

**IMPLEMENTATION GUIDELINE
FOR THE REVIEW OF DEVELOPMENT APPLICATIONS ON OR
ADJACENT TO KNOWN AND POTENTIALLY CONTAMINATED SITES**



Region of Waterloo

**AS ADOPTED BY REGIONAL COUNCIL JUNE 24, 2009
REPORT NO. P-09-046**

IMPLEMENTATION GUIDELINE FOR THE REVIEW OF DEVELOPMENT APPLICATIONS ON OR ADJACENT TO KNOWN AND POTENTIALLY CONTAMINATED SITES

Introduction

In 1997, the Regional Municipality of Waterloo adopted a protocol to address the need for environmental site assessments and the filing of a Record of Site Condition (RSC) with the Ministry of the Environment during the review of development applications involving known, suspected, or potentially contaminated lands. The protocol is based on the Guidelines for Use at Contaminated Sites in Ontario which was released by the Ministry of Environment and Energy in June 1996.

Since 1997, the Province has introduced new legislation which has changed the way in which municipalities have regard for and address lands complicated by real or perceived environmental contamination, generally known as brownfields. Policies implemented through the Brownfields Statute Law Amendment Act, 2001, Provincial Policy Statement (PPS), 2005, and Places to Grow: Growth Plan for the Greater Golden Horseshoe, 2006 require upper-tier municipalities to set targets for intensification and redevelopment, connect intensification requirements with urban boundary expansions, and encourage the redevelopment of brownfield sites to achieve long-term economic prosperity. This policy direction has meant to facilitate and promote brownfield redevelopment, including those sites previously overlooked due to complex and long-term remediation requirements.

New regulatory requirements were also put in place to help encourage the cleanup and redevelopment of brownfield sites while ensuring that the environment is protected. In 2004, Ontario Regulation 153/04 was enacted to implement key provisions of the Brownfields Statute Law Amendment Act, 2001. This Regulation and the associated guidance effectively replaced the Guideline for Use of Contaminated Sites in Ontario with new requirements which included clear rules for site assessment and cleanup, specific qualifications for those who can complete environmental site assessments, and mandatory filing of a RSC where there is a proposed change to a more sensitive use.

The Province also enacted the Safe Drinking Water Act in 2002 to ensure access to safe, high quality, reliable drinking water. The Act protects public health through regulations that cover drinking water systems, testing services, drinking water quality standards, the certification of drinking water system operators and drinking water quality analysts, and compliance and enforcement. This legislation places new fiduciary responsibilities on municipalities for the delivery of safe, quality drinking water to the people of Ontario. New policy was also introduced through the 2005 PPS that requires planning authorities to “protect, improve or restore the quality and quantity of water” (Policy 2.2.1). As well, requirements of the 2006 Clean Water Act ensures that communities will identify existing and potential threats to municipal drinking water sources and reduce or eliminate them through the implementation of a source protection plan.

In response to the legislative and regulatory changes, the Region of Waterloo has prepared the Implementation Guideline for the Review of Development Applications On or Adjacent to Known and Potentially Contaminated Sites. This Guideline, which replaces the 1997 protocol, strives to balance intensification targets and the promotion of brownfield redevelopment with the protection of municipal water supplies and safeguarding public health and safety. The procedures outlined in this Guideline to resolve soil and groundwater contamination issues during the processing of development applications have been developed to better align environmental site remediation with the planning review process, comply with and utilize opportunities provided through Ontario Regulation 153/04, and are streamlined where a RSC is required to obtain development approvals.

This Guideline should be read in conjunction with the Region of Waterloo’s Implementation Guideline for Road Allowance Dedications On and Adjacent to Known and Potentially Contaminated Sites.

Objectives

The three primary objectives of this Guideline are:

- (1) to provide a measure of assurance that the condition of the land subject to a development application is appropriate given the proposed land use. This review function fulfills the Region's responsibility as an approval authority under Section 2 of the Planning Act and as delegated from the Province through the 1996 Memorandum of Understanding;
- (2) to protect Regional water resources pursuant to Section 2.2 of the Provincial Policy Statement and the Region of Waterloo's Corporate Interests including responsibilities under the Safe Drinking Water Act; and
- (3) to provide greater efficiency and flexibility within the approval process by ensuring that the need for a RSC is identified as early as possible and allowing for the submission of the required RSC as late as possible in the development review process.

