



Thames-Sydenham and Region
Source Protection Committee

Guide to Proposed
Terms of Reference
for

**Lower Thames Valley Source Protection Area,
St. Clair Region Source Protection Area and
Upper Thames River Source Protection Area**

Last updated October 19, 2008

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1 **Preamble**

The Clean Water Act was established in October of 2006. The Clean Water Act is part of the Province's response to Justice O'Connor's recommendation that Ontario's drinking water be protected by a multi-barrier approach including protection at the source. The Clean Water Act is focused on the protection of drinking water sources and requires that Source Protection Committees be formed to develop Source Protection Plans in Source Protection Areas. Under the Clean Water Act, regulations lay out the requirements of the Source Protection Planning process. The Clean Water Act and Regulations can be reviewed online at <http://www.e-laws.gov.on.ca/index.html> or from a link to the Act on the Thames-Sydenham and Region web site at www.sourcewaterprotection.on.ca.

Ontario Regulation 284/07 (Source Protection Areas and Regions) establishes the areas in which Source Protection Plans are required. This regulation establishes the Thames-Sydenham and Region (TSR) and the three Source Protection Areas (SPAs) within the region. Each of the Lower Thames Valley, St. Clair Region and Upper Thames River Source Protection Areas are established based on the watershed areas of the Conservation Authorities that each is named after. The Regulation also establishes Source Protection Authorities in each of the three Source Protection Areas. These Source Protection Authorities are essentially the Conservation Authority Board of Directors who will meet as a Source Protection Authority for the purposes of business related to the Source Protection Authorities' responsibilities under the Clean Water Act.

Ontario Regulation 288/07 (Source Protection Committees) establishes the appointment, conditions and terms of the appointment of the Source Protection Committee (SPC) in each Region. The Source Protection Authorities in the Thames-Sydenham and Region were required to establish a Source Protection Committee for the Region. The SPC is responsible for producing three major documents: the Terms of Reference, Assessment Report and the Source Protection Plan. The SPC is required to develop a Terms of Reference and Source Protection Plan for each Source Protection Area.

The Minister of the Environment appointed Robert Bedggood as Chair of the Thames-Sydenham and Region Source Protection Region on August 20, 2007. The Thames-Sydenham and Region Source Protection Committee was appointed by the Source Protection Authorities on November 19, 2007.

2 **Introduction**

Under the Clean Water Act (2006), the Source Protection Committee is required to produce the Terms of Reference, Assessment Report and Source Protection Plan. The Thames-Sydenham and Region Source Protection Committee developed a mission statement and guiding principles to assist and guide them in developing these documents. A document summarizing the SPC's work on developing its mission statement and guiding principles is available on the Thames-Sydenham and Region Source Protection website at http://www.sourcewaterprotection.on.ca/SPC_Members.htm.

The mission statement of the Thames-Sydenham and Region Source Protection Committee is to

“protect sources of drinking water by developing a plan based on science and local cooperation”.

The guiding principles of this committee are that they value the following:

- Fair and reasonable solutions
- Consensus within our diverse area group
- Clarity of information
- Open communication
- Respecting diversity of opinion

In keeping with their mission statement and guiding principles, the SPC in developing policies for the Source Protection Plan will have regard for the financial impact on those affected. Both existing and new programs, opportunities and financial instruments will be considered. These concepts are included in the Source Protection Plan task in the Terms of Reference, called ‘Policy development to address drinking water threats’ (where required and/or permissible in Act/Regulations) included in the Upper Thames River Source Protection Area tasks.

2.1 **Introduction to the Terms of Reference**

The Terms of Reference are a regulatory requirement, under the Clean Water Act (2006), which must be submitted to the Minister of Environment by the Source Protection Authority. The Terms of Reference describe the work that the SPC will undertake to complete the Assessment Report and the Source Protection Plan. The Assessment Report is a science-based document that identifies vulnerable

areas, drinking water threats and issues within those areas, and assesses risks due to those threats. The Source Protection Plan is a document that sets out policies to protect source water against the drinking water threats identified in the Assessment Report.

In the Thames-Sydenham and Region, there are three Source Protection Areas. Hence three Terms of Reference documents must be submitted to the Minister of Environment. They are:

1. Upper Thames River Source Protection Area Terms of Reference
2. Lower Thames Region Source Protection Area Terms of Reference
3. St. Clair River Source Protection Area Terms of Reference

Ontario Regulation 287/07 is the Terms of Reference Regulation under the Clean Water Act, and includes a list of the content and a description of consultation for the Terms of Reference document. Section 3 of the Terms of Reference Regulation requires that the Terms of Reference be submitted in a form acceptable to the Minister. The Ministry of Environment (MOE) developed a Terms of Reference database. The three Terms of Reference documents are generated using an MOE Microsoft Word template populated from the Terms of Reference database. These three documents are appended to the current Guide in Appendices C, D and E. The Terms of Reference database and the output generated through the Microsoft Word templates fulfill the Source Protection Committee's requirement to submit the Terms of Reference in a form acceptable to the Minister.

The current guide is intended to guide the reader through the purpose and legislative requirements and summarize the content of the Terms of Reference documents as they relate to protection of surface and groundwater sources of municipal drinking water systems in the Thames-Sydenham and Region. Although not a required part of the Terms of Reference, this Guide is intended to provide context to the required Terms of Reference documents.

Ontario Regulation 285/07 (Time Limits) sets the dates for submission of the Terms of Reference, Assessment Report and the Source Protection Plan. Ontario Regulation 286/07 (Miscellaneous) includes definitions of a planned drinking water system, and criteria for exempting systems from the Terms of Reference document. Ontario Regulation 231/07 (Service of Documents) establishes methods of giving or serving documents and conditions applying to those methods.

The Province has also recently posted proposed Regulations and Rules. These include Regulations on the Drinking Water Stewardship Program, Property Entry training, Clean Water Act definitions, and Assessment Report Regulations, as well as proposed Director's Rules on the Assessment Report, the list of threats to drinking water sources, and guidance on drinking water symbology. Information on the consultation on these proposed instruments under the Clean Water Act can be found on the Province's Environmental Registry which was created under the Ontario Environmental Bill of Rights, 1993 (EBR). The registry may be found at <http://www.ebr.gov.on.ca/> where a search for the "Clean Water Act" can be performed.

2.2 *Terms of Reference Content Requirements*

The Terms of Reference documents describe the work that the SPC will undertake to complete the Assessment Report and the Source Protection Plan. It includes technical work to complete the Assessment Report, consultation on the Report, and engagement of stakeholders in the development of the Source Protection Plan. The requirements of the Terms of Reference, established in Ontario Regulation 287/07, are listed below:

1. A map showing the boundaries of the Source Protection Area and the boundaries of every municipality in which any part of the Source Protection Area is located.
2. A map showing the boundaries of the Source Protection Region, the boundaries of every Source Protection Area located in the region and the boundaries of every municipality in which any part of the Source Protection Region is located.
3. A list of all of the municipalities in which any part of the Source Protection Area is located.
4. A copy of all the municipal council resolutions that have been passed:
 - a. to include drinking water systems other than municipal residential drinking water systems; and
 - b. to exclude municipal residential drinking water systems because they meet the conditions set out in subsection 5(1), (2) or (4) in Ontario Regulation 286/07 (Miscellaneous).
5. A table setting out the following information for each existing and planned drinking water system: drinking water system number, name of the drinking water system, owner of the drinking water system, operating authority for the drinking water system, whether the drinking water system obtains water from a raw water supply that is groundwater or surface water.
6. A table setting out the information referred to in paragraph 5 for each existing municipal drinking water system which is exempted from the source protection planning process.
7. A table identifying drinking water systems which the Minister has indicated may need to be included in the source protection planning process. The Minister may identify the systems in a letter to the Source Protection Committee before the Terms of Reference have been submitted for approval. The table must include the same information listed in paragraph 5.
8. A list of matters that require consultation with a Source Protection Committee for another Source Protection Area during the preparation of the Assessment Report and Source Protection Plan, and, for each matter, the name of the other Source Protection Area and a description of the matter.
9. A work plan that identifies all of the major tasks to be completed in the preparation of the Assessment Report and Source Protection Plan and that includes the following information for each task:
 - a. The person or body responsible for performing the task.
 - b. An estimate of the date by which the task is expected to be completed.
 - c. An estimate of the costs that are expected to be incurred in performing the task.

10. The date by which, according to section 3 of Ontario Regulation 285/07 (Time Limits) made under the Act, the Source Protection Authority is required to submit the proposed Source Protection Plan to the Minister along with requirements of Section 25 of the Act (any written comments that the Source Protection Authority wishes to make on the plan, those received by the Source Protection Authority after publication of the proposed Terms of Reference, and resolutions of municipal councils submitted to the Source Protection Authority which express comments on the proposed Source Protection Plan).

The Regulation also requires that the Terms of Reference be submitted to the Minister of the Environment in an acceptable form. The Ministry of the Environment (MOE) has developed an electronic tool to help guide and format the content requirements of the Terms of Reference; this tool is referred to as the Terms of Reference Wizard (Terms of Reference Wizard User's Manual, MOE, April 2008). This tool is comprised of two main parts: a Microsoft Access database and a Microsoft Word template document. The content required to complete the Terms of Reference document is entered into the Access database. The Terms of Reference document itself is then generated using the Microsoft Word template, a report generating feature of this tool. The two Wizard portions (the Microsoft Access database and the output Terms of Reference document) are the official record to be submitted to the Minister of Environment in electronic form.

The Terms of Reference document is that which the public is expected to be consulted on. It facilitates public review and comment on the Terms of Reference in a standard format across the province. The three Terms of Reference documents of the three Source Protection Areas of the Thames-Sydenham and Region are provided as Appendices C, D and E. The Thames-Sydenham and Region Terms of Reference documents are provided with the various products which the Source Protection Committee (SPC) has developed. The guide (current text) along with tables and reports generated from the Terms of Reference database are intended to assist stakeholders in the review of the Terms of Reference documents. The Guide provides context to the contents of the Terms of Reference documents, but is not considered part of the Terms of Reference.

2.3 *Terms of Reference Consultation*

Ontario Regulation 287/07 (Terms of Reference Regulation) requires the SPC to consult with stakeholders in developing the Terms of Reference. The consultation undertaken to satisfy those requirements and assist the SPC in developing the Terms of Reference will be documented in Appendix F of this document.

Municipal Working Groups were established by the SPC to assist the SPC and the municipalities in developing the Terms of Reference. Much of the work required to develop the Source Protection Plan is technical work which will form the Assessment Report. The municipalities are able to undertake this work as it pertains to their systems, if they wish. In many cases in the Region this work has been initiated through partnerships between the Conservation Authorities and municipalities. The work has been funded by and approved by MOE based on draft technical guidance produced by the Province. The Assessment Report will be defined by Regulation and technical Rules. Drafts of these Rules and Regulations were posted for public review and comment by the MOE on

the 'Environmental Registry created under the Environmental Bill of Rights' (EBR). The Source Protection Plan will be defined by further Regulations and Rules which have not yet been made available. It is therefore important to realize that assumptions as to the final requirements of these rules and regulations have been made in developing the Terms of Reference. It is likely that refinements to the Terms of Reference may be necessary to meet these requirements once the final rules and regulations are in place. Further consultation on significant changes in the Terms of Reference will be required.

The Terms of Reference Regulation 287/07 requires that the stakeholders be consulted in a number of ways. It requires that

- the draft proposed Terms of Reference be circulated to municipal clerks, First Nation Chiefs, other SPCs with whom matters are shared, and Great Lakes bodies
- the draft proposed Terms of Reference be posted on the internet
- that a notice be posted in newspapers and on the internet that the draft proposed Terms of Reference is available for comment for thirty five days from the publishing of the notice
- that a public meeting be held to allow for public comment on the draft proposed Terms of Reference
- that a minimum of twenty one days' notice be given for the public meeting from the date of notice of publishing the draft proposed Terms of Reference
- that the proposed Terms of Reference be submitted to the Source Protection Authority with a list of comments received and how they have been addressed
- that the proposed Terms of Reference be posted for comments for 30 days and that comments on the proposed Terms of Reference be submitted to the Source Protection Authority
- that the SPA submit the proposed Terms of Reference together with any comments received to the Minister of Environment for approval

Each Terms of Reference document is called the 'draft proposed Terms of Reference' until the SPC finalizes the document (after considering comments from meetings, forums and circulation) when it shall then be called the 'proposed Terms of Reference', in preparation for submission to the Source Protection Authority.

In order to meet the requirement of the Terms of Reference Regulation 287/07 and to allow for adequate stakeholder involvement in the Terms of Reference, the Thames-Sydenham and Region SPC has or will:

- hold municipal forums to inform the municipalities of the process and opportunities for their involvement
- form municipal working groups to allow for the active involvement of those municipalities who wish to be actively engaged in the development of the Terms of Reference
- host four municipal and first nations forums to present the draft proposed Terms of Reference

- host a series of four public open houses across the region to allow the public an opportunity to discuss the Terms of Reference
- hold the required public meeting in a central location
- receive and consider written and electronic comments in establishing the proposed Terms of Reference
- post the draft proposed and proposed Terms of Reference on the Thames-Sydenham and Region’s web site at www.sourcewaterprotection.on.ca
- make printed copies of the Terms of Reference documents available for review at the offices of the three Conservation Authorities in the Thames-Sydenham and Region, as well as at the forums, open houses and meetings
- Notify municipal clerks, Chiefs and administrators of First Nations, municipal and First Nations water system operators, and municipal planners when the draft proposed and proposed Terms of Reference are available on the website.



Figure: Source Protection Program Participation Model

2.4 *Great Lakes Agreement Considerations and Great Lakes Bodies Consultation*

According to Section 14 (1) of the Clean Water Act (2006), the Terms of Reference shall include a provision that requires consideration of the Great Lakes Agreements (listed below) if a Source Protection Area contains water that flows into a Great Lake. In the Thames-Sydenham and Region, the Thames and Sydenham Rivers flow into Lake St Clair which outlets through the Detroit River into Lake Erie (one of the Great Lakes). There are also smaller sub-watersheds which flow directly into Lakes Huron Erie (both Great Lakes). Not only do the watersheds of the region flow into the Great Lakes, but the Region relies heavily on drinking water sources within the Great Lakes. There are six surface water intakes, drawing water from Lake Erie (three), Lake Huron (one), St. Clair River (one), and the Chenal Ecarte near Lake St. Clair (one). The Region also receives water from intakes located outside of the Region that draw water from Lake St. Clair, Lake Erie and Lake Huron.

Great Lakes Agreements to be considered (Clean Water Act, 2006, Section 14):

1. The Great Lakes Water Quality Agreement of 1978 between Canada and the United States of America, signed at Ottawa on November 22, 1978, including any amendments made before or after this section comes into force.
2. The Great Lakes Charter signed by the premiers of Ontario and Quebec and the governors of Illinois, Indiana, Michigan, Minnesota, New York, Ohio, Pennsylvania and Wisconsin on February 11, 1985, including any amendments made before or after this section comes into force.
3. The Canada-Ontario Agreement Respecting the Great Lakes Basin Ecosystem 2002 entered into between Her Majesty the Queen in Right of Canada and Her Majesty the Queen in Right of Ontario, effective March 22, 2002, including any amendments made before or after this section comes into force.
4. Any other agreement to which the Government of Ontario or the Government of Canada is a party that relates to the Great Lakes Basin and that is prescribed by the regulations. 2006, c. 22, s. 14 (1).

A copy of the draft proposed Terms of Reference is to be circulated to groups created pursuant to Great Lakes Water Quality Agreement & involved in developing or implementing the Remedial Action Plans (RAPs) and Lakewide Management Plans (LaMPs) according to the Clean Water Act (2006) Terms of Reference Regulation (287/07), Section 6.

Throughout Section 8.2 of this guide and in the draft proposed Terms of Reference documents, there are several Assessment Report (technical studies) tasks already complete or proposed to be undertaken to assess vulnerability, hazards and risks in intake protection zones. To complete the major tasks that identify drinking water issues and evaluate drinking water issues within the Source Protection Areas, the task leads should review the RAPs to determine if there are links between the identified beneficial use impairments and local drinking water source protection issues.

LAMP goals and objectives will also be considered to determine inter-relationships between those goals and objectives and drinking water issues and risks to drinking water sources.

SPC shall strive to work towards aiding Great Lakes bodies achieve targets as set out in existing Great Lakes agreements where those targets affect drinking water sources included in the ToR.

A Source Protection Planning task on 'Policy development for Great Lakes elements' is included. This task is intended to include policies that aid in achieving Great Lakes targets that apply to drinking water set by the Ontario Ministry of Environment pursuant to the Clean Water Act (2006).

We are awaiting technical studies requirements, currently in the draft technical rules posted for comments by the Ontario Ministry of Environment on the Environment Bill of Rights Registry. The finalization of these Rules is expected in fall 2008. Guidance and Regulations from the Province on Source Protection Planning is yet to come. We are also expecting guidance on the establishment of Great Lakes targets and the types of policies which might be appropriate to meet those targets. Hence tasks related to the Source Protection Plan in our draft proposed Terms of Reference documents are general.

3 Source Protection Region

Source Protection Regions are established under Ontario Regulation 284/07 (Source Protection Areas and Regions). The map titled 'Municipalities in the Thames-Sydenham and Region Source Protection Region' shows the municipalities in the Region. All municipalities which are wholly or partially within the Region are highlighted in the map.

3.1 Source Protection Areas

Ontario Regulation 284/07 (Source Protection Areas and Regions) also established Source Protection Areas. These areas, in our Region are based on watershed boundaries which also define Conservation Authorities. The areas also extend out into the Great Lakes to the international border. The maps titled 'Lower Thames Valley Source Protection Area', 'St. Clair Region Source Protection Area' and 'Upper Thames River Source Protection Area' illustrate the three Source Protection Areas in the Source Protection Region.

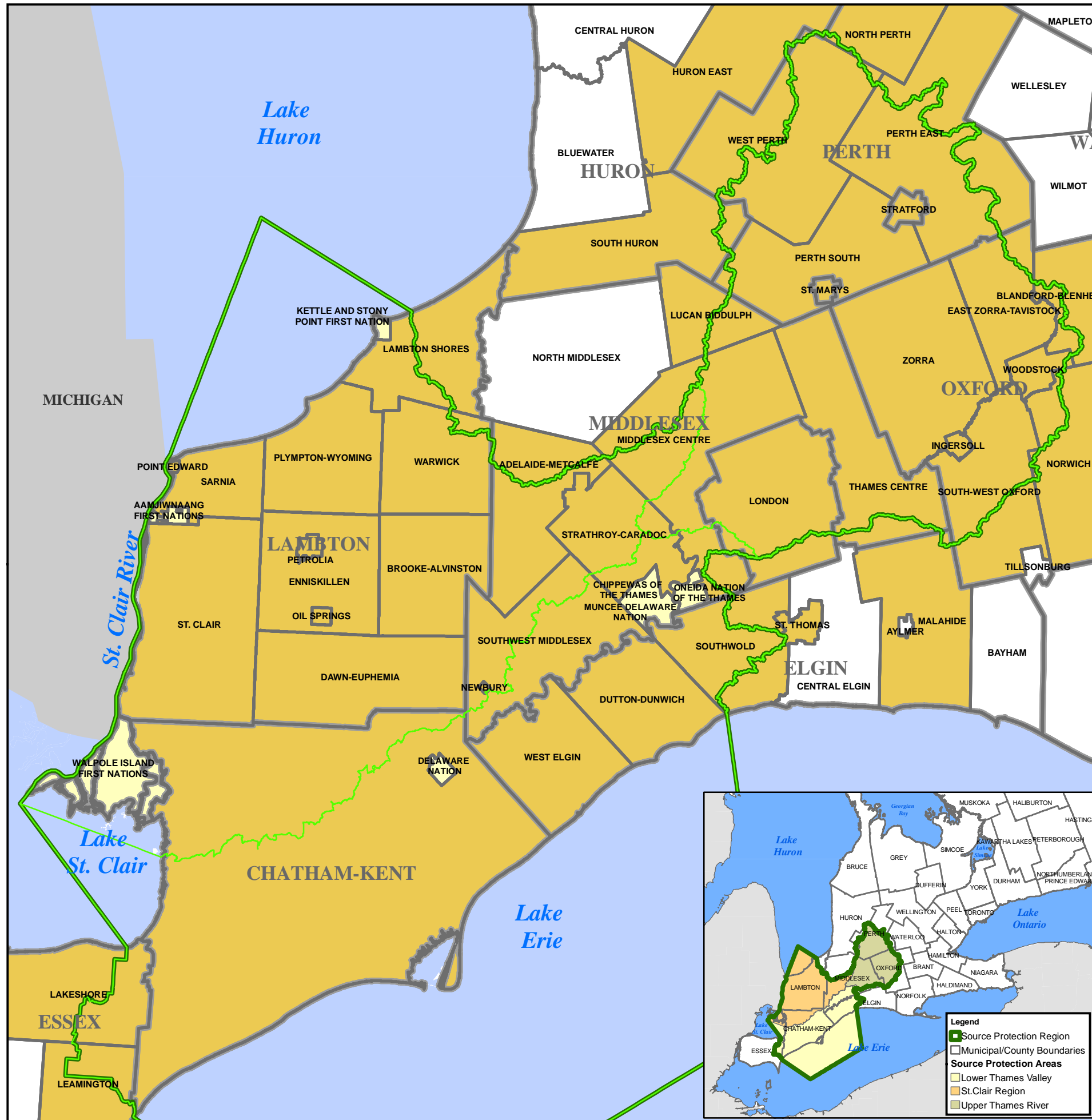
Margin Notes

The Municipalities and First Nation Reserves that are completely or partially within the Source Protection Areas are listed below.

