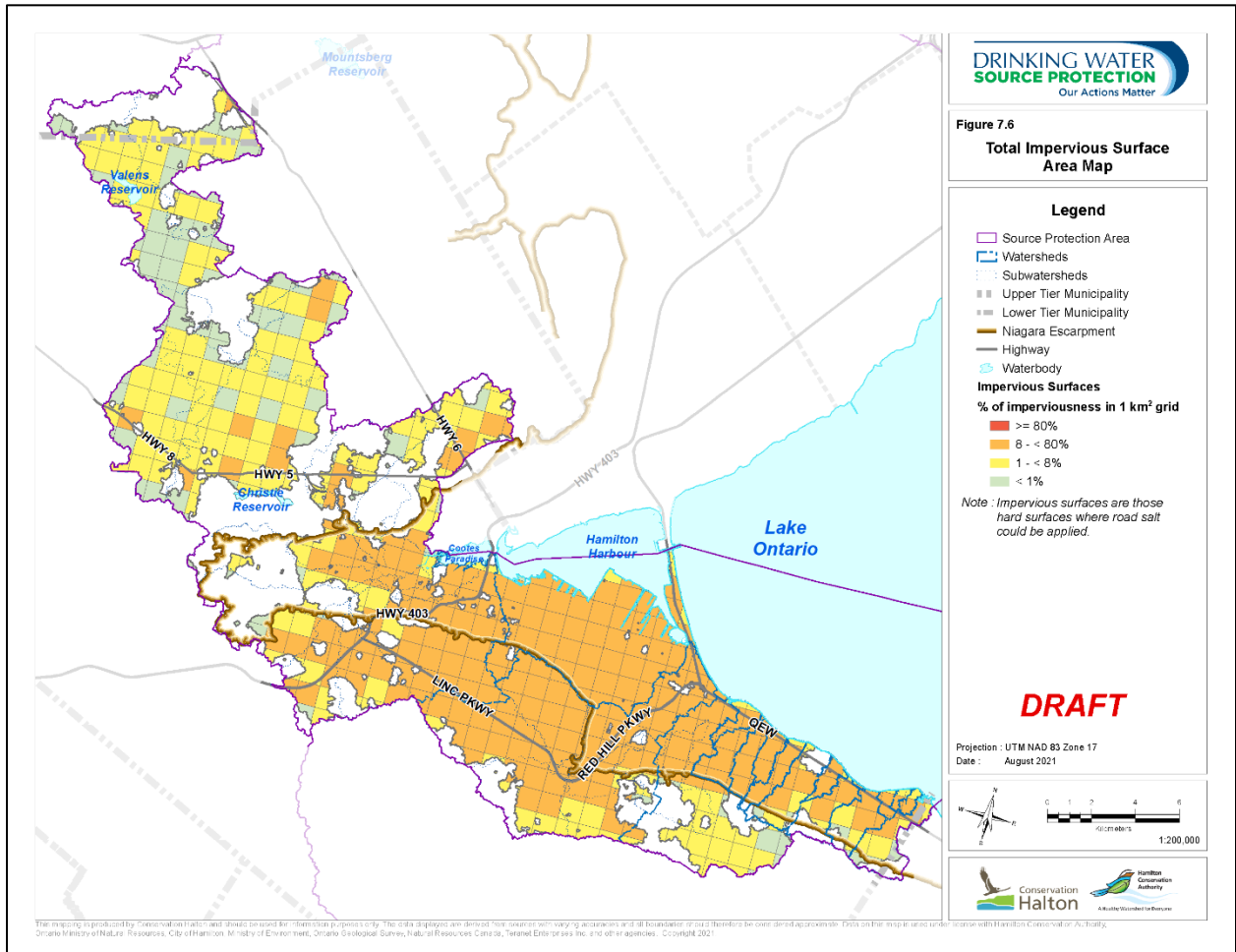


Figure 11: Total Impervious Surfaces Map (Figure 7.6 of the Hamilton Assessment Report)

Proposed Updated Potential Significant Threat Activity Counts

From the technical work conducted for wellhead protection areas (WHPAs), the number of potential significant threat activities has increased in the Freelton, Carlisle, Kelso and Walkers Line WHPAs. In the Greenville WHPA, the number has decreased. The tracked-changes documents are available at the website indicated on page 1. In the Halton Region Assessment Report, please see Table 7.2 on page 277 of the tracked-changes version. In the Hamilton Region Assessment Report, please see Table 7.1 on page 221 of the tracked-changes version. The updated counts are shown in Table 5 below.

In the Freelton WHPA, the large increase in potential significant threat counts is due to the WHPA re-delineation and vulnerability re-assessment. Of the 264 properties in well FDF01 WHPA (south, smaller), approximately 184 properties could have potential significant threat activities occurring. Of the 161 properties in the well FDF03 WHPA, approximately 77 properties could have potential significant threat activities occurring. Applicable source protection policies would apply.

In the Carlisle WHPA, applicable source protection plan policies would apply to three additional properties. In the Kelso WHPA, applicable source protection plan policies would potentially apply to one additional property. In the Walkers Line WHPA, applicable source protection plan policies would potentially apply to one additional property.

In the Greenville WHPA, due to the removal of two previously identified transport pathways through the enhanced, consistent method of analysis applied to all WHPAs in the source protection region, the policy requiring inspections of septic systems would no longer apply to two properties.

The updated threats counts are based on air photos, and a refinement where possible is based on information from municipalities. Several of the properties were field verified for certain types of activities by municipal staff during the first round of source protection planning. This information is being used to inform subsequent pre-consultation followed by public consultation with persons/businesses believed to be engaging in significant threat activities, per consultation requirements of the legislation. Source Protection Region staff continue to work collaboratively and closely with municipal staff to refine the potential significant threats counts where possible.

Table 5: Updated Potential Significant Threat Counts

Drinking Water Threat	Number of Potential Occurrences (Significant Threats)						
	Freelton FDF01	Freelton FDF03	Carlisle	Walkers Line	Campbellville	Kelso	Greenville
Sewage system operation	173P (15P*)	73P (11P*)	36P		33P	4P	34P, 1C (36P, 1C)*
Agricultural source material - application	2C, 4P (0)*	4P (0)*	4C, 4P (0C, 2P)*			2C, 2P (0C, 1P)*	
Agricultural source material - storage	1C, 1P (0)*	4C, 4P (0)*	4C, 4P (0)*			2C, 2P (1C, 2P)*	
Non-agricultural source material - application		4C, 4P (0)*					
Non-agricultural source material - storage	2P (0)*	3P (0)*					
Commercial fertilizer - application	19C (0)*	11C (0)*					
Commercial fertilizer - storage	11C (0)*	12C (0)*				1C	
Pesticide - application	9C (0)*	12C (0)*	4C			1C	
Pesticide - storage	5C (0)*	12C (0)*					
Fuel – handling and storage	175C (0)*	70C (6C)*			1C	3C	
Land associated with livestock		1C, 6P (1C, 1P)*	5C, 5P (1C, 1P)*			2C, 2P (1C, 2P)*	
Road salt - application							5C
Organic solvent - storage	6C (0)*	5C (0)*					
Dense non aqueous phase liquid handling and storage	2C (0)*	4C (0)*	2C (0)*	1C (0)*		1C (0)*	

Notes

C: chemical and P: pathogen circumstances, based on the Table of Drinking Water Threats (2017/2018) under the *Clean Water Act, 2006*, available at:

<https://www.ontario.ca/page/tables-drinking-water-threats>

*The numbers in the brackets are from the current Assessment Reports approved in 2015, and amended in 2017. Where there are no brackets, the counts have not changed.

Proposed Updated Intake Protection Zone (IPZ) Delineations

Municipal drinking water intakes draw from different surface water sources including lakes, rivers, creeks, etc. Under the *Clean Water Act*, they are protected by delineating and assessing intake protection zones (IPZs). There are two IPZs that must be delineated for each municipal intake: IPZ-1 and IPZ-2. A third type, IPZ-3, is optional under the *Clean Water Act* technical framework.

Conservation Halton staff conducted a technical study “Technical Study for the Lake Ontario Intake Protection Zones in the Halton Region and Hamilton Region Source Protection Areas”, August 10, 2021. This technical study provides updates to the certain portions of the Lake Ontario intake protection zone (IPZ) delineations (for three systems of the Halton Region source protection area) and vulnerability assessments for all four systems: Oakville, Burloak, Burlington and Woodward municipal drinking water intakes. The revised inland delineations for Oakville, Burloak, and Burlington IPZ-2 are based on in-stream flow velocities obtained from Conservation Halton hydraulic models developed for a separate floodplain mapping project.

