

Peel2041

Regional Official Plan Review

Protecting Water Resources: Source Protection Plan Implementation

Peel 2041 Discussion Paper

November 2019



This policy discussion paper (including any attachments) has been prepared using information current to the report date. It provides an assessment of provincial policy conformity requirements, recognizing that Provincial plans and policies were under review and are potentially subject to change. The proposed direction contained in this discussion paper will be reviewed to ensure that any implementing amendments to the Regional Official Plan will conform or be consistent with the most recent in-effect provincial policy statement, plans and legislation. Additional changes will not be made to the contents of this discussion paper.

Table of Contents

Section	Page
1. INTRODUCTION	1
1.1 Water Resources Policy Review	1
1.2 Discussion Paper Objectives	1
2. SOURCE WATER PROTECTION.....	3
2.1 History of Source Water Protection in Ontario.....	3
2.2 About the Clean Water Act	3
2.3 Implementation of the Clean Water Act.....	3
2.3.1 Preparation of Source Protection Plans	3
2.3.2 Assessment Reports	4
2.3.3 Source Protection Plans	4
2.3.3.1 Vulnerable Areas and Vulnerability Scoring.....	6
2.3.3.2 Vulnerable Areas in Peel Region.....	7
2.3.3.3 Intake Protection Zones (IPZs) for Lake Ontario	9
2.3.3.4 Prescribed Threats.....	10
2.3.3.5 Policy Tools	12
2.3.3.5.1 Clean Water Act ‘Part IV’ Powers.....	13
2.3.3.5.2 Section 57 Prohibition.....	14
2.3.3.5.3 Section 58 Risk Management Plans	14
2.3.3.5.4 Section 59 Restricted Land Uses	15
3. IMPLEMENTING SOURCE WATER PROTECTION THROUGH LAND USE PLANNING.....	17
3.1 Municipal Official Plan Conformity	17
3.2 Transitional Provisions	17
4. EXISTING SOURCE WATER PROTECTION POLICIES IN THE REGION OF PEEL OFFICIAL PLAN	19
4.1 Water Resources Protection in the Region of Peel Official Plan.....	19
5. SOURCE WATER PROTECTION PLANS APPLICABLE TO PEEL REGION	21
5.1 CTC Region Source Protection Plan.....	21
5.2 South Georgian Bay Lake Simcoe Source Protection Plan	23
5.3 CTC and SGBLS Policies Comparison	24
5.4 Halton-Hamilton Source Protection Plan.....	25
6. POLICY OPTIONS AND RECOMMENDATIONS.....	27
6.1 Where Policies Should Be Located in the Regional Official Plan.....	27
6.2 Approaches to Implementing Multiple Source Protection Plans.....	27
6.3 Region Official Plan Land Use Policy Approaches	28

6.4	Restricted Land Use Policies (Clean Water Act, Section 59)	30
6.5	Complete Application Requirements	30
6.6	Transitional Policies	31
6.7	Mapping of Vulnerable Areas in Official Plans.....	31
6.8	Definitions	32
7.	CONCLUSION	35

List of Figures

Figure 2.1:	Source Protection Plan Areas in Peel Region	5
Figure 2.2:	Mapping of Vulnerable Areas and Vulnerability Scoring.....	6
Figure 2.3:	Intake Protection Zones in the CTC Region	10

List of Tables

Table 2.1:	Wellheads in Peel Region.....	8
Table 2.2:	Issue Contributing Areas in Peel Region	8
Table 2.3:	Water Intakes in the CTC and Halton-Hamilton Source Protection Region	9
Table 2.4:	Issue Contributing Areas in Peel Region	12

Appendix

- A:** Where Significant Drinking Water Threat Policies Apply in Wellhead Protection Areas
- B:** Source Water Protection Area Plan Areas in Peel
- C:** Vulnerable Areas in Peel
- D:** CTC Source Protection Plan and SGBLS Source Protection Plan Land Use Planning Policies

1. Introduction

The *Ontario Planning Act* requires that municipalities update their official plan every five years to ensure the policies stay current, are consistent with provincial plans and policy statements, and achieve their goals and objectives. The Region of Peel is undertaking a five-year review and update of the Region of Peel Official Plan (Regional Official Plan) known as “Peel 2041: Regional Official Plan Review”.



1.1 Water Resources Policy Review

Water resources are a central component in the Regional Official Plan review. The sustained social, economic and environmental well-being of the region is dependent on the proper protection, management and conservation of Peel’s water resources and related natural systems. It is recognized that water resource systems are complex and made up of variety of water resource features, areas and functions. Associated protection and management requirements need to be tailored to each specific resource and fully integrated.

The objective of the water resources policy review is to:

- provide an overview of the changing policy framework for water resources and best practices guidance;
- consider proposed official plan policy options for the Region;
- ensure the policies in the Regional Official Plan conform to provincial legislation, plans and policies; and
- educate and engage stakeholders on proposed changes to the Region’s water resources policies.

1.2 Discussion Paper Objectives

The purpose of this background paper is to provide information on the implementation of the *Clean Water Act, 2006* (CWA). Through the Peel 2041 Regional Official Plan Review, the Region of Peel will be updating its official plan to insert policies that protect sources of drinking water by implementing the relevant source protection policies. Section 40 of the CWA requires municipalities to amend their official plan to conform with all

Source Water

Source water is untreated water taken from rivers, lakes or underground aquifers to supply private and public drinking water systems.

relevant source protection plans (SPP) by the date specified in the applicable source protection plan (s). The CTC plan requires official plan conformity at the time of the next municipal official plan review in accordance with section 26 of the Planning Act. The SGBLS plan requires conformity in accordance with section 26 of the Planning Act. Further the CWA also requires that all decisions under the *Planning Act, 1990* and the *Condominium Act, 1998* made by the Region, conform with the significant threat policies as set out in the SPP as of the date the SPP takes effect. This requirement is regardless of whether or not the regional or local official plans have been updated.

This background paper will provide the following:

- An overview of the CWA;
- An overview of the development of source protection plans (SPP) under the CWA;
- A summary of the SPPs and policies that will be applied in Peel Region;
- A review of the existing Region of Peel Official Plan (ROP) policies that protect source water; and
- A summary of policy options and recommended amendments to the Regional Official Plan.

2. Source Water Protection

2.1 History of Source Water Protection in Ontario

Following the tragedy in Walkerton Ontario (May, 2000) when the town's drinking water became contaminated, the Government of Ontario appointed Justice O'Connor to preside over the Walkerton Water Inquiry. Justice O'Connor made 121 recommendations, which included implementing a watershed-based, multi-barrier approach to protecting Ontario's drinking water.

2.2 About the Clean Water Act

The CWA was enacted in 2006 to address Justice O'Connor's recommendations pertaining to source water protection. Source water protection is considered the first step in the multi-barrier approach to ensuring clean safe and reliable drinking water. Subsequent barriers address treatment, distribution, monitoring, and responses to emergencies. Municipal land-use planning has been identified as one of the tools to implement source water protection for municipal drinking water supplies.

The CWA took effect in July 2007, and sets the legal framework that ensures municipal drinking water supplies are protected by developing collaborative, locally driven, science-based protection plans.

The CWA legislation requires:

- Establishing Source Protection Areas (SPAs) and Regions;
- Establishing Source Protection Authorities (SPAs);
- Establishing Source Protection Committees (SPCs);
- Preparing Terms of Reference for the Assessment Reports;
- Preparing the Assessment Reports;
- Preparing the Source Protection Plans (SPP);
- Establishing the Ontario Drinking Water Stewardship Program;
- Establishing timelines; and
- Consulting with the public.

2.3 Implementation of the Clean Water Act

The CWA established the roles and responsibilities for the Province, municipalities, conservation authorities and land owners in protecting sources of municipal drinking water. It should be noted that the requirements of the CWA are applicable to municipal drinking water systems and designated drinking water systems (e.g. designated public and private communal well systems) and is not applicable to individual private wells, which are subject to other provincial legislation.

2.3.1 Preparation of Source Protection Plans

Under the CWA, source protection committees were formed to lead the process of developing terms of reference, assessment reports and source protection plans for each source protection area and region in

the Province, with the assistance of source protection authorities (conservation authorities). Source protection committees are multi-stakeholder committees that have members representing a cross section of sectors including municipal, agricultural, industrial, commercial, and other interests. Peel Region is located in three source protection regions:

- Credit Valley – Toronto Region – Central Lake Ontario (CTC) Source Protection Region
- South Georgian Bay Lake Simcoe Source Protection Region
- Halton-Hamilton Source Protection Region

Currently, the Region of Peel is represented on the CTC Source Protection Committee as it represents the largest source protection region in the Region of Peel. Terms of reference guided the process and tasks that were followed by each source protection committee to develop technical assessment reports and source protection plans.

2.3.2 Assessment Reports

Assessment reports provide the technical background upon which source protection plans are prepared. The purpose of the assessment report is to identify drinking water threats within vulnerable areas that supply water to municipal drinking water systems. Assessment reports describe the local watershed, assess the available water supplies, map vulnerable areas and identify drinking water threats in the vulnerable areas that pose a risk to municipal drinking water systems. There are five assessment reports applicable to the Region of Peel corresponding to the watershed boundaries of the source protection authorities (SPA) that were formed to support the source protection committees:

- Credit Valley SPA Assessment Report (July 22, 2015)
- Toronto and Region SPA Assessment Report (July 24, 2015)
- Halton Region SPA Assessment Report (August 5, 2015)
- Nottawasaga Valley SPA Assessment Report (January 26, 2015)
- Lake Simcoe and Chouchiching Black River SPA Assessment Report (July 1, 2015)

Assessment reports approved under the CWA also serve the purpose of identifying “designated vulnerable areas” as defined in the Provincial Policy Statement (PPS), 2014 and therefore provide a consistent technical basis to implement source water protection policies in accordance with both the PPS and source protection plans approved under the CWA.

2.3.3 Source Protection Plans

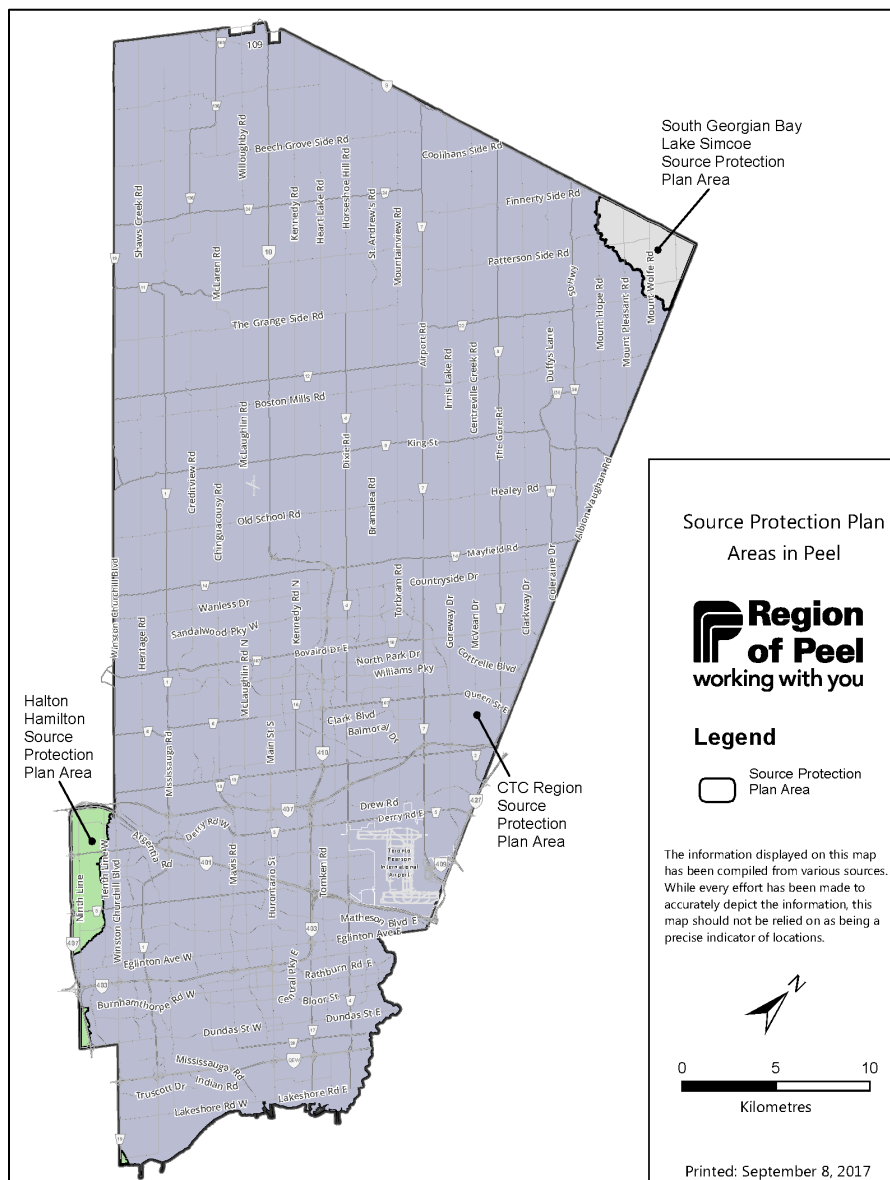
Following completion of the assessment reports, source protection plans were prepared to provide policies for vulnerable areas where threats could be significant to ensure that activities identified as a significant drinking water threat either never become a significant threat or, if the activity is already taking place, the activity ceases to be a significant threat. Source protection plans provide policies to protect municipal sources of drinking water for threats identified in the assessment reports.

The Ministry of Environment and Climate Change has approved three source protection plans that apply in the Region of Peel as follows:

- CTC Source Protection Plan (Approved July 28, 2015 and in effect December 31, 2015)
- South Georgian Bay Lake Simcoe Source Protection Plan (Approved January 26, 2015 and in effect July 1, 2015)
- Halton-Hamilton Source Protection Plan (Approved August 5, 2015 and in effect December 31, 2015)

The source protection plan areas as they apply to the Region of Peel are shown in Figure 2.1 below and Appendix B.