Upper Thames River SPA
 COUNTY OF OXFORD
 Township of Blandford-Blenheim
 Township of East Zorra-Tavistock
 Township of Norwich
 Township of South-West Oxford
 Township of Zorra
 City of Woodstock
 Town of Ingersoll
 COUNTY OF MIDDLESEX
 Township of Lucan-Biddulph
 Municipality of Middlesex Centre
 Municipality of Thames Centre
 Township of Strathroy-Caradoc
 Municipality of Thames Centre
 COUNTY OF PERTH
 Township of Perth East
 Township of Perth South
 Municipality of West Perth
 County of Huron
 Municipality of Huron East
 Municipality of South Huron
 COUNTY OF ELGIN
 Malahide
 TOWN OF ST. MARYS
 CITY OF LONDON
 CITY OF STRATFORD

Lower Thames Valley SPA
 COUNTY OF ELGIN
 Municipality of Dutton/Dunwich
 Township of Southwold
 Municipality of West Elgin
 COUNTY OF ESSEX
 Town of Lakeshore
 Municipality of Leamington
 COUNTY OF MIDDLESEX
 Municipality of Middlesex Centre
 Municipality of Southwest Middlesex
 Township of Strathroy-Caradoc
 MUNICIPALITY OF CHATHAM-KENT
 CITY OF LONDON
 CITY OF ST. THOMAS
 FIRST NATIONS-
 Chippewas of the Thames
 Munsee Delaware Nation
 Oneida Nation of the Thames
 Delaware Nation
 Caldwell First Nation (no reserve)

St. Clair Region SPA
 COUNTY OF LAMBTON
 Municipality of Brooke-Alvinston
 Township of Dawn-Euphemia
 Township of Enniskillen
 Municipality of Lambton Shores
 Township of St. Clair
 Township of Warwick
 Village of Oil Springs
 Town of Petrolia
 Town of Plympton-Wyoming
 Village of Point Edward
 City of Sarnia
 COUNTY OF MIDDLESEX
 Township of Adelaide-Metcalf
 Municipality of Middlesex Centre
 Municipality of Southwest Middlesex
 Township of Strathroy-Caradoc
 Village of Newbury
 MUNICIPALITY OF CHATHAM-KENT
 FIRST NATIONS-
 Walpole Island
 Aamjiwnaang
 Kettle and Stony Point

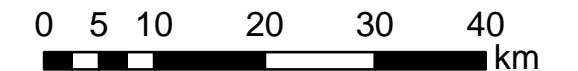
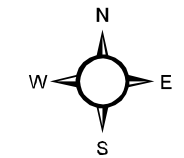


Thames-Sydenham and Region Terms of Reference

Municipalities in the Thames-Sydenham & Region Source Protection Region

Legend

- Municipal Boundaries/Area
- County Boundaries
- Source Protection Region
- Source Protection Areas
- Municipalities in Source Protection Region
- First Nation's Reserves



Map Created by UTRCA, May 2008

Base mapping produced under license with the Ontario Ministry of Natural Resources. © 2007.

Source Protection boundaries defined by Water Resources Information Program, Ontario Ministry of Natural Resources, 2006.

DRINKING WATER SOURCE PROTECTION
 ACT FOR CLEAN WATER

Thames-Sydenham & Region



UPPER THAMES RIVER CONSERVATION AUTHORITY

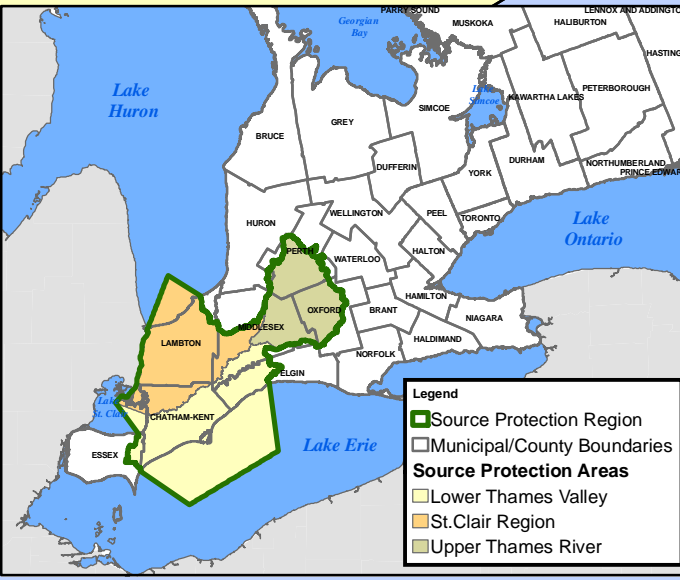
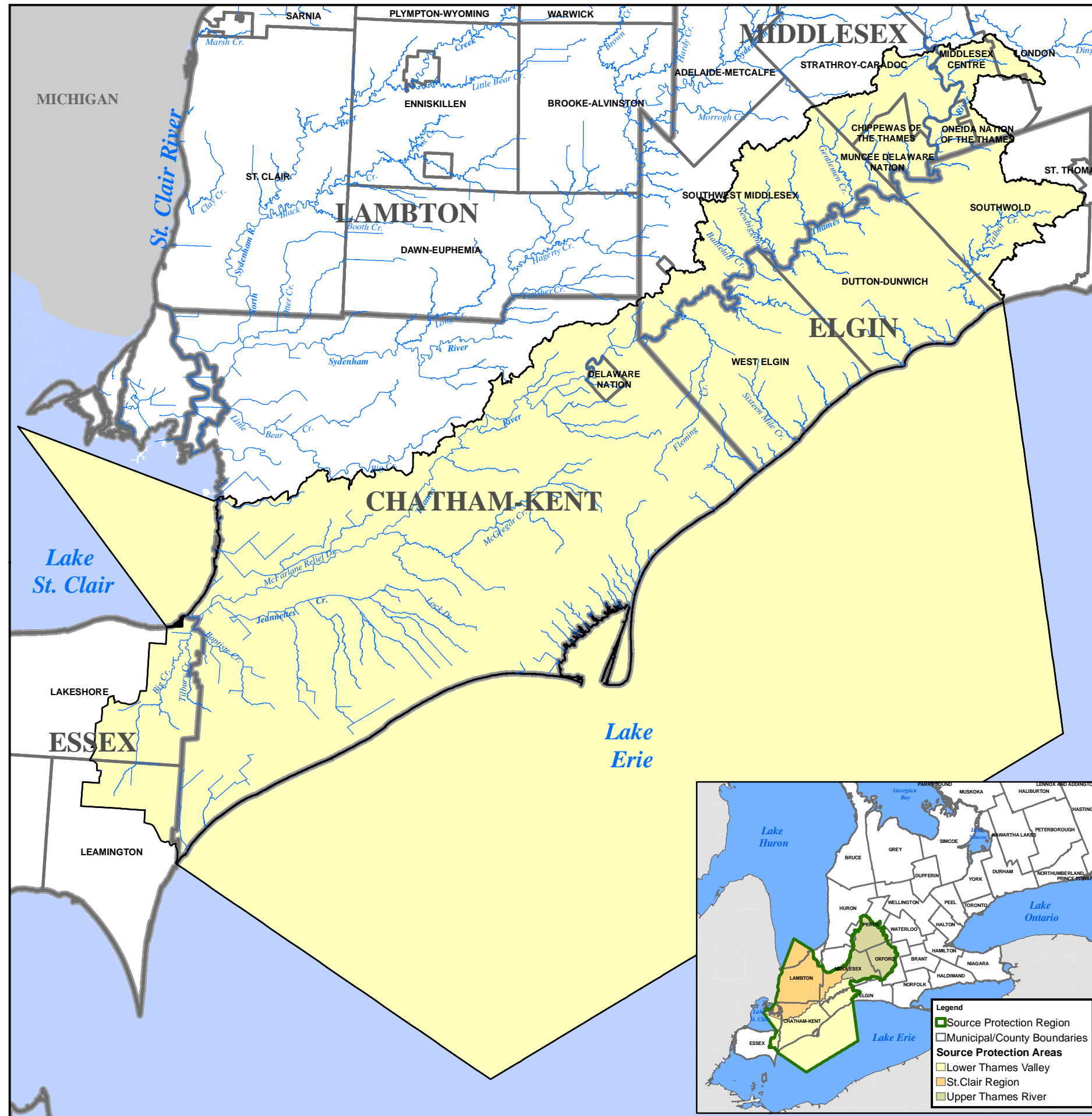


- Legend**
- Source Protection Region
 - Municipal/County Boundaries
 - Source Protection Areas**
 - Lower Thames Valley
 - St. Clair Region
 - Upper Thames River

Margin Notes

The land area of the Lower Thames Valley Source Protection Area is 3295 km sq.

Watercourse Information
Due to the complexity of the watercourse network, only 3rd order and greater watercourses are shown.

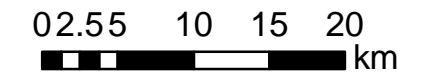
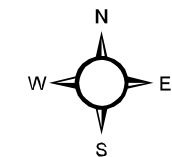


Thames-Sydenham and Region Terms of Reference

Lower Thames Valley Source Protection Area

Legend

- Municipal Boundaries
- County Boundaries
- Source Protection Area**
- Lower Thames Valley



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Source Protection Area and Region boundaries defined by Water Resources Information Program, Ontario Ministry of Natural Resources, 2006.

DRINKING WATER SOURCE PROTECTION
ACT FOR CLEAN WATER

Thames-Sydenham and Region

Legend

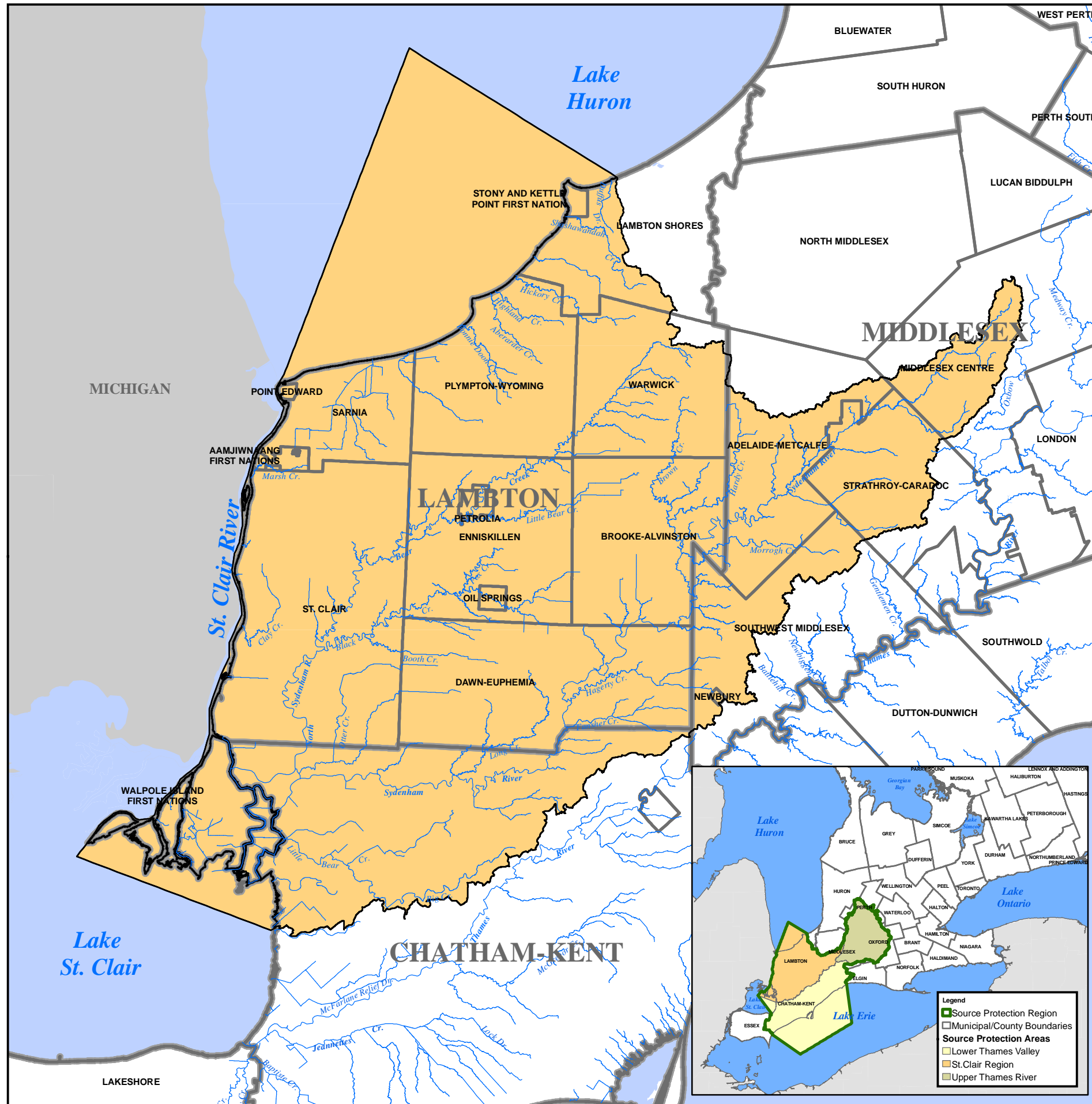
- Source Protection Region
- Municipal/County Boundaries
- Source Protection Areas**
- Lower Thames Valley
- St. Clair Region
- Upper Thames River

Margin Notes

The land area of the St. Clair Source Protection Area is 4202 km sq.

Watercourse Information

Due to the complexity of the watercourse network, only 3rd order and greater watercourses are shown.

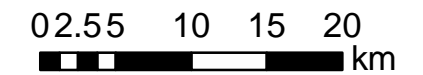
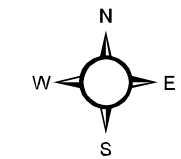


Thames-Sydenham and Region Terms of Reference

St. Clair Region Source Protection Area

Legend

- Municipal Boundaries
- County Boundaries
- Source Protection Area**
- St.Clair Region



Map Created by UTRCA, May 2008.

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Source Protection Area and Region boundaries defined by Water Resources Information Program, Ontario Ministry of Natural Resources, 2006.

DRINKING WATER SOURCE PROTECTION
ACT FOR CLEAN WATER

Thames-Sydenham and Region

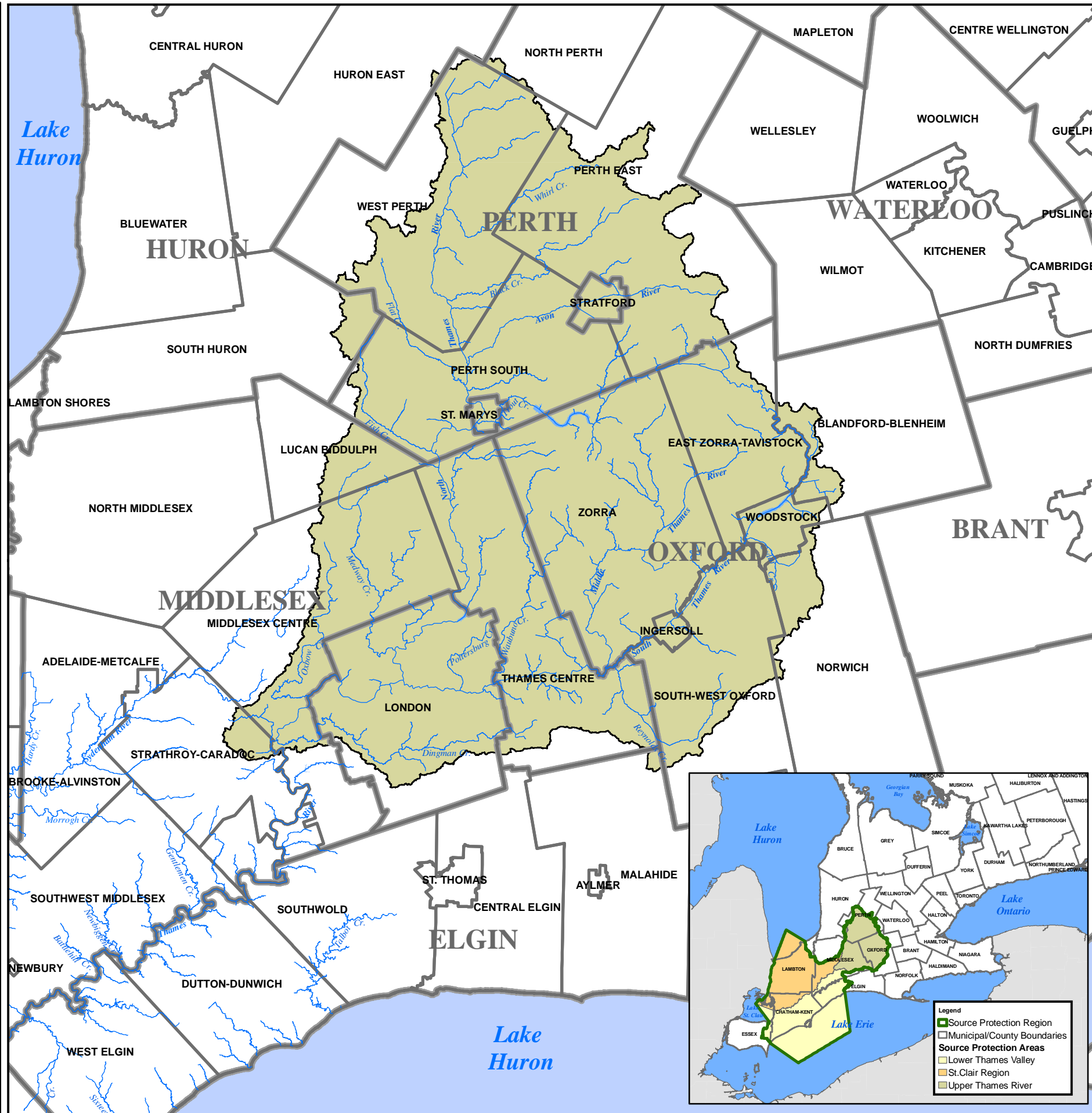
Legend

- Source Protection Region
- Municipal/County Boundaries
- Source Protection Areas**
- Lower Thames Valley
- St.Clair Region
- Upper Thames River

Margin Notes

The area of the Upper Thames River Source Protection Area is 3446 km sq.

Watercourse Information
Due to the complexity of the watercourse network, only 3rd order and greater watercourses are shown.