The Table 6 summarize the results of the re-delineation for the intakes of the Oakville, Burloak and Burlington municipal drinking water systems. The updated IPZ maps are below.

Table 6: The 2015 and Re-delineated Lake and Land Areas in the Intake Protection Zones-2

Lake Ontario Intake	2015* IPZ-2 (Land only) km ²	Re-delineated IPZ-2 (Land only) km ²	Summary of Change
Burlington	36.3	41.7	13% more land in the re-delineated IPZ-2: north of Dundas (mainly agricultural) and between Upper Middle Road and QEW at Appleby Line (developed)
Burloak	30.4	38.9	21% more land in the re-delineated IPZ-2: Lakeshore to QEW and at Upper Middle Road and Appleby Line (developed)
Oakville	66.2	53.3	20% less land in the re-delineated IPZ-2: along Upper Middle Road

*The Halton Region Assessment Report was approved in 2015 and amended in 2017 for minor typographical edits.

The modelled IPZ-3s were not changed and threats assessments remain the same as in the current approved assessment reports.

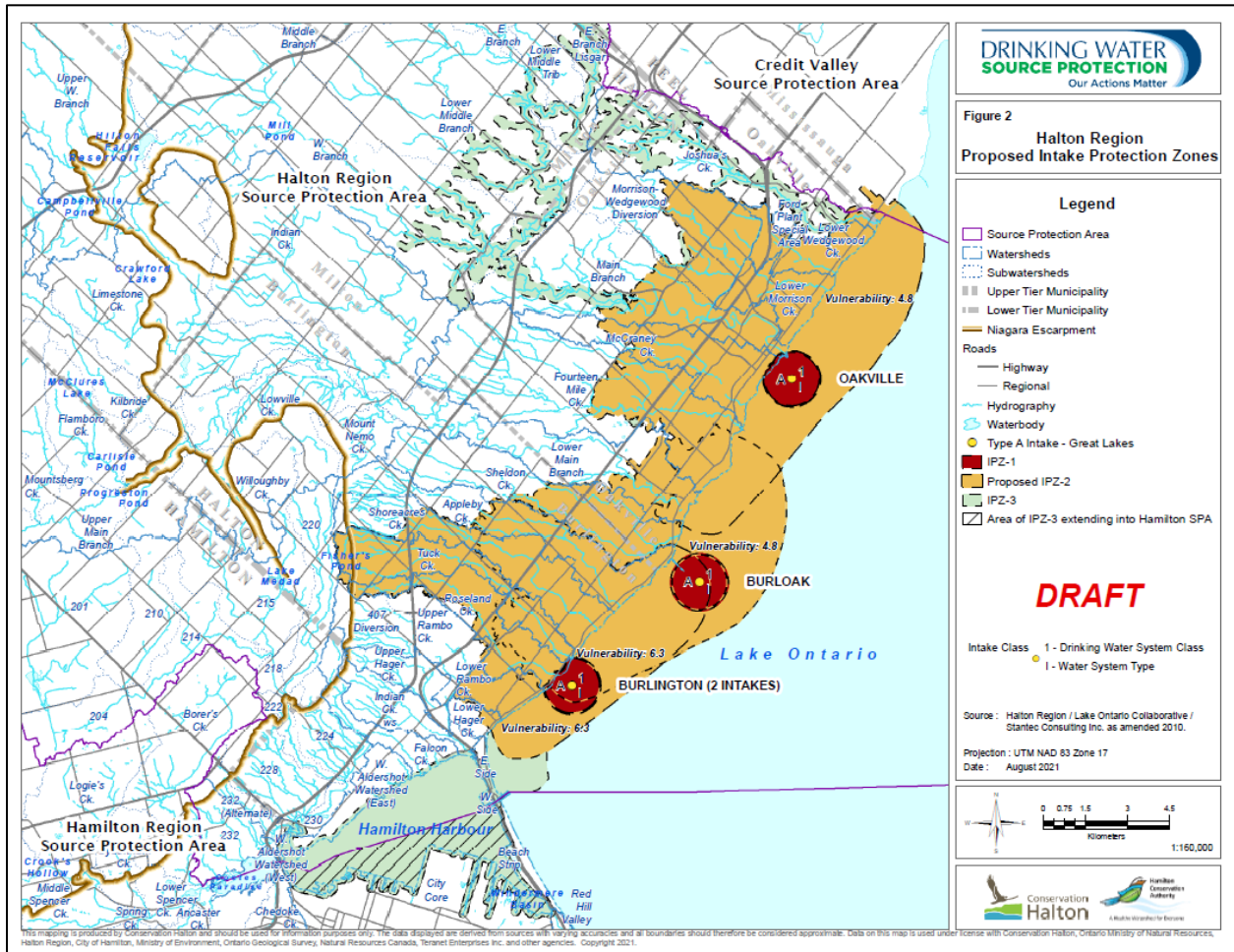


Figure 12: Halton Region Source Protection Area - Intake Protection Zone Delineations (Figure 2 of the Technical Study for the Lake Ontario Intake Protection Zones in the Halton Region and Hamilton Region Source Protection Areas, August 10, 2021)

Proposed Updated Intake Protection Zone (IPZ) Vulnerability Scores

As noted in the previous section, Conservation Halton staff conducted a technical study “Technical Study for the Lake Ontario Intake Protection Zones in the Halton Region and Hamilton Region Source Protection Areas”, August 10, 2021. Staff reassessed the vulnerability of the Lake Ontario intakes in the Halton Region source protection area based on re-delineated IPZ-2 areas and also based on a larger range of source vulnerability factor allowed for IPZ-1 and IPZ-2 of Great Lakes intakes (“type A” intakes), per the 2017 technical rules under the *Clean Water Act, 2006* (specifically, the rule 95.1 which was introduced in 2017).

Vulnerability scores were assigned considering both source and area characteristics, following the 2017 technical rules. The final vulnerability scores are obtained by multiplying a Source Vulnerability Factor (Vsf) with an Area Vulnerability Factor (Vaf), for each zone. The Vsf considers the distance of the intake from shore, the depth of the intake from water surface, and the historical water quality concerns at the intake. The Vaf considers the percentage of the zone that is land, the land characteristics, and the hydrological and hydrogeological conditions around natural or anthropogenic transport pathways.

The Table 7 below shows the revised vulnerability scores for IPZ-1 and IPZ-2. Note that although the revised IPZ-2 vulnerability scores are higher, they are **not** high enough to have significant risk level threats in the re-delineated IPZ-2s.

Table 7: Updated Vulnerability Scores for Intake Protection Zones

Lake Ontario Intake	Reassessed Vulnerability Score of IPZ-1	Reassessed Vulnerability Score of IPZ-2
Burlington	7 (current: 7)	6.3 (current: 5.6)
Burloak	6 (current: 5)	4.8 (current: 4.0)
Oakville	6 (current: 6)	4.8 (current: 4.8)
Woodward	5 (current: 6)	4.0 (current: 4.8)

Note: “current” refers to the Assessment Reports approved in 2015, and amended in 2017 for unrelated edits

SOURCE PROTECTION PLAN (SPP)

For the Halton and Hamilton source protection areas

CHANGE LOG

Table 8

No.	SPP Section or Policy#	SPP Updates
1.	After the cover page	Changes are proposed to the document version number, description, and date to reflect the Section 36 update to the SPP
2.	All policies	<p>As described in the Section 36 workplan, users of the source protection plan requested amendments to provide clarity and to make the plan more easily understood. These include vulnerable area geographic references and legal effect of each policy. Formatting is required to ensure compliance with the Accessibility for Ontarians with Disabilities Act, 2005 (AODA).</p> <p>MECP provided early engagement comments to change legal effect of “must comply” to be: “must conform” for Legal Effect Lists G, H and I (Clean Water Act Part IV S. 57, 58 and 59 policies). This change is made throughout the SPP.</p>
3.	Applicable policies	Update MOECC to “Ministry of Environment, Conservation and Parks” where relevant; update Source Protection Department of the Conservation Authorities to “Halton Region and Hamilton Region Conservation Authorities”
4.	Elaboration of “Legal effect”	The concept of “legal effect” is key to elaborate on to help explain how some polices are legally binding and others are non-binding.
5.	Applicable text	The “establishment and operation of a liquid hydrocarbon pipeline” added as a prescribed threat (and removed as a local threat) per the 2017 Technical Rules.
6.	G-1 (legally binding) Enacts timing requirements for implementation of SPP policies.	<p>The assessment reports are updated from time to time through Clean Water Act, 2006 Section 34, 35, or 36 updates, and typographical and other minor edits through an O. Reg. 287/07 Section 51 update. New threats may be identified. Certain policies to address the threats must be implemented within a certain timeframe dependent upon the date that the updated plan takes effect. In preparation for early engagement, staff’s edits to policy G-1 proposed that the:</p> <ul style="list-style-type: none"> (a) timeline for risk management plans be 5 years from when the updated Source Protection Plan (pursuant to Section 34, 35 or 36) comes into full force and effect; and (b) timeline for prescribed instrument amendments be 3 years from when the updated Source Protection Plan (pursuant to Section 34, 35 or 36) comes into full force and effect. <p>The above edits remove the need to update the timeline policy G-1 each time there is a Section 34 or 35 or 36 update (amendment) to the SPP. It ensures that activities identified as being subject to risk management plan (RMP) and prescribed instrument policies do not need to meet the policy requirements by a</p>