1.0 IDENTIFICATION OF KNOWN OR POTENTIALLY CONTAMINATED SITES

1.1 The following information will be used in determining whether land subject to a development application submitted to the Region of Waterloo is proposed on or *adjacent* to lands which are identified as *known contaminated sites*, or *high or medium potential sites*:

- a) staff review of the Region of Waterloo's *Threats Inventory Database (TID)*. The *TID* contains information on *known contaminated sites* as well as *potential sites* (high, medium and low) for contamination (including past and present industries, landfills, chemical and fuel storage sites and other urban land use activities). Sites are ranked according to the potential threat of contamination each poses to surface and groundwater. The *TID* may be updated by the Region of Waterloo from time to time to incorporate new information;
- b) acknowledgement by the owner of any existing or potential contamination through the completion of a site screening questionnaire. A questionnaire must be completed by the property owner(s) as part of the application for official plan amendments (Regional and Area Municipal), zoning by-law amendments, plans of subdivision, plans of condominium, and consent applications (see Appendix A); and
- c) other written information from the Province, Area Municipal staff, agencies, and the public collected through the normal processing of the development application which provides a reasonable attribution of the potential for contamination of the subject lands.

1.2 The Region and Area Municipalities will work together to ensure that the questionnaire is submitted as early in the development application review process as possible.

1.3 The need for a RSC to be submitted in support of a zoning by-law amendment, plan of subdivision, and plan of condominium will be identified during a pre-submission consultation meeting. For consent applications and where the pre-submission consultation meeting is waived, the need for a RSC will be identified as early as possible through the application review process.

2.0 CONDITIONS WHICH TRIGGER A RECORD OF SITE CONDITION

Record of Site Condition (RSC) requirements are generally based on two factors: (1) the type of application proposed and (2) the type of use either proposed or affected by the application. This Guideline differentiates between two general types of applications: a change in land use (zoning by-law amendments) and a change in tenure (plan of subdivision, plan of condominium, and consents). Applications which propose a change in land use require that the proposed use is appropriate given the condition of the subject lands and surrounding lands. Generally, where a change in tenure is proposed and the principle of development has already been established (i.e., the use has been deemed appropriate), a review of the site conditions is limited to the subject

lands only.

The type of use proposed or affected by the application, either a *Sensitive* or *Non-Sensitive Use*, also determines the extent to which a RSC is required. Ontario Regulation 153/04 specifies that a RSC is required where there is a change to a more *Sensitive Use*. A less restrictive approach is taken for the purposes of this Guideline where *Non-Sensitive Uses* are involved to assist in promoting the redevelopment of brownfield sites in accordance with Places to Grow and the Provincial Policy Statement, and where the risk to public health and safety and the environment is minimal. These conditions are outlined in Figure 1.

FIGURE 1 – GENERAL FRAMEWORK TO DETERMINE RECORD OF SITE CONDITION REQUIREMENTS*

		CHANGE IN LAND USE (Official Plan and Zoning By-law Amendments)		CHANGE IN TENURE (Plan of Subdivision, Plan of Condominium, and Consent Applications)	
		Sensitive Use	Non-Sensitive Use	Sensitive Use	Non-Sensitive Use
ON	Known	✓	✓	✓	✓
	High	✓	✓	✓	
	Medium	✓	✓	✓	
ADJACENT	Known	✓	✓		
	High	✓			
	Medium	✓			

* See Figure 2 for full RSC requirements.