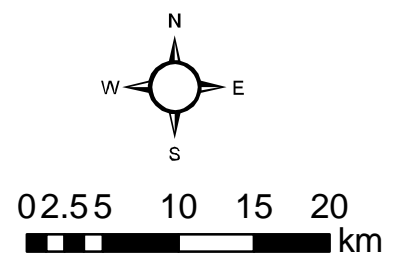


Thames-Sydenham and Region Terms of Reference

Upper Thames River Source Protection Area

Legend

- Municipal Boundaries
- County Boundaries
- Source Protection Area**
- Upper Thames River



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Source Protection Area and Region boundaries defined by Water Resources Information Program, Ontario Ministry of Natural Resources, 2006.

DRINKING WATER SOURCE PROTECTION ACT FOR CLEAN WATER

Thames-Sydenham and Region

3.2

Municipalities

The Terms of Reference Regulation (Ontario Regulation 287/07) requires that Terms of Reference include a list of municipalities which are wholly or partially within the Source Protection Area (SPA). The following list includes municipalities which are within each of the Source Protection Areas in the Region. This list is similar to the municipalities which are members of the Conservation Authority and which are listed in the Source Protection Areas and Regions Regulation (Ontario Regulation 284/07) as participants in the Source Protection Authority. The following list is not exactly the same as either of these other lists since it must include municipalities, even if the area within the SPA is quite small. Source Protection Areas are defined by the natural boundaries of watersheds based on topography and drainage patterns. As such some of the municipalities in the following list have only a small part of their municipality within the SPA. Also it is important to note that the Thames-Sydenham and Region Source Protection Region shares municipalities with neighbouring Source Protection Areas and Regions.

3.2 Municipalities

Lower Thames Valley Source Protection Area

Chatham-Kent, Municipality of
Dutton/Dunwich, Municipality of
Elgin, County of
Essex, County of
Lakeshore, Town of
Leamington, Municipality of
London, City of
Middlesex Centre, Municipality of
Middlesex, County of
Newbury, Village of
Southwest Middlesex, Municipality of
Southwold, Township of
St. Thomas, City of
Strathroy-Caradoc, Municipality of
West Elgin, Municipality of

St. Clair Region Source Protection Area

Adelaide-Metcalf, Municipality of
Brooke-Alvinston, Township of
Chatham-Kent, Municipality of
Dawn-Euphemia, Township of
Enniskillen, Township of
Lambton Shores, Municipality of
Lambton, County of
Middlesex Centre, Municipality of
Middlesex, County of
Newbury, Village of
Oil Springs, Village of
Petrolia, Town of
Plympton-Wyoming, Town of
Point Edward, Village of
Samia, City of
Southwest Middlesex, Municipality of
St. Clair, Township of
Strathroy-Caradoc, Municipality of
Warwick, Township of

Upper Thames River Source Protection Area

Blandford-Blenheim, Township of
East Zorra-Tavistock, Township of
Elgin, County of
Huron East, Municipality of
Huron, County of
Ingersoll, Town of
London, City of
Lucan-Biddulph, Municipality of
Malahide, Township of
Middlesex Centre, Municipality of
Middlesex, County of
North Perth, Municipality of
Norwich, Township of
Oxford, County of
Perth East, Township of
Perth South, Township of
Perth, County of
South Huron, Municipality of
South-West Oxford, Township of
St. Marys, Town of
Stratford, City of
Strathroy-Caradoc, Municipality of
Thames Centre, Municipality of
West Perth, Municipality of
Woodstock, City of
Zorra, Township of

4 First Nations

The Clean Water Act also allows for First Nations to participate on the Source Protection Committee. The Clean Water Act allows for three First Nations members on the Thames-Sydenham and Region Source Protection Committee who are to be selected jointly by the band councils in the Region. The SPC has also suggested forming a First Nations working group which would allow all of the eight First Nations in the Region to participate in the development of the Source Protection Plans. This working group could support the three First Nations SPC members. Although we have been endeavouring to engage the eight First Nations in the Region in Source Protection Planning they have not yet provided their committee members through band council resolutions.

The Clean Water Act also allows for First Nations to request the Minister of the Environment to include their water supplies in the work being undertaken in developing the Source Protection Plans. This is an opportunity for the First Nations to work together with their neighbours and the stakeholders in the Region to protect municipal and First Nations drinking water sources.

Once the SPC has completed its work on the Terms of Reference they will be focusing their attention on the Assessment Report and the Source Protection Plan. As such it would be ideal if the First Nations were to join the Committee or otherwise become involved in Source Protection Planning prior to the submission of the Terms of Reference which will guide the SPC's work through the planning process.

The eight First Nations in the Region participate through their Chiefs in the London District Chiefs Council. All but Walpole also participate in the Southern First Nations Secretariat, an organization delivering services to its members. The eight First Nations communities in the Region are listed below:

- Bkejwanong First Nation (Walpole Island)
- Caldwell First Nation
- Chippewas of Aamjiwnaang (Sarnia)
- Chippewas of Kettle and Stony Point First Nation
- Chippewas of the Thames First Nation
- Delaware Nation Council
- Munsee-Delaware Nation
- Oneida Nation of the Thames

5 Water Systems

5.1 *Municipal Residential Systems*

The Terms of Reference Regulation (Ontario Regulation 287/07) under the Clean Water Act requires that the Terms of Reference for the Source Protection Region include a list of all the municipal residential drinking water systems. The attached list 'Municipal Residential Systems within the Thames-Sydenham and Region' includes all municipal residential drinking water systems with sources within the Thames-Sydenham and Region Source Protection Region. The list is categorized by Source Protection Area (SPA) and each category of the list is included in the appropriate Terms of Reference document.

The map 'Municipalities and First Nations Drinking Water Supplies' shows the surface and groundwater drinking water supplies in the region. The map also illustrates the communities which are served by the surface water intakes. It is important to note that the Well Head Protection Areas (WHPAs) and Intake Protection Zones (IPZs) to be defined through the Assessment Report tasks are delineated around these municipal drinking water sources.

5.1 Municipal Residential Systems

Lower Thames Valley Source Protection Area

Water System Name	DWS#	Type	Status	Source	Number of		Operating Authority Owner
					Wells	Intakes	
Chatham Water Treatment Plant	220003378	Municipal Residential	Existing	Surface Water	0	1	Chatham-Kent Public Utilities Commission Municipality of Chatham-Kent
<i>Comment: The Chatham WTP shares an intake with the South Chatham-Kent WTP.</i>							
Highgate Well Supply	260015587	Municipal Residential	Existing	Surface and Groundwater	2	0	Chatham-Kent Public Utilities Commission Municipality of Chatham-Kent
<i>Comment:</i>							
Ridgetown Well Supply	220003369	Municipal Residential	Existing	Groundwater	6	0	Chatham-Kent Public Utilities Commission Municipality of Chatham-Kent
<i>Comment:</i>							
South Chatham-Kent Water Treatment Plant	260024999	Municipal Residential	Existing	Surface Water	0	*	Chatham-Kent Public Utilities Commission Municipality of Chatham-Kent
<i>Comment: The Chatham WTP shares an intake with the South Chatham-Kent WTP.</i>							
West Elgin Water Treatment Plant	220002949	Municipal Residential	Existing	Surface Water	0	1	Ontario Clean Water Agency Municipality of West Elgin
<i>Comment: The West Elgin WTP also has an emergency shoreline intake that has been used in the past when frazzle ice conditions occurred. It is yet to be determined if the intake is still available for use.</i>							
Wheatley Water Treatment Plant	220003332	Municipal Residential	Existing	Surface Water	0	2	Chatham-Kent Public Utilities Commission Municipality of Chatham-Kent
<i>Comment: The Wheatley WTP has 2 intakes, one of which is an emergency intake used when frazzle ice conditions occur.</i>							
Total Municipal Residential Sources in the Lower Thames Valley Source Protection Area(Wells, Intakes) :					8	4	

St. Clair Region Source Protection Area

<i>Water System Name</i>	<i>DWS#</i>	<i>Type</i>	<i>Status</i>	<i>Source</i>	<i>Number of</i>		<i>Operating Authority Owner</i>
					<i>Wells</i>	<i>Intakes</i>	
Lambton Area Water Supply System <i>Comment: The Lambton Area Water Supply System (LAWSS) is owned by the joint board which has members from the municipalities that it supplies: City of Sarnia, Township of St. Clair, Town of Plympton-Wyoming, Village of Point Edward, Township of Warwick, Municipality of Lambton Shores</i>	210000906	Municipal Residential	Existing	Surface Water	0	1	Ontario Clean Water Agency Lambton Area Water Supply System
Town Of Petrolia Water Treatment Plant <i>Comment: 'Town Of Petrolia (Bright's Grove) Water Treatment Plant' is the official name of the system.</i>	220002903	Municipal Residential	Existing	Surface Water	0	1	Waterworks Environmental Services Inc. Town of Petrolia
Wallaceburg Water Treatment Plant <i>Comment: The Chatham-Kent intake at Wallaceburg, located in the St. Clair Region SPA and is included under the Essex Region Conservation Authority (ERCA) led technical study. The intake feeds the Wallaceburg Water Treatment Plant. The ERCA led study also includes two Lower Thames Valley (LTV) SPA surface water intakes at Wheatley and Erie Beach. Stantec Consultants are conducting the study. The costs of the ERCA led study for these three intakes are shown in the Lower Thames Valley SPA Terms of Reference.</i>	220003341	Municipal Residential	Existing	Surface Water	0	1	Chatham-Kent Public Utilities Commission Municipality of Chatham-Kent
Total Municipal Residential Sources in the St. Clair Region Source Protection Area(Wells, Intakes) :					0	3	

Upper Thames River Source Protection Area

<i>Water System Name</i>	<i>DWS#</i>	<i>Type</i>	<i>Status</i>	<i>Source</i>	<i>Number of Wells</i>	<i>Intakes</i>	<i>Operating Authority Owner</i>
Beachville-Loweville Well Supply <i>Comment:</i>	220000674	Municipal Residential	Existing	Groundwater	1	0	County of Oxford County of Oxford
Birr Well Supply <i>Comment:</i>	220005492	Municipal Residential	Existing	Groundwater	1	0	Ontario Clean Water Agency Township of Middlesex Centre
Dorchester Well Supply <i>Comment:</i>	220002146	Municipal Residential	Existing	Surface and Groundwater	8	0	Municipality of Thames Centre Municipality of Thames Centre
Embro Well Supply <i>Comment:</i>	220000665	Municipal Residential	Existing	Groundwater	2	0	County of Oxford County of Oxford
Hickson King Subdivision Well Supply <i>Comment:</i>	220006124	Municipal Residential	Existing	Groundwater	1	0	County of Oxford County of Oxford
Ingersoll Well Supply <i>Comment:</i>	220000692	Municipal Residential	Existing	Groundwater	7	0	County of Oxford County of Oxford
Innerkip Well Supply <i>Comment:</i>	260046995	Municipal Residential	Existing	Groundwater	2	0	County of Oxford County of Oxford
Kilworth Heights Subdivision Well Supply <i>Comment:</i>	210003994	Municipal Residential	Existing	Surface and Groundwater	3	0	Ontario Clean Water Agency Township of Middlesex Centre
Lakeside Well Supply <i>Comment:</i>	220007533	Municipal Residential	Existing	Groundwater	1	0	County of Oxford County of Oxford
London Water Supply <i>Comment:</i>	260004917	Municipal Residential	Existing	Surface and Groundwater	7	0	The Corporation of the City of London City of London
Melrose Well Supply <i>Comment:</i>	260002915	Municipal Residential	Existing	Groundwater	2	0	Ontario Clean Water Agency Township of Middlesex Centre
Mitchell Well Supply <i>Comment:</i>	210000577	Municipal Residential	Existing	Groundwater	3	0	West Perth Power Inc. Municipality of West Perth

Mount Brydges Well Supply	210003985	Municipal Residential	Existing	Groundwater	2	0	Township of Strathroy-Caradoc Township of Strathroy-Caradoc
Comment:	<i>Mount Brydges well supply system lies in the Upper Thames River SPA and supplies water to residents in the St. Clair Region SPA also.</i>						
Mount Elgin Well Supply	220000629	Municipal Residential	Existing	Groundwater	1	0	County of Oxford County of Oxford
Comment:							
Mount Elgin Well Supply - New Well	220000629	Municipal Residential	Planned	Groundwater	1	0	County of Oxford County of Oxford
Comment:	<i>Planned 'Graydon Well' to be a part of the existing Mount Elgin Well Supply System.</i>						
New Dorchester Planned Well	220002146	Municipal Residential	Planned	Surface and Groundwater	1	0	Municipality of Thames Centre Municipality of Thames Centre
Comment:	<i>The proposed well is undergoing an Environmental Assessment (EA) in order to qualify for being a 'planned well'. It will be a part of the existing Dorchester well supply system. The EA is expected to be posted to the MOE EBR in September 2008.</i>						
Sebringville Well Supply	260003084	Municipal Residential	Existing	Groundwater	1	0	Ontario Clean Water Agency Township of Perth South
Comment:							
Shakespeare Well Supply	260002317	Municipal Residential	Existing	Groundwater	1	0	American Water Canada Corp. Township of Perth East
Comment:							
St. Marys Well Supply	220000521	Municipal Residential	Existing	Surface and Groundwater	3	0	Town of St. Marys Town of St. Marys
Comment:							
St. Pauls Well Supply	220003948	Municipal Residential	Existing	Groundwater	1	0	Township of Perth South Township of Perth South
Comment:							
Stratford Well Supply	220000530	Municipal Residential	Existing	Groundwater	11	0	City of Stratford City of Stratford
Comment:							
Tavistock Well Supply	220000647	Municipal Residential	Existing	Groundwater	3	0	County of Oxford County of Oxford
Comment:							
Thamesford WS	220000610	Municipal Residential	Existing	Surface and Groundwater	3	0	County of Oxford County of Oxford
Comment:							
Thorndale Well Supply	220006115	Municipal Residential	Existing	Groundwater	2	0	Municipality of Thames Centre Municipality of Thames Centre
Comment:							
Woodstock Well Supply	220000709	Municipal Residential	Existing	Surface and Groundwater	10	0	County of Oxford County of Oxford
Comment:							

Woodstock Well Supply - New Well	220000709	Municipal Residential	Planned	Groundwater	1	0	County of Oxford
<i>Comment:</i> Planned 'Bond Well' to be a part of the existing Woodstock Well Supply System.							County of Oxford
<i>Total Municipal Residential Sources in the Upper Thames River Source Protection Area(Wells, Intakes) :</i>					79	0	

Municipal and First Nations Drinking Water Supplies

Legend

- Thames-Sydenham and Region - Source Protection Region
- Thames and St. Clair Area - Divide
- County Boundaries

Supplied by Municipal Groundwater

- ▲ Groundwater

Supplied by Municipal Surface Water Intake

- Lambton Area Water Supply
- Petrolia Intake
- Wallaceburg Intake
- Chatham-Kent Intake
- Elgin Area Primary
- Lake Huron Primary
- Lake Huron Primary/Elgin Area Primary
- Stoney Point Intake
- West Elgin Primary
- Wheatley Intake

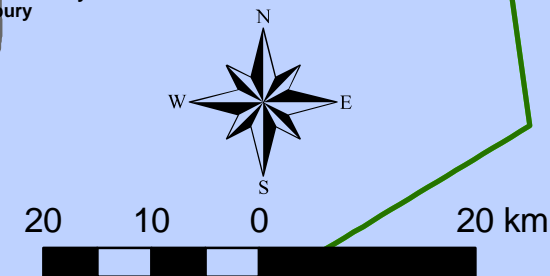
First Nations Water Supply

- ◆ Surface Water
- ▲ Groundwater
- ⊕ Surface Water (Lambton Area Water Supply)

Municipal Surface Water Intakes

- ▽ Municipal Surface Water Intakes

Information was collected by the Thames-Sydenham and Region Source Protection Region (SPR). The SPR is not responsible for any inaccuracies, errors or omissions of information displayed on this map. Map was created by Upper Thames River Conservation Authority, July 2008.



Legend

- County Boundaries
- Source Protection Region Boundary

5.1.1 Municipal Residential Systems with Sources in Other Source Protection Regions

Residents of the Thames-Sydenham and Region also depend on a number of other water intakes in the Great Lakes. These intakes are located in other Regions and are therefore identified in the list of items affecting other SPCs. The following list identifies the drinking water sources outside of the Region which municipalities in the Region rely on.

- Union Water Supply System (Essex Region SPC)
- Stoney Point Water Treatment Plant (Essex Region SPC)
- Elgin Area Water Supply System (Lake Erie SPC)
- Lake Huron Water Supply System (Ausable Bayfield-Maitland Valley SPC)

5.1.2 Planned Systems

The MOE has required that planned systems be identified separately in the Terms of Reference. Planned drinking water systems are defined in the Ontario Regulation 286/07 (Miscellaneous). A planned drinking water system, or a part of a drinking water system, that is to be established if:

- (a) approval to proceed with the establishment of the system or part has been given under Part II of the Environmental Assessment Act,
- (b) the establishment of the system or part has been identified as the preferred solution within a completed planning process conducted in accordance with an approved class environmental assessment under Part II.1 of the Environmental Assessment Act and no order has been issued under subsection 16 (1) of that Act, or
- (c) the system or part would serve a reserve as defined in the Indian Act (Canada). O. Reg. 286/07, s. 1.

There are a few planned systems or more specifically planned parts of existing systems that are included in the Terms of Reference. In each case the planned parts of systems are listed separately under the Municipal Drinking Water Systems list. Planned wells or intakes that will be a part of existing systems bear the same drinking water system number as the system they will be incorporated into. Tasks are identified in the Terms of Reference for technical work on planned parts of existing systems.

5.2

Other Systems

5.2.1 Systems Included by Municipality

The Clean Water Act allows municipalities with the responsibility for the provision of drinking water to include by municipal resolution any system other than a single residential system. The province is developing guidance on including other systems which may include items a municipality should consider when deciding if they wish to include a system. It has been suggested that municipalities hold off on adding non-municipal systems until such time as the responsibilities and benefits of such a decision are better defined by the province.

There are currently no non-municipal systems which have been included by municipal resolution.

5.2.2 Systems Included by MOE

The Clean Water Act allows for the Minister of the Environment to require that other drinking water systems be included in the Assessment Report and Source Protection Plan.

There are currently no systems which the Minister has required be included in the plan.

5.2.3 First Nations Systems

The Clean Water Act allows for band councils to request that the Minister of the Environment include their systems in the SP Plan.

Currently no First Nations in the Region have requested that their Drinking Water Systems be included.

5.2.4 Exempted Systems

The Clean Water Act (CWA) allows municipalities to exempt systems from the Source Protection planning process. These would generally be municipal residential drinking water systems (required to be included by default) which will no longer be needed when the Source Protection Plan is in place. A municipality may wish to exempt a system which they know will not be in use when the plan is completed. If however the source or system is still in use (has not had its permit or authorization cancelled) the municipality will be out of compliance with the CWA irrespective of the exemption included in the Terms of Reference by council resolution.

In some cases there are systems which were included in preliminary Assessment Report related technical work which have already been discontinued as municipal residential systems. These systems have not been included in the list of municipal systems above, nor do they need to be identified as exempted, as they are no longer considered municipal residential systems at the time of developing these Terms of Reference. There are also systems in the Region which municipalities are considering switching to water piped from other systems in the near future. Although the municipalities could exempt those systems, they have decided to continue to undertake the technical and Source Protection Plan work due to the uncertainty around when they will decommission the wells.

Also, within the Region are municipal wells being retained as backup sources of water. As these sources are part of the municipal residential systems they require the same protection under the Clean Water Act as all the other municipal residential systems in the Region.

There are currently no systems which have been exempted.

6 Schedule

Ontario Regulation 285/07 (Timing Regulation) specifies deadlines for submission of the Terms of Reference and completion of the Assessment Report and Source Protection Plan. The Thames-Sydenham and Region SPC requested from the Minister of Environment a two month extension to the deadlines for submission of the three Terms of Reference documents for the Region. The Minister granted the extension for the submission of the Terms of Reference. The extension does not affect the submission date for the Source Protection Plan. The following schedule summarizes the major deadlines which the SPC faces in completion of the Source Protection Plan.