No.	SPP Section or Policy#	SPP Updates
		<p>misinterpreted deadline of 2020 or 2021. It does mean that the timeline depends upon a particular amendment coming into full force and effect; therefore different RMPs and prescribed instrument amendments could have different timelines. E.g.: An RMP resulting from a Section 34 in 2022 would have a timeline of ~ 2027. But an RMP resulting from a Section 35 in 2025 would have a timeline of ~ 2030. There is general consensus amongst municipalities with this approach. (Section 51 is not included in the above proposed edits because timeline amendments for risk management plans and prescribed instruments are not considered to be typographical and other minor edits).</p> <p>MECP provided comments during early engagement in July 2021 on the above policy revision. Revisions were made to Section 2.4 to indicate that updates to the SPP occur from time to time and that the effective date would change accordingly. Policy G-1 is edited to indicate both: the effective date of all policies unless otherwise specified, and the exceptions. Reference to s. 58(3) is removed in policy part (a). Policy Part (b) is removed.</p>
7.	<p>G-2 (legally binding) Designates land uses to which the restricted land uses provisions (Section 59) of the Clean Water Act, 2006 apply.</p>	<p>This addresses a requirement related to policy consistency, per the Minister’s Section 36 amended Order for the HHSPR. This policy update would allow risk management officials to provide written direction to municipal staff regarding types of building or planning applications that can be screened out of the Section 59 notice process.</p> <p>County of Wellington provided comments during early engagement to check that wording matches the Wellington County Chapter of the Grand River Plan dated February 3, 2021. Policy WC-CW-1.3 was used, and staff retained the wording “unless identified specifically within a policy” from the first approved SPP for HHSPR.</p>
8.	T-9-C	<p>The MECP’s updates to the tables of drinking water threats circumstances included a change from the term “stormwater retention ponds” to “stormwater management facilities”. There are no policy implications.</p>
9.	<p>T-26-C a and b (legally binding) Policy part a requires OMAFRA to ensure that nutrient management plans manage the application of commercial fertilizer to never become a significant threat.</p> <p>Monitoring policy part b requires OMAFRA to document the number and locations of properties where NMPs were</p>	<p>T-26-C part a: OMAFRA’s actions satisfy the intent of part a and no change is required.</p> <p>T-26-C part b: For the monitoring part b of the policy, OMAFRA indicated that it does not issue (approve) or review NMPs and that their response to the annual reportable of: “# of prescribed instruments approved” will always be zero/not applicable. Staff therefore recommended the removal of T-26-C part b (the monitoring policy), in March 2021.</p> <p>Since a monitoring policy is required to be written, and it is recognized that a continued reliance is placed on monitoring policy T-22-S part b to fill the gap noted above, it is proposed that the wording from T-22-S part b is used to inform the wording for a revised monitoring policy T-26-C part b. This monitoring policy requires that the MECP’s annual report provide the locations of inspections compliant and non-compliant with nutrient management plans and strategies and non-agricultural source material plans, and the actions taken</p>

No.	SPP Section or Policy#	SPP Updates
	reviewed and record measures 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.
10.	<p>T-29-S d Requests the Agrichemical Warehousing Standards Association (AWSA) to review their standards to ensure they include appropriate buffer areas to protect municipal drinking water sources and send a response to the Source Protection Authority within six months.</p> <p>New: T-30-S</p>	<p>Staff recommend that this non-legally binding portion part d (directed to the AWSA) be separated from the legally binding portion parts a, b, c. Part d is proposed to be moved into previously repealed policy T-30-S.</p> <p>The AWSA has implemented this non-legally binding policy. Through correspondence in 2019, they indicate that based on their review of the AWSA standards there are adequate policies and procedures established to comply with municipal, provincial and federal regulatory requirements to protect municipal drinking water. There is a 50m buffer from zoned residential lot lines, hospitals, schools, shopping centres, restaurants, processing facilities for feed or food and other buildings of high occupancy. Pre-approval with AWSA is required if there is potential for infringement into the 50 m buffer. Other measures include spills prevention and response. Staff propose edits that request AWSA to review their standards to ensure they include appropriate buffer areas and emergency planning and response measures to protect municipal drinking water sources. Further discussions are ongoing to encourage AWSA to incorporate information into their auditor notes who in turn could potentially advise operators of individual sites; and to send out industry bulletins to the operators.</p>
11.	<p>T-47-C b (legally binding) Requires risk management plans to manage livestock grazing.</p>	<p>Policy T-47-C part b requires a hard regulatory tool of risk management plans (RMPs) to manage livestock grazing, regardless of the number of animals. Implementation challenges and potential solutions were discussed with municipal staff early in 2021. Accordingly, a proposal to modify the policy was brought to the HHSPC at its March 2021 meeting. The SPC reached consensus on using a 5 NU (per farm property) criteria outside of WHPA-A, to determine whether the policy tool would be education and outreach (for less than 5 NU per farm) or RMP (for 5 or greater than 5 NU per farm). Further discussions on factoring in the vulnerability scores were planned with municipal staff.</p> <p>In late March 2021, the HHSPR hosted a municipal working group meeting to discuss contiguous vulnerability scores (especially a score of 10 through a WHPA-B). Generally, it was agreed that WHPA-A should continue to be subject to RMPs. It was agreed that the proposal (hinging on a 5 NU threshold) would be suitable outside WHPA-A (for significant threat activities). Follow up discussions with the City of Hamilton allowed for a closer look at what this means on the ground, and a review of the policy wording. This has allowed for municipal staff to reach the same consensus as the HHSPC.</p>
12.	<p>T-53-S c Requests that MMAH enact regulations under the Planning Act to enable the use of conditional zoning.</p>	<p>Based on public consultation feedback in 2007, the government is not proposing to proceed with a regulation to enable conditional zoning. In 2019 and in 2021, HHSPR contacted MMAH about this policy. Per the 2020 annual progress reporting, MMAH considers source water protection in its review of new land use planning documents (official plans, comprehensive zoning bylaws) and development applications. There appears to be no pressing need by municipalities and not anticipated in the future. Staff recommended the removal of policy T-53-S part (c). Note that part c was the only non-binding part of the policy. With its removal, the policy becomes legally binding.</p>

No.	SPP Section or Policy#	SPP Updates
13.	T-53-C	During early engagement, County of Wellington recommended adding “the proposed storage location, where applicable” to the policy wording. Staff agree that this would further clarify the information disclosure needs to project proponents.
14.	T-29 C/S, T-34-C/S, T-35-C/S, T-52 C/S, T-53 C/S	<p>Some of the source protection plan policies contain both legally binding and non-binding parts, where the former is meant to address significant level threats while the latter addresses moderate and low level threats. It is recommended that these policies be separated out based on the legal effect (and therefore also by threat level) to ensure clarity for policy implementers and help streamline the annual progress reporting process. These policies are: T-29 C/S, T-34-C/S, T-35-C/S, T-52 C/S and T-53 C/S. They are described below.</p> <ul style="list-style-type: none"> • T-29-C/S: Part d was the only non-binding part of the policy. By moving part d to T-30-S (for reasons described in item no. 9 in this table), the policy T-29-C becomes legally binding. • T-34-C/S: This policy is split into legally binding and non-binding policies of T-34-C and new T-60-S. • T-35-C/S: This policy is split into legally binding and non-binding policies of T-35-C and new T-61-S. • T-52-C/S: This complicated policy is split into legally binding and non-binding policies as described in detail in Table 9 below. • T-53-C/S: Part c was the only non-binding part of the policy. With its removal (for reasons described in item No. 11 in this table), the policy becomes legally binding. <p>Although T-36-S, T-49-S address significant, moderate and low threats, they are non-binding policies and can remain the same.</p>
15.	<p>T-62-S (was L-1-S) Requests the Canada Energy Regulator and TSSA to ensure that their regulatory requirements manage liquid hydrocarbon pipelines that are existing significant threats.</p>	<p>Replaces L-1-S (pipeline integrity testing). Addresses hydrocarbon pipelines as new prescribed threat activity added in the Clean Water Act in 2018 and as modelled (event-based) threat. Considers extensive research by CA staff on applicable legislation and insights from discussions with pipeline companies. Redirects policy away from pipeline companies and to regulatory bodies.</p> <p>The monitoring policy directed to CAs is legally binding and moved to T-68-C.</p>
16.	<p>T-63-S (was L-1-S and L-2-S) Recommends that Canada Energy Regulator and Ontario Energy Board use a preventative approach with pipeline applicants for future significant threats.</p>	<p>Replaces L-1-S and L-2-S. Addresses liquid hydrocarbon pipelines as new prescribed threat activity added in the Clean Water Act in 2018. Considers extensive research by CA staff on applicable legislation and insights from discussions with pipeline companies.</p> <p>The monitoring policy directed to CAs is legally binding and therefore moved to T-68-C.</p>
17.	<p>T-64-S (new) Requests pipeline companies to use watershed and source water protection science in their emergency planning.</p>	<p>A new policy to encourage pipeline companies to leverage watershed and source water protection science. Addresses liquid hydrocarbon pipelines as new prescribed threat activity added in the Clean Water Act in 2018 and as modelled (event-based) threat.</p> <p>The monitoring policy directed to CAs is legally binding and moved to T-68-C.</p>