Figure 2.1: Source Protection Plan Areas in Peel Region

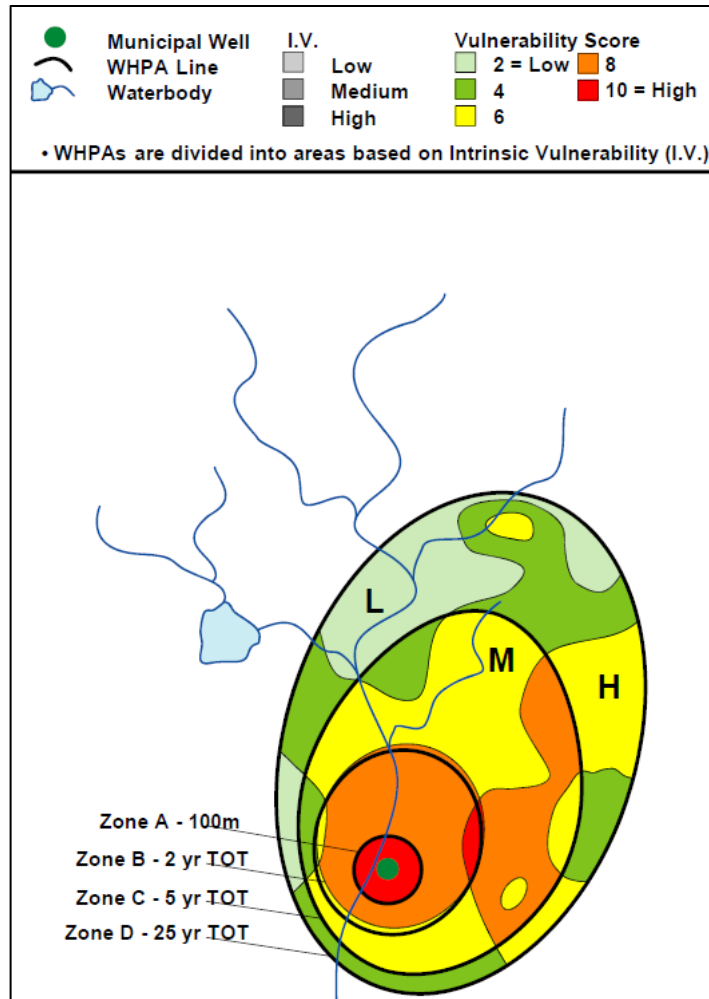


2.3.3.1 Vulnerable Areas and Vulnerability Scoring

The *Clean Water Act* together with the assessment reports and source protection plans identify the following types of vulnerable areas:

- Wellhead Protection Areas (WHPAs)
- Issue Contributing Areas (ICAs)
- Surface Water Intake Protection Zones (IPZs)
- Highly Vulnerable Aquifers (HVAs)
- Significant Groundwater Recharge Areas (SGRAs)

Figure 2.2: Mapping of Vulnerable Areas and Vulnerability



The term “vulnerability” refers to how easily a source of drinking water can become contaminated. Vulnerability scores have been applied to vulnerable areas based on the type and depth of overburden material above a source of drinking water and the length of time a contaminant travels in groundwater or surface water to reach the drinking water source. Vulnerability scores range from 1 to 10, with 10 representing the highest vulnerability.

Figure 2.2 provides a graphical depiction of how vulnerability scoring is mapped in wellhead protection areas.

The determination of whether a land use or activity is a significant, moderate or low drinking water threat is based on a combination of factors including the type of vulnerable area, the vulnerability score of the area, and the type and nature of the activity or land use. The Ministry of Environment and Climate Change has published tables of drinking water threats listing each threat category and type, and the circumstances that determine whether an activity is a significant, moderate or low threat. Policies in the source protection plans have been developed to address significant threats. Municipal official plans are required to conform to significant threat policies and have regard for moderate and low threat policies. More information on vulnerability and where activities are significant drinking water threats are provided in the following sections.

The Source Water Protection Threats Tool is available at <https://swpip.ca/Threats>. The tool is a dynamic database which allows users to search and sort the contents of the Table of Drinking Water Threats easily and efficiently.

2.3.3.2 Vulnerable Areas in Peel Region

Vulnerable areas which are found in Peel include:

- Wellhead Protection Areas (WHPA): areas on the land around a municipal well, the size of which is determined by how quickly water travels underground to the well, measured in years, where drinking water may be vulnerable to threats. Within a WHPA protection measures are implemented to safeguard the underlying groundwater supply from potential contaminant sources.
- Wellhead Protection Area-Q (Water Quantity): an area around a municipal well where activities which take water without returning it to the same source or which reduce recharge to the aquifer may be a threat. There are two types of wellhead protection areas that are delineated to identify areas vulnerable to water quantity threats.
 - A WHPA-Q1 - an area delineated through a Tier 3 Water Budget and Water Quantity Risk Assessment as being the combined area that is the cone of influence of a well, plus the whole of the cones of influence of all other wells that intersect that area.
 - A WHPA-Q2 - an area delineated through a Tier 3 Water Budget and Water Quantity Risk Assessment as being the area that includes the WHPA-Q1 and any area outside of WHPA-Q1 where a future reduction in recharge would have a measurable impact on the municipal wells.
- Issue Contributing Areas (ICAs): an area around a municipal drinking water system where activities have contributed or could contribute to elevated concentrations of a particular contaminant in relation to the Ontario Drinking Water Standards.
- Intake Protection Zones (IPZs): the area on the surface water and land surrounding a municipal surface water intake.
- Highly Vulnerable Aquifers (HVAs): an area underground that contains water that is being withdrawn for human use and is particularly susceptible to contamination because of its location near the ground's surface or where the overlying material in the ground above it is highly permeable.
- Significant Groundwater Recharge Areas (SGRAs): an area where groundwater is replenished through the infiltration of water and where the recharge rate exceeds a specified threshold.

The following tables list the wellhead protection areas, issue contributing areas and intake protection zones in Peel Region. Appendix A provides a summarized illustration of where significant drinking water threat policies apply in WHPAs and ICAs based on the relative vulnerability of the drinking water source and the type of drinking water threat as set out in the MOECC tables of drinking water threats. Maps showing the different vulnerable areas and their associated vulnerability scores are provided in

Appendices C. These maps are based on current information as of November 2019. As the Region decommissions older wells and brings new wells into commission updated mapping will be made available and included in the Peel 2041 policy amendment. Further, as new groundwater models are developed and subsequent mapping is completed, the Region will produce updated maps of the vulnerable areas in accordance with provincial requirements.

Table 2.1: Wellheads in Peel Region

Ministry	Policy Context	Well Name	Number of Wells
CTC Region	Caledon	Alton Wells 3 and 4	2
CTC Region	Caledon	Caledon Village Wells 3 and 3B ¹	2
CTC Region	Caledon	Caledon Village Well 4	1
CTC Region	Caledon	Inglewood Well 2 ²	1
CTC Region	Caledon	Inglewood Well 3	1
CTC Region	Caledon	Inglewood Well 4	1
CTC Region	Caledon	Cheltenham Wells 1 and 2 ³	2
CTC Region	Caledon	Palgrave Wells 2 and 4	2
CTC/SGBLS Region	Caledon	Palgrave Well 3	1
CTC Region	Caledon	Caledon East Well 3	1
CTC Region	Caledon	Caledon East Wells 4 and 4A ⁴	2
CTC Region	Caledon	Orangeville Well 10	1
CTC Region	Caledon/ Orangeville	Orangeville Wells 6 and 11	2
CTC Region	Mono	Island Lake Wells TW1 and PW1	2
CTC Region	Mono	Coles Wells 1 and 2	2

1: Caledon Village Well 3B was brought on-line in May 2014

2: Inglewood Well 1 was decommissioned in 2006 and Well 2 will be decommissioned in late 2018

3: Cheltenham Well TW1- 93 has been renamed Cheltenham Well 2

4: Caledon East Well 2 was decommissioned in 2017 and Caledon East Well 4A was brought on-line in 2016

Table 2.2: Issue Contributing Areas in Peel Region

Source Protection Plan	Well Name	Issue Contributing Area
CTC Region	Inglewood 1 & 2	ICA for Pathogens
CTC Region	Orangeville Well 6 and 11	ICA for Sodium and Chloride
CTC Region	Orangeville Well 10	ICA for Sodium and Chloride

2.3.3.3 Intake Protection Zones (IPZs) for Lake Ontario

Under the CWA, vulnerable surface water areas are referred to as intake protection zones (IPZs). In order for municipalities to protect the area around their drinking water intake pipes, they must protect the surrounding water and, in most cases, the land area nearest the intakes. The CTC SPP has employed other means beyond land use planning to address the significant drinking water threats identified to the Lake Ontario drinking water systems (i.e. emergency response, spill prevention and contingency planning).

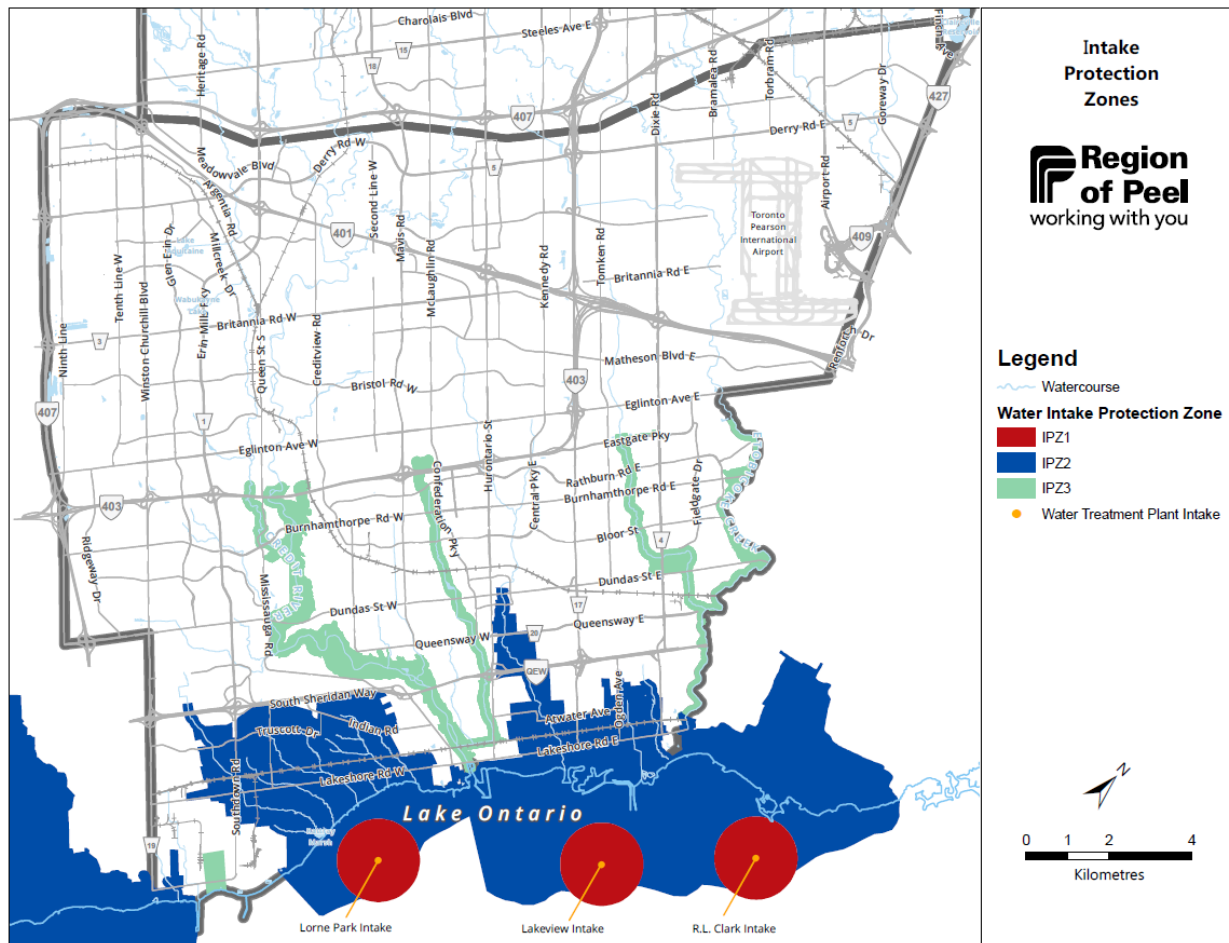
There are three categories of IPZs. The IPZ-1 is delineated based on a 1 kilometre radius measured from the entry point where raw water enters the system. The IPZ-2 is delineated using hydrodynamic models to estimate the distance that a contaminant could travel in two hours. The models include estimating factors such as wind direction and speed, and lake currents. An IPZ-3 is identified if event-based modelling indicates that spills from a specific activity located outside of IPZ-1 and IPZ-2 zones may be transported to an intake and result in a deterioration of water quality at the intake. If modelling indicates deterioration of water quality, the threats are deemed significant (e.g. pipeline spill).

The Region of Peel owns two water treatment plants (WTPs), Lakeview and Lorne Park, which provide water to Mississauga, Brampton, the community of Bolton within the Town of Caledon as well as supplying water to York Region. The water for this system is sourced from Lake Ontario. Information summarizing the IPZs in Peel Region, including IPZs that extend into Peel Region from water treatment plant intakes in the City of Toronto and Halton Region is provided in Table 2.3 below. Figure 2.3 shows the location of the Lake Ontario IPZs in Peel.

Table 2.3: Water Intakes in the CTC and Halton-Hamilton Source Protection Region

Source Protection Area	Municipality	Water System	Number of Intakes
Credit Valley SPA	Peel Region	Lorne Park WTP	1
		Lakeview WTP	1
Halton Region SPA	Halton Region	Halton 3 (Oakville) WTP	1
Toronto Region SPA	City of Toronto	R. L. Clark WTP	1

Figure 2.3: Intake Protection Zones in the CTC Region



Significant threats to Lake Ontario drinking water have been identified based on event scenarios that include threats from spills from nuclear generating stations (i.e. tritium spills), pipeline failures, or release of raw sewage due to sanitary trunk failures or treatment plant bypasses. Areas where modelled significant threats occur are referred to as Event Based Areas (EBAs) and may include IPZ-1 and IPZ-2 areas. IPZ-3 zones are identified to include the portions of the EBAs that extend beyond the IPZ-1 and 2. The CTC Region SPP does not identify any land use planning policies for the Lake Ontario event based significant threats or any of the IPZs. The source protection plan has identified other tools to implement drinking water source protection in the IPZs for the Lake Ontario based systems. Other tools include emergency response, risk mitigation, spill prevention and contingency planning.

2.3.3.4 Prescribed Threats

The policies in the SPP are intended to protect vulnerable areas from drinking water threats. Under the CWA, a drinking water threat is defined as an activity or condition that adversely affects or has the potential to adversely affect the quality or quantity of water that is or may be used as a source of drinking water.

The Ontario Regulation 287/07 under the CWA prescribes the following 21 threats to drinking water and includes 19 activities that can contribute chemicals or pathogens and affect the quality of source water, and two activities that can result in depleted water supplies through water taking or recharge reduction (Threats 19 and 20).

- 1) The establishment, operation or maintenance of a waste disposal site within the meaning of Part V of the Environmental Protection Act.
- 2) The establishment, operation or maintenance of a system that collects, stores, transmits, treats or disposes of sewage.
- 3) The application of agricultural source material to land.
- 4) The storage of agricultural source material.
- 5) The management of agricultural source material.
- 6) The application of non-agricultural source material to land.
- 7) The handling and storage of non-agricultural source material.
- 8) The application of commercial fertilizer to land.
- 9) The handling and storage of commercial fertilizer.
- 10) The application of pesticide to land.
- 11) The handling and storage of pesticide.
- 12) The application of road salt.
- 13) The handling and storage of road salt.
- 14) The storage of snow.
- 15) The handling and storage of fuel.
- 16) The handling and storage of a dense non-aqueous phase liquid.
- 17) The handling and storage of an organic solvent.
- 18) The management of runoff that contains chemicals used in the de-icing of aircraft.
- 19) An activity that takes water from an aquifer or a surface water body without returning the water taken to the same aquifer or surface water body.
- 20) An activity that reduces the recharge of an aquifer.
- 21) The use of land as livestock grazing or pasturing land, an outdoor confinement area, or a farm animal yard.

These threat activities are only considered “significant” if they are being carried out in a source protection vulnerable area and meet site specific circumstances (e.g. a land use that handles or stores specified quantities of fuel in a vulnerable area having a high vulnerability score).

The use of land use policy tools has been evaluated and included in the source protection plans for threats in cases where land use planning policy is considered effective or complementary to other tools. Land use policies have not been included for every threat or circumstance where threats may be significant. More information on the land use policies contained in the source protection plans applicable to Peel is provided in subsequent sections of the discussion paper.

2.3.3.5 Policy Tools

The source protection plans applicable to Peel Region use a range of policy tools to prohibit, regulate or restrict specific activities in areas where these activities are, or could be, a significant drinking water threat. Regulatory tools can be used to impose required conditions on an application, whereas non-regulatory tools such as education and outreach programs, alone or in combination with policy tools, encourage change.