Item	Description	Approximate Date
Appointment of the Source Protection Committee	<ul style="list-style-type: none"> • The SPAs have appointed all members of the committee with the exception of the First Nations members • Names of persons to be appointed have not been provided by the First Nations 	November 19, 2007
Terms of Reference (submission to SPA by SPC)	<ul style="list-style-type: none"> • 12 months after the appointment of the first chair of the Source Protection Committee • Extended by 2 months 	October 15, 2008
Terms of Reference (submission to Minister by SPA)	<ul style="list-style-type: none"> • 14 months after the appointment of the first chair of the Source Protection Committee • Extended by 2 months 	December 22, 2008
Assessment Report	<ul style="list-style-type: none"> • the first anniversary of the date that notice of the Minister of Environment's approval of the Terms of Reference is published 	January-March 2010
Source Protection Plan	<ul style="list-style-type: none"> • the fifth anniversary of the appointment of the first chair of the Source Protection Committee 	August 20, 2012

The Terms of Reference describes the scope of the project through tasks. Each task includes an estimated start and end date. Many of the start dates for work which is already underway are indicated as the start of the fiscal year in which the funding was approved by MOE.

The Terms of Reference must also indicate the date by which the Source Protection Plan will be submitted to the Minister of Environment. Although every reasonable effort will be made to complete the Source Protection Plan as early as reasonably possible, it is important that the SPC engage the stakeholders in the development of the plan. Therefore, as the requirements for the Source Protection Plan and the consultation requirements are yet unknown, the submission date for the Source Protection Plan stated in the Terms of Reference is the latest possible date.

7 Matters Affecting Other Source Protection Committees

The Terms of Reference Regulation (Ontario Regulation 287/07) requires that the Terms of Reference include a list of matters that affect other Source Protection Committees. The following list includes items which require discussion with each of our neighbouring Source Protection Committees. The list is sorted by the Source Protection Authority, whose Terms of Reference it will be included in, and then by neighbouring region or area. In many cases matters are relevant to more than one SPA in the Thames-Sydenham and Region as they affect municipalities or water sources that supply municipalities in more than one of the SPAs. Further, many matters affect more than one other SPC. As a result the items are included in the list for each of the SPCs which need to be consulted.

The attached list has been developed in discussion with staff in the neighbouring Source Protection Regions or Areas to allow similar items to be included in the Terms of Reference of the neighbouring region or area.

7.0 Matters Affecting Other Source Protection Committees

Lower Thames Valley Source Protection Area

<i>Source Protection Committee Affected</i>	<i>Description of Matter</i>
Ausable Bayfield-Maitland Valley SPC	The Lake Huron Primary Water Supply System (LHPWSS) services the City of London and parts of the Municipalities of Middlesex Centre and Strathroy-Caradoc in the Lower Thames Valley SPA of the Thames-Sydenham and Region SPR. The Water Treatment Plant is located north of the community of Grand Bend on Lake Huron, in the Ausable Bayfield-Maitland Valley Source Protection Region. Although the work will be undertaken by the Ausable Bayfield-Maitland Valley (ABMV) SPR, consultation with the Thames-Sydenham and Region SPR and the supplied municipalities within the Thames-Sydenham and Region SPR needs to be undertaken in developing the Assessment Report and Source Protection Plan as they relate to this supply.
Essex Region SPC	The Town of Lakeshore and the Municipality of Leamington, although primarily within the Essex Region Source Protection Area, have areas extending into the jurisdiction of the Thames-Sydenham and Region Source Protection Region. A coordinated approach to technical studies and source protection planning policies must be considered.
Essex Region SPC	The Stoney Point Water Treatment Plant is located in the Town of Lakeshore in the Essex Region SPA. It takes surface water from Lake St. Clair and serves the north-eastern portion of the Town of Lakeshore, including parts in the Lower Thames Valley SPA. Although the work will be undertaken by the Essex Region SPA, consultation with the Thames-Sydenham and Region SPR and the supplied municipalities within the Thames-Sydenham and Region SPR needs to be undertaken in developing the Assessment Report and Source Protection Plan as they relate to this supply.
Essex Region SPC	The Union Water Treatment Plant is located in the Town of Kingsville, west of Leamington in the Essex Region SPA. It takes surface water from Lake Erie and serves the Town of Leamington and parts of the Town of Lakeshore including parts in the Lower Thames Valley SPA. Although the work will be undertaken by the Essex Region SPA, consultation with the Thames-Sydenham and Region SPR and the supplied municipalities within the Thames-Sydenham and Region SPR needs to be undertaken in developing the Assessment Report and Source Protection Plan as they relate to this supply.
Essex Region SPC	Edge matching of map products, of the Assessment Report and SP Plan, such as Significant Groundwater Recharge Areas and Highly Vulnerable Aquifers need to be undertaken. Consultation on the methods employed and products produced will be necessary.
Essex Region SPC	The Minister may direct a Source Protection Authority to prepare and submit a report on any matter relating to the use of the Great Lakes as a source of drinking water or to assist another Source Protection Authority in preparing a report. In addition, the Minister may establish targets relating to the use of the Great Lakes as a source of drinking water for one or more source protection areas that contribute water to the Great Lakes. There will be a need to consult with the Essex Region SPA on Great Lakes issues.
Essex Region SPC	The Wheatley Water Treatment Plant (WTP) is situated in the Lower Thames Valley SPA of the Thames-Sydenham and Region Source Protection Region. This WTP is owned by The Municipality of Chatham-Kent and the Public Utilities Commission and serves parts of the Town of Lakeshore. However, it supplies water to parts of the Municipality of Leamington that lie in the Essex Region Source Protection Area and the IPZ extends into the Essex Region Source Protection Area. Work related to the Assessment Report and Source Protection Plan in the Wheatley IPZ will be undertaken through a collaborative approach involving both the TSR SPC and the ER SPC. It is understood that certain aspects of the work will be undertaken by ERCA who has the relevant data in the area.
Essex Region SPC	Water Budget work needs to consider groundwater flow into and out of each region. Consultation with neighbouring regions will be required to ensure that groundwater flow between regions is consistently represented in the water budget products of each region.
Essex Region SPC	Work related to the IPZ3 pertaining to Lake St. Clair intakes of Stoney Point, Belle river and possibly the Windsor Water treatment plant (in ER SPA) be undertaken through a collaborative approach between the TSR SPC and the ER SPC. It is understood that some aspects of the work within the TSR will be undertaken by the LTVCA, SCRCA and UTRCA who have the relevant data in the area. This work is allowed for in the task 'Delineating and applying vulnerability scores to WHPAs or IPZs' in the UTR SPA ToR, led by UTRCA (Task No. 55 in the Guide).

Lake Erie SPC	The Elgin Area Primary Water Supply System (EAPWSS) services communities in the Lower Thames Valley SPA of the Thames-Sydenham and Region SPR including the City of London, Municipality of Dutton/Dunwich and Township of Southwold. The Water Treatment Plant is located east of the village of Port Stanley in Central Elgin on Lake Erie, in the Lake Erie Source Protection Region. Although the work will be undertaken by the Lake Erie SP Region, consultation with the Thames-Sydenham and Region SPR and the supplied municipalities within the Thames-Sydenham and Region SPR needs to be undertaken in developing the Assessment Report and Source Protection Plan as they relate to this supply.
Lake Erie SPC	The City of London, City of St. Thomas, Township of Southwold (in Elgin County) and Municipality of Middlesex Centre (in Middlesex County) straddle the watershed divide between the Lower Thames Valley SPA of the Thames-Sydenham and Region SPR and the Lake Erie SPR. A coordinated approach to technical studies and source protection planning policies must be considered. Consultation on consistent policies within these shared municipalities needs to be considered.
Lake Erie SPC	The Minister may direct a Source Protection Authority to prepare and submit a report on any matter relating to the use of the Great Lakes as a source of drinking water or to assist another Source Protection Authority in preparing a report. In addition, the Minister may establish targets relating to the use of the Great Lakes as a source of drinking water for one or more source protection areas that contribute water to the Great Lakes. There will be a need to consult with the Lake Erie SPR on Great Lakes issues.
Lake Erie SPC	Water Budget work needs to consider groundwater flow into and out of each region. Consultation with neighbouring regions will be required to ensure that groundwater flow between regions is consistently represented in the water budget products of each region.
Lake Erie SPC	Edge matching of map products, of the Assessment Report and SP Plan, such as Significant Groundwater Recharge Areas and Highly Vulnerable Aquifers need to be undertaken. Consultation on the methods employed and products produced will be necessary.

St. Clair Region Source Protection Area

<i>Source Protection Committee Affected</i>	<i>Description of Matter</i>
Ausable Bayfield-Maitland Valley SPC	<p>The Minister may direct a Source Protection Authority to prepare and submit a report on any matter relating to the use of the Great Lakes as a source of drinking water or to assist another Source Protection Authority in preparing a report. In addition, the Minister may establish targets relating to the use of the Great Lakes as a source of drinking water for one or more source protection areas that contribute water to the Great Lakes.</p> <p>There will be a need to consult with the ABMV SPR on Great Lakes issues.</p>
Ausable Bayfield-Maitland Valley SPC	<p>Edge matching of map products, of the Assessment Report and SP Plan, such as Significant Groundwater Recharge Areas and Highly Vulnerable Aquifers need to be undertaken. Consultation on the methods employed and products produced will be necessary.</p>
Ausable Bayfield-Maitland Valley SPC	<p>The Lake Huron Primary Water Supply System (LHPWSS) services parts of the Municipalities of Middlesex Centre, Lucan-Biddulph and Strathroy-Caradoc in the St Clair Region SPA of the Thames-Sydenham and Region SPR. The Water Treatment Plant is located north of the community of Grand Bend on Lake Huron, in the Ausable Bayfield-Maitland Valley Source Protection Region. Although the work will be undertaken by the Ausable Bayfield-Maitland Valley (ABMV) SPR, consultation with the Thames-Sydenham and Region SPR and the supplied municipalities within the Thames-Sydenham and Region SPR needs to be undertaken in developing the Assessment Report and Source Protection Plan as they relate to this supply.</p>
Ausable Bayfield-Maitland Valley SPC	<p>The two bands Kettle and Stony Point form one First Nation, the Kettle and Stony Point First Nation. The reserve for Stony Point (in transition from former Camp Ipperwash) is within the the ABMV SPR, but the reserve for Kettle Point is about 1 km outside the ABMV SPR in the Thames, Sydenham & Region Source Protection Committee. Given the jurisdictional complexities outside of this process, they may wish to work with one SPR as the lead. The anticipated resolution from Band Council should indicate which SPR they would like to work with.</p>
Ausable Bayfield-Maitland Valley SPC	<p>Water Budget work needs to consider groundwater flow into and out of each region. Consultation with neighbouring regions will be required to ensure that groundwater flow between regions is consistently represented in the water budget products of each region.</p>
Ausable Bayfield-Maitland Valley SPC	<p>A number of municipalities are shared with the Ausable Bayfield-Maitland Valley Source Protection Region: the Township of Adelaide Metcalfe, the Municipality of Middlesex Centre, the Township of Warwick and the Municipality of Lambton Shores. A coordinated approach to technical studies and source protection planning policies must be considered. Consultation on consistent policies within these shared municipalities needs to be considered.</p>

Upper Thames River Source Protection Area

<i>Source Protection Committee Affected</i>	<i>Description of Matter</i>
Ausable Bayfield-Maitland Valley SPC	The Minister may direct a Source Protection Authority to prepare and submit a report on any matter relating to the use of the Great Lakes as a source of drinking water or to assist another Source Protection Authority in preparing a report. In addition, the Minister may establish targets relating to the use of the Great Lakes as a source of drinking water for one or more source protection areas that contribute water to the Great Lakes. There will be a need to consult with the Ausable Bayfield-Maitland Valley (ABMV) SPR on Great Lakes issues.
Ausable Bayfield-Maitland Valley SPC	Water Budget work needs to consider groundwater flow into and out of each region. Consultation with neighbouring regions will be required to ensure that groundwater flow between regions is consistently represented in the water budget products of each region.
Ausable Bayfield-Maitland Valley SPC	A number of municipalities are shared with the Ausable Bayfield-Maitland Valley Source Protection Region: the Municipality of West Perth, the Township of Perth South, the Township of Lucan Biddulph, the Municipality of Middlesex Centre, the Municipality of North Perth, Municipality of South Huron, and Municipality of Huron East. A coordinated approach to the development of WHPA and IPZ should be undertaken. Consultation on consistent policies within these shared municipalities needs to be considered.
Ausable Bayfield-Maitland Valley SPC	The Lake Huron Primary Water Supply System (LHPWSS) services the City of London and parts of the Municipalities of Middlesex Centre, Lucan-Biddulph and Strathroy-Caradoc in the Upper Thames River SPA of the Thames-Sydenham and Region SPR. The Water Treatment Plant is located north of the community of Grand Bend on Lake Huron, in the Ausable Bayfield-Maitland Valley Source Protection Region. Although the work will be undertaken by the Ausable Bayfield-Maitland Valley (ABMV) SPR consultation with the Thames-Sydenham and Region SPR and the supplied municipalities within the Thames-Sydenham and Region SPR needs to be undertaken in developing the Assessment Report and Source Protection Plan as they relate to this supply.
Ausable Bayfield-Maitland Valley SPC	Edge matching of map products, of the Assessment Report and SP Plan, such as Significant Groundwater Recharge Areas and Highly Vulnerable Aquifers need to be undertaken. Consultation on the methods employed and products produced will be necessary.
Lake Erie SPC	Water Budget work needs to consider groundwater flow into and out of each region. Consultation with neighbouring regions will be required to ensure that groundwater flow between regions is consistently represented in the water budget products of each region.
Lake Erie SPC	A number of Well Head Protection Areas originate in the Lake Erie SPR and extend into the Thames-Sydenham and Region SPR including wells systems of Norwich, Dereham Centre and Belmont. Consultation with the Thames-Sydenham and Region SPC and affected municipalities within the region will be necessary.
Lake Erie SPC	There are many municipalities in Perth, Oxford, Middlesex and Elgin Counties that straddle the watershed divide between the Upper Thames River SPA of the Thames-Sydenham and Region SPR and as the Lake Erie SPR. A coordinated approach to technical studies and source protection planning policies must be considered. Consultation on consistent policies within these shared municipalities needs to be considered.
Lake Erie SPC	The Elgin Area Primary Water Supply System (EAPWSS) services communities in the Upper Thames River SPA of the Thames-Sydenham and Region SPR including the City of London. The Water Treatment Plant is located east of the village of Port Stanley in Central Elgin on Lake Erie, in the Lake Erie Source Protection Region. Although the work will be undertaken by the Lake Erie SP Region, consultation with the Thames-Sydenham and Region SPR and the supplied municipalities within the Thames-Sydenham and Region SPR needs to be undertaken in developing the Assessment Report and Source Protection Plan as they relate to this supply.
Lake Erie SPC	Edge matching of map products, of the Assessment Report and SP Plan, such as Significant Groundwater Recharge Areas and Highly Vulnerable Aquifers need to be undertaken. Consultation on the methods employed and products produced will be necessary.
Lake Erie SPC	Princeton water is currently supplied from the City of Woodstock in Oxford County. Consultation on policies developed related to these systems is required.

8 **Tasks**

The Terms of Reference describe the scope of the work for the SPC. It lists the tasks to complete the Assessment Report and the Source Protection Plan. These tasks include a description of the task, a comment describing the specific task, the geographic scope or drinking water system which the task is related to, the estimated cost of the task and the estimated start and end date of the task.

8.1 *Tasks available for use*

In describing the work the SPC is to use a list of standard tasks which are included in the Ministry of Environment Terms of Reference database. This list identifies tasks for the completion of the Assessment Report and the Source Protection Plan. The list is included in Appendix B with the general description included in the Terms of Reference database and sub-tasks which are added by the SPC to better describe and track the status of the larger tasks. Included in the list of tasks are two “Other” tasks which allow the SPC to include tasks which do not fit within one of the pre-defined tasks.

8.2 *Tasks included in the Terms of Reference*

The following report is generated from the MOE Terms of Reference database. It includes tasks from each of the 3 Terms of Reference documents for the Thames-Sydenham and Region. The report organizes the tasks by SPA as separate Terms of Reference are required for each SPA. Therefore there are similar items which are included in each of the SPAs. There are also tasks which are included multiple times as in some cases it was necessary to update past work as a result of revisions to MOE technical guidance and the Director’s Rules once they are in place.

Some of the tasks are associated with many systems in a SPA, in which case the Water System Name indicates “multiple systems or watershed based task”, but the Geographic Description field gives a list of the systems included in a specific task. Where work was undertaken on a single system it is identified in the Water System Name field. Many tasks which have all 3 SPAs listed in the Geographic Description are watershed based (example: water budget work).

Although the report is derived from the same database as the Terms of Reference Documents, it is possible that it has been inadvertently modified through generation of the reports. As such the Terms of Reference Documents, attached as Appendices C, D and E, which are required by the MOE, shall be considered the official copy of the Terms of Reference.

8.2 Tasks Included in the Terms of Reference

Tasks in the

Lower Thames Valley Source Protection Area

Task Name: Delineating and applying vulnerability scores to HVAs

Task#: 1

TaskID: 584

Lead Upper Thames River Conservation Authority

Geographic Area: Thames-Sydenham and Region Source Protection Region including the LTVSPA, SCRSPA and the UTRSPA

Water System Name: Multiple systems or watershed based task

01-May-08	to	31-Dec-08
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Year	Est'd Cost
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2008/2009	NA
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Comment:

Intrinsic Susceptibility Index scores have been completed through past groundwater studies across the region. The mapping products from these separate county based studies have been compiled into a single mapping product, however there are issues with conflicting scoring at areas of overlap. This was to be expected as each study relied on the interpretation of data from within their study area. Near the edges of the study area different interpolation and extrapolations results should be expected based on the use of different data points near the boundaries. The work proposed under this task includes the mapping of ISI, based on the same methodologies employed in the groundwater studies, but utilizing a single data set across the entire region. Based on this scoring HVA will be delineated and vulnerability will be scored for these areas.

Total :

Costs for this task have been included in the Upper Thames Region SPA Terms of Reference (since it is the lead on this study) and also include costs for the St. Clair Region SPA. Total costs are estimated to be \$29,000.

Task Name: Identifying issues, inventorying threats and assessing hazards in HVAs

Task#: 2

TaskID: 585

Lead Upper Thames River Conservation Authority

Geographic Area: Thames-Sydenham and Region Source Protection Region including the LTVSPA, SCRSPA and the UTRSPA

Water System Name: Multiple systems or watershed based task

01-Oct-08	to	01-Jun-09
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Year	Est'd Cost
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2008/2009	NA
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Comment:

Once delineated these areas will be assessed for the general nature of the types of threats contained in the areas. All threats which could result in a significant risk will be inventoried. Current guidance suggests a vulnerability score of 6 for these areas. As such it is not anticipated that significant risks will be identified in these areas. General types of land use in these areas will be characterized to the extent necessary to develop appropriate policies for these types of threats in HVAs.

Total :

Issues in these areas will be identified through the analysis of monitoring wells and municipal wells in the general areas as well as through discussions with the local health units who may be able to rely on interpretation of private well information.

Issues may be considered in determining whether certain types of threats need to be inventoried in the area, however no allowance has been made in this task for a detailed inventory of such threats.

Costs for this task have been included in the Upper Thames Region SPA Terms of Reference (since it is the lead on this study) and also include costs for the St. Clair Region SPA. Total costs are estimated to be \$40,000.