No.	SPP Section or Policy#	SPP Updates
18.	<p>T-65-S (was T-52-C/S part c) Requests liquid hydrocarbon pipeline companies and owners of bulk fuel storage facilities to update their emergency plans.</p>	<p>Uses non-binding part c of T-52-C/S (part c is non-binding when addressed to pipeline and fuel storage facility owners). Addresses liquid hydrocarbon pipelines as new prescribed threat activity added in the Clean Water Act in 2018 and as modelled (event-based) threat. Addresses modelled, event-based threat of the handling and storage of fuel.</p> <p>The monitoring policy directed to CAs is legally binding and moved to T-68-C.</p>
19.	<p>T-66-C (was T-52-C/S part c) Directs municipalities to update their emergency plans.</p>	<p>Uses legally binding part c of T-52-C/S (part c is binding when directed to municipalities).</p> <p>The monitoring policy directed to CAs is legally binding and moved to T-68-C.</p>
20.	<p>T-67-S (was T-52-C/S parts a, d) Recommends MECP Spills Action Centre to incorporate drinking water protection zone maps and modify their procedures.</p>	<p>Uses non-binding parts a and d of T-52-C/S. Addresses liquid hydrocarbon pipelines as new prescribed threat activity added in the Clean Water Act in 2018 and as modelled (event-based) threat. Addresses modelled, event-based threats of discharges from sewage treatment plants and the handling and storage of fuel.</p>
21.	<p>T-68-C (was T-52-C/S part e) Directs CAs to collaboratively liaise with pipeline companies, fuel storage companies, sewage treatment plant owners on several matters.</p>	<p>Uses legally binding part e of T-52-C/S and is the monitoring policy for policies T-62-S, T-63-S, T-64-S, T-65-S, and T-66-C. Addresses liquid hydrocarbon pipelines as new prescribed threat activity added in the Clean Water Act in 2018 and as modelled (event-based) threat. Addresses fuel storage and discharge from sewage treatment plants where they are a significant threat to Lake Ontario. Efficiently brings together all legally binding policy parts directed to CAs to help address liquid hydrocarbon pipelines and modelled sewage and fuel threats.</p> <p>To address an MECP comment received during early engagement, a supporting policy detail for Policy T-68-C is edited to indicate that it is a monitoring policy and its legal effect is List F. It is correctly listed in Appendix C – Compliance Lists.</p>
22.	<p>O-1-S BMPs for transport pathways</p>	<p>During early engagement, County of Wellington recommended the following:</p> <ul style="list-style-type: none"> • Add “maintenance” of municipal infrastructure to the policy wording. Staff agree that this would include the need to have best management practices to protect groundwater sources during maintenance of municipal infrastructure. • Add “in accordance with Ontario Regulation 903” when referring to the decommissioning of wells. Staff agree with this change.
23.	<p>O-4-S Importation of fill - education and outreach (E&O) policy</p>	<p>During early engagement, County of Wellington noted that the SPP section 3.3.4 is titled ‘Disposal’, but there is no mention of disposal in the policy wording. They indicated that, since this is an education and awareness</p>

No.	SPP Section or Policy#	SPP Updates
		<p>policy, there could possibly be consideration to add: “and disposal” if necessary; or change the title to Importation of Fill.</p> <p>HHSPR staff checked the Explanatory Document for the intent of the policy from the first round of source protection planning: “If contaminated fill is <u>used or disposed</u> of on a property, rain and surface runoff percolating through the material could dissolve the contaminants and carry them to watercourses or down to groundwater” (Explanatory Document - Section 4.3.1 page 251). To match the intent, the policy wording is updated accordingly to refer to the “disposal or use of imported fill”. Minor edits are made to the title of Section 4.3 of the Explanatory Document as well. Note that the province regulates soil reuse through phase one of Ontario’s On-Site and Excess Soil Regulation O. Reg. 406/19, which came into force in January 2021.</p>
24.	<p>O-5-S Transportation of hazardous goods - E&O policy.</p>	<p>Part c: The message and materials may not be reaching the intended audience, and outcomes are unknown. Staff recommended that the implementer be changed from municipalities to: Ministry of Transportation Ontario and Transport Canada.</p> <p>Parts a, b, c: During early engagement, County of Wellington recommended that staff training be added to the policy. Staff agree with the recommendation.</p>
25.	<p>O-6-S</p>	<p>During early engagement, County of Wellington recommended that the policy recommends including contact information for the Spills Action Centre in spills action plans of companies that lease space on relevant port lands.</p>
26.	<p>Appendix B: Collaboration and Consultation</p>	<p>During early engagement, MECP provided a reminder to update the consultation summary section of the plan.</p>

Edits made to address comments received during early engagement are highlighted in blue in the source protection plan.

Source Protection Plan Policy T-52 C/S

Table 9

Current Policy Part and Legal Effect	Current Policy	Proposed Policy and Legal Effect
<p>T-52 C/S overarching policy text (C: legally binding; S: non-binding)</p>	<p>Where discharges from sewage treatment plants, the handling and storage of fuel, and the conveyance of oil in a pipeline that crosses an open body of water are existing significant drinking water threats to Lake Ontario municipal intakes,</p>	<p>Overview: T-52-C/S is proposed to be split into legally binding and non-binding policies as described below.</p>
<p>T-52-S parts a and d List K – Non-binding Significant threat policies to be implemented by stakeholders other than municipalities, local boards, or source protection authorities</p>	<p>a) the Ministry of the Environment and Climate Change shall provide mapping of intake protection zones three and the locations of known significant threats to the Spills Action Centre, and if necessary modify procedures to ensure that the operators of all water treatment plants that could be affected by a spill are notified.</p> <p>d) by February 1 of each year, the Ministry of the Environment and Climate Change shall prepare and submit to the Source Protection Authority a report summarizing their actions for the previous year, including the number, type, and location of spills reported within intake protection zones three, adjusted thresholds, and actions taken or recommended to improve the efficiency and effectiveness of the spill reporting system.</p>	<ul style="list-style-type: none"> • New policy T-67-S for liquid hydrocarbon pipelines (event based IPZ-3 and certain WHPAs), and for sewage and fuel threats (event based IPZ-3s). <p>List K – Non-binding (Part b: Legally binding monitoring policy)</p>
<p>T-52-C part b List C - Legally binding - must conform with Significant threat policies that affect prescribed instrument decisions</p>	<p>b) the Ministry of the Environment and Climate Change shall ensure that the environmental compliance approvals that govern the sewage works include appropriate terms and conditions to ensure that the systems do not become significant drinking water threats. As part of its program to review environmental compliance approvals that are affected by source protection plans and in consultation with the municipalities responsible for water services the following conditions shall be considered for inclusion - adjustment of the reporting thresholds for pathogens and chemicals of concern in effluent.</p>	<ul style="list-style-type: none"> • Retain as revised policy T-52-C for sewage threats (event based IPZ-3) <p>List C - Legally binding - must conform with (Part b: Legally binding monitoring policy)</p>
<p>T-52-S part c List K - Non legally binding Significant threat policies to be implemented by stakeholders other</p>	<p>c) the owners of facilities* where these significant drinking water threats have been identified are requested to update emergency preparedness/contingency plans to include the location of municipal intakes, actions to be taken to protect drinking water sources should</p>	<ul style="list-style-type: none"> • New policy T-65-S for liquid hydrocarbon pipelines (event based IPZ-3 and certain WHPAs) and fuel threats (event based IPZ-3) <p>List K - Non legally binding</p>