- 2.1 A RSC may be required where a change in land use is proposed:
- a) involving *Sensitive Uses* if the change in land use is on or *adjacent* to lands which are identified as a *known contaminated site* or a *high or medium potential site*.
 - b) involving *Non-Sensitive Uses* if the change in land use is on lands which are identified as a *known contaminated site* or a *high or medium potential site*, or are *adjacent* to lands which are identified as a *known contaminated site*.
- 2.2 A RSC may be required where a change in tenure is proposed:
- a) involving *Sensitive Uses* if the change in tenure proposed is on lands which are identified as a *known contaminated site* or a *high or medium potential site*.
 - b) involving *Non-Sensitive Uses* if the change in tenure proposed is on lands which are identified as a *known contaminated site*.

3.0 RECORD OF SITE CONDITION REQUIREMENTS FOR PLANNING ACT APPLICATIONS

- 3.1 Development applications for which a RSC may be required is largely based on the framework identified in Figure 1 with refinements made to facilitate brownfield redevelopments and streamline the development review process:

FIGURE 2 – RSC REQUIREMENTS

DEVELOPMENT APPLICATIONS	RECORD OF SITE CONDITION REQUIRED? ¹					
	Contamination ON the Site			Contamination ADJACENT to the Site		
	Known	High	Medium	Known	High	Medium
Official Plan Amendment (Regional or Local)²	N	N	N	N	N	N
Zoning By-Law Amendment:						
(a) change to a more <i>Sensitive Use</i> , where a building permit is or is not required	Y	Y	Y	Y	Y	Y ⁴
(b) density increase of a <i>Sensitive Use</i>	Y	Y	Y	Y	Y	Y ⁴
(c) legalize a <i>Sensitive Use</i>	Y	Y	Y	Y	Y	Y ⁴
(d) change to/add a <i>Non-Sensitive Use</i> ³	Y	Y	Y	Y	N	N
(e) density increase of a <i>Non-Sensitive Use</i>	N	N	N	N	N	N
(f) removing <i>Non-Sensitive Uses</i>	N	N	N	N	N	N
(g) legalize a <i>Non-Sensitive Use</i>	Y	Y	Y	Y	N	N
(h) change in regulation	N	N	N	N	N	N
Minor Variance	N	N	N	N	N	N
Temporary Use By-Law ⁴	Y	Y	Y	Y	Y	Y
Plan of Subdivision/Vacant Land Condominium	Y	Y	Y	Y	N	N
Plan of Condominium (includes conversions)						
– <i>Sensitive Use</i>	Y	Y	Y	N	N	N
– <i>Non-Sensitive Use</i>	Y	N	N	N	N	N
Part Lot Control Exemption	N	N	N	N	N	N
Consent Applications:						
Land Severance:						
(a) divide <i>Sensitive Use</i> into new lots ⁵	Y	Y	Y	Y	N	N
(b) divide <i>Non-Sensitive Use</i> into new lots ⁵	Y	N	N	N	N	N
(c) add land to an abutting lot – <i>Sensitive Use</i>	Y	Y	Y	Y	N	N
(d) add land to an abutting lot – <i>Non-Sensitive Use</i>	Y	N	N	N	N	N
(e) corrections to deeds or property descriptions	N	N	N	N	N	N
(f) minor lot line adjustment	N	N	N	N	N	N
(g) establish easements or rights-of-way	N	N	N	N	N	N
(h) lease land or register mortgage in excess of 21 years	Y	Y	Y	N	N	N
(i) validation of title	N	N	N	N	N	N

1 Notwithstanding the above, the Commissioner of Planning, Housing and Community Services may waive the requirement for a Record of Site Condition if, after consulting with Regional staff and informing the Area Municipality, it is the opinion of the Commissioner that no significant purpose would be served by the completion of a Record of Site Condition due to the nature of the application.

2 If an official plan amendment is proposed on a site where contamination is identified as a known contaminated site or high potential site, a Record of Site Condition or other study may be required to demonstrate that the site can be remediated or a Risk Assessment acceptable to the Ministry of the Environment can be completed such that the proposed land use designation can be permitted.

3 Regional staff may use some discretion in determining whether a Record of Site Condition is required for properties outside of Wellhead Protection Areas where the proposed land use change/addition is similar in nature to existing use(s) on the site.