Task Name: Assessing risks in HVAs
Task#: 3 *TaskID:* 586
Geographic Area: Thames-Sydenham and Region Source Protection Region including the LTVSPA, SCRSPA and the UTRSPA
Water System Name: Multiple systems or watershed based task
Comment: Based on vulnerability scores and general threats characterization in the HVAs, possible risk scores will be assessed.
 Costs for this task have been included in the Upper Thames Region SPA Terms of Reference (since it is the lead on this study) and also include costs for the St. Clair Region SPA. Total costs are estimated to be \$42,000.

Lead Upper Thames River Conservation Authority

01-Apr-09	to	01-Aug-09
<i>Year</i>		<i>Est'd Cost</i>
2009/2010		NA
Total :		

Task Name: Applying vulnerability scores to SGRAs
Task#: 4 *TaskID:* 587
Geographic Area: Thames-Sydenham and Region Source Protection Region including the LTVSPA, SCRSPA and the UTRSPA
Water System Name: Multiple systems or watershed based task
Comment: SGRAs will be defined through the Water Budget work. The vulnerability of these areas will be assessed based on Director's Rules and guidance. ISI scores are available for WHPAs as well as the regional ISI scores developed through the HVA delineation project. These results will need to be compared and the most appropriate scoring applied to the SGRA. It will be important that the vulnerability score associated with these areas be consistent with those parts of the WHPA which are part of the SGRA.
 Costs for this task have been included in the Upper Thames Region SPA Terms of Reference (since it is the lead on this study) and also include costs for the St. Clair Region SPA. Total costs are estimated to be \$15,000.

Lead Upper Thames River Conservation Authority

01-Oct-08	to	01-Dec-08
<i>Year</i>		<i>Est'd Cost</i>
2008/2009		NA
Total :		

Task Name: Identifying issues, inventorying threats and assessing hazards in SGRAs
Task#: 5 *TaskID:* 588
Geographic Area: Thames-Sydenham and Region Source Protection Region including the LTVSPA, SCRSPA and the UTRSPA
Water System Name: Multiple systems or watershed based task
Comment: Once delineated these areas will be assessed for the general nature of the types of threats contained in the areas. All threats which could result in a significant risk will be inventoried. Current guidance suggests a vulnerability score of 6 for these areas. As such it is not anticipated that significant risks will be identified in these areas. General types of land use in these areas will be characterized to the extent necessary to develop appropriate policies for these types of threats in SGRAs.
 Issues in these areas will be identified through the analysis of monitoring wells and municipal wells in the general areas as well as through discussions with the local health units who may be able to rely on interpretation of private well information.
 Issues may be considered in determining whether certain types of threats need to be inventoried in the area, however no allowance has been made in this task for a detailed inventory of such threats.
 Costs for this task have been included in the Upper Thames Region SPA Terms of Reference (since it is the lead on this study) and also include costs for the St. Clair Region SPA. Total costs are estimated to be \$50,000.

Lead Upper Thames River Conservation Authority

01-Oct-08	to	01-Jun-09
<i>Year</i>		<i>Est'd Cost</i>
2008/2009		NA
2009/2010		NA
Total :		

Task Name: Assessing risk in SGRAs
Task#: 6 *TaskID:* 589
Geographic Area: Thames-Sydenham and Region Source Protection Region including the LTVSPA, SCRSPA and the UTRSPA
Water System Name: Multiple systems or watershed based task
Comment: Costs for this task have been included in the Upper Thames Region SPA Terms of Reference (since it is the lead on this study) and also include costs for the St. Clair Region SPA. Total costs are estimated to be \$42,000.

Lead Upper Thames River Conservation Authority		
01-Apr-09	<i>to</i>	01-Aug-09
Year	Est'd Cost	
2009/2010	NA	
Total :		

Task Name: Delineating and applying vulnerability scores to WHPAs or IPZs
Task#: 7 *TaskID:* 541
Geographic Area: Intakes at Wheatley, Erie Beach (which supplies 2 systems - South Chatham-Kent and the Chatham Water Treatment Plants) in the LTVSPA and Wallaceburg in the SCRSPA as well as intakes in the Essex Region SPA
Water System Name: Multiple systems or watershed based task
Comment: The Essex Region Conservation Authority (ERCA) led technical study includes two Lower Thames Valley (LTV) SPA surface water intakes at Wheatley and Erie Beach, and one St. Clair Region SPA intake at Wallaceburg. Stantec Consultants are conducting the study. In the LTVSPA, the intakes feed raw water to the (1) Wheatley water treatment plant (WTP), and (2) Chatham and South Chatham-Kent WTPs (shared Erie Beach intake).

Proposed costs are estimates of the updates and further work required to ensure the technical studies meet the Director's Technical Rules posted on the Ministry of Environment Environmental Bill of Rights Registry in June 2008. The scope of this task may change as a result of changes to the rules from those posted.

Lead Essex Region Conservation Authority		
01-Apr-05	<i>to</i>	31-May-09
Year	Est'd Cost	
2005/2006	\$180,000	
2006/2007	\$196,000	
2007/2008		
2008/2009	\$106,500	
2009/2010		
Total :		\$482,500

Task Name: Delineating and applying vulnerability scores to WHPAs or IPZs
Task#: 8 *TaskID:* 524
Geographic Area: Ridgetown and Highgate well supply systems in the Lower Thames Valley SPA
Water System Name: Multiple systems or watershed based task
Comment: Chatham-Kent Groundwater Technical Study for the Ridgetown and Highgate well supply systems in the Lower Thames Valley SPA. Dillon Consulting is conducting the study.
Costs shown are from two sources: (1) MOE \$26,966.67 and (2) Chatham-Kent Public Utilities Commission \$8,906.00. The PUC funding is additional and meant to offset the MOE funding shortfall for numerical modeling of the Ridgetown well supply system.

Proposed costs are estimates of the updates and further work required to ensure the technical studies meet the Director's Technical Rules posted on the Ministry of Environment Environmental Bill of Rights Registry in June 2008. The scope of this task may change as a result of changes to the rules from those posted.

Lead Municipality of Chatham-Kent		
01-Apr-06	<i>to</i>	31-Mar-09
Year	Est'd Cost	
2006/2007	\$35,873	
2007/2008		
2008/2009	\$10,000	
Total :		\$45,873

Task Name: Delineating and applying vulnerability scores to WHPAs or IPZs
Task#: 9 *TaskID:* 624
Geographic Area: The intake studied is the Lake Erie raw water intake to the West Elgin Water Treatment Plant at West Lorne
Water System Name: West Elgin Water Treatment Plant
Comment: Municipality of West Elgin Surface Water Technical study is led by the Municipality of West Elgin and conducted by Stantec Consulting. The intake studied is the Lake Erie raw water intake to the West Elgin Water Treatment Plant at West Lorne. Draft report was completed in March 2008.

Proposed costs are estimates of the updates required to ensure the technical studies meet the Director's Technical Rules posted on the Ministry of Environment Environmental Bill of Rights Registry in June 2008. The scope of this task may change as a result of changes to the rules from those posted.

Lead Municipality of West Elgin		
01-Apr-05	to	31-Oct-09
Year	Est'd Cost	
2005/2006	\$117,000	
2006/2007		
2007/2008		
2008/2009	\$38,500	
2009/2010		
Total :	\$155,500	

Task Name: Delineating and applying vulnerability scores to WHPAs or IPZs
Task#: 10 *TaskID:* 634
Geographic Area: Wallaceburg intake in the St. Clair Region SPA as well as intakes on Lake St. Clair within Essex Region SPA
Water System Name: Multiple systems or watershed based task
Comment: It is anticipated that the Director's Rules will require the delineation, vulnerability assessment and Risk Assessment of IPZ3 (or other methodologies for assessing risks resulting from issues or concerns outside of IPZ1 &2) for intakes on Lake St Clair and the Wallaceburg intake.

Delineation and applying vulnerability scores for IPZ3 related to the Lake St Clair and Wallaceburg intakes will be completed according to the requirements of the Director's Rules. The MISED models developed through the past work will be used to identify areas, outside of the original model scope (developed to delineate IPZ2), which can contribute risks to the intakes. The models will be combined and improved to include discharges from the major rivers which may contribute risks to the intakes. Watercourses available in Conservation Authority and provincial data sets will be utilized to delineate the IPZ3 within the contributing watersheds. The modelling will be used as an indicator of areas more vulnerable (more likely to contribute risks) than others within the delineated IPZ3 and vulnerability scores will be assigned accordingly.

Costs for this task have been included in the Upper Thames Region SPA Terms of Reference (since it is the lead on this study) and also include costs for the St. Clair Region SPA. Total costs are estimated to be \$95,000.

Lead Upper Thames River Conservation Authority		
01-Oct-08	to	01-Jun-09
Year	Est'd Cost	
2008/2009	NA	
2009/2010	NA	
Total :		

Task Name: Identifying issues, inventorying threats and assessing hazards in WHPAs or IPZs
Task#: 11 *TaskID:* 542
Geographic Area: Intakes at Wheatley, Erie Beach (which supplies 2 systems - South Chatham-Kent and the Chatham Water Treatment Plants) in the LTVSPA and Wallaceburg in the SCRSPA as well as intakes in the Essex Region SPA
Water System Name: Multiple systems or watershed based task
Comment: The Essex Region Conservation Authority (ERCA) led technical study includes two Lower Thames Valley (LTV) SPA surface water intakes at Wheatley and Erie Beach, and one St. Clair Region SPA intake at Wallaceburg. Stantec Consultants are conducting the study. In the LTVSPA, the intakes feed raw water to the (1) Wheatley water treatment plant (WTP), and (2) Chatham and South Chatham-Kent WTPs (shared Erie Beach intake).

Proposed costs are estimates of the updates and further work required to ensure the technical studies meet the Director's Technical Rules posted on the Ministry of Environment Environmental Bill of Rights Registry in June 2008. The scope of this task may change as a result of changes to the rules from those posted.

Lead Essex Region Conservation Authority	
01-Apr-05	to
30-Jun-09	
Year	Est'd Cost
2005/2006	\$3,000
2006/2007	\$140,000
2007/2008	
2008/2009	\$51,000
2009/2010	
Total :	\$194,000

Task Name: Identifying issues, inventorying threats and assessing hazards in WHPAs or IPZs
Task#: 12 *TaskID:* 525
Geographic Area: Ridgetown and Highgate well supply systems in the Lower Thames Valley SPA
Water System Name: Multiple systems or watershed based task
Comment: Chatham-Kent Groundwater Technical Study for the Ridgetown and Highgate well supply systems in the Lower Thames Valley SPA. Dillon Consulting is conducting the study.

Proposed costs are estimates of the updates and further work required to ensure the technical studies meet the Director's Technical Rules posted on the Ministry of Environment Environmental Bill of Rights Registry in June 2008. The scope of this task may change as a result of changes to the rules from those posted.

Lead Municipality of Chatham-Kent	
01-Apr-06	to
31-Mar-09	
Year	Est'd Cost
2006/2007	\$70,067
2007/2008	
2008/2009	\$4,000
Total :	\$74,067

Task Name: Identifying issues, inventorying threats and assessing hazards in WHPAs or IPZs

Task#: 13

TaskID: 527

Lead Municipality of West Elgin

01-Apr-06 to 30-Jun-09

Geographic Area: West Elgin Water Treatment Plant at West Lorne in the Lower Thames Valley SPA

Water System Name: West Elgin Water Treatment Plant

Comment: Municipality of West Elgin Surface Water Technical study is lead by the Municipality of West Elgin and conducted by Stantec Consulting. The intake studied is the Lake Erie raw water intake to the West Elgin Water Treatment Plant at West Lorne. Work is yet to be completed.

Proposed costs are estimates of the updates required to ensure the technical studies meet the Director's Technical Rules posted on the Ministry of Environment Environmental Bill of Rights Registry in June 2008. The scope of this task may change as a result of changes to the rules from those posted.

<i>Year</i>	<i>Est'd Cost</i>
2006/2007	\$46,280
2007/2008	
2008/2009	\$20,000
2009/2010	
Total :	\$66,280

Task Name: Assess risk in WHPAs or IPZs

Task#: 14

TaskID: 543

Lead Essex Region Conservation Authority

01-Apr-06 to 31-Oct-09

Geographic Area: Intakes at Wheatley, Erie Beach (which supplies 2 systems - South Chatham-Kent and the Chatham Water Treatment Plants) in the LTVSPA and Wallaceburg in the SCRSPA as well as intakes in the Essex Region SPA

Water System Name: Multiple systems or watershed based task

Comment: The Essex Region Conservation Authority (ERCA) led technical study includes two Lower Thames Valley (LTV) SPA surface water intakes at Wheatley and Erie Beach, and one St. Clair Region SPA intake at Wallaceburg. Stantec Consultants are conducting the study. In the LTVSPA, the intakes feed raw water to the (1) Wheatley water treatment plant (WTP), and (2) Chatham and South Chatham-Kent WTPs (shared Erie Beach intake).

<i>Year</i>	<i>Est'd Cost</i>
2006/2007	\$35,000
2007/2008	
2008/2009	\$55,500
2009/2010	
Total :	\$90,500

Task Name: Assess risk in WHPAs or IPZs
Task#: 15 *TaskID:* 526
Geographic Area: Ridgetown and Highgate well supply systems in the Lower Thames Valley SPA
Water System Name: Multiple systems or watershed based task
Comment: Chatham-Kent Groundwater Technical Study for the Ridgetown and Highgate well supply systems in the Lower Thames Valley SPA. Dillon Consulting is conducting the study.
 The 2008-2009 cost estimates are for individual contact with landowners where risks could be significant, and updating risk assessment based on survey results.

<i>Lead</i> Municipality of Chatham-Kent	
01-Apr-06	<i>to</i>
30-Jun-09	
<i>Year</i>	<i>Est'd Cost</i>
2006/2007	\$12,967
2007/2008	
2008/2009	\$77,000
2009/2010	
<i>Total :</i>	\$89,967

Task Name: Assess risk in WHPAs or IPZs
Task#: 16 *TaskID:* 528
Geographic Area: West Elgin Water Treatment Plant at West Lorne in the Lower Thames Valley SPA
Water System Name: West Elgin Water Treatment Plant
Comment: Municipality of West Elgin Surface Water Technical study is lead by the Municipality of West Elgin and conducted by Stantec Consulting. The intake studied is the Lake Erie raw water intake to the West Elgin Water Treatment Plant at West Lorne. Work is yet to be completed.
 Proposed costs are estimates of the updates and further work required to ensure the technical studies meet the Director's Technical Rules posted on the Ministry of Environment Environmental Bill of Rights Registry in June 2008. The scope of this task may change as a result of changes to the rules from those posted.

<i>Lead</i> Municipality of West Elgin	
01-Apr-06	<i>to</i>
30-Jun-09	
<i>Year</i>	<i>Est'd Cost</i>
2006/2007	\$17,400
2007/2008	
2008/2009	\$21,500
2009/2010	
<i>Total :</i>	\$38,900

Task Name: Other Assessment Report Preparation Task: GUDI IPZ Study - Preliminary Screening, Vulnerability Assessment, Threats Inventory and Risk Assessment

Task#: 17 *TaskID:* 563

Geographic Area: GUDI wells of these drinking water systems: City of London back up (Fanshawe wells), Dorchester, Kilworth Heights and Highgate systems

Water System Name: Multiple systems or watershed based task

Comment: MOE proposed rules related to Groundwater Under the Direct Influence of surface water (GUDI)- Intake Protection Zone (IPZ) studies was posted in June 2008. It is anticipated that the rules will require that IPZ type vulnerable zones will be required for GUDI wells. The preliminary screening of the systems will compile available information, delineate approximate IPZ3 based on that available information and assess the types and magnitude of potential treats in that area. Based on the preliminary screening the zones will be delineated, vulnerability assessed, threats inventoried and risks assessed.

MOE proposed rules related to Groundwater Under the Direct Influence of surface water (GUDI)- Intake Protection Zone (IPZ) studies was posted in June 2008. It is anticipated that the rules will require that IPZ type vulnerable zones will be required for GUDI wells. Costs related to this task is included within 2 similar tasks in the UTRSPA (\$25000 for preliminary screening and \$110,000 for the vulnerability, threats and risk assessment).

Lead Upper Thames River Conservation Authority		
01-Apr-08	to	31-Mar-09
Year	Est'd Cost	
2008/2009	NA	
Total :		

Task Name: Policy development for Great Lakes elements (where required/permmissible in Act & Regs)

Task#: 18 *TaskID:* 595

Geographic Area: All three Source Protection Areas (SPAs) of the Thames-Sydenham and Region Source Protection Region: Upper Thames River SPA, Lower Thames Valley SPA and St. Clair Region SPA

Water System Name: Multiple systems or watershed based task

Comment: The Clean Water Act includes the ability of the Minister of the Environment to set Great Lakes targets for watershed. The Source Protection Plan must assists in achieving those Great Lakes targets. Further guidance from the MOE is expected. It is also required that the Source Protection Plan consider Great Lakes Agreements. It is assumed that consultation with other regions draining into each of the Great Lakes that the watershed of the TSR drain into will be required. As well, consultation will be required with Provincial and Federal organizations with responsibilities under the Great Lakes Agreements.

Although the scope of the work associated with this task is largely unknown, an allowance for work associated with this task, for both staff and SPC, are included with the task related to coordinating and supporting projects associated with the Source Protection Plan. The estimated cost included in this tasks and a similar task in the SCRSPA include the additional cost of consultation.

Lead Source Protection Committee		
01-Jan-09	to	20-Aug-12
Year	Est'd Cost	
2008/2009	\$25,000	
2009/2010	\$10,000	
2010/2011	\$10,000	
2011/2012	\$10,000	
2012/2013	\$10,000	
Total :		\$65,000

Lower Thames Valley Source Protection Area

Total for SPA: \$1,302,586

Tasks in the

St. Clair Region Source Protection Area

Task Name: Delineating and applying vulnerability scores to HVAs
Task#: 19 *TaskID:* 637
Geographic Area: Thames-Sydenham and Region Source Protection Region including the LTVSPA, SCRSPA and the UTRSPA.
Water System Name: Multiple systems or watershed based task
Comment: Intrinsic Susceptibility Index scores have been completed through past groundwater studies across the region. The mapping products from these separate county based studies have been compiled into a single mapping product, however there are issues with conflicting scoring at areas of overlap. This was to be expected as each study relied on the interpretation of data from within their study area. Near the edges of the study area different interpolation and extrapolations results should be expected based on the use of different data points near the boundaries. The work proposed under this task includes the mapping of ISI, based on the same methodologies employed in the groundwater studies, but utilizing a single data set across the entire region. Based on this scoring HVA will be delineated and vulnerability will be scored for these areas.

Costs for this task have been included in the Upper Thames Region SPA Terms of Reference (since it is the lead on this study) and also include costs for the Lower Thames Valley SPA. Total costs are estimated to be \$29,000.

Lead Upper Thames River Conservation Authority

01-May-08	to	31-Dec-08
<i>Year</i>		<i>Est'd Cost</i>
2008/2009		NA
Total :		

Task Name: Identifying issues, inventorying threats and assessing hazards in HVAs
Task#: 20 *TaskID:* 638
Geographic Area: Thames-Sydenham and Region Source Protection Region including the LTVSPA, SCRSPA and the UTRSPA.
Water System Name: Multiple systems or watershed based task
Comment: Once delineated these areas will be assessed for the general nature of the types of threats contained in the areas. All threats which could result in a significant risk will be inventoried. Current guidance suggests a vulnerability score of 6 for these areas. As such it is not anticipated that significant risks will be identified in these areas. General types of land use in these areas will be characterized to the extent necessary to develop appropriate policies for these types of threats in HVAs.

Issues in these areas will be identified through the analysis of monitoring wells and municipal wells in the general areas as well as through discussions with the local health units who may be able to rely on interpretation of private well information.

Issues may be considered in determining whether certain types of threats need to be inventoried in the area, however no allowance has been made in this task for a detailed inventory of such threats.

Costs for this task have been included in the Upper Thames Region SPA Terms of Reference (since it is the lead on this study) and also include costs for the Lower Thames Valley SPA. Total costs are estimated to be \$40,000.