The policy tools can be applied to both existing and future activities that are considered significant drinking water threats, based on the nature and circumstances of the activity. The range of tools include new “Part IV Powers” that allow specific activities to be regulated (prohibited or managed) in areas where activities are, or could be, a significant drinking water threat. Land use planning tools are only applied to future activities as planning authorities under the *Planning Act* and *Condominium Act* do not apply to regulate lawfully existing activities and are only triggered when applications for new development and site alteration are submitted. The policy tools used in the SPP applicable to the Region are summarized in Table 2.4.

Table 2.4: Issue Contributing Areas in Peel Region

Policy Tool	Category	Description
Land-Use Planning	Regulatory (Planning Act & Condominium Act)	These are policies that affect land use planning decisions. Land use planning policies could fall under the Planning Act, 1990 or the Condominium Act, 1998. These policies could be used to prohibit or restrict a future threat activity through a land use policy in a source protection plan. The policy is then implemented through planning decisions (such as Official Plans, Zoning By-laws and Site Plan Controls).
Prescribed Instruments	Regulatory (Various Legislation)	Prescribed instruments are existing, regulatory tools under specific pieces of provincial legislation that can be used by a regulatory authority to address existing and future significant drinking water threats, e.g. Ministry of Natural Resources and Forestry may require conditions be included on site plans in applications for aggregate extraction licences.
Section 57 Prohibition	Regulatory (Part IV of Clean Water Act)	Source Protection Plans may contain policies that prohibit certain activities, including existing activities, which pose a particularly significant threat to drinking water sources, using this new tool introduced under the Clean Water Act, 2006. Prohibition of existing activities is meant to be a ‘tool of last resort’, used only when no other method will reduce the risk, or the level of risk that the activity poses is unacceptably high that the activity may not be permitted to continue.
Section 58 Risk Management	Regulatory (Part IV of Clean Water Act)	A risk management plan is a new tool introduced under the Clean Water Act, 2006 which sets out a plan to manage a threat activity in an area where the activity is, or could be, a significant drinking

Plans	Water Act)	water threat. The plan may include responsibilities and protocols for the person engaged in the threat activity. Risk Management Plans are negotiated between a Risk Management Official and a person engaging in the threat activity. The Risk Management Official can require businesses and landowners to develop a risk management plan.
Section 59 Restricted Land Uses	Regulatory (Part IV of Clean Water Act)	Restricted Land Uses policies are complementary tools under the CWA which are used with either s. 58 Risk Management Plans or s. 57 Prohibition of activities. This tool was created under the Clean Water Act, 2006 to prevent the unintentional approval of activities that are a significant threat to municipal drinking water. They do not eliminate a land use (and do not have the same meaning as in the Planning Act, 1990), but ensure that land use proposals in vulnerable areas are screened and assessed by the Risk Management Official to ensure compliance with any requirements for a Risk Management Plan or policies that prohibit activities from taking place before the local municipality issues a building permit or planning approval.
Strategic Actions	Non-Regulatory	Strategic Action policies are a non-legally binding commitment. They assign a discretionary obligation on the implementing body to achieve the objectives of the SPP.
Incentives	Non-Regulatory	Incentives are used to encourage education and reduction in threats. This tool provides a positive motivation for a voluntary change in behaviour. Incentives could include financial or community recognition programs.
Education and Outreach	Non-Regulatory	These tools are used to educate the public on Source Water Protection and the potential impacts of threat activities. The goal of education and outreach is to inform stakeholders about the actions they can and should take to protect municipal drinking water without compelling compliance through approvals, permits, or enforcement. Generally, this tool is used as a complementary policy to other policies.
Monitoring	Non-Regulatory	Monitoring policies are included in the Source Protection Plan to track the implementation of the threat policies and to determine the effectiveness of the Source Protection Plan. These policies require annual reporting to the Source Protection Authority on the actions taken to implement the policy.

2.3.3.5.1 Clean Water Act 'Part IV' Powers

When a source protection plan contains policies that were enabled through the use of Part IV of the Clean Water Act (CWA Sections 57, 58 and 59), then the municipality with the responsibility for the production, treatment and storage of water is also responsible for implementing and enforcing the

policies. Therefore, the Region of Peel as the provider of municipal drinking water is responsible for the implementation of the “Part IV Policies”. A Region of Peel staff member is currently appointed as the Risk Management Official (RMO) for the Region of Peel for this purpose. These new policy tools allow municipalities to prohibit land uses, require the completion of a risk management plan to ensure drinking water threats are managed appropriately, and/or restrict land uses.

2.3.3.5.2 Section 57 Prohibition

A SPP policy can designate an activity using section 57 of the CWA, making that specific activity prohibited in the areas specified in the SPP. Prohibition is considered the strongest tool available in the policy toolbox for reducing risk associated with significant drinking water threats. When source protection committees considered it as a tool to address activities that already exist on the landscape, they did so only after considering all other feasible options. This tool only applies to significant threats and prevents activities identified as existing or future significant drinking water threats from occurring within designated vulnerable areas.

Once a source protection plan is “in effect,” prohibition policies for designated future activities take immediate effect. This means that the risk management official is required to screen and review any development or planning application that could involve prohibited future activities to prevent those proposals from being approved.

Risk Management Official

Municipalities responsible for enforcement of Part IV are required to appoint a Risk Management Official, and such Risk Management Inspectors. The Risk Management Official is responsible for making decisions about Risk Management Plans, prohibitions, and risk assessments in vulnerable areas, similar to the way in which building officials make decisions on building permits. The Risk Management Inspector is responsible for enforcing Part IV, similar to the way in which building inspectors enforce the provisions of the Building Code Act.

To support the implementation of Section 57 a municipality may enact planning measures, such as a zoning by-law, to prevent a future activity from occurring by restricting associated land uses. This measure would be an effective way of eliminating the possibility of significant threats being located in an area that could impact a drinking water supply. Official plans could also help direct land uses associated with these activities to more appropriate locations. A site plan agreement is another tool that could restrict the location of buildings, structures, and roadways on a site, and thereby indirectly restrict the location of activities on a property. This method could be an effective way to achieve the prohibition of certain types of threats, without using outright prohibition of the entire land use.

2.3.3.5.3 Section 58 Risk Management Plans

Similarly, when a SPP policy designates an activity for the purpose of Section 58, the activity is prohibited until a proponent can establish a risk management plan to ensure the activity will not pose a significant threat to drinking water. This means that an approved risk management plan is required before the formal planning process can officially commence. It is important that applicants are aware of the need for a risk management plan at the beginning of the planning process.

2.3.3.5.4 Section 59 Restricted Land Uses

To prevent future developments from becoming significant drinking water threats, Section 59 of the CWA allows for the creation of restricted land use policies that complement Section 57 Prohibition and Section 58 Risk Management Plan policies. Section 59 is not a standalone provision under the CWA and is used only in conjunction with Section 58 Risk Management or Section 57 Prohibition policies.

The Section 59 tool requires a screening process or “early flagging system” so that municipalities avoid processing an application under the *Planning Act* or *Condominium Act*, or a building permit that is either subject to Section 57 Prohibition policies or Section 58 Risk Management Plan policies. If a SPP has included a Section 59 Restricted Land Uses policy, and the legal effect of the policy is “legally binding - must conform with” (i.e. the policy is identified as a List A policy), official plans and zoning by-laws should include a text reference to the policy, mapping of the area where the policy applies, and the land uses designated for the purposes of screening applications. The SSPs in Peel have included Section 59 Restricted Land Uses policies which are “legally binding – must conform with” policies and listed all land uses, except residential uses, as being designated land uses for the purpose of Section 59.

Section 59 requires that an applicant obtain a notice, called the “Section 59 notice to proceed,” from a RMO before an application for an approval under the *Planning Act* or *Condominium Act*, or a building permit can proceed in vulnerable areas where significant drinking water threats may occur. A “Section 59 notice to proceed” is considered a complete application requirement under the *Planning Act* and a requirement of the applicable law provisions under the *Building Code Act*.

The following types of development applications under the *Planning Act* are prescribed by Ontario Regulation 287/07, for the purpose of Section 59 of the CWA:

- requests to amend official plans;
- applications to amend zoning by-laws for both permanent and temporary use;
- applications for approval to undertake development in a site plan control area;
- applications for minor variances;
- applications for approval of plans of subdivision; and,
- consent applications.

Applicants and planners need to be aware of Part IV policies and where they apply because planning applications and building permits in these areas need to be reviewed by the Risk Management Official to avoid a threat activity from becoming inadvertently established.

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3. Implementing Source Water Protection through Land Use Planning

3.1 Municipal Official Plan Conformity

The *Planning Act* provides the legislative framework for municipalities to regulate land uses, and not specific activities. Consequently, the land use planning framework does not easily address some of the threat activities prescribed for the CWA. For example, municipal planning decisions cannot restrict specific activities such as the handling of commercial fertilizer. In addition, the use of broad land use categories to prohibit uses when only certain activities associated with the land use is a drinking water threat can result in overly restrictive planning policy. In most instances, the relevant land use policies of the source protection plans have taken this into account and have been developed to not be overly restrictive.

Within the SGBLS Source Protection Plan, land use planning policies are set out in Appendix A of the SPP. In the CTC Source Protection Plan, Appendix B sets out the significant and moderate threat policies that affect decisions under the *Planning Act* and *Condominium Act*. Municipal official plans must be updated to “conform with” the significant threat policies in the applicable SPPs and “have regard for” low or moderate threat policies. Further, municipalities and local boards are required to make decisions on applications under the *Planning Act* and *Condominium Act* that conform with significant drinking water threat policies in source protection plans, and have regard for moderate and low threat policies.

In the Halton-Hamilton Source Protection Plan, land use planning policies that apply to vulnerable areas where drinking water threats would be a significant drinking water threat are listed in Table 1 of the SPP. There is no requirement to implement the land use policies of the Halton-Hamilton Source Protection Plan as there are no vulnerable areas that extend into Peel Region where the land use policies would apply.

While the Regional Official Plan provides broad direction for planning in Peel, the local municipalities regulate land use, including land uses which may be a threat to drinking water sources. The Regional and local official plans are required to contain policies which work together to achieve the objectives of the SPP.

Further information on policy options being considered for the Regional Official Plan are provided in Section 6 of the discussion paper.

3.2 Transitional Provisions

The CWA requires source protection plans to contain policies that address all existing or future significant drinking water threats. The source protection plans therefore define existing and future activities and contain transition policies in order to clarify when the various policies will be applied. For the purpose of using the Part IV risk management tools the SPPs allow municipalities to require risk management plans which can regulate an existing activity that is a drinking water threat. However, when applying land use planning policies through a process under the *Planning Act* only future threat activities are subject to the SPP land use planning policies. This is because municipal planning authority

under the *Planning Act* is limited and does not permit official plan policy to be retroactive and require an existing use to cease or alter its operations. Existing uses are considered “grandfathered” or permitted to continue subject to other policy restrictions in the SPPs.

4. Existing Source Water Protection Policies in The Region of Peel Official Plan

The Region of Peel Official Plan provides policy direction on regional interests with an overarching theme of sustainability that integrates environmental, social, economic and cultural imperatives. Large systems policies for the Region's airsheds, watersheds, groundwater resources, Lake Ontario, the Greenbelt, the Niagara Escarpment and the Oak Ridges Moraine are set out up front in the Plan to ensure that relevant large environmental systems are addressed in regional planning. These policy directions are complemented by the Region's Greenlands System policy framework, which further expresses the Region's vision for the protection of the natural environment by providing direction for the protection, restoration and enhancement of natural heritage and water resource features, areas and functions. Water resource policies are embedded in different locations in the Plan and are set out in greater detail in Section 3.4 with specific objectives to protect, maintain and enhance water quantity and water quality.

4.1 Water Resources Protection in the Region of Peel Official Plan

Section 3.4 – Water Resources contains policies which govern water resources by requiring the protection, maintenance and enhancement of the quantity and quality of water resources. It is an objective of the plan to minimize negative land use impacts on headwater recharge and discharge areas, groundwater aquifers, producing wells, stream base flows, surface water, downstream aquatic systems and related natural systems.

Currently, Section 3.4 does not set out detailed policies for vulnerable areas nor does it list or describe the different types of vulnerable areas that are defined in the CWA and identified in assessment reports and source protection plans. The ROP currently provides direction to the local municipalities to provide more detailed policies for water resources including the Region's municipal wellhead protection areas. Policy direction is provided to the local municipalities to require appropriate hydrological and hydrogeological studies, to the satisfaction of the Region, for all planning initiatives that may have an immediate or cumulative impact on water resources. The policy direction of the ROP is consistent with the five principles of the ROP to provide broad strategic direction and not duplicate local land use planning. More detailed land use policies for source water protection are currently provided in the Town of Caledon Official Plan and Zoning By-law.

In relation to source water protection, since 2002 the Oak Ridges Moraine Conservation Plan (ORMCP) established policies which restrict land-uses in wellhead protection areas and areas of high aquifer vulnerability and set out specific direction to protect the unique ecological and hydrological functions of the Moraine. Section 2.2 of the Regional Official Plan contains specific source water protection policies for the Oak Ridges Moraine. The Region has implemented the ORMCP policies by identifying the location and extent of wellhead protection areas for all municipal wells on the moraine, identifying areas of high aquifer vulnerability and providing policies directing the Town of Caledon to prohibit or restrict uses and activities in accordance with the ORMCP.

Through the implementation of the above policies, the Region has established a process through which development applications are evaluated to ensure source water protection is implemented in vulnerable areas. Within this framework, Section 3.4 Water Resources is the appropriate location to include new or revised policy for source water protection in accordance with the applicable source protection plan. Policy amendments for the ORMCP will be developed as part of a broader Greenbelt plans conformity exercise separately from the Water Resources Policy Review, but will be coordinated to ensure alignment of mapping and policy.

5. Source Water Protection Plans Applicable to Peel Region

The policies in the source water protection plans, many of which are applicable to the Region of Peel, began to take effect once the plans were approved by the Minister of Environment and Climate Change. The Region is responsible for implementing the policies, including the requirements to update the official plan policies for conformity with the source protection plans (SPP). The CTC, SGBLS and Halton-Hamilton Source Protection Plans (SPPs) contain several significant threat policies that affect decisions under the *Planning Act* and *Condominium Act*. Through a regional official plan amendment, Peel must translate the policies of the source water protection plans into official plan policy which in turn guides decisions on applications under the *Planning Act*. These policies will either prohibit the land use associated with the prescribed threat in locations where the use would be a significant drinking water threat, or place restrictions on the prescribed threat activity in order to allow the use to proceed while ensuring significant drinking water threats do not emerge. The following sections provide more detail on the land use planning policies contained in the source protection plans.

5.1 CTC Region Source Protection Plan

The CTC Source Protection Committee developed policies which address significant threats by requiring decisions that are made within a *Planning Act* process to conform with the policies of the SPP. The land use planning policies in the CTC plan first require municipal official plans and zoning by-laws to be amended and brought into conformity with the significant threat policies within a specified timeframe. Official plan conformity is required within 5 years from the date the CTC plan takes effect and zoning by-law conformity within 3 years following the official plan update.

Land use planning has been used to ensure activities cease to be or do not become significant drinking water threats for the following activities:

- Use of land for waste disposal;
- The establishment, operation or maintenance of a waste disposal site within the meaning of Part V of the Environmental Protection Act;
- The establishment, operation or maintenance of a system that collects, stores, transmits, treats or disposes of sewage;
- The application of road salt;
- An activity that takes water from an aquifer or a surface water body without returning the water taken to the same aquifer or surface water body; and
- An activity that reduces recharge to an aquifer.

