

# DRINKING WATER SOURCE PROTECTION

ACT FOR CLEAN WATER

Thames-Sydenham and Region Source Protection Committee  
*Upper Thames River Source Protection Area*

Amended Proposed  
**Assessment Report**

Revised - August 12, 2011

**APPROVED**

## *9.0 Data Gaps and Next Steps*



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Thames - Sydenham and Region  
Upper Thames River Conservation Authority  
1424 Clarke Road, London, ON, N5V 5B9

July 4, 2011

Dear reader

Re: **Upper Thames River Amended Proposed Assessment Report posted for comments**

The Thames-Sydenham and Region Source Protection Committee has posted the enclosed report for review and comment by stakeholders. This report includes updates and amendments to the Proposed Assessment Report for the Upper Thames River Source Protection Authority. Comments received through the first posting (draft proposed report) were considered by the Source Protection Committee and the report has been revised. Comments received in response to the second posting were submitted with the Proposed Assessment Report to the Ministry of the Environment (MOE).

Based on directions from the Director of Source Protection Programs Branch, MOE, updates and amendments were made to the Proposed Assessment Report to include further technical work conducted. These include the Tier 2 water budget drought scenario analysis, the delineation, vulnerability assessment and threats assessment of WHPA-E, and threats assessment of sewer line threats. The updates and amendments made are summarized in Appendix 4. This version of the Assessment Report once approved will be used by the Source Protection Committee for the development of the Source Protection Plan which is to be submitted to the MOE in August 2012.

The Amended Proposed Assessment Report for the Upper Thames River Source Protection Area represents a significant milestone in the Source Protection Committee's progress in the completion of the first Source Protection Plans for the Thames-Sydenham and Region. The Source Protection Committee realizes that this report is a "living document" which may be updated as more information becomes available in the future.

We hope that you have had an opportunity to attend previous open houses that were held throughout the region, and plan to attend the open houses to be held in July 2011. More information on this assessment report and the past and current consultation is available on the web site given at the bottom of this letter.

Yours truly,  
THAMES-SYDENHAM and REGION

Robert Bedgood, Chair  
Source Protection Committee

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# Upper Thames River Source Protection Area Assessment Report

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- Appendix 2 – Section Summaries (bound separately)
- Appendix 3 – System Summaries (bound separately)
- Appendix 4 – Assessment Report Consultation
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## 9.0 Data Gaps and Next Steps

The development of Assessment Reports is required by the Clean Water Act, the related regulations and the *Technical Rules: Assessment Report*. Together these documents outline the materials which are required in the Assessment Reports. The Clean Water Act and the regulations also outline the process for developing, consulting on, submitting, and revising the Assessment Reports.

Through information from various technical studies, the Assessment Report must identify and assess *vulnerable areas*, evaluate drinking water quality *issues*, and identify and assess *threats* to the sources of drinking water. This section of the Assessment Report describes the known data gaps in the technical studies conducted, the plans to fill the gaps and the next steps in the *Source Protection Planning* process.

### 9.1 Data Gaps

The different types of data gaps summarized in this section relate to the availability of information and the timing of Provincial guidance updates, such as the *Technical Rules*.

The *Technical Rules: Assessment Report* identifies many of the requirements of the Assessment Report. For some of these requirements, the *technical rules* allow for the submission of a work plan if the information necessary to complete the item is not available. These items include work related to threats contributing to *issues*, Tier 3 Water Budget, *Wellhead Protection Area-E (WHPA-E)* and *WHPA-F* associated with *Groundwater Under Direct Influence (GUDI)* of surface water systems and *Intake Protection Zone-3 (IPZ-3)*.

Other gaps identified in the Assessment Report are a result of information not being available, or not available in time, to be included in the Assessment Report.

# Upper Thames River Source Protection Area Assessment Report

Several of the gaps identified in the Proposed Assessment Report are now filled. These include the Tier 2 water budget drought scenario analysis, the delineation, vulnerability assessment and threats assessment (vulnerability scoring approach) of *WHPA-E*, and threats assessment of sewer line threats. Filling of those data gaps in early 2011 allowed them to be included in the current Amended Proposed Assessment Report, thus allowing for the materials to be available to the Source Protection Committee for the development of the *Source Protection Plan*. The *Source Protection Plan* is required to be submitted in August 2012.

Table 9-1 provides the work plan to fill the remaining few gaps in the Upper Thames River Source Protection Area Assessment Report. This Table identifies the gap, provides a description of the gap and its current status, lists the steps to be undertaken in the work plan to fill the gap, and provides the anticipated work plan completion date. It is desirable that this information be completed in a timely fashion so that it is available to the Source Protection Committee for use in developing the *Source Protection Plan*.