Current Policy Part and Legal Effect	Current Policy	Proposed Policy and Legal Effect
<p>than municipalities, local boards, or source protection authorities</p> <p>*industries (includes liquid hydrocarbon pipeline owners and bulk fuel storage facilities)</p>	<p>an incident occur, and the requirement for inclusion of the protection of drinking water sources in emergency preparedness exercises.</p>	
<p>T-52-C part c</p> <p>List E - Legally binding - must comply with</p> <p>Significant threat policies that impose obligations on municipalities, source protection authorities and local boards</p> <p>**municipalities</p>	<p>c) the owners of facilities** where these significant drinking water threats have been identified are requested to update emergency preparedness/contingency plans to include the location of municipal intakes, actions to be taken to protect drinking water sources should an incident occur, and the requirement for inclusion of the protection of drinking water sources in emergency preparedness exercises.</p>	<ul style="list-style-type: none"> • New policy T-66-C for sewage threats (event based IPZ-3) <p>List E - Legally binding- must comply with</p>
<p>T-52-C part e</p> <p>List F - Legally binding - must comply with</p> <p>Monitoring policy referred to in subsection 22 (2) of the <i>Clean Water Act, 2006</i></p>	<p>e) the Source Protection Department of the Halton Region and Hamilton Region Conservation Authorities shall consult with the owners of facilities where these significant drinking water threats have been identified to request an invitation to observe the emergency preparedness exercises carried out in the vicinity of the Halton-Hamilton Source Protection Region, and to request to view a copy of the emergency preparedness plans when amended.</p>	<ul style="list-style-type: none"> • New policy T-68-C <p>Legally binding monitoring policy</p>

Proposed Updated Policy Format

The Table 10 shows the updated format of the prescribed drinking water threat and other policies. The “Policy” portion is the legal policy text. All other details are added to provide clarity and to make the plan more easily understood for readers.

Table 10: Format for Prescribed Drinking Water Threat and Other Policies

Policy ID	This is a unique identifier for each policy. It does not form part of the legal policy text.
Threat	A description of the threat activity is provided here, using terminology from the MECP Table of Drinking Water Threats online tool at: www.swpip.ca . It does not form part of the legal policy text.
Policy Tool	An indication of the type of policy tool used is provided here. It does not form part of the legal policy text. See Section 2.7 for a description of the different policy tools.
Policy Implementer	The policy implementing body/bodies are identified here. It does not form part of the legal policy text.
Policy	This is the legal policy text.
Legal Effect	This provides an indication of whether the policy is legally binding or not, and the risk level addressed. It does not form part of the legal policy text. See Appendix C for the full legal effect list as required by the Clean Water Act.
Where Policy Applies	This describes the vulnerable area where the policy applies including the vulnerability score and directs the reader to relevant figure showing policy applicability areas. It does not form part of the legal policy text.
When Policy Applies	This indicates whether the policy applies to existing activities, future activities, or both. It does not form part of the legal policy text.
Notes	This is additional information provided for some policies to enhance clarity. It does not form part of the legal policy text.

Note that the general policies (G-1, 2, 3, and 4) are provided in a modified, shorter table format reflecting the level of detail relevant to them.

Proposed Updated and New Policies

As described in the change log, all policies are updated for the new policy format described above and some policies are updated for minor edits. The following policies have notable updates or are new policies, also described in the change log above.

Policy ID	G-1
Policy	<p>This source protection plan came into effect on December 31, 2015, the effective date specified in the Notice of Approval posted on the Environmental Registry of Ontario. Amendments to the Source Protection Plan are permitted in accordance with the Clean Water Act, 2006, and the General Regulations. The effective date for amended policies, only including but not limited to the addition of future drinking water threats and regulated areas and activities, is the date of posting of the Notice of Approval of the amendment provisions on the Environmental Registry of Ontario. Except as set out below, the policies contained in this Source Protection Plan shall come into effect on the date set out by the Minister.</p> <ol style="list-style-type: none"> a. Risk management plans for existing significant threats must be established within five years of the date that the updated Source Protection Plan (pursuant to Section 34, 35 or 36) comes into full force and effect. b. For the purpose of section 43(2) of the <i>Clean Water Act, 2006</i>, the deadline for amendments to prescribed instruments is three years from the date that the updated Source Protection Plan (pursuant to Section 34, 35 or 36) comes into full force and effect. c. For the purpose of section 40(2) of the <i>Clean Water Act, 2006</i>, the official plans for the Region of Halton, the City of Hamilton, and the County of Wellington must be amended to conform to the significant threat policies no later than the time of the next five year review required by section 26 of the <i>Planning Act</i>. d. For the purpose of section 40(2) of the <i>Clean Water Act, 2006</i>, the official plans for the Town of Milton, the Town of Halton Hills, the Town of Oakville, and the City of Burlington, must be amended to conform to the significant threat policies no later than the time of the next five year review required by section 26 of the <i>Planning Act</i>. e. For the purpose of section 42 of the <i>Clean Water Act, 2006</i>, zoning by-law conformity must be in accordance with the <i>Planning Act</i>.
Legal Effect	<ol style="list-style-type: none"> a. Must conform with - legally binding. List H (see Appendix C - Compliance Lists); b. Must conform with - legally binding. List I; c. Must conform with - legally binding. List C; d, e, f Must conform with - legally binding. List A.
Notes	<p>This policy enacts timing requirements for implementation of Plan policies. The source protection plan is updated from time to time. Some of the policies must be implemented within a timeframe dependent upon the date that the updated plan takes effect.</p>

Policy ID	G-2
Policy	<p>In accordance with Section 59 of the Clean Water Act, 2006, unless identified specifically within a policy, all land uses except solely residential uses, where significant drinking water threat activities have been designated for the purposes of Sections 57 and 58 of the Clean Water Act, 2006 are hereby designated as Restricted Land Uses and a written notice from the Risk Management Official shall be required prior to approval of any Building Permit, Planning Act or Condominium Act application.</p> <p>Despite the above policy, a Risk Management Official may issue written direction specifying the situations under which a planning authority or Chief Building Official may be permitted to make the determination that a site specific land use is, or is not, designated for the purposes of section 59. Where such direction has been issued, a site specific land use that is the subject of an application for approval under the Planning Act or for a permit under the Building Code Act is not designated for the purposes of Section 59, provided that the planning authority or Chief Building Official, as applicable, is satisfied that:</p> <ul style="list-style-type: none"> • The application complies with the written direction issued by the Risk Management Official; and, • The applicant has demonstrated that a significant drinking water threat activity designated for the purposes of Section 57 or 58 will not be engaged in, or will not be affected by the application. <p>Where the Risk Management Official has provided written direction designating a land use for the purpose of section 59, a written Notice from the Risk Management Official shall be required prior to approval of any Building Permit under the Building Code Act, 1992 as amended, in addition to Planning Act and Condominium Act applications in accordance with Section 59 of the Clean Water Act, 2006.</p>
Legal Effect	Must conform with - legally binding. List I (see Appendix C - Compliance Lists).
Notes	This policy designates land uses in accordance with section 59(1) of the <i>Clean Water Act</i> and works in conjunction with section 58(1).

Policy ID	T-26-C
Threat	Application of commercial fertilizer
Policy Tool	Prescribed instrument
Policy Implementer	Part a: Ministry of Agriculture, Food and Rural Affairs Part b: Ministry of the Environment, Conservation and Parks
Policy	Where the future application of commercial fertilizer would be a significant drinking water threat, <ul style="list-style-type: none"> a. the Ministry of Agriculture, Food and Rural Affairs shall ensure that nutrient management plans required under the <i>Nutrient Management Act</i> include measures that, when implemented, will ensure that this activity never becomes a significant drinking water threat. b. the Ministry of the Environment, Conservation and Parks shall document the number and location of inspections that were compliant and non-compliant with nutrient management plans and strategies, and non-agricultural source material plans and the actions taken, and report this information to the Source Protection Authority by February 1 of each year.
Legal Effect	Part a - Must conform with - legally binding. List C (Appendix C - Compliance Lists). (Part b is a monitoring policy)
Where Policy Applies	See Figures 2 to 11. WHPA-A & B – V. score 10; WHPA-E – V. score 9
When Policy Applies	Future