Prescribed threat activities are restricted or prohibited in vulnerable areas and in issue contributing areas depending on the type and nature of the proposed development, as well as, the relative vulnerability of the area. In determining whether development or site alteration is prohibited or restricted, reference to the applicable source protection plan policy and MOECC Tables of Drinking Water Threats is required. Appendix A provides a general indication of where drinking water threats may be significant in each of the vulnerable areas and based on their vulnerability score

The land use planning policies associated with these threat types either prohibit the potential threat from being established when the use is proposed in a vulnerable area that has a high vulnerability score, or place conditions, such as site plan controls or environmental assessments, on the proposed use. For example, new septic systems on a newly created lot are not allowed within a wellhead protection area-A (WHPA A), but a new septic system on an existing lot is permitted if site plan controls are met, or in the case of a new septic system on a new lot in a vulnerable area that is not a WHPA A, if a hydrologic assessment demonstrates that a significant drinking water threat is not created.

The Source Protection Committee included a land use planning policy to address one moderate threat related to the application of salt to new roads or parking lots. The implication of this policy for the Region is that decisions under the *Planning Act* and *Condominium Act* will be required “to have regard to” the policy.

The CTC plan categorizes land uses as either “existing threat activities” or “future threat activities” for the purpose of applying policies through decisions under the *Planning Act*. Under the CTC plan, an existing use is defined as an existing use, activity building or structure at a location in a vulnerable area that is in compliance with all applicable requirements, and that was being used or had been established for the purposes of undertaking the threat activity, at any time within ten years prior to the date of approval of the SPP. The definition also encompasses an expansion of an existing use or activity that reduces the risk of contaminating drinking water or does not deplete drinking water sources; and, an expansion, alteration or replacement of an existing building or structure that does not increase the risk of contaminating drinking water nor depletes drinking water sources is also considered an existing use for the purpose of applying the land use planning policies under the source protection plan. All other activities and uses are considered future threat activities. Land use planning policies in the CTC Plan are only applied to “future threat activities” and do not apply to “existing threat activities” as defined in the plan.

Transition provisions have been developed to recognize those situations where an applicant has either obtained an approval-in-principle to proceed with a development application, or where a complete application has already been made to a planning approval authority that are “in process” on the date the SPP comes into effect.

The transition policy allows complete applications made under the *Planning Act* or *Condominium Act*; building permits submitted in compliance with the *Ontario Building Code Act*; development permits under the *Niagara Escarpment Planning and Development Act*; or an application for the issuance or amendment of a prescribed instrument (i.e. certificate of approval under the *Environmental Protection Act*) made prior to the day the source protection plan comes into effect to be treated as existing threat activities.

5.2 South Georgian Bay Lake Simcoe Source Protection Plan

The SGBLS source protection plan contains 15 policies which use land use planning tools to manage significant drinking water threats, thereby protecting drinking water sources. For municipalities within the jurisdiction of the plan, decisions that are made under a *Planning Act* process must conform to the applicable policies in the SPP. In order to ensure conformity, municipal official plans and zoning by-laws must be updated to recognize the significant threat policies.

Land use planning policies have been developed for the following significant threat types:

- waste disposal sites
- on-site sewage systems
- sewage system infrastructure
- agricultural source material storage facilities
- non-agricultural source material storage facilities
- commercial fertilizer storage facilities
- pesticide storage facilities
- road salt storage facilities
- snow storage facilities
- fuel storage
- DNAPL storage
- organic solvent storage
- outdoor confinement or farm animal yard
- impervious surfaces such as parking lots, roadways and sidewalks (to address road application)
- stormwater management facilities
- water taking for new development; and
- new development that reduces groundwater recharge (i.e. development of impervious surfaces)

The land use planning policies in the SPP either prohibit the potential threat from being established when the use is being proposed in a vulnerable area that has a high vulnerability score, or places conditions, such as site plan controls or environmental assessments, on the proposed use. In determining whether a development or site alteration is prohibited or restricted, reference to the applicable source protection plan policy and MOECC Table of Drinking Water Threats is required.

Similar to the CTC Plan, the SGBLS Source Protection Plan defined existing and future drinking water threats. The plan defines an existing use as follows:

An existing threat, activity and/or use are defined as:

- a) a use, a building or structure that is used and continues to be used for the purpose for which it was erected.
- b) a minor alteration or replacement building or structure that has the same capacity as an existing lawful building or structure and provides greater protection to sources of drinking water and

where there is no change in use and where the replacement structure will bring the building or structure into closer conformity with the Source Protection Plan.

- c) an activity that is presently occurring or has occurred within the last ten years from the date of approval of the source protection plan.
- d) where an existing activity is permitted an expansion, alteration or replacement of a use, activity, building or structure that reduces the risk of contaminating drinking water shall be permitted.

A future threat, activity and/or use are defined as:

- a) a new building or structure at a location in a vulnerable area that commences after the Source Protection Plan takes effect.
- b) new structures or buildings for a new land use that did not exist on the day before the Source Protection Plan comes into effect.
- c) an activity that has not occurred within the last ten years from the date of the approval of the Source Protection Plan.
- d) new agricultural activities on lands that had not been previously used or zoned for any agricultural purposes in the past ten years within vulnerable areas.
- e) an expansion, alteration or replacement of a use, activity, building or structure that does not reduce the risk of contaminating drinking water is considered a future activity and subject to the future policy.

Similar to the CTC Plan, complete applications made under the *Planning Act* or *Condominium Act*, building permits submitted in compliance with the Ontario Building Code Act, development permits under the Niagara Escarpment Planning and Development Act, or an application for the issuance or amendment of a prescribed instrument prior to the day the source protection plan comes into effect are to be treated as existing threat activities. Land use planning policies in the SGBLS Plan are only applied to “future threat activities” and do not apply to “existing threat activities” as defined in the plan.

5.3 CTC and SGBLS Policies Comparison

The CTC and SGBLS Plan policies differ in regard to the policy requirements used to manage various threat types. Both plans prohibit significant threat activities, but differ in the list of threat activities that are prohibited, with the SGBLS Plan providing a more comprehensive list of prohibited land use activities than the CTC Plan. In the SGBLS Plan, land use planning approaches were used to complement section 57 policies that prohibit activities, typically for storage activities that are significant threats, and therefore provides a more comprehensive list of prohibited uses to be regulated through land use planning policy.

The plans also differ in the level of detail in the land use policies for specific threat activities with the CTC Plan generally providing a greater level of detail in policy requirements for threats (e.g. under the CTC Plan vacant lots of record are subject to site plan control to ensure that the location of an on-site sewage system does not become a significant drinking water threat in a vulnerable area with a high vulnerability score). In comparison, the SGBLS plan, defers to the MOECC guidelines for on-site servicing, and permits development on new vacant lots that meet the guidelines and exempts existing

lots of record from the policy. There are also differences in the types of vulnerable areas and consequently the types of threats addressed in the plans. For example, there are no sub-watersheds in Peel that are under water quantity stress in the SGBLS Plan area and therefore the SPP does not identify vulnerable areas or include policies for water quantity threats (e.g. Wellhead Protection Area Q1 and Q2). Water quantity threat policies and mapping of WHPA Q1 and Q2 areas are provided in the CTC Plan to account for the water quantity stresses associated with some of the Orangeville wells.

In order to ensure that land use planning applications are screened consistently, both the CTC and SGBLS plans designate all land uses as restricted land uses with the exception of residential lands, within vulnerable areas where specified activities would be a significant drinking water threat for the purposes of implementing Section 59 screening processes in both plan areas. Section 59 restricted land use policies ensure that the land use being proposed in a vulnerable area is screened and assessed by the Risk Management Official to ensure compliance with the policies in the source protection plan. Restricted land use policies link the planning process with Section 57 prohibition and Section 58 risk management policies under the *Clean Water Act* to either prohibit or restrict certain activities. The land use planning policies of the CTC and SGBLS source protection plans are provided in Appendix G.

5.4 Halton-Hamilton Source Protection Plan

The majority of policies in the Halton-Hamilton Plan address significant threat activities, which only occur in wellhead protection areas, issue contributing areas, and where event based modelling was completed to assess intake protection zones threats. The boundaries of these areas do not extend into Peel Region therefore the Regional Official Plan does not need to incorporate policies from the Halton-Hamilton Plan.

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6. Policy Options and Recommendations

Policy approaches to address conformity with the source protection plans will need to consider the Regional Official Plan's guiding principle to provide broad policy direction to the local municipalities while still ensuring the legal standard of conformity with source protection plans is met. As the Region is the provider of drinking water, an appropriate level of policy detail should be set out in the official plan to reflect Regional interests in protecting municipal drinking water sources. In addressing the policy requirements of the Provincial Policy Statement, 2014 and the source protection plans applicable to Peel, the Regional Official Plan will need to be amended to:

- insert new policy objectives relating to the protection of municipal drinking water sources,
- describe the vulnerable areas within the region,
- identifying the vulnerable areas on a map,
- provide direction to the local municipalities to establish official plan land use policies that prohibit, restrict or regulate development and site alteration within vulnerable areas including:
 - mapping requirements for more detailed delineation of vulnerable areas
 - setting out complete application requirements
 - outlining transition policies in accordance with existing and future threat definitions
- ensuring new definitions are added or amended consistent with the SPPs.

Ultimately, policies will need to be implemented in both the Regional Official Plan and local municipal official plans where significant drinking water threat policies apply.

6.1 Where Policies Should Be Located in the Regional Official Plan

Section 3.4 – Water Resources, of the Regional Official Plan contains policies which govern water resources by requiring the protection, maintenance and enhancement of the quantity and quality of water resources. This section of the ROP is best positioned to insert source water protection plan policies to address the protection of sources of municipal drinking water through the implementation of the CWA.

6.2 Approaches to Implementing Multiple Source Protection Plans

The development of source protection plans based on watershed boundaries has resulted in the Region of Peel being subject to three source protection plans. The Region is required to ensure that the applicable land use policies are implemented and that the legal effect standards of each plan and policy are met as a minimum requirement.

The Region may choose to identify where each source protection plan applies and identify that their respective policies apply to these areas. Policies are required to “conform with” significant drinking water threat policies and “have regard for” moderate and low threat policies.

Alternatively, the Region could provide uniform policies in the official plan on a Region-wide basis that address all applicable source protection plans provided that the policies meet the legal effect

requirements of multiple source protection plans. If a uniform policy approach is considered, it would be necessary to ensure that the most restrictive policy is applied Region-wide in designated vulnerable areas and that less restrictive policies in one source protection plan area are not applied to another source protection area having more restrictive policies. If the Region chooses to provide uniform policies that are more stringent than policies in one of the source protection plans, the Region would be required to justify this decision.

Policy options to address conformity with multiple source protection plans include:

- Implement source protection plan policies based on source protection plan area boundaries
- Implement Region-wide uniform source protection plan policies using a “most restrictive policies” approach
- Insert a map as a schedule or figure indicating where the respective source protection plans apply in Peel

6.3 Region Official Plan Land Use Policy Approaches

The Region may choose to organize the specific land use and/or drinking water threat policies in several ways, also including but not limited to:

- by vulnerable area type (e.g. WHPA, ICA, SGRA, HVA)
- by level of vulnerability (e.g. by vulnerability score)
- by policy theme (e.g. water quality, water quantity)
- by threat type (e.g. waste disposal sites, sewage systems, septic systems, etc.)
- a combination of the above

Vulnerable Area Type Approach

As an example, the Regional Official Plan could set out corresponding policies for wellhead protection areas, issue contributing areas, intake protection zones, significant groundwater recharge areas, and highly vulnerable aquifer areas. The policies would state, for each vulnerable area, which land uses are permitted, and the criteria or circumstances under which each use would be permitted or prohibited, or refer to the applicable policies of the source protection plan for detailed policy requirements.

Threat Type Approach

A threat types approach would, for each of the designated significant drinking water threats listed in the source protection plans, dedicate a subsection within the Regional Plan for each threat type. The subsection would list the threat type as a heading followed by policies stating the required policy direction to either prohibit, or permit the land use with conditions. A similar policy approach was used by the Region of Niagara, whereby the Official Plan contains policies for each threat type such as policies governing the location of sewage system infrastructure, discharge from new stormwater management facilities, and storage of road salt, etc. Policies listed by threat type can be set out in detail or the Regional Plan can provide a general policy that refers to the applicable source protection plan, or group policies by source protection plan area.

Vulnerability Level Approach

Municipalities such as the Region of Waterloo and the County of Wellington have established source water protection areas based on level of vulnerability (most vulnerable to least vulnerable) and applied restrictions to categories of land uses grouped together based on the level of risk activity associated with each land use. Within the Region of Waterloo's policy framework eight wellhead sensitivity areas have been created that either prohibit or restrict threat activities within these areas based on their level of sensitivity to the grouped land use categories.

The vulnerability level approach would be difficult to apply exclusively as an option as the applicable source protection plans and MOECC tables of drinking water threats vary where drinking water threats may be permitted or prohibited based on both vulnerable area type and their vulnerability scores. Use of this approach exclusively would also be difficult as policies are not consistent between source protection plans. Both the vulnerable area type (e.g. WHPAs) and their vulnerability scores need to be referenced to understand where policies apply.

Combination Approach

A combination of the above approaches may be used to organize land use policy direction for source protection. A combination of approaches could also be used if grouping the policies by source protection plan area for each of the source protection plans that apply to Peel. A combination approach could also consider not duplicating detailed policies from the SPPs and instead include a general policy that land uses are permitted or prohibited in accordance with the applicable source protection plan. This option could also consider providing a summary of the applicable policies by reference to a table that would list the prescribed threats; the areas where the threats would be significant; indicate whether the threats would be permitted or prohibited; and the requirements or conditions that would need to be met if permitted.

A combination approach would need to ensure that there is sufficient explanatory information in the policy and/or table to demonstrate how the policies conform with and have regard for the prescribed land use policies in the source protection plans.

Policy options to implement a combination approach that provide reference to a policy table in the Regional Official Plan include:

- organizing policies by source protection plan area
- combining land use policies by vulnerable area, level of vulnerability and threat type
- adding a general policy that permits or prohibits land uses identified as significant drinking water threats by reference to the applicable source protection plans and a summary table of policy requirements
- providing a reference table as a policy text, schedule or figure

6.4 Restricted Land Use Policies (Clean Water Act, Section 59)

Restricted land use policies requiring the implementation of Part IV powers under the *Clean Water Act* are included in the Halton Hamilton, CTC Region and South Georgian Bay Lake Simcoe Source Protection Plans. Restricted land use policies are complementary tools under the *Clean Water Act, 2006*, which are used with either s.58 Risk Management Plans or s.57 Prohibition of activities. They ensure activities in designated vulnerable areas are assessed by a Risk Management Official (RMO) to ensure compliance with s.58 Risk Management Plan or s.57 Prohibition policies before building permits or planning approvals are issued. This tool acts as a screening tool for municipalities when reviewing applications, to prevent the unintentional approval of activities that are a significant threat to municipal drinking water.

Restricted land use policies should be reflected in the Regional Official Plan to support implementation of the source protection plans by providing advice to planning applicants on meeting obligations under the *Clean Water Act*.