4 Regional staff, in consultation with Area Municipalities, and the Applicant where appropriate, may use some discretion in determining whether a Record of Site Condition is required.

5 A Record of Site Condition must be completed for both the severed and retained parcels.

3.2 Where a RSC is required and where the Region requires a road allowance dedication, the Implementation Guidelines for Road Allowance Dedications On and Adjacent to Known and Potentially Contaminated Sites shall apply.

4.0 CONDITIONS OF APPROVAL

4.1 Where a RSC is required based on this Guideline for lands within Sensitive Wellhead Protection Areas, prior to final approval for zoning by-law amendments and official plan amendments, as a condition of approval for consents, or as part of a complete application for plans of subdivision and plans of condominium, the following documentation will be required:

- (a) A Source Water Protection Potential Contamination Study acceptable to the Region and meeting all of the following:
 - (i) Study prepared by a professional engineer or geoscientist qualified to assess groundwater conditions
 - (ii) Study assessing past and present potential sources of site contamination which may affect groundwater, involving detailed records review and, if necessary, site groundwater testing. Site groundwater testing should be included unless the study author can reliably conclude that there is no probability of site groundwater contamination based on the records review.
 - (iii) Study conclusions which clearly summarize site groundwater conditions and the potential for groundwater contamination due to past or present site activities.
- (b) A RSC that lists the Source Water Protection Potential Contamination Study within a subsection of Part 2 (of the RSC) entitled, *“Assessments or other reports have been relied upon in certifying the information set out in this Part”*. The RSC is to be submitted in accordance with the conditions outlined in Section 4.2.

4.2 Where a RSC is required in support of an official plan amendment, zoning by-law amendment, plan of subdivision, plan of condominium, or consent application, the approval of such applications will be subject to the following:

APPLICATION	PRIOR TO FINAL APPROVAL/CONDITION OF APPROVAL
<p>1. Official Plan Amendments (if required, see Figure 2, Note 2)</p>	<ul style="list-style-type: none"> (a) Completion of a RSC* prior to final approval; or (b) Where accompanied by a zoning by-law amendment, completion of a RSC* prior to final approval of the zoning by-law amendment with use of holding provisions as noted in 4.2.2(b); or (c) A RSC* required in accordance with Ontario Regulation 153/04 may be deferred to building permit, if applicable, with confirmation from the Chief Building Official of the Area Municipality within which the site is located that the RSC* will be required prior to building permit issuance.

APPLICATION	PRIOR TO FINAL APPROVAL/CONDITION OF APPROVAL
2. Zoning By-law Amendment	(a) Completion of a RSC* prior to final approval; or (b) Use of holding provisions in the implementing zoning by-law where permitted by Area Municipal official plans prohibiting the proposed use until submission of a RSC*; or (c) A RSC* required in accordance with Ontario Regulation 153/04 may be deferred to building permit, if applicable, with confirmation from the Chief Building Official of the Area Municipality within which the site is located that the RSC* will be required prior to building permit issuance.
3. Plan of Subdivision	(a) Completion of a RSC* prior to registration (a condition of draft approval); or (b) Where accompanied by a zoning by-law amendment, completion of a RSC* prior to final approval of the zoning by-law amendment with use of holding provisions as noted in 4.2.2(b).
4. Plan of Condominium	(a) Completion of a RSC* prior to registration (a condition of draft approval); or (b) Where accompanied by a zoning by-law amendment, completion of a RSC* prior to final approval of a zoning by-law amendment with use of holding provisions as noted in 4.2.2(b).
5. Consents	(a) Completion of a RSC* prior to final approval; or (b) A RSC* required in accordance with Ontario Regulation 153/04 may be deferred to building permit, if applicable, with confirmation from the Chief Building Official of the Area Municipality within which the site is located that the RSC* will be required prior to building permit issuance.

*RSC(s) must be acknowledged by the Ministry of the Environment.

4.3 Where long term remediation of the site is required and on-going remediation does not present health and safety risks to the proposed use, the approval of the development application may be considered where agreements and securities as appropriate are provided to Ministry of the Environment, the Region and/or the Area Municipality to ensure the final remediation of the site and the future completion of the RSC.