Lead Upper Thames River Conservation Authority

01-Oct-08	to	01-Jun-09
<i>Year</i>		<i>Est'd Cost</i>
2008/2009		NA
2009/2010		
Total :		

Task Name: Assessing risks in HVAs
Task#: 21 *TaskID:* 639
Geographic Area: Thames-Sydenham and Region Source Protection Region including the LTVSPA, SCRSPA and the UTRSPA.
Water System Name: Multiple systems or watershed based task
Comment: Based on vulnerability scores and general threats characterization in the HVAs, possible risk scores will be assessed.
 Costs for this task have been included in the Upper Thames Region SPA Terms of Reference (since it is the lead on this study) and also include costs for the Lower Thames Valley SPA. Total costs are estimated to be \$42,000.

Lead Upper Thames River Conservation Authority

01-Apr-09	to	01-Aug-09
<i>Year</i>	<i>Est'd Cost</i>	
2009/2010	NA	
Total :		

Task Name: Applying vulnerability scores to SGRAs
Task#: 22 *TaskID:* 646
Geographic Area: Thames-Sydenham and Region Source Protection Region including the LTVSPA, SCRSPA and the UTRSPA
Water System Name: Multiple systems or watershed based task
Comment: SGRAs will be defined through the Water Budget work. The vulnerability of these areas will be assessed based on Director's Rules and guidance. ISI scores are available for WHPAs as well as the regional ISI scores developed through the HVA delineation project. These results will need to be compared and the most appropriate scoring applied to the SGRA. It will be important that the vulnerability score associated with these areas be consistent with those parts of the WHPA which are part of the SGRA.
 Costs for this task have been included in the Upper Thames Region SPA Terms of Reference (since it is the lead on this study) and also include costs for the Lower Thames Valley SPA. Total costs are estimated to be \$15,000.

Lead Upper Thames River Conservation Authority

01-Oct-08	to	01-Dec-08
<i>Year</i>	<i>Est'd Cost</i>	
2008/2009	NA	
Total :		

Task Name: Identifying issues, inventorying threats and assessing hazards in SGRAs
Task#: 23 *TaskID:* 647
Geographic Area: Thames-Sydenham and Region Source Protection Region including the LTVSPA, SCRSPA and the UTRSPA
Water System Name: Multiple systems or watershed based task
Comment: Once delineated these areas will be assessed for the general nature of the types of threats contained in the areas. All threats which could result in a significant risk will be inventoried. Current guidance suggests a vulnerability score of 6 for these areas. As such it is not anticipated that significant risks will be identified in these areas. General types of land use in these areas will be characterized to the extent necessary to develop appropriate policies for these types of threats in SGRAs.
 Issues in these areas will be identified through the analysis of monitoring wells and municipal wells in the general areas as well as through discussions with the local health units who may be able to rely on interpretation of private well information.
 Issues may be considered in determining whether certain types of threats need to be inventoried in the area, however no allowance has been made in this task for a detailed inventory of such threats.
 Costs for this task have been included in the Upper Thames Region SPA Terms of Reference (since it is the lead on this study) and also include costs for the Lower Thames Valley SPA. Total costs are estimated to be \$50,000.

Lead Upper Thames River Conservation Authority

01-Oct-08	to	01-Jun-09
<i>Year</i>	<i>Est'd Cost</i>	
2008/2009	NA	
2009/2010	NA	
Total :		

Task Name: Assessing risk in SGRAs Review past work to check consistency with other technical studies. WHPA will be remodelled based on updated pumping rates and vulnerability assessment will be completed.

Task#: 24 *TaskID:* 648

Geographic Area: Thames-Sydenham and Region Source Protection Region including the LTVSPA, SCRSPA and the UTRSPA

Water System Name: Multiple systems or watershed based task

Comment: Costs for this task have been included in the Upper Thames Region SPA Terms of Reference (since it is the lead on this study) and also include costs for the Lower Thames Valley SPA. Total costs are estimated to be \$42,000.

Lead Upper Thames River Conservation Authority

01-Apr-09	to	01-Aug-09
<i>Year</i>		<i>Est'd Cost</i>
2009/2010		NA
Total :		

Task Name: Delineating and applying vulnerability scores to WHPAs or IPZs

Task#: 25 *TaskID:* 631

Geographic Area: Wallaceburg intake work is combined with the work undertaken on Wheatley and Erie Beach intakes in the Lower Thames Valley SPA as well as the intakes in the Essex Region SPA.

Water System Name: Wallaceburg Water Treatment Plant

Comment: Costs estimates on this task are included in the Lower Thames Valley SPA ToR, along with those for the Chatham-Kent intakes (Wheatley and Erie Beach), as the project, led by Essex Region CA, includes these 3 intakes. The total funded cost for this task for the Wallaceburg, Wheatley and Erie Beach intakes is \$376,000.

Lead Essex Region Conservation Authority

01-Apr-05	to	31-Mar-08
<i>Year</i>		<i>Est'd Cost</i>
2005/2006		NA
2006/2007		NA
2007/2008		NA
Total :		

Task Name: Delineating and applying vulnerability scores to WHPAs or IPZs

Task#: 26 *TaskID:* 623

Geographic Area: The two intakes studied are Lake Huron raw water intake to the Petrolia Water Treatment Plant and Lake Huron (at the mouth of the St. Clair River) raw water intake to the Lambton Area Water Supply System (LAWSS).

Water System Name: Multiple systems or watershed based task

Comment: The funded amount includes \$60,000 to refine the IPZs based on additional data collection and model refinement. Southern Lake Huron Surface Water Technical Study led by the St. Clair Region Conservation Authority, study conducted by R.V. Anderson.

Proposed costs are estimates of the updates and further work required to ensure the technical studies meet the Director's Technical Rules posted on the Ministry of Environment Environmental Bill of Rights Registry in June 2008. The scope of this task may change as a result of changes to the rules from those posted.

Lead St. Clair Region Conservation Authority

01-Apr-06	to	30-Jun-09
<i>Year</i>		<i>Est'd Cost</i>
2006/2007		\$176,500
2007/2008		
2008/2009		\$72,000
2009/2010		
Total :		\$248,500

Task Name: Delineating and applying vulnerability scores to WHPAs or IPZs
Task#: 27 *TaskID:* 635
Geographic Area: Wallaceburg intake in the St. Clair Region SPA as well as intakes in the Essex Region SPA on Lake St. Clair. IPZ3 will include the Thames and Sydenham Watersheds as well as smaller tributaries which drain directly into the St. Clair River and Lake St. Clair.
Water System Name: Multiple systems or watershed based task
Comment: It is anticipated that the Director's Rules will require the delineation, vulnerability assessment and Risk Assessment of IPZ3 (or other methodologies for assessing risks resulting from issues or concerns outside of IPZ1 & 2) for intakes on Lake St Clair and the Wallaceburg intake.

Delineation and applying vulnerability scores for IPZ3 related to the Lake St Clair and Wallaceburg intakes will be completed according to the requirements of the Director's Rules. The MISED models developed through the past work will be used to identify areas, outside of the original model scope (developed to delineate IPZ2), which can contribute risks to the intakes. The models will be combined and improved to include discharges from the major rivers which may contribute risks to the intakes. Watercourses available in Conservation Authority and provincial data sets will be utilized to delineate the IPZ3 within the contributing watersheds. The modelling will be used as an indicator of areas more vulnerable (more likely to contribute risks) than others within the delineated IPZ3 and vulnerability scores will be assigned accordingly.

Costs for this task have been included in the Upper Thames Region SPA Terms of Reference (since it is the lead on this study) and also include costs for the Lower Thames Valley SPA. Total costs are estimated to be \$95,000.

Lead Upper Thames River Conservation Authority	
01-Oct-08	<i>to</i>
01-Jun-09	
Year	Est'd Cost
2008/2009	NA
2009/2010	NA
Total :	

Task Name: Identifying issues, inventorying threats and assessing hazards in WHPAs or IPZs
Task#: 28 *TaskID:* 632
Geographic Area: Wallaceburg intake work is combined with the work undertaken on Wheatley and Erie Beach intakes in the LTVSPA as well as the intakes in Essex Region SPA.
Water System Name: Wallaceburg Water Treatment Plant
Comment: Costs estimates on this task are included in the Lower Thames Valley SPA ToR, along with those for the Chatham-Kent intakes (Wheatley and Erie Beach), as the project, led by Essex Region CA, includes these 3 intakes. The total funded cost for this task for the Wallaceburg, Wheatley and Erie Beach intakes is \$143,000.

Lead Essex Region Conservation Authority	
01-Apr-05	<i>to</i>
30-Jun-09	
Year	Est'd Cost
2005/2006	NA
2006/2007	NA
2007/2008	NA
2008/2009	NA
2009/2010	NA
Total :	

Task Name: Identifying issues, inventorying threats and assessing hazards in WHPAs or IPZs
Task#: 29 *TaskID:* 539
Geographic Area: The two intakes studied are Lake Huron raw water intake to the Petrolia Water Treatment Plant and Lake Huron (at the mouth of the St. Clair River) raw water intake to the Lambton Area Water Supply System (LAWSS)
Water System Name: Multiple systems or watershed based task
Comment: Southern Lake Huron Surface Water Technical Study led by the St. Clair Region Conservation Authority, study conducted by R.V. Anderson.

Proposed costs are estimates of the updates and further work required to ensure the technical studies meet the Director's Technical Rules posted on the Ministry of Environment Environmental Bill of Rights Registry in June 2008. The scope of this task may change as a result of changes to the rules from those posted.

Lead St. Clair Region Conservation Authority	
01-Apr-06	<i>to</i>
30-Jun-09	
Year	Est'd Cost
2006/2007	\$69,000
2007/2008	
2008/2009	\$35,000
2009/2010	
Total :	\$104,000

Task Name: Assess risk in WHPAs or IPZs
Task#: 30 *TaskID:* 633
Geographic Area: Wallaceburg intake work is combined with the work undertaken on Wheatley and Erie Beach intakes in the Lower Thames Valley SPA as well as the intakes in Essex Region SPA.
Water System Name: Wallaceburg Water Treatment Plant
Comment: Costs estimates on this task are included in the Lower Thames Valley SPA ToR, along with those for the Chatham-Kent intakes (Wheatley and Erie Beach), as the project, led by Essex Region CA, includes these 3 intakes. The total funded cost so far for the Wallaceburg, Wheatley and Erie Beach intakes is \$35,000. The total proposed cost for work yet to be done is \$55,500.

Lead Essex Region Conservation Authority	
01-Apr-06	<i>to</i>
31-Oct-09	
Year	Est'd Cost
2006/2007	NA
2007/2008	NA
2008/2009	NA
2009/2010	NA
Total :	

Task Name: Assess risk in WHPAs or IPZs
Task#: 31 *TaskID:* 540
Geographic Area: The two intakes studied are Lake Huron raw water intake to the Petrolia Water Treatment Plant and Lake Huron (at the mouth of the St. Clair River) raw water intake to the Lambton Area Water Supply System (LAWSS).
Water System Name: Multiple systems or watershed based task
Comment: Southern Lake Huron Surface Water Technical Study led by the St. Clair Region Conservation Authority, study conducted by R.V. Anderson.

Proposed costs are estimates of the updates and further work required to ensure the technical studies meet the Director's Technical Rules posted on the Ministry of Environment Environmental Bill of Rights Registry in June 2008. The scope of this task may change as a result of changes to the rules from those posted.

Lead St. Clair Region Conservation Authority	
01-Apr-06	to
30-Jun-09	
Year	Est'd Cost
2006/2007	\$32,000
2007/2008	
2008/2009	\$38,000
2009/2010	
Total :	\$70,000

Task Name: Other Assessment Report Preparation Task: Update technical studies to meet Assessment Report Rules an Regulation
Task#: 32 *TaskID:* 636
Geographic Area: Wallaceburg intake work is combined with the work undertaken on Wheatley and Erie Beach intakes in the Lower Thames Valley SPA as well as the intakes in Essex Region Source Protection Area.
Water System Name: Wallaceburg Water Treatment Plant
Comment: Update technical studies to meet MOE proposed new guidance, may include updates to consider identified technical uncertainties and data gaps. Does not include items related to the delineation of IPZ 3 which is included in a separate task.

Costs estimates on this task are included in the Lower Thames Valley SPA ToR, along with those for the Chatham-Kent intakes (Wheatley and Erie Beach), as the project, led by Essex Region CA, includes these 3 intakes. Estimated costs are \$157,500.

Lead Essex Region Conservation Authority	
01-Apr-08	to
31-Oct-09	
Year	Est'd Cost
2008/2009	NA
2009/2010	NA
Total :	

Task Name: Policy development for Great Lakes elements (where required/permissible in Act & Regs)

Task#: 33 *TaskID:* 640

Geographic Area: All three Source Protection Areas (SPAs) of the Thames-Sydenham and Region Source Protection Region: Upper Thames River SPA, Lower Thames Valley SPA and St. Clair Region SPA

Water System Name: Multiple systems or watershed based task

Comment: The Clean Water Act includes the ability of the Minister of the Environment to set Great Lakes targets for watershed. The Source Protection Plan must assist in achieving those Great Lakes targets. Further guidance from the MOE is expected. It is also required that the Source Protection Plan consider Great Lakes Agreements. It is assumed that consultation with other regions draining into each of the Great Lakes that the watershed of the TSR drain into will be required. As well, consultation will be required with Provincial and Federal organizations with responsibilities under the Great Lakes Agreements.

Although the scope of the work associated with this task is largely unknown, an allowance for work associated with this task, for both staff and SPC, are included with the task related to coordinating and supporting projects associated with the Source Protection Plan. The estimated cost included in this task and a similar task in the LTVSPA include the additional cost of consultation.

<i>Lead</i>		Source Protection Committee
01-Jan-09	<i>to</i>	20-Aug-12
<i>Year</i>	<i>Est'd Cost</i>	
2008/2009	\$25,000	
2009/2010	\$10,000	
2010/2011	\$10,000	
2011/2012	\$10,000	
2012/2013	\$10,000	
<i>Total :</i>	\$65,000	

St. Clair Region Source Protection Area

Total for SPA:

\$487,500

Tasks in the

Upper Thames River Source Protection Area

Task Name: Coordinating and supporting projects for the assessment report
Task#: 34 *TaskID:* 616
Geographic Area: Upper Thames River, Lower Thames Valley, St. Clair Region SPA
Water System Name: Multiple systems or watershed based task
Comment: Includes costs and work done on the St. Clair Region SPA and the Lower Thames Valley SPA.

Lead Upper Thames River Conservation Authority		
01-Jan-05	to	31-Jan-10
Year	Est'd Cost	
2004/2005		
2005/2006	\$634,100	
2006/2007	\$663,858	
2007/2008	\$1,064,640	
2008/2009	\$1,017,500	
2009/2010	\$1,000,000	
Total :	\$4,380,098	

Task Name: Undertaking communications initiatives for the assessment report
Task#: 35 *TaskID:* 617
Geographic Area: All three Source Protection Areas (SPAs) of the Thames-Sydenham and Region Source Protection Region: Upper Thames River SPA, Lower Thames Valley SPA and St. Clair Region SPA
Water System Name: Multiple systems or watershed based task
Comment: This task includes communications initiatives related to the formation of the SPC including engaging sectors such as the agricultural, municipal, industrial and first nations in the SPC formation process. Also included are initiatives related to public outreach on the Source Protection Planning process and the Clean Water Act.

 Future initiatives will focus on communications related to the assessment report and the technical work to support the Assessment Report. Communications initiatives included in this task include the production of displays, presentation materials, tabloids, newsletters, printed materials as well as support of work groups, forums, and stakeholder meetings to discuss the technical work with stakeholders. Specific outreach will be undertaken in areas where significant risks are likely.

 The Assessment Report Regulation will likely require specific consultation on the proposed Assessment Report. Costs estimates to meet those anticipated requirements are included in a separate task. The initiatives included in this task will complement those requirements.

 Staff time related to this item have been included with the task related to the coordination and support of the Assessment Report.

 Includes costs and work done on the St. Clair Region SPA and the Lower Thames Valley SPA.

Lead Upper Thames River Conservation Authority		
01-Jan-05	to	31-Jan-10
Year	Est'd Cost	
2004/2005		
2005/2006	\$21,319	
2006/2007	\$9,600	
2007/2008	\$100,831	
2008/2009	\$126,000	
2009/2010	\$95,000	
Total :	\$352,750	

Task Name: Information management for the assessment report preparation
Task#: 36
Geographic Area: Upper Thames River, Lower Thames Valley, St. Clair Region SPA
Water System Name: Multiple systems or watershed based task
Comment: Includes costs and work done on the St. Clair Region SPA and the Lower Thames Valley SPA.

TaskID: 618

Lead Upper Thames River Conservation Authority

01-Jan-05	to	31-Jan-10
<i>Year</i>	<i>Est'd Cost</i>	
2004/2005		
2005/2006	\$57,507	
2006/2007	\$132,027	
2007/2008	\$50,987	
2008/2009	\$65,000	
2009/2010	\$100,000	
Total :	\$405,521	

Task Name: Undertaking a watershed characterization
Task#: 37
Geographic Area: Upper Thames River, Lower Thames Valley, St. Clair Region SPA
Water System Name: Multiple systems or watershed based task
Comment: Production of a Watershed Characterization Report for the St Clair Source Protection Area and Thames Watershed and Region.

TaskID: 619

Lead Upper Thames River Conservation Authority

01-Jan-05	to	31-Mar-08
<i>Year</i>	<i>Est'd Cost</i>	
2004/2005		
2005/2006	\$2,163	
2006/2007	\$6,499	
2007/2008	\$20,612	
Total :	\$29,274	

Task Name: Conducting a conceptual water budget
Task#: 38
Geographic Area: Upper Thames River, Lower Thames Valley, St. Clair Region SPA
Water System Name: Multiple systems or watershed based task
Comment: Completed a Conceptual Water Budget for the Thames-Sydenham and Region

TaskID: 620

Lead Upper Thames River Conservation Authority

01-Jan-05	to	31-Mar-08
<i>Year</i>	<i>Est'd Cost</i>	
2004/2005		
2005/2006	\$92,323	
2006/2007	\$276,052	
2007/2008	\$197,798	
Total :	\$566,174	

Task Name: Conducting a tier 1 water budget analysis and stress assessment
Task#: 39
Geographic Area: Upper Thames River, Lower Thames Valley, St. Clair Region SPA
Water System Name: Multiple systems or watershed based task
Comment: Developing T1 Water Budgets for each of St Clair Region, Lower Thames Valley and Upper Thames River SPA.

TaskID: 621

Lead Upper Thames River Conservation Authority

01-Aug-07	to	31-Aug-08
<i>Year</i>	<i>Est'd Cost</i>	
2007/2008	\$156,800	
2008/2009	\$254,700	
Total :	\$411,500	

Task Name: Conducting a tier 2 water budget analysis and stress assessment
Task#: 40
Geographic Area: Potentially stressed sub-watersheds within the Upper Thames River, Lower Thames Valley, St. Clair Region SPA
Water System Name: Multiple systems or watershed based task
Comment: The need for and scope of this project is dependant on the outcomes of the Tier 1 Water Budget. The Tier 2 Water Budget will refine the water supply and demand components of the Tier 1 Water Budgets and reassess the potential for stress in those watersheds. The Tier 2 Water Budget will also consider drought scenarios not considered in the Tier 1.

TaskID: 622

Lead Upper Thames River Conservation Authority

01-Oct-08	to	31-May-09
<i>Year</i>	<i>Est'd Cost</i>	
2008/2009	\$165,000	
2009/2010	\$165,000	
Total :	\$330,000	

Task Name: Conducting a tier 3 water budget analysis and water quantity risk assessment
Task#: 41 *TaskID:* 652
Geographic Area: Tier 3 Water budgets will be required in any areas which are shown as possibly under stress following the completion of the Tier 2 Water Budget. As such the municipal water systems which will be considered has not yet been determined.
Water System Name: Multiple systems or watershed based task
Comment: Tier 3 Water Budgets are required to be undertaken on areas contributing to municipal water systems in sub-watersheds which are shown as potentially stressed through the completion of the Tier 2 Water Budgets.