Policy options to address Section 59 Restricted Land Uses policies include:

- Providing a new policy that directs the Town of Caledon to designate all land uses, except residential uses, as restricted land uses in vulnerable areas in accordance with the source protection plans
- Providing a new policy that requires circulation of *Planning Act* and *Condominium Act* applications to the Risk Management Official for review prior to proceeding
- Amending the complete application requirements of the Regional Official Plan and providing direction to amend the Town of Caledon Official Plan to require a “source water disclosure report” and a “Section 59 Notice to Proceed” as part of a complete application

The requirement for a source water disclosure report is a recommended addition. A disclosure report can be requested at the option of the RMO to provide information on whether any of the prescribed drinking water threats under the *Clean Water Act, 2006* are expected to occur on properties associated with development applications. Disclosure reports would assist with the review and processing of development proposals in vulnerable area and provide information on such matters as the anticipated quantity, storage and handling of substances listed as drinking water threats, and best practices that are proposed to address and manage the threats.

6.5 Complete Application Requirements

The authority to specify complete application requirements is provided under the *Planning Act* and both the Regional Official Plan and Local Municipal Official Plans contain lists of complete application requirements for this purpose. Study requirements for amendments to the Regional Official Plan are listed in section 7.3.6 of the ROP and include “hydrogeological evaluations”, “water and wastewater servicing study” and “public health impact studies”.

The following additions to section 7.3.6 are recommended to ensure the range of study requirements that may be necessary under the *Planning Act* and *Condominium Act* for source water protection are listed and available to be requested as part of a complete application:

- Environmental assessment
- Source water disclosure report
- Section 59 “Notice to Proceed” under the *Clean Water Act, 2006*
- Water balance assessment

6.6 Transitional Policies

A transition policy indicating when future development and site alteration is subject to the applicable policies of the source protection plan is recommended. The CTC and SGBLS Region source protection plans provide definitions for “existing threat activities”, which are not subject to the land use policies of the source protection plans as only future threat activities are subject to planning approvals under the *Planning Act* and *Condominium Act*. Transition provisions have been developed to recognize those situations where an applicant has either obtained an approval in principle to proceed with a development application, or where a complete application has already been made to a planning approval authority and is therefore “in process” on the date the source protection plan comes into effect. The policies and definitions have been included to provide clarity when policies apply and do not apply to activities, including land uses. Policy options are:

- Include a policy that the source water protection land use policies do not apply to existing threat activities in accordance with the applicable source protection plans
- Include a policy to acknowledge that “in process” applications will continue to proceed, but may require further planning approvals to implement the application.
- Provide a definition for “existing threat activities” by reference to the source protection plans

6.7 Mapping of Vulnerable Areas in Official Plans

It is recommended that both the Regional Official Plan and local official plans provide mapping of vulnerable source protection areas. It is recognized that the vulnerable areas boundary mapping may change overtime as new wells are brought on-line, existing wells are decommissioned and as groundwater models are refined. By mapping vulnerable areas as schedules, the Region would be including the information as a formal component of the Plan. Still, it is recognized that these schedules will be subject to change through formal amendments to the Regional Plan in order to reflect updated information. The use of a figure to map vulnerable areas, while showing similar information as schedules, would be for illustrative purposes only and can be amended without formal amendment to the Plan.

Currently the Regional Official Plan contains Figure 13 Wellhead Protection Areas in Peel for the Oak Ridges Moraine Conservation Plan Area. The use of this figure alone will not fulfill the Region’s obligations under the CWA. The amount of information provided on Figure 13 is limited in geographic area and by vulnerable area type. The Region will need to modify, replace or delete Figure 13 to ensure

that it correctly depicts updated wellhead protection area mapping information for Peel. In addition, it is recommended that the Region insert new mapping for each of the vulnerable areas in Peel. At a minimum, vulnerable areas that are associated with land use policies in the source protection plans should be shown on either schedules or figures in the Regional Official Plan.

Since there are three source protection plans that are applicable within Peel Region, the boundaries of each plan area should be identified (see Appendix B). The limits of each WHPA, including WHPA-Q1 and Q2, ICAs, SGRAs, and HVAs as delineated in the SPPs and assessment reports should be mapped in the Regional and Local Official Plans where required. Although there are no significant threat policies associated with the Lake Ontario IPZs, the Region has two Lake Ontario drinking water intakes which could be identified to show the limits of their vulnerable areas (see Appendix C).

Through recent amendments to the PPS, 2014 and Growth Plan, the Province of Ontario now requires municipalities to include water resource systems mapping in their official plans. These maps are required to identify water resources systems, features and areas including sensitive and vulnerable ground and surface water features and areas. Source water vulnerable area mapping should be a component of the Region's water resources system mapping along with the identification of the Region's broader water resources system features and areas.

Mapping options include:

- Mapping all vulnerable wellhead protection areas, issue contributing areas, intake protection zones, significant groundwater recharge areas, and highly vulnerable aquifers
- Mapping only those vulnerable areas that are subject to prescribed land use policies in the source protection plans
- Identifying all vulnerable areas as schedules in the plan
- Identify all vulnerable areas as figures in the plan

6.8 Definitions

Existing definitions in the Regional Official Plan should be reviewed and deleted or amended as required to ensure consistency between the Regional Plan and the applicable source protection plans. New definitions are recommended where these are necessary to interpret official plan policy and where there are currently no appropriate existing definitions that may be referenced or sourced to other official documents such as the source protection plans.

Recommended new definitions include:

- Vulnerable area
- Highly vulnerable aquifer (HVA)
- Significant groundwater recharge area (SGRA)
- Issue contributing area (ICA)
- Intake protection zone (IPZ)
- Risk Management Official (RMO)

- Significant drinking water threat
- Source water disclosure report
- Section 59 Notice to Proceed

Recommended updates to existing definitions include:

- Wellhead protection areas

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7. Conclusion

The Regional Official Plan's existing policies do not conform to the policies of the Clean Water Act and applicable Source Protection Plans. The mechanisms used to develop drinking water protection policies have evolved over the years since the introduction of groundwater protection policies in the Regional Official Plan and more recent policy for source water protection on the Moraine. The official plan will need to be updated to reflect the new policy requirements of the source water protection plans approved under the Clean Water Act.

This discussion paper provides an overview of:

- source water protection through the CWA,
- existing source water protection policies in the Regional official plan,
- implementation of source water protection plan policies through land use planning, and
- options and recommendations for updating the regional water resources policies.

Combined with feedback received through public consultation, this report will form the basis for developing policy recommendations as a next step in the regional official plan amendment process. Following Regional Council directions, staff will prepare and circulate a draft amendment for review and comment. The final result will be updated water resources policies.

References

Clean Water Act, Section 47(1)(b), 2006, S.O. 2006, c. 22.

Appendix A: Where Significant Drinking Water Threat Policies Apply in Wellhead Protection Areas

Significant Drinking Water Threat	WHPA A, B, C Vulnerability Scores			WHPA E Vulnerability Scores (Inland Rivers and Streams)		
	10	8	2,4,6	9	8.0,8.1	6.3 - 7.2
1) Waste Disposal						
2) Sewage Systems						
3,4,5) Agricultural Source Material						
6,7) Non-Agricultural Source Material						
8,9) Commercial Fertilizer						
10,11) Pesticide						
12,13) Road Salt						
14) Storage of Snow						
15) Fuel						
16) DNAPLs						
17) Organic Solvents						
18) Aircraft De-icing Chemicals						
19) Water Taking						
20) Recharge Reduction						
21) Livestock Grazing, Outdoor Confinement						

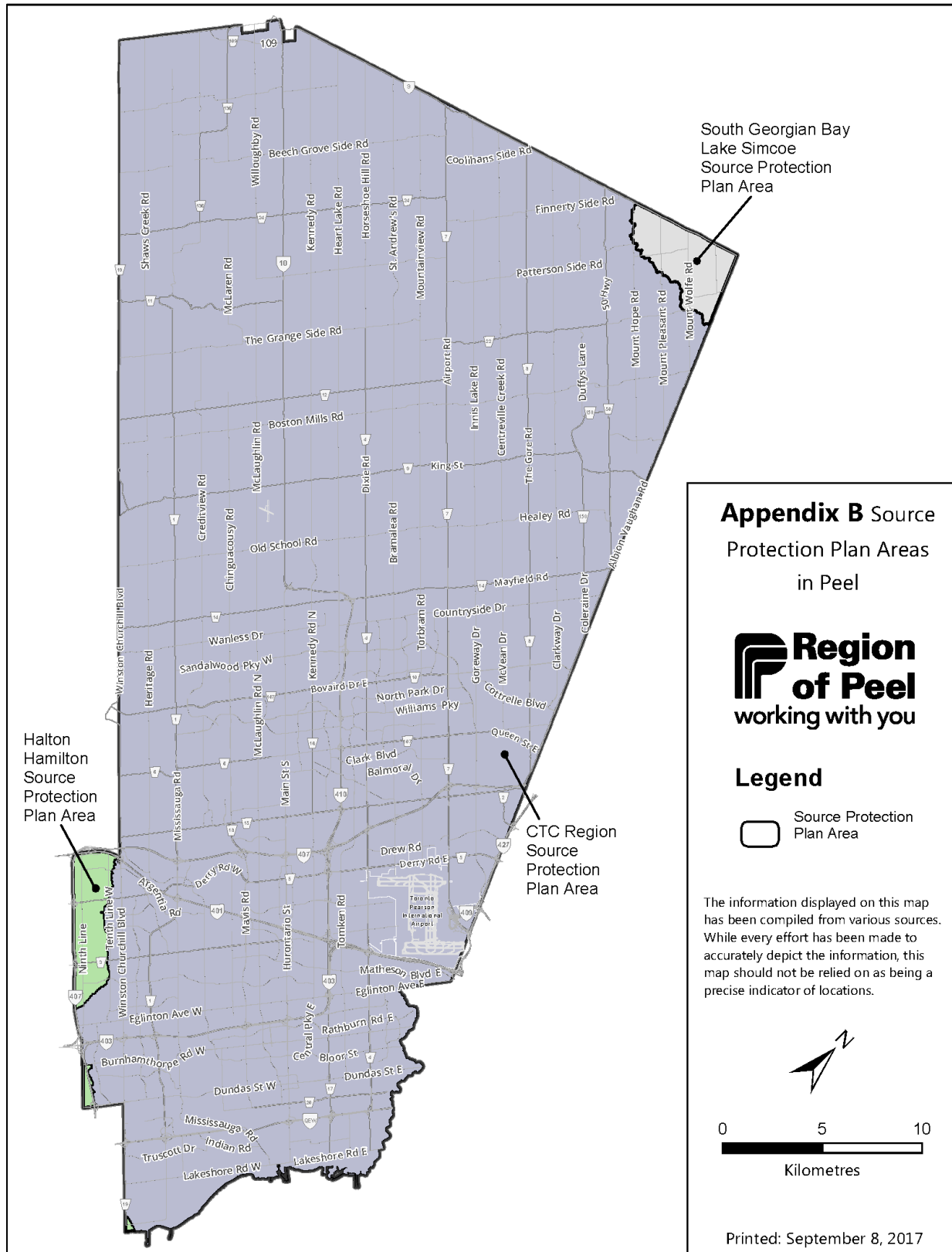
Note: This table provides a summary of prescribed drinking water threats under the Clean Water Act, 2006 and the areas where the threats may be significant in accordance with the MOECC Tables of Drinking Water Threats. Refer directly to the MOECC Tables of Drinking Water Threats to confirm if a threat activity is a significant drinking water threat. Refer to the text of the Region of Peel Official Plan and applicable source protection plan to determine if land use planning policies apply to a threat category.

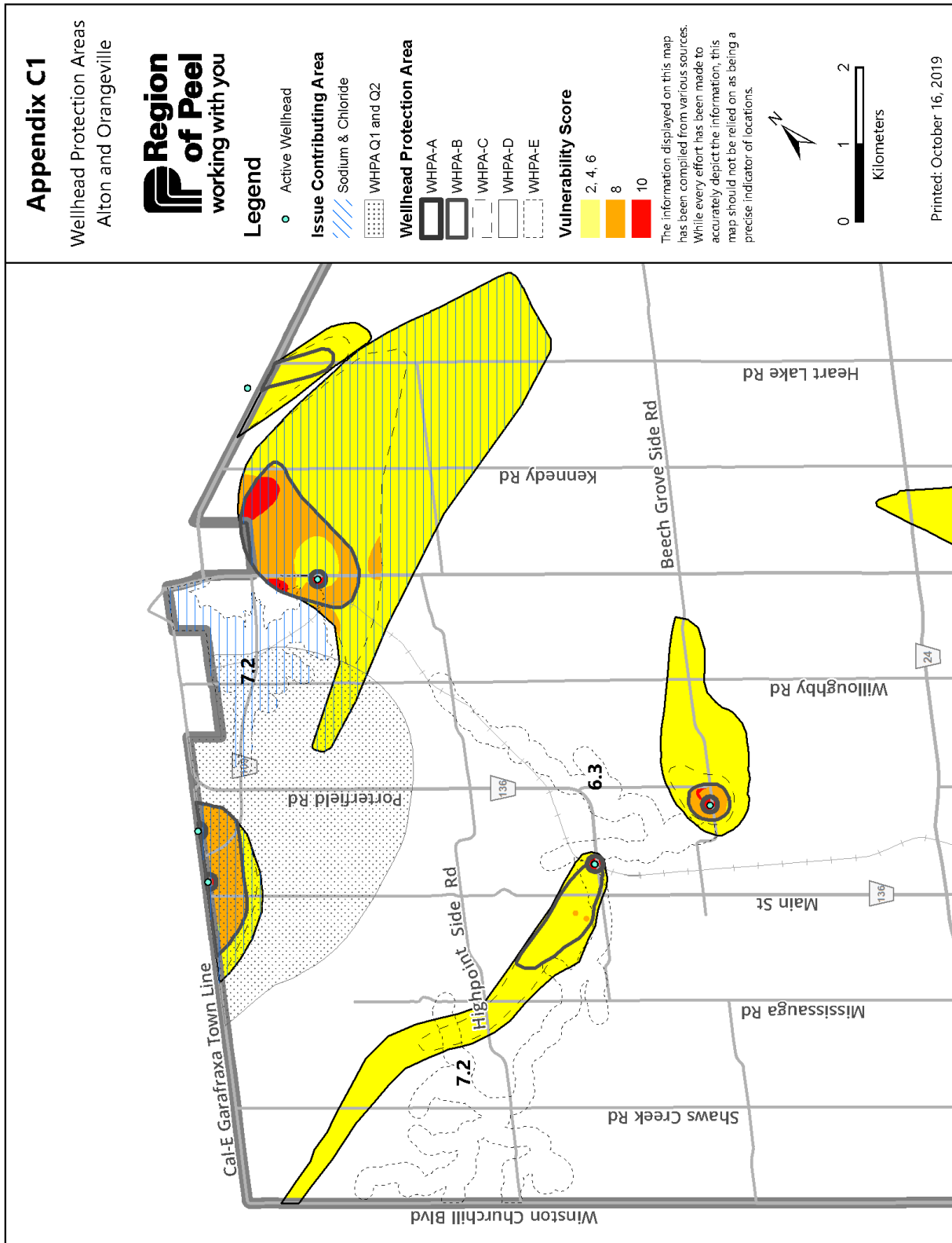
Where Significant Drinking Water Threat Policies Apply in Issue Contributing Areas