5.0 STUDY REQUIREMENTS

5.1 To ensure adequate protection over existing and future groundwater supplies in the Region of Waterloo, staff considers all groundwater within the Region to be potable water. For the purposes of Environmental Site Assessment work and RSCs, generic site condition standards must apply to the potable water condition. Risk-based site condition standards derived through a site-specific risk assessment must consider groundwater to be potable and include the appropriate exposure pathways for potable water.

DEFINITIONS

Adjacent – means, for the purposes of this Guideline, lands that are abutting and/or contiguous to the property where a development application has been submitted and a RSC may be required, with consideration also given to:

- a) proximity to possible source of contamination;
- b) nature and extent of contamination; and
- c) intervening land uses, including roads and rights of way.

High Potential Sites – are sites that pose the greatest potential threat for soil and groundwater contamination, and for the purposes of this protocol are defined as sites that meet one or more of the following:

- a) identified as rank High in the Region's Threats Inventory Database;
- b) identified as currently or previously having underground storage tanks for fuel or chemicals;
- c) where hazardous waste (as regulated under Ministry of Environment Regulation 347) has been generated or stored; or
- d) where a review of the historic or current use of the site identifies land uses associated with a high likelihood of contamination in accordance with the criteria as identified in Appendixes A, B, and C of the Threats Inventory Database report, and in keeping with the TID Threat Ranking rationale (RMOW, December 2007).

Known Contaminated Sites – are sites where studies and/or other appropriate field inspections have identified contamination.

Medium Potential Sites – are sites that pose a moderate potential threat for soil and groundwater contamination, and for the purposes of this protocol are defined as sites that meet one or more of the following:

- a) identified as having rank Medium in the Region's Threats Inventory Database;
- b) where a review of the historic or current use of the site identifies land uses associated with a moderate likelihood of contamination in accordance with the criteria as identified in Appendixes A, B, and C, of the Threats Inventory Database report, and in keeping with the TID Threat Ranking rationale (RMOW, December 2007); or
- c) identified as a current or former snow storage site.

Non-Sensitive Use – a use that is not a *Sensitive Use* (see Ontario Regulation 153/04).

Potentially Contaminated Sites – are sites identified as a possible *High or Medium Potential Site*.

Record of Site Condition – for the purposes of this Guideline, a Record of Site Condition is defined as a document meeting the requirements of the Ontario Environmental Protection Act, which has been acknowledged by the Ministry of the Environment, posted on the Environmental Site Registry, passed any audits, and reflects the site condition standards in force and effect pursuant to the Environmental Protection Act.

Sensitive Use – a use and associated activities which include one or more of the following:

- a) residential use including such things as a home or mobile home, health care facility, detention or correctional institution, penitentiary, or use associates with the residence of post secondary education (i.e. student housing). Residential use does not include motels or hotels, which establishments are considered to be commercial use;
- b) institutional use including such things as day-care centres or schools (public or private);
- c) parkland uses including such things as outdoor recreational activities, a day camp, an overnight camp facility, or an outdoor gathering of people for civic or social purpose; and
- d) agricultural or other uses including such things as animal husbandry, aquaculture, beekeeping, dairying, field crops, forestry, fruit farming, horticulture, market gardening, poultry raising or the operation of glass- or plastic-covered greenhouses (see Ontario Regulation 153/04).