Lead Upper Thames River Conservation Authority		
01-Apr-09	to	30-Nov-09
Year	Est'd Cost	
2009/2010	\$650,000	
Total :	\$650,000	

Task Name: Delineating and applying vulnerability scores to HVAs
Task#: 42 *TaskID:* 599
Geographic Area: Thames-Sydenham and Region Source Protection Region including the LTVSPA, SCRSPA and the UTRSPA
Water System Name: Multiple systems or watershed based task
Comment: Intrinsic Susceptibility Index scores have been completed through past groundwater studies across the region. The mapping products from these separate county based studies have been compiled into a single mapping product, however there are issues with conflicting scoring at areas of overlap. This was to be expected as each study relied on the interpretation of data from within their study area. Near the edges of the study area different interpolation and extrapolations results should be expected based on the use of different data points near the boundaries.

 Costs for this task include work in the SCRSPA and LTVSPA.

Lead Upper Thames River Conservation Authority		
01-May-08	to	31-Dec-08
Year	Est'd Cost	
2008/2009	\$29,000	
Total :	\$29,000	

Task Name: Identifying issues, inventorying threats and assessing hazards in HVAs
Task#: 43 *TaskID:* 600
Geographic Area: Thames-Sydenham and Region Source Protection Region including the LTVSPA, SCRSPA and the UTRSPA
Water System Name: Multiple systems or watershed based task
Comment: Once delineated these areas will be assessed for the general nature of the types of threats contained in the areas. All threats which could result in a significant risk will be inventoried. Current guidance suggests a vulnerability score of 6 for these areas. As such it is not anticipated that significant risks will be identified in these areas. General types of land use in these areas will be characterized to the extent necessary to develop appropriate policies for these types of threats in HVAs.

 Issues in these areas will be identified through the analysis of monitoring wells and municipal wells in the general areas as well as through discussions with the local health units who may be able to rely on interpretation of private well information.

 Issues may be considered in determining whether certain types of threats need to be inventoried in the area, however no allowance has been made in this task for a detailed inventory of such threats.

 Costs for this task include work in the SCRSPA and LTVSPA.

Lead Upper Thames River Conservation Authority		
01-Oct-08	to	01-Jun-09
Year	Est'd Cost	
2008/2009	\$20,000	
2009/2010	\$20,000	
Total :	\$40,000	

Task Name: Assessing risks in HVAs
Task#: 44 *TaskID:* 601
Geographic Area: Thames-Sydenham and Region Source Protection Region including the LTVSPA, SCRSPA and the UTRSPA
Water System Name: Multiple systems or watershed based task
Comment: Based on vulnerability scores and general threats characterization in the HVAs, possible risk scores will be assessed.
 Costs for this task include work in the SCRSPA and LTVSPA.

Lead Upper Thames River Conservation Authority		
01-Apr-09	<i>to</i>	01-Aug-09
Year	Est'd Cost	
2009/2010	\$42,000	
Total :	\$42,000	

Task Name: Applying vulnerability scores to SGRAs
Task#: 45 *TaskID:* 602
Geographic Area: Thames-Sydenham and Region Source Protection Region including the LTVSPA, SCRSPA and the UTRSPA
Water System Name: Multiple systems or watershed based task
Comment: SGRAs will be defined through the Water Budget work. The vulnerability of these areas will be assessed based on Director's Rules and guidance. ISI scores are available for WHPAs as well as the regional ISI scores developed through the HVA delineation project. These results will need to be compared and the most appropriate scoring applied to the SGRA. It will be important that the vulnerability score associated with these areas be consistent with those parts of the WHPA which are part of the SGRA.
 Costs for this task include work in the LTVSPA and SCRSPA.

Lead Upper Thames River Conservation Authority		
01-Oct-08	<i>to</i>	01-Dec-08
Year	Est'd Cost	
2008/2009	\$15,000	
Total :	\$15,000	

Task Name: Identifying issues, inventorying threats and assessing hazards in SGRAs
Task#: 46 *TaskID:* 603
Geographic Area: Thames-Sydenham and Region Source Protection Region including the LTVSPA, SCRSPA and the UTRSPA
Water System Name: Multiple systems or watershed based task
Comment: Once delineated these areas will be assessed for the general nature of the types of threats contained in the areas. All threats which could result in a significant risk will be inventoried. Current guidance suggests a vulnerability score of 6 for these areas. As such it is not anticipated that significant risks will be identified in these areas. General types of land use in these areas will be characterized to the extent necessary to develop appropriate policies for these types of threats in SGRAs.
 Issues in these areas will be identified through the analysis of monitoring wells and municipal wells in the general areas as well as through discussions with the local health units who may be able to rely on interpretation of private well information.
 Issues may be considered in determining whether certain types of threats need to be inventoried in the area, however no allowance has been made in this task for a detailed inventory of such threats.
 Costs for this task include work in the LTVSPA and SCRSPA.

Lead Upper Thames River Conservation Authority		
01-Oct-08	<i>to</i>	01-Jun-09
Year	Est'd Cost	
2008/2009	\$25,000	
2009/2010	\$25,000	
Total :	\$50,000	

Task Name: Assessing risk in SGRAs
Task#: 47 *TaskID:* 604
Geographic Area: Thames-Sydenham and Region Source Protection Region including the LTVSPA, SCRSPA and the UTRSPA
Water System Name: Multiple systems or watershed based task
Comment: Costs for this task include work in the LTVSPA and SCRSPA.

Lead Upper Thames River Conservation Authority		
01-Apr-09	to	01-Aug-09
Year	Est'd Cost	
2009/2010	\$42,000	
Total :	\$42,000	

Task Name: Delineating and applying vulnerability scores to WHPAs or IPZs
Task#: 48 *TaskID:* 645
Geographic Area: Dorchester Wells
Water System Name: Dorchester Well Supply
Comment: This task is an update to previous modelling of the Dorchester wells. The bedrock wells were not modelled as part of previous studies as they are rarely used due to aesthetic concerns about the water quality from these wells.

Lead Upper Thames River Conservation Authority		
01-Aug-08	to	31-Mar-09
Year	Est'd Cost	
2008/2009	\$40,000	
Total :	\$40,000	

Task Name: Delineating and applying vulnerability scores to WHPAs or IPZs
Task#: 49 *TaskID:* 518
Geographic Area: All Middlesex County and City of London wells within the Thames Sydenham and Region Source Protection Region - City of London Standby, Birr, Dorchester, Melrose, Kilworth Heights Subdivision, Mount Brydges and Thorndale
Water System Name: Multiple systems or watershed based task
Comment: Work for this task is funded by the Ministry of Environment through an agreement with the project lead. Proposed work for the same well supply systems is led by the UTRCA and shown in a separate task 'Delineating and applying vulnerability scores to WHPAs or IPZs' (Task No. 89 in the ToR Guide).

Lead City of London		
01-Apr-05	to	30-Jun-09
Year	Est'd Cost	
2005/2006	\$82,150	
2006/2007		
2007/2008		
2008/2009		
2009/2010		
Total :	\$82,150	

Task Name: Delineating and applying vulnerability scores to WHPAs or IPZs
Task#: 50 *TaskID:* 529
Geographic Area: County of Oxford systems in the TSR: Beachville-Loweville Subdivision, Embro, Hickson-King Subdivision, Ingersoll, Innerkip, Lakeside, Mount Elgin, Tavistock, Thamesford and Woodstock
Water System Name: Multiple systems or watershed based task
Comment: Oxford County Groundwater Technical Study: costs shown are estimates for the 10 County of Oxford well supply systems of the Thames-Sydenham and Region. Includes funded amounts for the two planned wells (Bond and Graydon - \$5,750 each).

 Proposed costs are estimates of the updates and further work required to ensure the technical studies meet the Director's Technical Rules posted on the Ministry of Environment Environmental Bill of Rights Registry in June 2008. The scope of this task may change as a result of changes to the rules from those posted.

<i>Lead</i> County of Oxford		
01-Apr-06	<i>to</i>	31-Mar-09
<i>Year</i>	<i>Est'd Cost</i>	
2006/2007	\$31,233	
2007/2008		
2008/2009	\$10,000	
Total :	\$41,233	

Task Name: Delineating and applying vulnerability scores to WHPAs or IPZs
Task#: 51 *TaskID:* 544
Geographic Area: New planned 'Graydon Well' of the Mount Elgin well supply system of the County of Oxford
Water System Name: Mount Elgin Well Supply - New Well
Comment: Delineating WHPA and applying vulnerability scores to the WHPA of the new planned 'Graydon Well' of the Mount Elgin well supply system.
 Cost estimate excludes a \$5,750 portion of an already funded amount (\$31,233.25) for a similar task for all ten County of Oxford systems.

<i>Lead</i> County of Oxford		
01-Jan-09	<i>to</i>	30-Jun-09
<i>Year</i>	<i>Est'd Cost</i>	
2008/2009	\$5,850	
2009/2010	\$0	
Total :	\$5,850	

Task Name: Delineating and applying vulnerability scores to WHPAs or IPZs
Task#: 52 *TaskID:* 547
Geographic Area: New planned well ('Bond' well) within the existing Woodstock well supply system
Water System Name: Woodstock Well Supply - New Well
Comment: Delineating WHPA and applying vulnerability score for the new planned 'Bond Well' within the existing Woodstock well supply system.
 Cost estimate excludes a \$5,750 portion of an already funded amount (\$31,233.25) for a similar task for all ten County of Oxford systems.

<i>Lead</i> County of Oxford		
01-Jan-09	<i>to</i>	30-Jun-09
<i>Year</i>	<i>Est'd Cost</i>	
2008/2009	\$16,000	
2009/2010		
Total :	\$16,000	

Task Name: Delineating and applying vulnerability scores to WHPAs or IPZs
Task#: 53 *TaskID:* 550
Geographic Area: Dorchester Well supply only
Water System Name: Dorchester Well Supply
Comment: In this project led by the Municipality of Thames Centre, the Dorchester well supply system WHPAs were delineated and vulnerability scores assigned.

Lead Municipality of Thames Centre	
01-Apr-05	<i>to</i>
30-Jun-07	
Year	Est'd Cost
2005/2006	\$91,000
2006/2007	
2007/2008	
Total :	\$91,000

Task Name: Delineating and applying vulnerability scores to WHPAs or IPZs
Task#: 54 *TaskID:* 553
Geographic Area: St. Marys GUDI Well
Water System Name: St. Marys Well Supply
Comment: MOE proposed rules on Groundwater Under the Direct Influence of surface water (GUDI)- include requirements to delineate Intake Protection Zone (IPZ) type zones around GUDI wells. The Town of St Marys proposed to MOE the need to look at surface water based process for considering threats to their GUDI wells. This work was approved by the MOE following generally the approach for IPZ1 and 2 on surface water sources. This work includes the delineation of the zones (proposed as WHPA E & F) and the assignment of vulnerability scores to those areas. Although IPZ 3 (proposed WHPA zone F) was to be delineated through that project threats inventories in that zone were not included in the previous proposal.

Lead Town of St. Marys	
01-Apr-06	<i>to</i>
31-Aug-08	
Year	Est'd Cost
2006/2007	\$28,167
2007/2008	
2008/2009	
Total :	\$28,167

Task Name: Delineating and applying vulnerability scores to WHPAs or IPZs
Task#: 55 *TaskID:* 628
Geographic Area: Wallaceburg intake in the St. Clair Region SPA as well as intakes in the Essex Region SPA on Lake St. Clair. IPZ3 will include the Thames and Sydenham Watersheds as well as smaller tributaries which drain directly into the St. Clair River and Lake St. Clair.
Water System Name: Multiple systems or watershed based task
Comment: It is anticipated that the Director's Rules will require the delineation, vulnerability assessment and Risk Assessment of IPZ3 (or other methodologies for assessing risks resulting from issues or concerns outside of IPZ1 & 2) for intakes on Lake St Clair and the Wallaceburg intake.

Delineation and applying vulnerability scores for IPZ3 related to the Lake St Clair and Wallaceburg intakes will be completed according to the requirements of the Director's Rules. The MISED models developed through the past work will be used to identify areas, outside of the original model scope (developed to delineate IPZ2), which can contribute risks to the intakes. The models will be combined and improved to include discharges from the major rivers which may contribute risks to the intakes. Watercourses available in Conservation Authority and provincial data sets will be utilized to delineate the IPZ3 within the contributing watersheds. The modelling will be used as an indicator of areas more vulnerable (more likely to contribute risks) than others within the delineated IPZ3 and vulnerability scores will be assigned accordingly.

Costs for this task include work to be done in the Lower Thames Valley SPA and the St. Clair Region SPA. Costs are shown here in the Upper Thames Region SPA Terms of Reference since it is the lead on this study.

Lead Upper Thames River Conservation Authority	
01-Oct-08	<i>to</i>
01-Jun-09	
Year	Est'd Cost
2008/2009	
2009/2010	\$95,000
Total :	\$95,000

Task Name: Delineating and applying vulnerability scores to WHPAs or IPZs
Task#: 56 *TaskID:* 522
Geographic Area: St. Marys, Stratford well supply systems as well as the Perth County systems of Mitchell, Sebringville (Black Creek Estates), Shakespeare (Miller Ave.) and St. Paul's
Water System Name: Multiple systems or watershed based task
Comment: Perth County Groundwater Technical Study.
 Proposed costs are estimates of the updates and further work required to ensure the technical studies meet the Proposed Director's Technical Rules posted on the Ministry of Environment Environmental Bill of Rights Registry in June 2008. The scope of this task may change as a result of changes to the rules from those posted. The task includes one well supply in the Lake Erie SPR, however those costs are not included here).

Lead Upper Thames River Conservation Authority	
01-Apr-05	<i>to</i>
30-Apr-09	
Year	Est'd Cost
2005/2006	\$17,625
2006/2007	
2007/2008	
2008/2009	\$8,890
2009/2010	
Total :	\$26,515

Task Name: Identifying issues, inventorying threats and assessing hazards in WHPAs or IPZs
Task#: 57 *TaskID:* 532
Geographic Area: All Middlesex County and City of London wells within the Thames Sydenham and Region Source Protection Region - City of London Standby, Birr, Dorchester, Melrose, Kilworth Heights Subdivision, Mount Brydges and Thorndale
Water System Name: Multiple systems or watershed based task
Comment: Work for this task is funded by the Ministry of Environment through an agreement with the project lead. Proposed work for the same well supply systems is led by the UTRCA and shown in a separate task 'Identifying issues, inventorying threats and assessing hazards in WHPAs or IPZs' (Task No. 90 in the ToR Guide).

<i>Lead</i> City of London	
01-Apr-05	<i>to</i>
30-Jun-09	
<i>Year</i>	<i>Est'd Cost</i>
2005/2006	\$119,150
2006/2007	\$68,484
2007/2008	
2008/2009	
2009/2010	
Total :	\$187,634

Task Name: Identifying issues, inventorying threats and assessing hazards in WHPAs or IPZs
Task#: 58 *TaskID:* 548
Geographic Area: New planned 'Bond Well' within the existing Woodstock well supply system of the County of Oxford
Water System Name: Woodstock Well Supply - New Well
Comment: New planned 'Bond Well' within the existing Woodstock well supply system - threats, issues lists and hazard assessment

<i>Lead</i> County of Oxford	
04-Jan-09	<i>to</i>
30-Jun-09	
<i>Year</i>	<i>Est'd Cost</i>
2008/2009	\$8,000
2009/2010	
Total :	\$8,000

Task Name: Identifying issues, inventorying threats and assessing hazards in WHPAs or IPZs
Task#: 59 *TaskID:* 545
Geographic Area: New planned 'Graydon Well' of the Mount Elgin well supply system in the County of Oxford
Water System Name: Mount Elgin Well Supply - New Well
Comment: New planned 'Graydon Well' of the Mount Elgin well supply system in the County of Oxford - list issues and threats and assess hazards.

<i>Lead</i> County of Oxford	
01-Apr-09	<i>to</i>
30-Jun-09	
<i>Year</i>	<i>Est'd Cost</i>
2009/2010	\$10,000
Total :	\$10,000

Task Name: Identifying issues, inventorying threats and assessing hazards in WHPAs or IPZs
Task#: 60 *TaskID:* 519
Geographic Area: County of Oxford systems: Beachville-Loweville Subdivision, Embro, Hickson-King Subdivision, Ingersoll, Innerkip, Lakeside, Mount Elgin, Tavistock, Thamesford and Woodstock
Water System Name: Multiple systems or watershed based task
Comment: Oxford County Groundwater Technical Study included 10 systems in the Thames Sydenham and Region.
 Proposed costs are estimates of the updates and further work required to ensure the technical studies meet the Director's Technical Rules posted on the Ministry of Environment Environmental Bill of Rights Registry in June 2008. The scope of this task may change as a result of changes to the rules from those posted.

<i>Lead</i> County of Oxford	
01-Apr-05	<i>to</i>
31-Mar-09	
<i>Year</i>	<i>Est'd Cost</i>
2005/2006	\$36,634
2006/2007	\$34,100
2007/2008	
2008/2009	\$10,000
<i>Total :</i>	\$80,734

Task Name: Identifying issues, inventorying threats and assessing hazards in WHPAs or IPZs
Task#: 61 *TaskID:* 554
Geographic Area: St. Marys GUDI Well
Water System Name: St. Marys Well Supply
Comment: MOE proposed rules on Groundwater Under the Direct Influence of surface water (GUDI)- include requirements to delineate Intake Protection Zone (IPZ) type zones around GUDI wells. The Town of St Marys proposed to MOE the need to look at surface water based process for considering threats to their GUDI wells. This work was approved by the MOE following generally the approach for IPZ1 and 2 on surface water sources. This work includes the delineation of the zones (proposed as WHPA E & F) and the assignment of vulnerability scores to those areas. Although IPZ3 (proposed WHPA zone F) was to be delineated through that project threats inventories in that zone were not included in the previous proposal.

<i>Lead</i> Town of St. Marys	
01-Apr-06	<i>to</i>
31-Jan-09	
<i>Year</i>	<i>Est'd Cost</i>
2006/2007	\$33,667
2007/2008	
2008/2009	\$30,000
<i>Total :</i>	\$63,667

Task Name: Identifying issues, inventorying threats and assessing hazards in WHPAs or IPZs Threats caused by transportation corridors (land, water) shall be identified and considered in risk assessment.

Task#: 62

TaskID: 661

Geographic Area: Thames-Sydenham and Region: Lower Thames SPA, St. Clair SPA, Upper Thames SPA.

Water System Name: Multiple systems or watershed based task

Comment: Many of the technical studies, through which threats in the Well Head Protection Areas and Intake Protection Zones were inventoried, will consider potential threats posed by corridors and the transportation of materials. The transportation of materials in corridors is an activity which would pose a risk to drinking water sources if those materials were released in those areas. Corridors to be considered will include pipelines as well as significant transportation corridors including rail, road and shipping. Although the June 2008 drafts of the Assessment Report Regulations and Rules do not specifically identify corridors as a threat, they do allow for the SPC to identify activities not included in the list of threats which they feel present a risk to drinking water sources.

Through work associated with this task, the SPC will assess the extent to which the local threats inventories considered corridors and the transportation of materials within the WHPAs and IPZs, determine if there are data gaps in that work and identify methodologies to fill those gaps. The SPC will also consider a means to assess the risk to the drinking water sources that these potential threats pose. It is hoped that the Province will include in the final Rules and Regulations a methodology which adequately allows these threats to be considered by the SPC. Further, it is hoped that the Province will coordinate and provide guidance as to how the SPC may deal locally with these potential threats. This task will allow the SPC and CA staff to liaise with the Province to ensure that these potential threats are properly considered in the Assessment Report and Source Protection Plan. In the absence of Provincial direction, this task will allow for the SPC to consider the local impact of these activities on the local drinking water supplies.

Cost for this task are dependant on the level of work undertaken and coordinated provincially. As such costs for this task are yet to be determined.