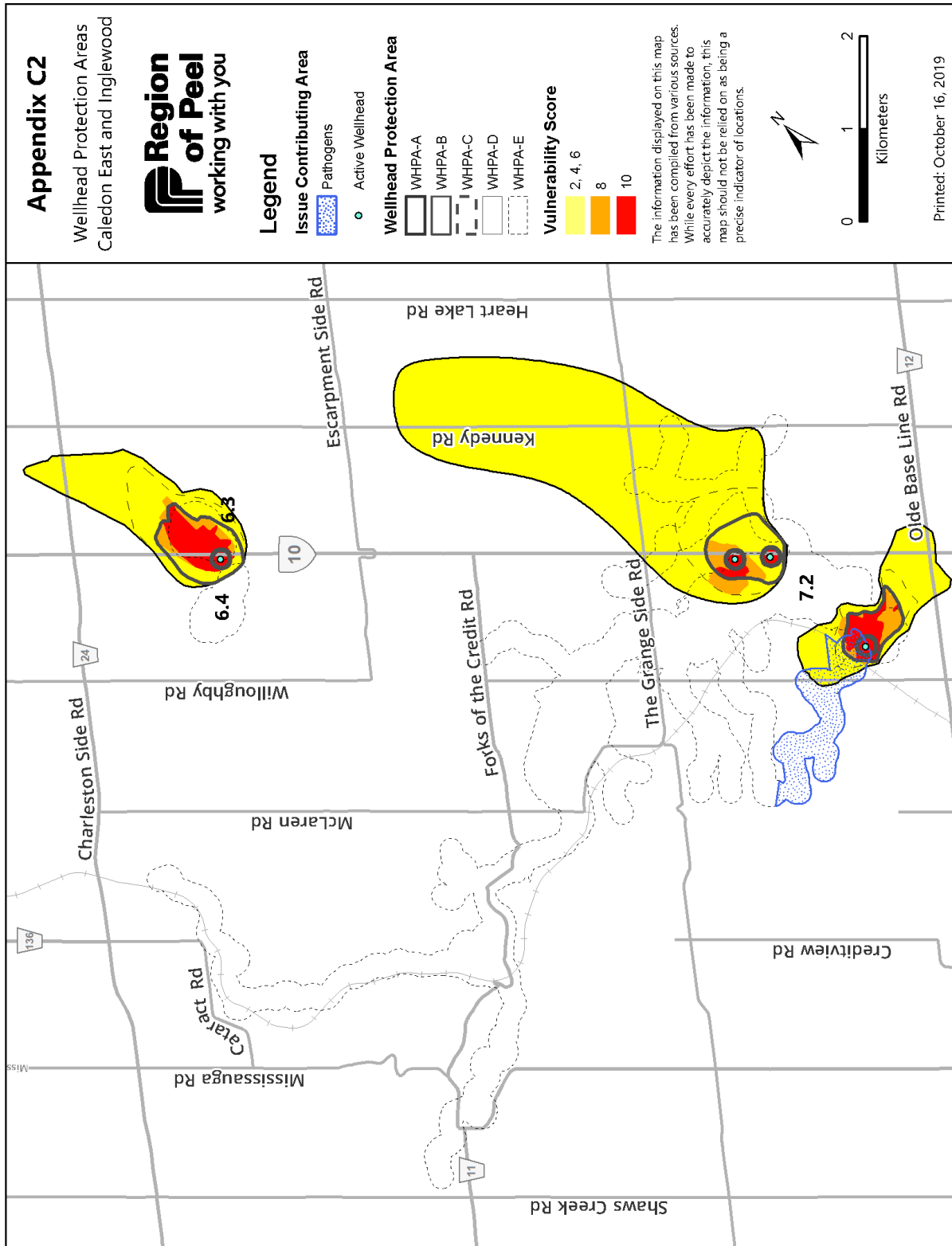
Significant Drinking Water Threat	Issue Contributing Area (ICA)			
	Chloride	Sodium	Nitrate	Pathogen
1) Waste Disposal			Yes	Yes
2) Sewage Systems	Yes	Yes	Yes	Yes
3,4,5) Agricultural Source Material			Yes	Yes
6,7) Non-Agricultural Source Material			Yes	Yes
8,9) Commercial Fertilizer			Yes	
12,13) Road Salt	Yes	Yes		
14) Storage of Snow	Yes	Yes	Yes	
16) DNAPLs				
21) Livestock Grazing, Outdoor Confinement			Yes	Yes

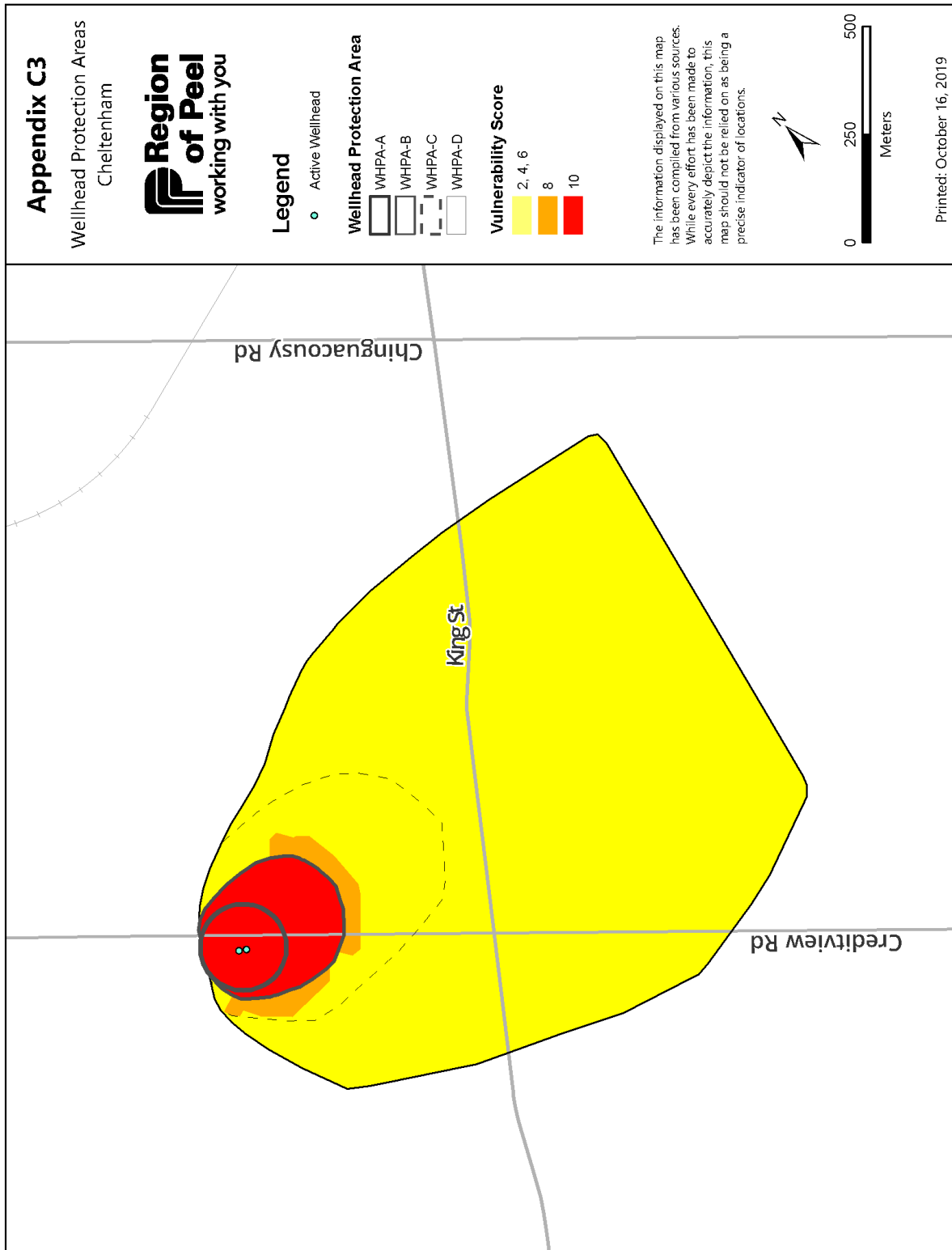
Note: This table provides a summary of prescribed drinking water threats under the Clean Water Act, 2006 and the areas where the threats may be significant in accordance with the MOECC Tables of Drinking Water Threats. Refer directly to the MOECC Tables of Drinking Water Threats to confirm if a threat activity is a significant drinking water threat. Refer to the text of the Region of Peel Official Plan and applicable source protection plan to determine if land use planning policies apply to a threat category.

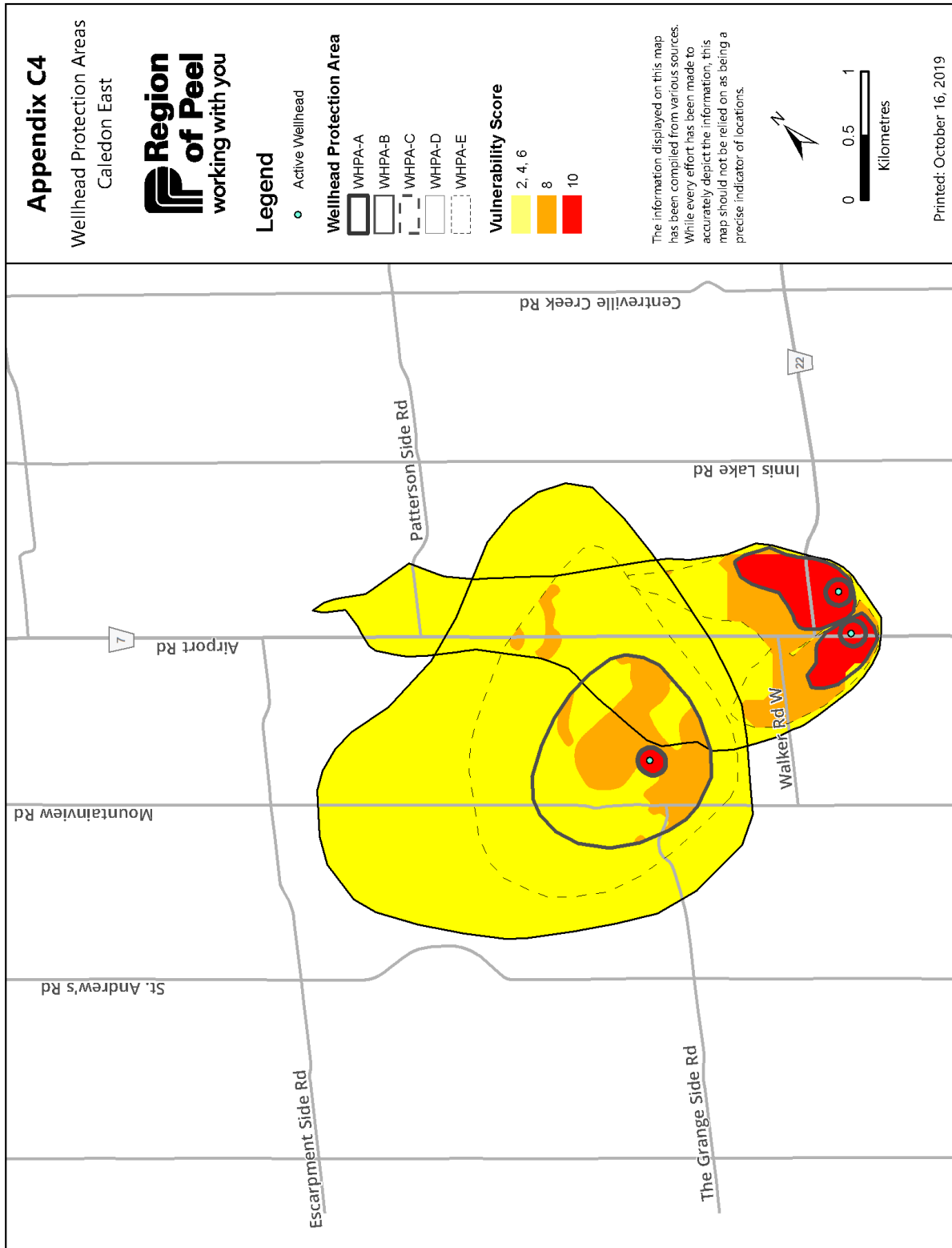
Appendix B: Source Water Protection Area Plan Areas in Peel