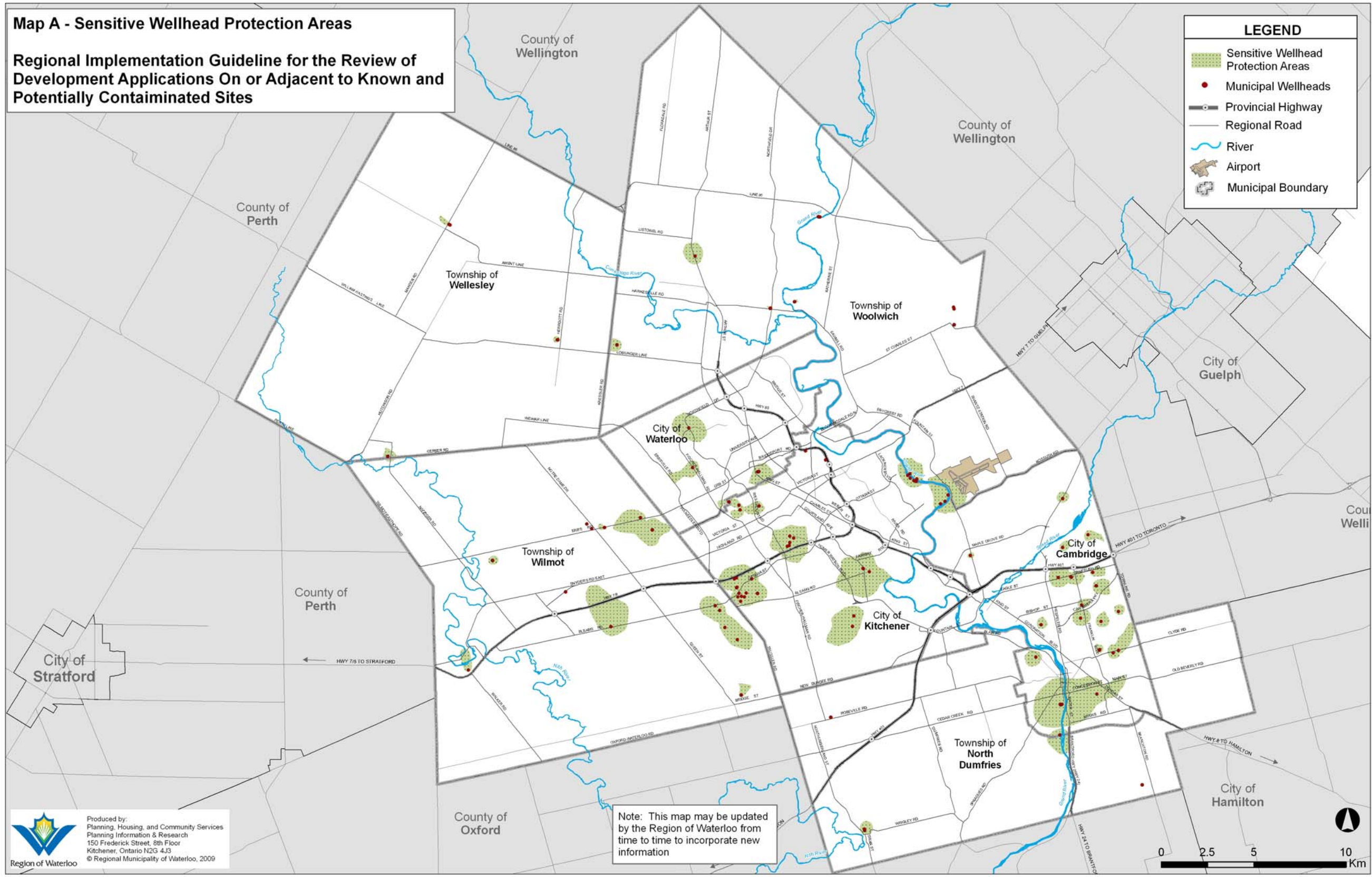
Threats Inventory Database – The Regional Municipality of Waterloo Threats Inventory Database (TID)

is a collection of information regarding land-use activities that have potential to affect the quality of surface and groundwater in the Region. The TID includes information on past and present industries, landfills, chemical and fuel storage sites, and other land use activities throughout the Region of Waterloo, all ranked according to the level of potential threat each poses to surface and groundwater quality. The TID is described in the report "*Regional Municipality of Waterloo- Urban Threats Inventory Database (TID) Final Report (December 2006)*" and subsequent report updates. The TID may be updated by the Region of Waterloo from time to time to incorporate new information.