Policy ID	T-29-C
Threat	Handling and storage of a pesticide
Policy Tool	Clean Water Act Part IV – restricted land use and risk management plan
Policy Implementer	Risk Management Official
Policy	<p>Where the future handling and storage of pesticide would be a significant drinking water threat,</p> <ul style="list-style-type: none"> a. a risk management official shall screen all building permit and <i>Planning Act</i> applications in accordance with policy G-2 for properties where there would be a significant drinking water threat. b. a risk management official shall establish risk management plans with persons proposing to undertake the activities of the handling and storage of pesticide. The implementation of these risk management plans shall be overseen by a risk management inspector. c. the risk management official shall document in their annual report, in accordance with section 65 of Ontario Regulation 287/07, action taken regarding risk management plans for the handling and storage of pesticide and submit this report to the Source Protection Authority by February 1 of each year. d. Repealed.
Legal Effect	<p>Part a – Must conform with - legally binding. List I (Appendix C – Compliance Lists);</p> <p>Part b - Must conform with - legally binding. List H.</p> <p>(Part c is a monitoring policy)</p>
Where Policy Applies	<p>See Figures 2 to 11.</p> <p>WHPA-A & B – V. score 10; WHPA-E – V. score 9</p>
When Policy Applies	Future

Policy ID	T-30-S
Threat	Handling and storage of a pesticide
Policy Tool	Best management practice
Policy Implementer	Agrichemical Warehousing Standards Association
Policy	<p>Where the future handling and storage of pesticide would be a significant drinking water threat,</p> <ul style="list-style-type: none"> a. the Agrichemical Warehousing Standards Association is requested to review their standards to ensure they include appropriate buffer areas and emergency planning and response measures to protect municipal drinking water sources. b. the Halton Region and Hamilton Region Conservation Authorities shall request the Agrichemical Warehousing Standards Association annually to confirm that their standards protect municipal drinking water sources.
Legal Effect	Part a - Strategic - non-legally binding. List K (Appendix C – Compliance Lists) (Part b is a monitoring policy)
Where Policy Applies	See Figures 2 to 11. WHPA-A & B – V. score 10; WHPA-E – V. score 9
When Policy Applies	Future

Policy ID	T-47-C
Threat	Agricultural source material (ASM) generation - use of land as an outdoor confinement area or a farm-animal yard; and ASM generation - use of land for livestock grazing or pasturing
Policy Tool	Risk management plan, education and outreach
Policy Implementer	Risk Management Official
Policy	<p>To reduce the risks to drinking water sources where there are existing or potential future significant drinking water threats from the use of land as an outdoor confinement area or a farm-animal yard on farms not phased-in under the <i>Nutrient Management Act</i>, or from the use of land for livestock grazing or pasturing on all farms,</p> <ol style="list-style-type: none"> a. the risk management official shall screen all building permit and <i>Planning Act</i> applications in accordance with policy G-2 for properties zoned for agricultural use within these vulnerable areas. b. where a significant threat is identified, the risk management official shall: <ol style="list-style-type: none"> i. establish risk management plans with the persons using or proposing to use farm lands for livestock outdoors within a wellhead protection area-A of any nutrient units and in a wellhead protection area-B and E where there are 5 nutrients units or greater per farm property. The implementation of these risk management plans shall be overseen by a risk management inspector and their content shall be based upon the regulatory requirements of a nutrient management strategy under the <i>Nutrient Management Act</i> and incorporate the best management practices for livestock grazing and pasturing land as set out in Streamside Grazing (2007 and as amended) including extensive grazing within a wellhead protection area-A, and scoped to address these specific threats. ii. undertake an education and outreach program on nutrient management methods and their potential impacts on drinking water sources, in a wellhead protection area-B and E where there are less than 5 nutrients units per farm property. c. the risk management official shall document in their annual report, in accordance with Section 65 of Ontario Regulation 287/07, action taken regarding risk management plans and education and outreach for the use of land as livestock grazing or pasturing land, an outdoor confinement area or a farm-animal yard and submit this report to the Source Protection Authority by February 1 of each year.
Legal Effect	<p>Part a - Must conform with - legally binding. List I (Appendix C – Compliance Lists)</p> <p>Part b (i) - Must conform with - legally binding. List H</p> <p>Part b (ii) - Must comply with - legally binding. List E.</p> <p>(Part c is a monitoring policy)</p>
Where Policy Applies	<p>See Figures 2 to 11.</p> <p>WHPA-A & B – V. score 10; WHPA-E – V. score 9 & 8.1</p>
When Policy Applies	Existing and future
Notes	This policy requires risk management plans to be established making use of related standards from the <i>Nutrient Management Act</i> for the specific threat and nutrient units, as well as best management practices from recognized documents.

Policy ID	T-52-C
Threat	Discharges from sewage treatment plants (modelled sewage treatment plant failure)
Policy Tool	Prescribed instrument
Policy Implementer	Ministry of the Environment, Conservation and Parks
Policy	<p>Where discharges from sewage treatment plants are existing significant drinking water threats to Lake Ontario municipal intakes,</p> <p>a. the Ministry of the Environment, Conservation and Parks shall ensure that the environmental compliance approvals that govern the sewage works include appropriate terms and conditions to ensure that the systems do not become significant drinking water threats. As part of its program to review environmental compliance approvals that are affected by source protection plans and in consultation with the municipalities responsible for water services, the following conditions shall be considered for inclusion - adjustment of the reporting thresholds for pathogens and chemicals of concern in effluent.</p> <p>b. by February 1 of each year, the Ministry of the Environment, Conservation and Parks shall prepare and submit to the Source Protection Authority a report summarizing their actions for the previous year to adjust thresholds.</p>
Legal Effect	Part a - Must conform with - legally binding. List C (Appendix C - Compliance Lists) (Part b is a monitoring policy)
Where Policy Applies	See Figure 8. Event-based IPZ-3 (no scores)
When Policy Applies	Existing
Notes	Through modelling of a sewage treatment plant failure (resulting in discharge of contaminants into Lake Ontario), some significant threats to municipal lake-based water intakes were identified. This policy uses a regulatory approach to address the threats.

Policy ID	T-53-C
Threat	Multiple
Policy Tool	Land use planning
Policy Implementer	Municipal planning authorities
Policy	<p>To facilitate the effective implementation of policies for significant drinking water threats and assist in municipal decision-making,</p> <ul style="list-style-type: none"> a. the municipal planning authorities are requested to require proponents to disclose whether any of the following activities are expected to occur on the property where they would be significant drinking water threats, proposed storage location, where applicable, as well as the substances utilized or stored and their volume: <ul style="list-style-type: none"> i. the establishment, operation or maintenance of a system that collects, stores, transmits, treats, or disposes of sewage ii. the application or storage of agricultural source material iii. the application, or handling and storage of commercial fertilizer iv. the application, or handling and storage of pesticide v. the application, or handling and storage of road salt vi. the storage of snow vii. the handling and storage of fuel viii. the handling and storage of a dense non-aqueous phase liquid ix. the handling and storage of an organic solvent x. the use of land as livestock grazing or pasturing land, an outdoor confinement area or a farm-animal yard xi. the establishment and operation of a liquid hydrocarbon pipeline. b. the City of Hamilton, the Region of Halton, and the County of Wellington are requested to require a full disclosure report as part of a complete application under the <i>Planning Act</i>. c. Repealed. d. the municipal planning authority shall report to the Source Protection Authority by February 1 of each year on actions taken to amend municipal documents/processes to require disclosure of threat activities and the number of disclosure reports that were received in the previous year.
Legal Effect	Parts a and b Must conform with - legally binding. List A (Appendix C - Compliance Lists) (Part d is a monitoring policy)
Where Policy Applies	See Figures 2 to 11.
When Policy Applies	Future

Policy ID	T-60-S
Threat	Application, and handling and storage of road salt (moderate and low threats)
Policy Tool	Education and outreach; same as Policy T-34-C
Policy Implementer	City of Hamilton, Regional Municipality of Halton, Town of Milton, Town of Halton Hills, Town of Oakville, City of Burlington
Policy	<p>Where the existing and future application, or handling and storage of road salt would be a moderate or low drinking water threat in a wellhead protection area, intake protection zone or issue contributing area,</p> <ol style="list-style-type: none"> a. within two years of the date that the Source Protection Plan comes into effect, the City of Hamilton and the Region of Halton, in collaboration with the City of Burlington and Towns of Milton, Halton Hills and Oakville in Halton Region, are requested to develop and implement education and outreach programs for the private and public sector, as well as the general public, about the impacts of road salt on drinking water sources and the use of best management practices. It is recommended that the key messages be the efficient use of road salts and the use of alternatives. b. the City of Hamilton and the Region of Halton shall document the nature of any new or existing education and outreach program established regarding the application, and handling and storage of road salt, the number of persons contacted, and the location of the participants and report this information to the Source Protection Authority by February 1 of each year.
Legal Effect	Part a - Strategic - non-legally binding. List J (Appendix C - Compliance Lists) (Part b is a monitoring policy)
Where Policy Applies	<p>See Figures 12, 13, 14, 15.</p> <ul style="list-style-type: none"> • Moderate threats: WHPA-A -V. score 10; WHPA-B – V. score 10, 8; WHPA-C – V. score 8; WHPA-E - V. score 9, 8.1; IPZ-1 – V. score 7. • Low threats: WHPA-A -V. score 10; WHPA-B – V. score 10, 8, 6; WHPA-C – V. score 8, 6; WHPA-D – V. score 6; WHPA-E - V. score 8.1; IPZ-1 – V. score 7, 6; IPZ-2- V. score 6.3, 5.4, HVA – V. score 6.
When Policy Applies	Existing and future