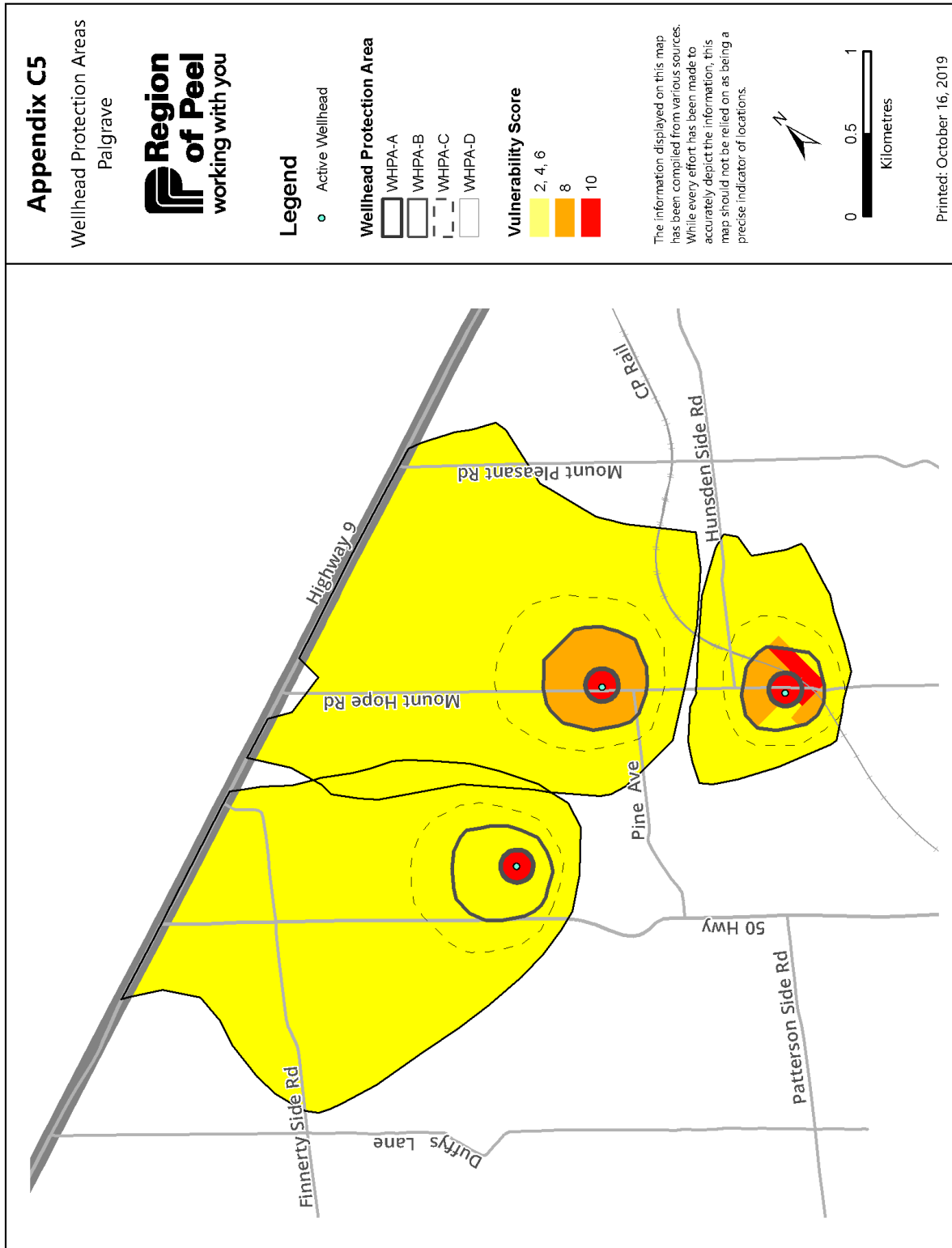






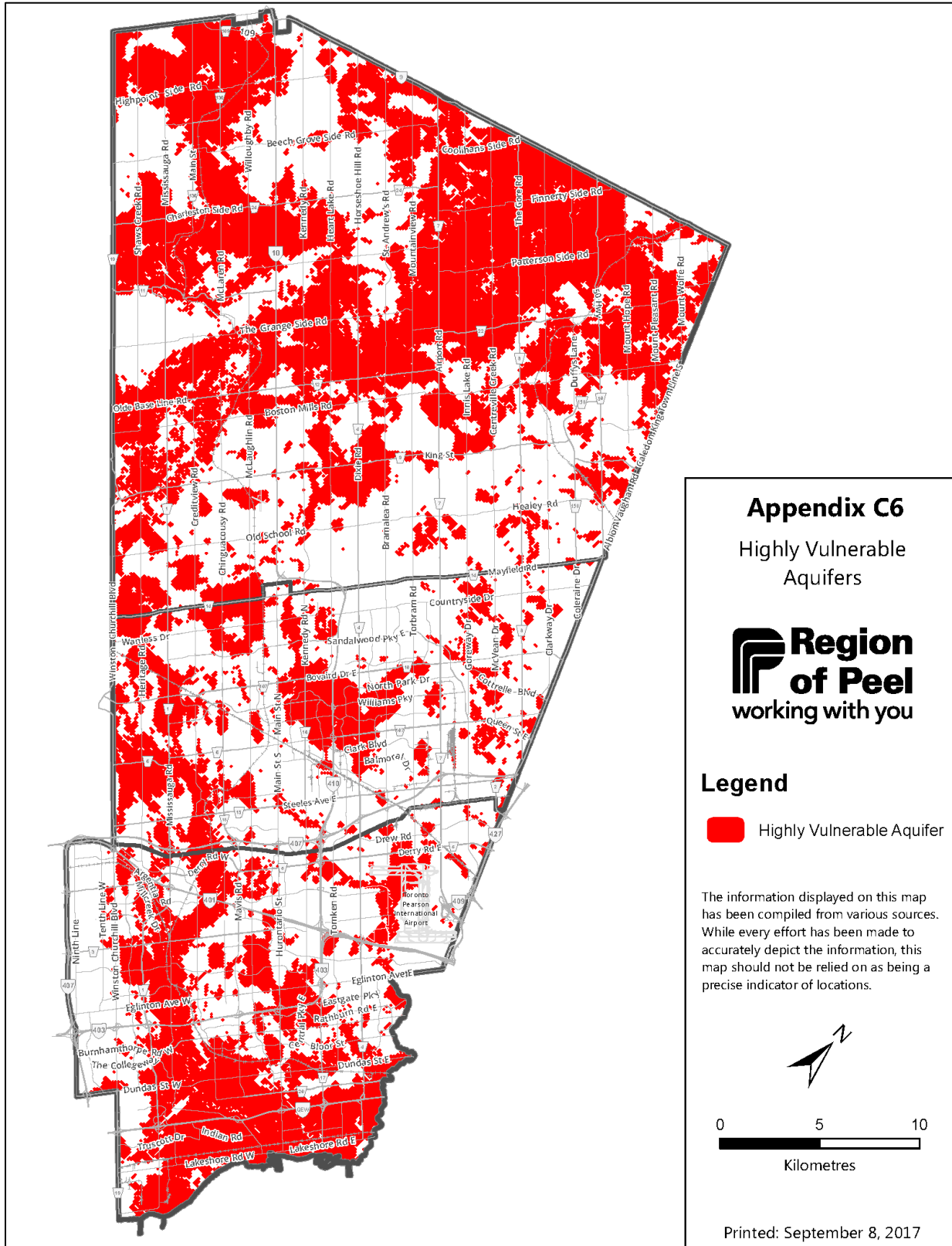




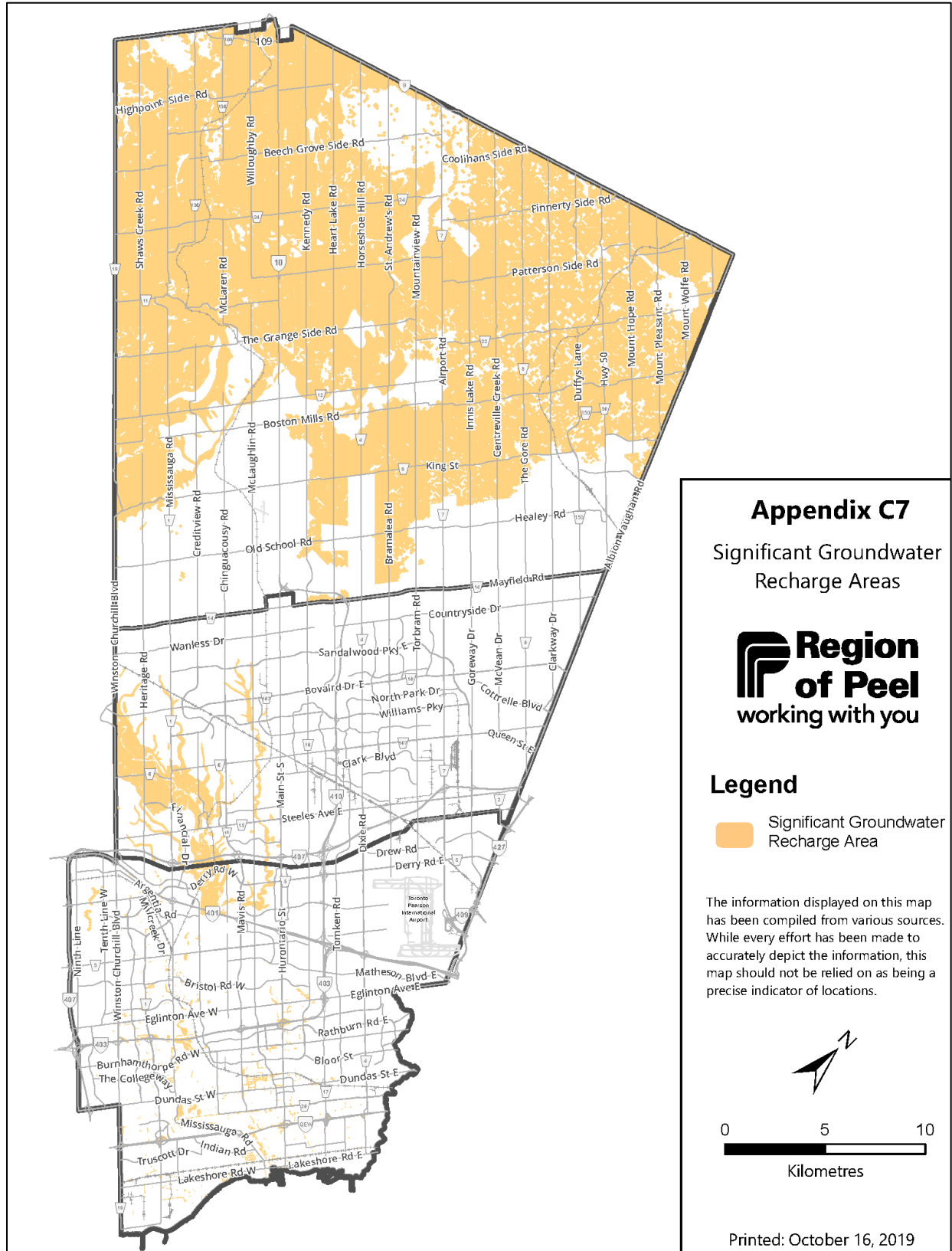


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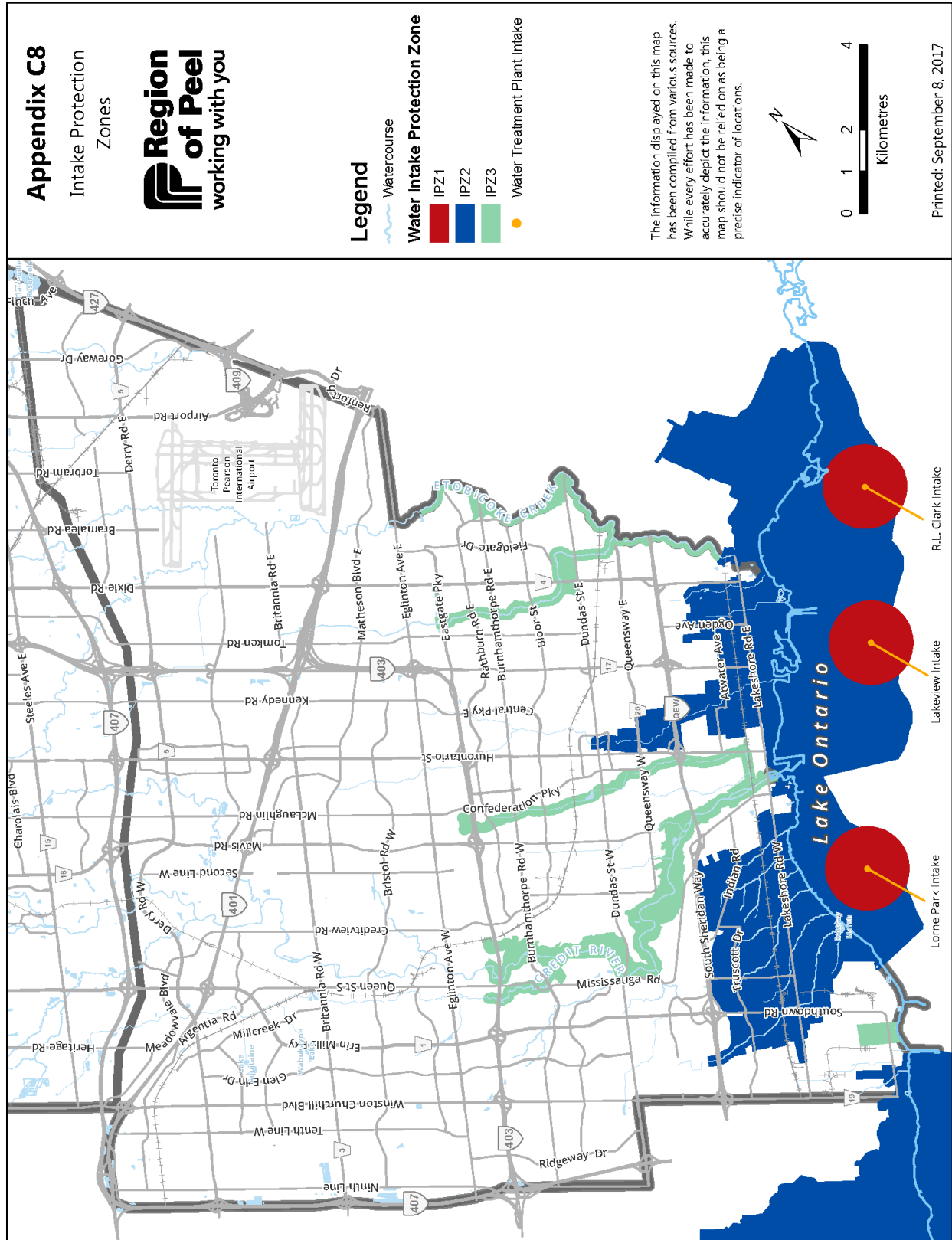
Appendix C6: Highly Vulnerable Aquifers



Appendix C7: Significant Groundwater Recharge Areas



Appendix C8: Intake Protection Zones



Appendix D: CTC Source Protection Plan and SGBLS Source Protection Plan Land Use Planning Policies

CTC Source Protection Plan Land Use Planning Policies	SGBLS Source Protection Plan Land Use Planning Policies
Threat Category: All	Threat Category: All
<p>s.59 Restricted Land Uses</p> <p>All land uses are designated for the purpose of Section 59 Restricted Land Uses under the Clean Water Act, 2006, with the exception of residential uses, in all areas where the following activities are, or would be, a significant drinking water threat:</p> <ul style="list-style-type: none"> • The establishment, operation or maintenance of a waste disposal site (within the meaning of Part V of the Environmental Protection Act) that does not require approval under the Environmental Protection Act or the Ontario Water Resources Act (excluding wastes described in clauses (p), (q), (r), (s), (t) or (u) of the definition of hazardous waste, or in clause (d) of the definition of liquid industrial waste) • The application or storage of agricultural source material • The application or storage of non-agricultural source material (Category 1) • The use of land as livestock grazing or pasturing land, an outdoor confinement area or a farm-animal yard • The application, handling or storage of commercial fertilizer • The application of pesticide to land • The handling and storage of pesticide at a manufacturing, processing or wholesaling facility, retail outlet or custom applicator’s storage yard • The application, handling and storage of road salt • The storage of snow (snow dumps) • The handling and storage of fuel that requires s.57 Prohibition or s.58 Risk Management 	<p>Planning Approval Authorities shall amend their planning documents to prohibit future:</p> <ul style="list-style-type: none"> • waste disposal sites within the meaning of Part V of the Environmental Protection Act (excluding storage of wastes described in clauses (p), (q), (r), (s), (t), or (u) of the definition of hazardous waste (O.Reg 347) and storage of hazardous or liquid industrial waste) • large (more than 10, 000 L) on-site sewage systems • agricultural source material storage facilities • non-agricultural source material storage facilities • commercial fertilizer storage facilities • pesticide storage facilities • road salt storage facilities • snow storage facilities • fuel storage • DNAPL storage • organic solvent storage • outdoor confinement or farm animal yard in WHPAA/IPZ-1 • in vulnerable areas where the activity is or would be a • significant drinking water threat.