Wellhead Protection Area – an area of land contributing water to a municipal well. For the purposes of this Guideline, Wellhead Protection Areas include Wellhead Protection Sensitivity Areas 1, 2, 3, and 4 on Map No. 4 of the Regional Official Policies Plan, or the equivalent designation in any new Regional Official Plan as interpreted by the Commissioner of Planning, Housing and Community Services. The new interpretation is generally consistent with Wellhead Protection Areas 1 to 8 of the draft Regional Official Plan, dated April 2009.

Sensitive Wellhead Protection Areas – an area of land contributing water to a municipal well where municipal water is most susceptible to contamination. For the purposes of this Guideline, Sensitive Wellhead Protection Areas are equivalent to the two year time of travel to a municipal drinking water supply well, and are generally consistent with Wellhead Protection Sensitivity Areas 1, 2 and portions of 3 (those lands within the two year time of travel) on Map No. 4 of the Regional Official Policies Plan, or the equivalent designation in any new Regional Official Plan as interpreted by the Commissioner of Planning, Housing and Community Services. The new interpretation is generally consistent with Wellhead Protection Areas 1, 2, 4 and 6 of the draft Regional Official Plan, dated April 2009, as shown on Map A of this Guideline.

Map A - Sensitive Wellhead Protection Areas
Regional Implementation Guideline for the Review of Development Applications On or Adjacent to Known and Potentially Contaminated Sites



Produced by:
 Planning, Housing, and Community Services
 Planning Information & Research
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Note: This map may be updated by the Region of Waterloo from time to time to incorporate new information

ATTACHMENT 2

ENVIRONMENTAL SITE SCREENING QUESTIONNAIRE

This form must be completed and signed by the property owner(s) for all development applications submitted to the Regional Municipality of Waterloo (The Region).

File No.: _____

Registered Owner(s): _____

Location of Subject Lands:

Municipal Address

Legal Description

_____	_____
_____	_____
_____	_____

1. What are the current uses of the property?

2. Was the subject property ever used for industrial purposes? yes no uncertain
If yes, please describe approximate dates and types of industry:

3. Was the subject property ever used for commercial purposes yes no uncertain
where there is potential for site contamination (i.e., automotive
repair, gas station, dry cleaning operation, chemical warehousing
etc.)?
If yes, please describe approximate dates and types of
commercial activity:

4a. Has waste (garbage, solid wastes, liquid wastes) ever been yes no uncertain
placed on this property?

4b. If yes, when? _____

Please provide description of waste materials:

5. Have hazardous materials ever been stored or generated on the yes no uncertain
property (e.g. has HWIN registration or other permits been
required?)
If yes, please summarize details:

6. Is there reason to believe that this property may be potentially yes no uncertain
contaminated based on historical use of this or an abutting
property?

If yes, please describe the nature of the suspected contamination

- | | | | | |
|-------|--|-----|----|-----------|
| 7. | Has the subject property or adjacent property ever been used as an agricultural operation where cyanide products may have been used as pesticides? | yes | no | uncertain |
| 8. | Are there or were there ever any above ground or underground storage tanks for fuels or chemicals on the property?
If yes, please summarize details | yes | no | uncertain |
| <hr/> | | | | |
| 9. | Does the property have or ever had a water supply well, monitoring well, geothermal well?
If yes, please provide details: _____ | yes | no | uncertain |
| 10. | Does this property use or has it ever used a septic system? | yes | no | uncertain |
| 11. | Have any environmental documents been prepared or issued for this property, including but not limited to a Phase I and II environmental site assessment, risk assessment, Record of Site Condition or Certificate of Property Use? | yes | no | uncertain |
| 12. | Will lands be dedicated to the Region as part of this application (including road allowances, daylight triangles)? | yes | no | uncertain |

DECLARATION

Property Owner / Authorized Officer -

I, _____ am the registered owner of the land that is the subject of this document and to the best of my knowledge, the information in this questionnaire is true.

DECLARED before me _____ in the _____
Commissioner of Oath (Print Name) City/Town/Municipality

this _____ day of _____, 20_____.

Commissioner of Oaths (signature)

Registered Owner (signature)