Policy ID	T-61-S
Threat	Application, and handling and storage of road salt (moderate and low threats)
Policy Tool	Salt management plans; same as Policy T-35-C
Policy Implementer	Municipalities
Policy	<p>Where the existing and future application, or handling and storage of road salt would be moderate or low drinking water threats,</p> <ol style="list-style-type: none"> a. within two years of the date that the Source Protection Plan comes into effect, the municipalities shall amend their salt management plans to identify the location of wellhead protection areas, issue contributing areas, and intake protection zones and to enhance best management practices in these areas. b. the municipalities shall advise the Source Protection Authority of the revision to the salt management plans when completed and provide a status update by February 1 of each year until completed.
Legal Effect	Part a - Strategic - non-legally binding. List J (Appendix C - Compliance Lists) (Part b is a monitoring policy)
Where Policy Applies	<p>See Figures 12, 13, 14, 15.</p> <ul style="list-style-type: none"> • Moderate threats: WHPA-A -V. score 10; WHPA-B – V. score 10, 8; WHPA-C – V. score 8; WHPA-E - V. score 9, 8.1; IPZ-1 – V. score 7. • Low threats: WHPA-A -V. score 10; WHPA-B – V. score 10, 8, 6; WHPA-C – V. score 8, 6; WHPA-D – V. score 6; WHPA-E - V. score 8.1; IPZ-1 – V. score 7, 6; IPZ-2- V. score 6.3, 5.4, HVA – V. score 6.
When Policy Applies	Existing and future

Policy ID	T-62-S
Threat	Establishment and operation of a liquid hydrocarbon pipeline
Policy Tool	Specify Action
Policy Implementer	Canada Energy Regulator, Technical Standards and Safety Authority
Policy	Where the establishment and operation of a liquid hydrocarbon pipeline is an existing significant drinking water threat, the Canada Energy Regulator and Technical Standards and Safety Authority are recommended to ensure that their regulatory requirements manage liquid hydrocarbon pipelines through appropriate design standards (including the location of safety valves), monitoring, maintenance (including integrity management programs) and other relevant practices, such that drinking water sources are protected.
Legal Effect	Strategic - non-legally binding. List K (Appendix C - Compliance Lists). Note: the monitoring policy is T-68-C, directed to Halton Region and Hamilton Region Conservation Authorities.
Where Policy Applies	See Figure 8. Event-based IPZ-3 (no scores)
When Policy Applies	Existing
Notes	This policy leverages regulatory bodies to help manage <u>existing</u> significant threats of liquid hydrocarbon pipelines. The existing significant drinking water threats resulting from spills from a liquid hydrocarbon pipeline are located about two kilometres from the Lake Ontario shore.

Policy ID	T-63-S
Threat	Establishment and operation of a liquid hydrocarbon pipeline
Policy Tool	Specify Action
Policy Implementer	Canada Energy Regulator, Ontario Energy Board
Policy	Where the establishment and operation of a liquid hydrocarbon pipeline could become a significant drinking water threat, the Canada Energy Regulator and Ontario Energy Board in their consideration of a liquid hydrocarbon pipeline application are recommended to ensure that the applicant has complied with and included appropriate design standards (including the location of safety valves), monitoring, maintenance (including integrity management programs) and other relevant practices, that when implemented will prevent a pipeline from becoming a significant drinking water threat.
Legal Effect	Strategic - non-legally binding. List K (Appendix C - Compliance Lists) Note: the monitoring policy is T-68-C, directed to Halton Region and Hamilton Region Conservation Authorities.
Where Policy Applies	See Figures 2 to 11. Event-based IPZ-3 (no scores), WHPA-A & B - V. score 10, WHPA-E – V. score 9
When Policy Applies	Future
Notes	This policy manages <u>future</u> significant threats of liquid hydrocarbon pipelines using a preventative approach.

Policy ID	T-64-S
Threat	Establishment and operation of a liquid hydrocarbon pipeline
Policy Tool	Specify action
Policy Implementer	Liquid hydrocarbon pipeline owners
Policy	Where the establishment and operation of a liquid hydrocarbon pipeline is or could be a significant, moderate or low threat to drinking water sources, liquid hydrocarbon pipeline owners are requested to use threats risk assessment information from assessment reports approved under the Ontario Clean Water Act, 2006 and relevant watershed information while developing and updating emergency planning zones (EPZs) and designated geographical areas (DGAs).
Legal Effect	Significant threats: Strategic - non-legally binding. List K (Appendix C - Compliance Lists); Moderate and low threats: Strategic - non-legally binding. List J. Note: the monitoring policy is T-68-C, directed to Halton Region and Hamilton Region Conservation Authorities.
Where Policy Applies	See Figures 2 to 11. Significant threats: Event-based IPZ-3; WHPA-A & B - V. score 10, WHPA-E – V. score 9 Moderate threats: WHPA-A & B – V. score 10; WHPA-B & C – V. score 8; WHPA-E – V. score 9 & 8.1; IPZ-1 – V. score 7; IPZ-2, score 6.4; WHPA-B, C, D – V. score 6; IPZ-1 – V. score 6; IPZ-2 V. score 6.3 & 5.4; HVAs – V. score 6.
When Policy Applies	Existing and future
Notes	This policy leverages existing watershed and source water protection science to help manage <u>existing and future</u> significant, moderate or low liquid hydrocarbon pipeline threats.

Policy ID	T-65-S
Threat	Establishment and operation of a liquid hydrocarbon pipeline and the handling and storage of fuel
Policy Tool	Specify action – update emergency plans
Policy Implementer	Liquid hydrocarbon pipeline owners and owners of facilities where the handling and storage of fuel occurs
Policy	Where the establishment and operation of a liquid hydrocarbon pipeline is or could be a significant threat to drinking water sources, and where the handling and storage of fuel is an existing significant drinking water threats to Lake Ontario municipal intakes, facility owners are requested to update emergency preparedness/contingency plans to include the location of municipal intakes, actions to be taken to protect drinking water sources should an incident occur, and the requirement for inclusion of the protection of drinking water sources in emergency preparedness exercises.
Legal Effect	Strategic - non-legally binding. List K (Appendix C - Compliance Lists). Note: the monitoring policy is T-68-C, directed to Halton Region and Hamilton Region Conservation Authorities.
Where Policy Applies	See Figures 2 to 11. Pipelines and fuel threats: Event-based IPZ-3 (no scores); Pipelines: WHPA-A, B - V. score 10, WHPA-E – V. score 9
When Policy Applies	Existing and future
Notes	This policy manages <u>existing and future</u> significant threats of liquid hydrocarbon pipeline through emergency response plan updates.

Policy ID	T-66-C
Threat	Discharges from sewage treatment plants
Policy Tool	Emergency plans
Policy Implementer	Municipalities that own sewage treatment plants
Policy	Where discharges from municipal sewage treatment plants are identified as existing significant drinking water threats to Lake Ontario municipal intakes, municipalities that own the sewage treatment plants are requested to update emergency preparedness/ contingency plans to include the location of municipal intakes, actions to be taken to protect drinking water sources should an incident occur, and the requirement for inclusion of the protection of drinking water sources in emergency preparedness exercises.
Legal Effect	Legally binding - must comply with. List E (Appendix C - Compliance Lists) Note: the monitoring policy is T-68-C, directed to Halton Region and Hamilton Region Conservation Authorities.
Where Policy Applies	See Figure 8. Event-based IPZ-3 (no scores)
When Policy Applies	Existing

Policy ID	T-67-S
Threat	Establishment and operation of a liquid hydrocarbon pipeline, discharges from sewage treatment plants and the handling and storage of fuel
Policy Tool	Specify action
Policy Implementer	Ministry of the Environment, Conservation and Parks
Policy	<p>Where the establishment and operation of a liquid hydrocarbon pipeline is an existing significant threat to drinking water sources, and where the discharges from sewage treatment plants and the handling and storage of fuel, are an existing significant threat to Lake Ontario drinking water sources,</p> <ol style="list-style-type: none"> a. the Ministry of the Environment, Conservation and Parks shall provide mapping of intake protection zones three and the locations of known significant threats to the Spills Action Centre, and if necessary modify procedures to ensure that the operators of all water treatment plants that could be affected by a spill are notified. b. by February 1 of each year, the Ministry of the Environment, Conservation and Parks shall prepare and submit to the Source Protection Authority a report summarizing their actions for the previous year, including the number, type, and location of spills reported within intake protection zones three, adjusted thresholds, and actions taken or recommended to improve the efficiency and effectiveness of the spill reporting system.
Legal Effect	Part a - Strategic - non-legally binding. List K (Appendix C - Compliance Lists) (Part b is a monitoring policy)
Where Policy Applies	See Figure 8. Event based IPZ-3 (no scores).
When Policy Applies	Existing
Notes	This policy manages <u>existing</u> significant liquid hydrocarbon pipeline, discharges from sewage treatment plants and the handling and storage of fuel threats through measures at the MECP Spills Action Centre.