**Table 9-1 Work Plan to fill Data and Analysis Gaps**

Gap	Description	Work Plan	Planned Completion Schedule
Edge-matching of HVA and SGRA with neighbouring regions	<ul style="list-style-type: none"> <li>▪ Edge-matching of HVA and SGRA with neighbouring regions is to be completed in order to form seamless mapping between source protection regions</li> </ul>	<ul style="list-style-type: none"> <li>▪ This work will be considered when neighbouring regions' HVA and SGRA maps are complete</li> <li>▪ Methodologies will be determined in consultation with the neighbouring regions once the extent of the challenges are known.</li> </ul>	Dependent on when neighbouring regions complete HVA and SGRA maps
Impact of Climate Change	<ul style="list-style-type: none"> <li>▪ Work undertaken in Upper Thames River Source Protection Area although focused more on flooding and infrastructure than on water supply</li> <li>▪ Requires an understanding of the local climatic conditions resulting from global climate change which is not yet available</li> <li>▪ Impact on source water protection is unknown</li> </ul>	<ul style="list-style-type: none"> <li>▪ Examine data available for the Upper Thames River Source Protection Area and assess relevancy to source protection</li> <li>▪ Consider local climactic conditions when information becomes available</li> <li>▪ Prepare draft section on climate change if data allows</li> <li>▪ Update Assessment Report if warranted</li> </ul>	To be determined

# Upper Thames River Source Protection Area Assessment Report

**Table 9-1 Work Plan to fill Data and Analysis Gaps**

Gap	Description	Work Plan	Planned Completion Schedule
Improved understanding of water use	<ul style="list-style-type: none"> <li>Use actual water use data in water budget work</li> </ul>	<ul style="list-style-type: none"> <li>Obtain actual water use data from all significant water users through the PTTW reporting system</li> <li>Requires reassessment after sufficient data has been reported, perhaps when Assessment Report requires future update</li> <li>Where Tier 3 assessment will be undertaken, updated PTTW will be considered to the extent that the data is available</li> </ul>	Subsequent Assessment Report, dependent on other programs
Tier 3 Water Budget	<ul style="list-style-type: none"> <li>Tier 3 water budget (local area assessment) is a local water balance undertaken on the scale of a single water supply system</li> <li>It is intended to examine the reliability of that supply, including testing of drought and future demand scenarios</li> </ul>	<ul style="list-style-type: none"> <li>Tier 2 analysis suggests that 6 municipal drinking water systems are to be assessed at the Tier 3 water budget level</li> </ul>	Early 2012*

\*Dependent upon submission of the amended Assessment Report and/or approved funding

If further information becomes available to the SPC to identify conditions and the sources of water quality issues, the associated work would be included in a subsequent Assessment Report. As mentioned in Section 5.6, the sources or causes of some of the *issues* are yet to be determined. This is an information gap. Filling of this data gap, as more information becomes available to the SPC, may help identify *issues* as per Rule 114, and possibly lead to identifying the area and activity contributing to those *issues* as required by Rule 115. As described in Section 6.3, the Source Protection Committee would review information, which becomes available to it, that helps identify *conditions*.

Also, as described in Section 7.3, a site-specific *risk* assessment to confirm the number of locations at which *significant threats* occur, would be conducted while developing the source protection plans, if needed. The tier 2 work involves the examination of land use *activities* and the *circumstances* under which they are undertaken, through site visits and discussions with the landowners. The outcome of the tier 2 *risk* assessment will be part of a subsequent Assessment Report.

## **9.2 Next Steps**

Prior to the submission of the Assessment Report to the Director, the Clean Water Act identifies consultation requirements. The required consultation is part of a more comprehensive consultation plan being conducted in the Thames-Sydenham and Region involving local and regional consultation on the draft proposed and the proposed Assessment Report, and the technical work that has informed it. See Section 1 - Introduction and Background for more information on the Assessment Report consultation process. Once consultation is complete and the Source Protection Committee has considered input received through the consultation, the Assessment Report is submitted to the Director (Ministry of Environment) for approval. The Director can approve the Assessment Report or request amendments to it. Amendments which the Director requests will not require consultation.

Following submission of the Assessment Report, work will continue on filling the data and analysis gaps discussed above. That work will require updates to the Assessment Report which will also be consulted on. The updated Assessment Report will then be submitted to the Director for approval.

The Source Protection Committee has identified that the Assessment Report is, in fact, a living document which will require periodic amendments and updates. Review and update of the Assessment Report will be required as identified in the Clean Water Act. The period of the review will be determined by the Director in the approval of the Assessment Report. Aside from the required review of the Assessment Report, the Source Protection Committee has the ability to amend the Assessment Report at such time when it becomes aware that the material in the Assessment Report has an effect on the *Source Protection Plan* developed. Any amendments to the Assessment Report will require consultation of those affected by the amendments.