CTC Source Protection Plan Land Use Planning Policies	SGBLS Source Protection Plan Land Use Planning Policies
<p>Plan</p> <ul style="list-style-type: none"> • The handling and storage of DNAPLs and organic solvents • The management of runoff that contains chemicals used in the de-icing of aircraft • An activity that reduces recharge of an aquifer 	
<p>Prohibited Uses</p>	
<p>The following are prohibited uses in specified vulnerable areas under specified conditions (refer to source protection plan)</p> <ul style="list-style-type: none"> • Waste Disposal Sites • Septic systems • Stormwater Management Facilities • Storage of Sewage • Sewage Works • Parking Lots/Application of Road Salt 	
<p>Waste Disposal Sites</p>	
<p>The use of land for waste disposal (future) shall be prohibited where the storage or generation of waste would be a significant drinking water threat at the following types of waste disposal sites:</p> <ol style="list-style-type: none"> a) Storage, treatment, and discharge of tailings from mines; b) Landfarming of petroleum refining waste; c) Landfilling (hazardous waste); d) Landfilling (municipal waste); e) Landfilling (solid non-hazardous industrial or commercial waste); f) Liquid industrial waste injection into a well; g) Storage of hazardous or liquid industrial waste (at large facilities such as landfills and transfer stations); h) Storage of wastes described in clauses (p), (q), (r), (s), (t) or (u) of the definition of hazardous waste, or in clause (d) of the definition of liquid industrial waste (at large facilities such as landfills and transfer 	

CTC Source Protection Plan Land Use Planning Policies	SGBLS Source Protection Plan Land Use Planning Policies
<p>stations).</p>	
<p>Septic Systems Governed under the <i>Building Code Act</i></p>	<p>On-site Sewage System Governed under the <i>Building Code Act</i></p>
<p>Where septic systems, including holding tanks, governed under the <i>Building Code Act</i> (vacant existing lot of record) would be a significant drinking water threat, vacant lots of record shall be subject to site plan control so that the location of the individual on-site sewage systems and replacement beds only be permitted if they are sited to ensure they do not become a significant drinking water threat 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); or • The remainder of an Issue Contributing Area for Nitrates or Pathogens (future). 	<p>In the area where a future small on-site sewage system would be a significant drinking water threat, new development may be permitted only where the lot size for any proposed development that would include a small on-site sewage treatment system is based on the most current version of MOE’s guidelines for individual on-site servicing. Lots of record that exist on the effective date of the source protection plan are exempted.</p>
<p>Septic Systems Governed under the <i>Building Code Act</i></p>	<p>On-site Sewage System Governed under the <i>Building Code Act</i></p>
<p>1) No new lots requiring septic systems, including holding tanks, governed under <i>the Building Code Act</i> shall be created where the activity would be a significant drinking water threat in the following area:</p> <ul style="list-style-type: none"> • WHPA-A (future). <p>2) New lots requiring septic systems, including holding tanks, governed under the <i>Building Code Act</i> in an area where the activity would be a significant drinking water threat shall only be permitted if the municipality is satisfied that the activity will not become a significant drinking water threat. The hydrogeological assessment to determine appropriate development density shall be conducted by a professional licensed to carry out that work in any of the following areas:</p> <ul style="list-style-type: none"> • WHPA-B (VS = 10) (future); or 	<p>Planning Approval Authorities shall amend their planning documents to prohibit new small on-site sewage systems within WHPA-A of the issue contributing area.</p>

CTC Source Protection Plan Land Use Planning Policies	SGBLS Source Protection Plan Land Use Planning Policies
<ul style="list-style-type: none"> • WHPA-E (VS = 10) (future); or • The remainder of an Issue Contributing Area for Nitrates or Pathogens (future). 	
Septic Systems Governed under the Ontario <i>Water Resources Act</i>	On-site Sewage System Governed under the Building Code Act
<p>1) New development dependent on septic systems with subsurface disposal of effluent, as regulated by the Ontario Water Resources Act, shall be prohibited where the activity would be a significant drinking water threat in the following area:</p> <ul style="list-style-type: none"> • WHPA-A (future). <p>2) New development dependent on septic systems with subsurface disposal of effluent, as regulated by the <i>Ontario Water Resources Act</i>, in an area where the activity would be a significant drinking water threat, shall only be permitted where it has been demonstrated by the proponent through an approved Environmental Assessment or similar planning process that the location for the septic system is the preferred alternative and the safety of the drinking water system has been assured in any of the following areas:</p> <ul style="list-style-type: none"> • WHPA-B (VS = 10) (future); or • WHPA-E (VS = 10) (future); or • The remainder of an Issue Contributing Area for Nitrates, Pathogens, Sodium or Chloride (future). 	<p>In the issues contributing area and outside the WHPAA, where a future small on-site sewage system would be a significant drinking water threat, new development may be permitted only where the lot size for any proposed development that would include a small onsite sewage treatment system is based on the most current version of MOE's guidelines for individual onsite servicing. Lots of record that exist on the date of approval of the source protection plan are exempted.</p>
Storm Water Management Facility Designed to Discharge Storm Water to Land or Surface Water	Stormwater Management Facilities
<p>1) The use of land for the establishment of a new stormwater management facility shall be prohibited where the discharge (including infiltration) of stormwater would be into a significant threat area in:</p> <ul style="list-style-type: none"> • WHPA-A (future). 	<p>Planning Approval Authorities shall amend their planning documents to ensure the design of new stormwater management facilities reduces the risk of contaminating drinking water, and where possible directs the discharge of stormwater outside of vulnerable areas, where the activity would be a significant drinking water threat.</p>

CTC Source Protection Plan Land Use Planning Policies	SGBLS Source Protection Plan Land Use Planning Policies
<p>2) The use of land for the discharge from a stormwater management facility into an area where the activity would be a significant drinking water threat shall only be permitted where it has been demonstrated by the proponent through an approved Environmental Assessment or similar planning process that the location of discharge from a stormwater retention pond is the preferred alternative and the safety of the drinking water system has been assured in any of the following areas:</p> <ul style="list-style-type: none"> • WHPA-B (VS = 10) (future); or • WHPA-E (VS ≥ 8) (future); or • The remainder of an Issue Contributing Area for Nitrates, Pathogens or Chloride (future). 	
Sanitary Sewers and Related Pipes	Sewage System Infrastructure
<p>New development dependent on sanitary sewers and related pipes, in an area where the activity would be a significant drinking water threat, shall only be permitted where it has been demonstrated by the proponent through an approved Environmental Assessment or similar planning process that the location for the sanitary sewer and related pipes is the preferred alternative and the safety of the drinking water system has been assured 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); or • The remainder of an Issue Contributing Area for Nitrates or Pathogens (future). 	<p>Planning Approval Authorities shall amend their planning documents to locate new (private or municipal) sewage system infrastructure, wherever possible, outside of the vulnerable area where it would be a significant drinking water threat.</p>
Storage of Sewage	Stormwater Pond Discharges and Sanitary Sewers and Related Pipes
<p>1) The use of land for the establishment of facilities for the storage of sewage shall be prohibited where the activity would be a</p>	<p>Planning Approval Authorities are encouraged to include policies in their official plans to address stormwater pond discharges and sanitary sewers</p>

CTC Source Protection Plan Land Use Planning Policies	SGBLS Source Protection Plan Land Use Planning Policies
<p>significant drinking water threat in any of the following areas:</p> <ul style="list-style-type: none"> • WHPA-A (future); or • WHPA-E (VS ≥ 9) (future); or • WHPA-E in an Issue Contributing Area for Nitrates or Pathogens (future). <p>2) The use of land for the establishment of facilities for the storage of sewage, in an area where the activity would be a significant drinking water threat, shall only be permitted where it has been demonstrated by the proponent through an approved Environmental Assessment or similar planning process that the location for the storage of sewage is the preferred alternative and the safety of the drinking water system has been assured in any of the following areas:</p> <ul style="list-style-type: none"> • WHPA-B (VS ≥ 8) (future); or • WHPA-C (VS = 8) (future); or • The remainder of an Issue Contributing Area for Nitrates or Pathogens (future). 	<p>and related pipes by requiring master environmental servicing plans (MESPs) as part of a complete application to avoid locating threats associated with development infrastructure in all vulnerable areas.</p>
<p>Sewage Works – Combined Sewer Discharge from a Stormwater Outlet to Surface Water Sewage Treatment Plant Bypass Discharge to Surface Water Industrial Effluent Discharges Sewage Treatment Plant Effluent Discharges (Includes Lagoons)</p>	<p>Taking of Water</p>
<p>Development dependent on the establishment of sewage works shall be prohibited where sewage works would be a significant drinking water threat where the sewage works discharge is to surface water from:</p> <p>a) Combined sewer discharge from a stormwater outlet to surface water; and</p> <p>b) Sewage treatment plant bypass discharge to surface water, in any of the following areas:</p> <ul style="list-style-type: none"> • WHPA-E (VS ≥ 8) (future); or • In any WHPA-E in an Issue Contributing Area for Nitrates or Pathogens (future). 	

CTC Source Protection Plan Land Use Planning Policies	SGBLS Source Protection Plan Land Use Planning Policies
<p>c) Industrial effluent discharges, in any of the following areas:</p> <ul style="list-style-type: none"> • WHPA-E (VS ≥ 8) (future); or • In any WHPA-E in an Issue Contributing Area for Nitrates, Pathogens or Chloride (future). <p>d) Sewage treatment plant effluent discharges (includes lagoons), 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 ≥ 8) (future); or • In any WHPA-E in an Issue Contributing Area for Nitrates or Pathogens (future). 	
Application of Road Salt	Recharge Reduction
<p>Where the application of road salt to roads and parking lots would be a significant drinking water threat, the planning approval authority shall:</p> <ol style="list-style-type: none"> 1) Prohibit the establishment of new parking lots with greater than 2000 square metres in: <ul style="list-style-type: none"> • WHPA-A not in an Issue Contributing Area for Sodium or Chloride (future); 2) Prohibit the establishment of new parking lots with greater than 200 square metres in: <ul style="list-style-type: none"> • WHPA-A in an Issue Contributing Area for Sodium or Chloride (future); and 3) Require a salt management plan, which includes a reduction in the future use of salt, as part of a complete application for development which includes new roads and parking lots where the application of road salt is significant in any of the following areas: <ul style="list-style-type: none"> • WHPA-B (VS = 10) (future); or • WHPA-E (VS ≥ 9) (future); or • The remainder of an Issue Contributing Area for Sodium or Chloride (future). <p>Such plans should include but not be limited to mitigation measures regarding design of parking</p>	

CTC Source Protection Plan Land Use Planning Policies	SGBLS Source Protection Plan Land Use Planning Policies
<p>lots, roadways and sidewalks to minimize the need for repeat application of road salt such as reducing ponding in parking areas; and directing stormwater discharge outside of vulnerable areas where possible.</p>	
Application of Road Salt (Moderate or Low Threat Policy)	Application of Road Salt
<p>Where the application of road salt would be a moderate or low drinking water threat, the planning approval authority is encouraged to require a salt management plan, which includes a reduction in the future use of salt, as part of a complete application for development which includes new roads and parking lots in any of the following areas:</p> <ul style="list-style-type: none"> • WHPA-B (VS < 10) (future); or • WHPA-C (future); or • WHPA-D (future); or • WHPA-E (VS ≥ 4.5 and <9) (future); or • HVA (future); or • SGRA (VS ≥ 6) (future). <p>Such plans should include, but not be limited to, mitigation measures regarding design of parking lots, roadways and sidewalks to minimize the need for repeat application of road salt such as reducing ponding in parking areas, directing stormwater discharge outside of vulnerable areas where possible, and provisions to hire certified contractors.</p>	<p>To address the application of road salt, vulnerable areas where this threat would be significant shall be subject to site plan control to ensure that, where possible:</p> <ul style="list-style-type: none"> • The extent and location of impervious surfaces such as parking lots, roadways and sidewalks are minimized, • Site grading and drainage is designed to reduce • ponding, and • Run-off is either directed outside of vulnerable areas • or to storm sewers.
Water Taking	Taking of Water
<p><i>Land Use Planning Policies for Water Quantity Threats in Wellhead Protection Area (WHPA) Q1</i></p> <p>Within the Tier 3 Water Budget WHPA-Q1 where a water taking is or would be a significant water quantity threat, the relevant Planning Approval Authority shall ensure water taking does not become a significant drinking water threat by:</p>	<p>Where the future taking of water from an aquifer without returning it to the same aquifer would be a significant drinking water threat, Planning Approval Authorities shall only permit new development or site alteration where it can be demonstrated that any increase in water demand can be demonstrated on a sustainable basis as determined by the MOE in accordance with the</p>

CTC Source Protection Plan Land Use Planning Policies	SGBLS Source Protection Plan Land Use Planning Policies
<ol style="list-style-type: none"> 1) Only permitting new development if the new development does not require a new or amended Permit to Take Water; 2) Only providing final approval for new development that requires a new or amended Permit to Take Water once the Ministry of the Environment and Climate Change has determined that the proposed taking will not become a significant water quantity threat; 3) Only approving settlement area expansions within WHPA-Q1 as part of a municipal comprehensive review where the applicable provincial planning criteria have been met and the following has been demonstrated: <ol style="list-style-type: none"> a) the aquifer has sufficient capacity to sustainably provide municipal water services to the expanded settlement area; b) the expansion will not adversely impact the aquifers ability to meet the municipal water supply requirements for current and planned service capacity, for other permitted takings, or for wastewater receiving bodies; and c) the hydrological integrity of municipal wells will be maintained. 	<p>Source Protection Plan and <i>Ontario Water Resources Act</i>.</p> <p>Where the future taking of water from an aquifer without returning it to the same aquifer would be a significant drinking water threat, Planning Approval Authorities shall only permit new development or site alteration where it has been demonstrated that any increase in water demand beyond the allocated demand is sustainable as determined by the MOE in accordance with the Source Protection Plan and <i>Ontario Water Resources Act</i>.</p>
Recharge Reduction (Impervious Surfaces)	Recharge Reduction
<p><i>Recharge in Wellhead Protection Area (WHPA) Q2</i></p> <p>For applications under the <i>Planning Act</i> within the Tier 3 Water Budget WHPA-Q2 identified as having significant water quantity threats, the relevant Planning Approval Authority shall ensure recharge reduction does not become a significant drinking water threat by:</p> <ol style="list-style-type: none"> 1) Requiring new development for lands zoned Low Density Residential (excluding subdivisions) or zoned Agricultural to implement best management practices such as Low Impact Development (LID) with the goal 	<p>Planning Approval Authorities are encouraged to amend their planning documents to protect significant groundwater recharge areas from incompatible development or site alteration that may reduce the recharge of an aquifer within WHPAQ2.</p> <p>Planning Approval Authorities shall only permit new major development (excluding single detached residential, barns and non-commercial structures that are accessory to an agricultural operation) in a WHPA-Q2 where the activity would be a significant drinking water threat, where it can be demonstrated through the</p>

CTC Source Protection Plan Land Use Planning Policies	SGBLS Source Protection Plan Land Use Planning Policies
<p>to maintain predevelopment recharge.</p> <p>2) Requiring that all site plan (excluding an application for one single family dwelling) and subdivision applications for new residential, commercial, industrial and institutional uses provide a water balance assessment for the proposed development to the satisfaction of the Planning Approval Authority which addresses each of the following requirements:</p> <ul style="list-style-type: none"> a) maintain pre-development recharge to the greatest extent feasible through best management practices such as LID, minimizing impervious surfaces, and lot level infiltration; b) where pre-development recharge cannot be maintained on site, implement and maximize off-site recharge enhancement (within the same WHPA-Q2) to compensate for any predicted loss of recharge from the development; and c) for new development (excluding a minor variance) within the WHPA-Q2 and within an Issue Contributing Area (for sodium, chloride or nitrates), the water balance assessment shall consider water quality when recommending best management practices and address how recharge will be maintained and water quality will be protected. <p>3) Only approving settlement area expansions as part of a municipal comprehensive review where it has been demonstrated that recharge functions will be maintained on lands designated Significant Groundwater Recharge Areas within WHPA-Q2.</p> <p>4) Amending municipal planning documents to reference most current Assessment Reports in regards to the Significant Groundwater Recharge Areas within WHPA-Q2.</p>	<p>submission of a hydrogeological study that the existing water balance can be maintained through the use of best management practices such as low impact development. Where necessary, implementation and maximization of off-site recharge enhancement within the same WHPA-Q2 to compensate for any predicted loss of recharge from the development.</p> <p>Planning Approval Authorities shall require the use of best management practices such as low impact development to maintain predevelopment recharge rates for non major developments or site alterations in a WHPA-Q2 assigned a moderate risk level, where the activity would be a significant drinking water threat.</p>
	<p>Planning Approval Authorities shall be encouraged to examine municipal water supply</p>

CTC Source Protection Plan Land Use Planning Policies	SGBLS Source Protection Plan Land Use Planning Policies
	<p>servicing constraints when approving settlement area expansions within WHPA-Q2 where an activity is or would be a significant drinking water threat.</p> <p>Planning Approval Authorities shall be encouraged to examine municipal water supply servicing constraints when approving settlement area expansions beyond areas assessed in the Tier 3 assessment, within a WHPA-Q2 where an activity that reduces the recharge of an aquifer is or would be a significant drinking water threat.</p>