Policy ID	T-68-C
Threat	Establishment and operation of a liquid hydrocarbon pipeline, discharges from sewage treatment plants, the handling and storage of fuel
Policy Tool	Education and outreach
Policy Implementer	Halton Region and Hamilton Region Conservation Authorities
Policy	<p>Where the establishment and operation of a liquid hydrocarbon pipeline is or could be a significant threat to Lake Ontario and groundwater municipal drinking water sources and where the discharges from sewage treatment plants and the handling and storage of fuel are existing significant drinking water threats to Lake Ontario municipal intakes, the Halton Region and Hamilton Region Conservation Authorities shall on an annual basis:</p> <ol style="list-style-type: none"> a. provide educational awareness sessions on drinking water source protection to interested liquid hydrocarbon pipeline companies; b. provide relevant website addresses for approved assessment reports and the source protection plan and watershed information if available, to liquid hydrocarbon pipeline companies; c. request the Canada Energy Regulator and Technical Standards and Safety Authority to confirm that their requirements for liquid hydrocarbon pipelines manage existing significant drinking water threats; d. request the Canada Energy Regulator and Ontario Energy Board to confirm that their requirements for pipeline design standards, monitoring, maintenance and other relevant practices in vulnerable areas prevents a pipeline from becoming a significant drinking water threat; e. request information updates including new or changes to liquid hydrocarbon pipelines; f. request an invitation from liquid hydrocarbon pipeline owners, sewage treatment plant owners, and fuel storage facility owners to observe emergency preparedness exercises relevant to the Halton-Hamilton Source Protection Region; and request a copy of their emergency preparedness plans when amended to protect municipal drinking water sources.
Legal Effect	<p>See Figures 2 to 11. Monitoring policy. Must conform with - legally binding. List F (Appendix C - Compliance Lists).</p>
Where Policy Applies	<p>Pipelines, fuel, sewage threats: Event based IPZ-3 (no scores); Pipelines: WHPA-A, B - V. score 10; and WHPA-E - V. score 9.</p>
When Policy Applies	Existing and future
Notes	This policy manages <u>existing and future</u> significant threats of liquid hydrocarbon pipelines through education and outreach.

Policy ID	O-1-S
Threat	Multiple
Policy Tool	Best management practices
Policy Implementer	Municipalities, Ministry of the Environment, Conservation and Parks, Halton Region and Hamilton Region Conservation Authorities
Policy	<p>To achieve the intent of the <i>Clean Water Act, 2006</i>, that drinking water threats identified in the vicinity of a transport pathway cease to be or do not become a significant threat, and that a pathway ceases to endanger the source water of a municipal water supply, the following policies apply:</p> <ol style="list-style-type: none"> a. Municipalities are requested to use best management practices to protect the quantity and quality of groundwater sources during maintenance and the installation of new municipal infrastructure in proximity to municipal wells. b. Municipalities are requested to incorporate conditions of approval for development applications to ensure private wells that are no longer in use are decommissioned in accordance with Ontario Regulation 903. c. The Ministry of the Environment, Conservation and Parks and the municipalities responsible for water services are requested to provide ongoing funding for incentive programs focused on the decommissioning of wells, and for education and outreach programs regarding the decommissioning of wells in accordance with Ontario Regulation 903. d. If funding is provided by the Ministry of the Environment, Conservation and Parks through the Ontario Drinking Water Stewardship Program, the Hamilton and Halton Watershed Stewardship Programs, under the direction of the Halton Region and Hamilton Region Conservation Authorities, shall implement the incentive program to decommission unused wells in accordance with Ontario Regulation 903. e. The municipalities are requested to develop a program to facilitate, where possible and appropriate, the connection to municipal water services of current private well users within the urban area. The users should be required to decommission the unused wells in accordance with Ontario Regulation 903. f. The municipalities are requested to prohibit the construction of new wells and septic systems within the urban area where municipal water and wastewater services are available. g. Repealed h. The Source Protection Authority and Source Protection Committee, upon receipt of a notice from a municipality regarding an application for development of a transport pathway within a wellhead protection area, shall refer the notice to the Halton Region and Hamilton Region Conservation Authorities for follow up and reporting back.
Legal Effect	Strategic - non-legally binding. List J (Appendix C - Compliance Lists).
Where Policy Applies	WHPA and IPZ (all zones and scores)
When Policy Applies	Existing and future

Policy ID	O-4-S
Threat	Other – disposal or use of imported fill
Policy Tool	Education and outreach
Policy Implementer	Halton Region and Hamilton Region Conservation Authorities
Policy	The municipalities and the Halton Region and Hamilton Region Conservation Authorities are requested to develop and implement an education and outreach program for rural landowners, contractors, and developers based on Ministry of the Environment, Conservation and Parks guidance to best protect drinking water sources during the importation of fill for disposal or use.
Legal Effect	Strategic - non-legally binding. List J (Appendix C - Compliance Lists).
Where Policy Applies	Halton-Hamilton Source Protection Region
When Policy Applies	Existing and future
Notes	Soil brought onto a property may contain contaminants such as metals and oil that could be carried by rain water and contaminate drinking water sources. This policy aims to raise awareness.

Policy ID	O-5-S
Threat	Other - transportation corridors
Policy Tool	Emergency plans
Policy Implementer	Municipalities, Ministry of the Environment, Conservation and Parks, The Ministry of Transportation Ontario, Transport Canada
Policy	<p>To ensure spill prevention plans, contingency plans, and emergency response plans are updated for the purpose of protecting drinking water sources with respect to spills that occur within a wellhead protection area or intake protection zone along highways, railway lines, or shipping lanes, the following policies apply:</p> <ol style="list-style-type: none"> a. The municipalities are requested to incorporate the location of wellhead protection areas and intake protection zones into their emergency response plans and train staff, in order to protect drinking water sources when a spill occurs along highways, rail lines, or in shipping lanes. b. The Ministry of the Environment, Conservation and Parks is requested to provide mapping of vulnerable areas and train staff to assist the Spills Action Centre in responding to reported spills along transportation corridors. c. The Ministry of Transportation Ontario and Transport Canada are requested to implement an education and outreach program to encourage all transportation businesses that ship goods through wellhead protection areas and intake protection zones to prepare spill prevention plans and spill contingency plans, to review these plans annually, and to update them, and train staff, as required.
Legal Effect	Strategic - non-legally binding. List J (Appendix C - Compliance Lists).
Where Policy Applies	WHPAs, IPZs (all zones and scores)
When Policy Applies	Existing and future
Notes	Existing legislation often requires facility owners to develop and implement a response plan should a spill into the environment occur. This policy recommends that protection of drinking water sources be considered in prevention, contingency, and emergency response plans.

Policy ID	O-6-S
Threat	Other - shipping
Policy Tool	Spill control plans
Policy Implementer	Hamilton Port Authority
Policy	<p>The Hamilton Port Authority is requested to advise vessel operators using Hamilton Harbour and western Lake Ontario shipping lanes, and the companies that lease space on port lands that the Halton Region and the City of Hamilton municipal drinking water intakes are located near the shore of Lake Ontario in proximity of the Burlington Canal and the shipping lanes and require that they review and/or update their spill control plans to confirm that they include</p> <ul style="list-style-type: none"> i. the location of the municipal drinking water intakes, ii. enhanced best practices for spill containment and cleanup to protect drinking water supplies, and iii. the City of Hamilton, Halton Region and Spills Action Centre emergency contact information.
Legal Effect	Strategic - non-legally binding. List J (Appendix C - Compliance Lists).
Where Policy Applies	Hamilton Harbour, western Lake Ontario shipping lanes, port lands
When Policy Applies	Existing and future