Lead Upper Thames River Conservation Authority

01-Apr-09	to	30-Sep-09
<i>Year</i>		<i>Est'd Cost</i>
2009/2010		tbd
Total :		

Task Name: Identifying issues, inventorying threats and assessing hazards in WHPAs or IPZs

Task#: 63

TaskID: 523

Geographic Area: St. Marys, Stratford well supply systems as well as the Perth County systems of Mitchell, Sebringville (Black Creek Estates), Shakespeare (Miller Ave.) and St. Paul's

Water System Name: Multiple systems or watershed based task

Comment: Perth County Groundwater Technical Study.

Proposed costs are estimates of the updates and further work required to ensure the technical studies meet the Director's Technical Rules posted on the Ministry of Environment Environmental Bill of Rights Registry in June 2008. The scope of this task may change as a result of changes to the rules from those posted.

Lead Upper Thames River Conservation Authority

01-Apr-05	to	30-Apr-09
<i>Year</i>		<i>Est'd Cost</i>
2005/2006		\$101,001
2006/2007		\$26,571
2007/2008		
2008/2009		\$13,760
2009/2010		
Total :		\$141,333

Task Name: Assess risk in WHPAs or IPZs
Task#: 64 *TaskID:* 533
Geographic Area: All Middlesex County and City of London wells within the Thames Sydenham and Region Source Protection Region - City of London Standby, Birr, Dorchester, Melrose, Kilworth Heights Subdivision, Mount Brydges and Thorndale
Water System Name: Multiple systems or watershed based task
Comment: Work for this task is funded by the Ministry of Environment through an agreement with the project lead. Proposed work for the same well supply systems is led by the UTRCA and shown in a separate task 'Assess risk in WHPAs or IPZs' (Task No. 91 in the ToR Guide).

Lead City of London	
01-Apr-06	<i>to</i>
30-Jun-09	
Year	Est'd Cost
2006/2007	\$43,348
2007/2008	
2008/2009	
2009/2010	
Total :	\$43,348

Task Name: Assess risk in WHPAs or IPZs
Task#: 65 *TaskID:* 531
Geographic Area: County of Oxford systems: Beachville-Loweville Subdivision, Embro, Hickson-King Subdivision, Ingersoll, Innerkip, Lakeside, Mount Elgin, Tavistock, Thamesford and Woodstock
Water System Name: Multiple systems or watershed based task
Comment: Oxford County Groundwater Technical Study: costs shown are for the 10 County of Oxford well supply systems in the Thames Sydenham and Region.

Proposed costs are estimates of the updates and further work required to ensure the technical studies meet the Director's Technical Rules posted on the Ministry of Environment Environmental Bill of Rights Registry in June 2008. The scope of this task may change as a result of changes to the rules from those posted.

Lead County of Oxford	
01-Apr-06	<i>to</i>
30-Jun-09	
Year	Est'd Cost
2006/2007	\$37,500
2007/2008	
2008/2009	\$30,000
2009/2010	
Total :	\$67,500

Task Name: Assess risk in WHPAs or IPZs
Task#: 66 *TaskID:* 546
Geographic Area: New planned 'Graydon Well' of the Mount Elgin well supply system in the County of Oxford
Water System Name: Mount Elgin Well Supply - New Well
Comment: New planned 'Graydon Well' of the Mount Elgin well supply system in the County of Oxford - assess risks.

Lead County of Oxford	
01-Jun-09	<i>to</i>
30-Sep-09	
Year	Est'd Cost
2009/2010	\$2,000
Total :	\$2,000

Task Name: Assess risk in WHPAs or IPZs
Task#: 67 *TaskID:* 549
Geographic Area: New planned 'Bond Well' within the existing Woodstock well supply system of the County of Oxford
Water System Name: Woodstock Well Supply - New Well
Comment: New planned 'Bond Well' within the existing Woodstock well supply system - assess risks in WHPA.

Lead County of Oxford	
01-Jun-09	<i>to</i>
30-Sep-09	
Year	Est'd Cost
2009/2010	\$1,000
Total :	\$1,000

Task Name: Assess risk in WHPAs or IPZs
Task#: 68 *TaskID:* 555
Geographic Area: St. Marys Wells
Water System Name: St. Marys Well Supply
Comment: Risk Assessment will be undertaken for the surface water threats to the GUDI well in the zones proposed by the Director's Rules as WHPA - E & F. The previously approved project did not include an allowance for this work in WHPA F (IPZ3) and has been added to this task in 2008/09.

Lead Town of St. Marys	
01-Apr-06	<i>to</i>
30-Apr-09	
Year	Est'd Cost
2006/2007	\$11,167
2007/2008	
2008/2009	\$10,000
2009/2010	
Total :	\$21,167

Task Name: Assess risk in WHPAs or IPZs
Task#: 69 *TaskID:* 535
Geographic Area: St. Marys, Stratford well supply systems as well as the Perth County systems of Mitchell, Sebringville (Black Creek Estates), Shakespeare (Miller Ave.) and St. Paul's
Water System Name: Multiple systems or watershed based task
Comment: Perth County Groundwater Technical Study.

 Proposed costs are estimates of the updates and further work required to ensure the technical studies meet the Director's Technical Rules posted on the Ministry of Environment Environmental Bill of Rights Registry in June 2008. The scope of this task may change as a result of changes to the rules from those posted.

Lead Upper Thames River Conservation Authority	
01-Apr-06	<i>to</i>
30-Apr-09	
Year	Est'd Cost
2006/2007	\$45,429
2007/2008	
2008/2009	\$9,520
2009/2010	
Total :	\$54,949

Task Name: Consultation on the overall proposed assessment report
Task#: 70 *TaskID:* 658
Geographic Area: All three Source Protection Areas (SPAs) of the Thames-Sydenham and Region Source Protection Region: Upper Thames River SPA, Lower Thames Valley SPA and St. Clair Region SPA
Water System Name: Multiple systems or watershed based task
Comment: It is anticipated that the Assessment Report Rules and Regulations will have specific requirements to consult on the proposed Assessment Report. It is expected that these requirements will be similar to the requirements for the consultation the proposed requirements for consultation on the Assessment Report included in the proposed Regulation and Rules on the Assessment Report which have been posted for comments. As the requirements for this consultation are yet unknown the planned activities included in this task will need to be re-evaluated once the Rules and Regulations are in place.

It is anticipated that the SPC will be required to post a draft and publish a notice. Advertising costs related to this are included in this task. Although it is expected that a single meeting will be required we have included in this task holding a series of open houses and forums in addition an anticipated requirement to hold a public meeting. Initiatives included on the task related to undertaking communications initiatives related to the Assessment Report complement the proposed consultation included in this task.

Staff time related to this task has been allowed for in the task related to coordinating and supporting projects for the Assessment Report.

Lead Upper Thames River Conservation Authority		
01-Dec-09	<i>to</i>	31-Mar-10
Year	Est'd Cost	
2009/2010	\$15,000	
Total :	\$15,000	

Task Name: Other Assessment Report Preparation Task: Update existing WHPA to account for system expansion and mandatory connection
Task#: 71 *TaskID:* 582
Geographic Area: Thorndale system.
Water System Name: Thorndale Well Supply
Comment: Update the model for the Thorndale system based on new pumping rates resulting from system expansion and manitory connection to the expanded system. Pumping rates have substantially increased from pumping rates used in the Middlesex-London study.

Lead Upper Thames River Conservation Authority		
01-Apr-08	<i>to</i>	31-Mar-09
Year	Est'd Cost	
2008/2009	\$15,000	
Total :	\$15,000	

Task Name: Other Assessment Report Preparation Task: GUDI - IPZ Studies - Threats Inventories and Risk Assessment
Task#: 72 *TaskID:* 562
Geographic Area: Oxford County GUDI well systems in the Thames-Sydenham and Region Source Protection Region: Woodstock (Thornton and Tabor wellfields) and Thamesford (Wells #1 and 2)
Water System Name: Multiple systems or watershed based task
Comment: MOE draft new guidance on Groundwater Under the Direct Influence of surface water (GUDI)- Intake Protection Zone (IPZ) studies was posted in June 2008.

Lead County of Oxford		
01-Jul-09	<i>to</i>	30-Sep-09
Year	Est'd Cost	
2009/2010	\$15,000	
Total :	\$15,000	

Task Name: Other Assessment Report Preparation Task: GUDI-IPZ 2 delineation and vulnerability scoring; study of need for IPZ 3
Task#: 73 *TaskID:* 625
Geographic Area: Thamesford well supply system (GUDI) of the County of Oxford
Water System Name: Thamesford WS
Comment: Thamesford well supply system (GUDI) - IPZ2 delineation and vulnerability scoring; study of need for IPZ3. Involves modelling, fieldwork, reporting.

Lead County of Oxford	
01-Oct-08	to 31-Jul-09
Year	Est'd Cost
2008/2009	\$40,000
2009/2010	
Total :	\$40,000

Task Name: Other Assessment Report Preparation Task: GUDI IPZ work - IPZ2 delineation and vulnerability scoring
Task#: 74 *TaskID:* 657
Geographic Area: Woodstock GUDI wells (Thornton & Tabor wells) of the County of Oxford
Water System Name: Woodstock Well Supply
Comment: Woodstock GUDI wells (Thornton and Tabor wells) - IPZ 2 delineation and vulnerability scoring, including modelling, fieldwork, reporting

Lead County of Oxford	
01-Oct-08	to 31-Jul-09
Year	Est'd Cost
2008/2009	\$25,000
2009/2010	
Total :	\$25,000

Task Name: Other Assessment Report Preparation Task: Review of past work, remodeling of WHPA in overburden wells and assigning vulnerability scores
Task#: 75 *TaskID:* 650
Geographic Area: Dorchester well supply system
Water System Name: Dorchester Well Supply
Comment: Review of past work to check consistency with other technical studies. Will include the remodelling of the overburden wells to delineate WHPA as well as assigning vulnerability scores.

Lead Municipality of Thames Centre	
01-Jun-08	to 31-Mar-09
Year	Est'd Cost
2008/2009	\$12,000
Total :	\$12,000

Task Name:	Other Assessment Report Preparation Task: Prescreening of First Nations Water Supplies	Lead to be determined
Task#:	76	31-Dec-08 to
Geographic Area:	Bkejwanong First Nation (Walpole Island), Chippewas of the Thames First Nation, Delaware Nation Council, Munsee-Delaware Nation, Oneida Nation of the Thames	TaskID: 642
Water System Name:	Multiple systems or watershed based task	Year Est'd Cost
Comment:	A provision is made for preliminary assessment of First Nations supplies should the First Nations wish to have this work undertaken for their systems. This assessment would, among other things, determine what additional work would be required on these systems and may assist the First Nations Communities with determining their involvement in Source Protection Planning in the region. It is understood that Chippewas of Kettle and Stony Point First Nation have requested to have their intake included in the ABMVSPA. Chippewas of Aamjiwnaang (Sarnia) are supplied water from the LAWSS system and Caldwell First Nation is supplied by private wells. The schedule for undertaking this work is dependent on when the First Nations indicate that they are interested in undertaking the work. The lead for this work would be determined through discussions with the First Nations.	2008/2009 \$60,000 Total : \$60,000

Task Name:	Other Assessment Report Preparation Task: Peer Review and resulting edits of Vulnerability Assessment work	Lead Upper Thames River Conservation Authority
Task#:	77	01-Oct-08 to 31-Jul-09
Geographic Area:	Thames-Sydenham and Region	TaskID: 651
Water System Name:	Multiple systems or watershed based task	Year Est'd Cost
Comment:	Establish peer review committees for Surface Water, Groundwater and GUDI work to review the vulnerability assessment completed through various projects led by both municipalities and CAs. A modest allowance has been included to undertake revisions to work which has been accepted by the lead. It is anticipated that much of the work required as a result of the peer reviews has been included under tasks associated with updating work to meet the Director's Rules. An allowance has also been included for a review of the data sets utilized in each of the projects.	2008/2009 \$135,000 2009/2010 \$135,000 Total : \$270,000

Task Name:	Other Assessment Report Preparation Task: GUDI - IPZ Studies - Vulnerability Assessment, Threats Inventory and Risk Assessment	Lead Upper Thames River Conservation Authority
Task#:	78	01-Apr-08 to 31-Mar-09
Geographic Area:	GUDI wells of these drinking water systems: City of London back up (Fanshawe wells), Dorchester, Kilworth Heights and Highgate (in LTVSPA)	TaskID: 567
Water System Name:	Multiple systems or watershed based task	Year Est'd Cost
Comment:	MOE proposed rules related to Groundwater Under the Direct Influence of surface water (GUDI)- Intake Protection Zone (IPZ) studies was posted in June 2008. It is anticipated that the rules will require that IPZ type vulnerable zones will be required for GUDI wells.	2008/2009 \$110,000 Total : \$110,000

Task Name: Other Assessment Report Preparation Task: GUDI IPZ Study - Preliminary Screening
Task#: 79 *TaskID:* 659
Geographic Area: GUDI wells of these drinking water systems: City of London back up (Fanshawe wells), Dorchester, Kilworth Heights and Highgate systems
Water System Name: Multiple systems or watershed based task
Comment: MOE proposed rules related to Groundwater Under the Direct Influence of surface water (GUDI)- Intake Protection Zone (IPZ) studies was posted in June 2008. It is anticipated that the rules will require that IPZ type vulnerable zones will be required for GUDI wells. The preliminary screening of the systems will compile available information, delineate approximate IPZ3 based on that available information and assess the types and magnitude of potential treats in that area.

Costs include work on the Highgate system in the LTVSPA

Lead Upper Thames River Conservation Authority		
01-Apr-08	to	31-Mar-09
Year	Est'd Cost	
2008/2009	\$25,000	
Total :	\$25,000	

Task Name: Coordinating and supporting projects for the source protection plan (SPP)
Task#: 80 *TaskID:* 590
Geographic Area: All three Source Protection Areas (SPAs) of the Thames-Sydenham and Region Source Protection Region: Upper Thames River SPA, Lower Thames Valley SPA and St. Clair Region SPA
Water System Name: Multiple systems or watershed based task
Comment: This task includes the support for the SPC to develop the Source Protection Plan. The Rules, Regulations and provincial guidance on the development of the Source Protection Plan are yet to be released. As such this task is a placeholder for the development of the plan which will need to be revised once the work to complete the plan is better defined.

Lead Upper Thames River Conservation Authority		
01-Apr-09	to	20-Aug-12
Year	Est'd Cost	
2009/2010	\$210,000	
2010/2011	\$1,350,000	
2011/2012	\$1,350,000	
2012/2013	\$760,000	
Total :	\$3,670,000	

Task Name: Undertaking communications initiatives for the source protection plan
Task#: 81 *TaskID:* 591
Geographic Area: All three Source Protection Areas (SPAs) of the Thames-Sydenham and Region Source Protection Region: Upper Thames River SPA, Lower Thames Valley SPA and St. Clair Region SPA
Water System Name: Multiple systems or watershed based task
Comment: Developing the Source Protection Plan will be a consultative process requiring significant communications initiatives. As with the SPC formation, Terms of Reference and Assessment Report, stakeholder forums and working groups will be utilized to engage stakeholders throughout the plan development stage as well as the formal consultation which will be required on the proposed plan. These stakeholder engagement initiatives will be complemented by various communications products including newsletters, tabloids and presentations. Local media will be utilized to keep stakeholders informed on Drinking Water Source Protection and progress on the Source Protection Plan as well as stakeholder group distribution (where available).

Lead Source Protection Committee		
01-Apr-10	to	20-Aug-12
Year	Est'd Cost	
2010/2011	\$90,000	
2011/2012	\$90,000	
2012/2013	\$50,000	
Total :	\$230,000	

The Rules, Regulations and provincial guidance on the Source Protection Plan are yet to be released. The Rules and Regulations are likely to include significant consultation requirements on the proposed Source Protection Plan. A separate task is included in this Terms of Reference for consultation on the proposed Source Protection Plan which includes anticipated requirements for posting, advertising, notices and consultation on the proposed plan. The initiative included in this task will complement the requirements for consultation on the proposed Plan which are included in the other task. In addition to the required consultation on the proposed Source Protection Plan, many of the plan components will also be consulted on. Specific outreach will be undertaken in areas where significant risks are likely.

This task will need to be re-evaluated and possibly revised once the Rules and Regulations are in place to ensure that the planned communications initiatives meet the needs of the SPC and the stakeholders in the region as well as satisfy the regulatory requirements.

Staff involvement related to communications initiatives are included in the coordinating and supporting projects for the Source Protection Plan (SPP) task. Costs included in this task includes efforts in all 3 SPAs.

Task Name: Information management for source protection plan preparation
Task#: 82 *TaskID:* 592
Geographic Area: Source Protection Region including the Upper Thames River SPA, Lower Thames Valley SPA and St. Clair Region SPA
Water System Name: Multiple systems or watershed based task
Comment: While preparing the Source Protection Plan the SPC, staff, working groups and municipalities will require access to Assessment Report products as well as the development of SPP data products. Software licensing and hardware maintenance similar to that included in the task related to the information management for the Assessment Report is included in this task.

Staff costs associated with this task are included in the task related to the coordination of the SPP.

Lead Upper Thames River Conservation Authority		
01-Feb-10	to	20-Aug-12
Year	Est'd Cost	
2009/2010	\$20,000	
2010/2011	\$60,000	
2011/2012	\$60,000	
2012/2013	\$50,000	
Total :	\$190,000	

Task Name: Policy development to address drinking water threats (where required and/or permissible in Act/Regs)
Task#: 83 *TaskID:* 660
Geographic Area: County of Oxford
Water System Name: Multiple systems or watershed based task

Lead County of Oxford	
01-Apr-10	<i>to</i>
31-Mar-11	
Year	Est'd Cost
2010/2011	\$50,000
Total :	\$50,000

Comment: The County of Oxford will work with the SPC and staff of the CA to develop policies to address drinking water threats in vulnerable areas associated with the WHPAs for the County's wells. This task includes staff time to develop policies and consider how they can be incorporated into County of Oxford policies including the Official Plan. The cost shown for this task is approximately half of the cost associated with this task as work will also be required in the Lake Erie SPR.

Task Name: Policy development to address drinking water threats (where required and/or permissible in Act/Regs)
Task#: 84 *TaskID:* 593
Geographic Area: All three Source Protection Areas (SPAs) of the Thames-Sydenham and Region Source Protection Region: Upper Thames River SPA, Lower Thames Valley SPA and St. Clair Region SPA
Water System Name: Multiple systems or watershed based task

Lead Source Protection Committee	
01-Jan-10	<i>to</i>
20-Aug-12	
Year	Est'd Cost
2009/2010	NA
2010/2011	NA
2011/2012	NA
2012/2013	NA
Total :	

Comment: In considering policies to include in the Source Protection Plan the SPC will consider the Clean Water Act and its Regulations, Rules and other provincial guidance. The SPC will also consider the types of policies being implemented in neighbouring regions. Criteria will be developed by the SPC to compare risk management measures and policies to be included in the Source Protection Plan. These criteria will be consistent with the SPC's mission statement and guiding principles including the principal of being "fair and reasonable". In developing these policies, the SPC will have regard for the financial impact on those affected including normal business or standard practices and expectations for existing situations. The policies may also consider the cost of the change, any ongoing or repetitive costs, long term impacts and any impacts on productive capacity or competitive advantage. Both existing and new programs, opportunities, financial instruments, and education and outreach policies and programs will be considered. Where there are water quantity threats to drinking water sources included in the ToR the SPC will need to consider policies to address those threats. More general policies related to water conservation may also be considered by the SPC in developing the policies to be included in the Source Protection Plan.

The staff and SPC costs associated with this task are included with the task related to coordinating and supporting projects associated with the Source Protection Plan. This task will require extensive consultation with stakeholder groups which has been included in the task related to undertaking communications initiatives for the Source Protection Plan.

Task Name: Policy development for monitoring (where required, advisable and/or permissible in Act & Regs)
Task#: 85 *TaskID:* 609
Geographic Area: All three Source Protection Areas (SPAs) of the Thames-Sydenham and Region Source Protection Region: Upper Thames River SPA, Lower Thames Valley SPA and St. Clair Region SPA
Water System Name: Multiple systems or watershed based task
Comment: The SPC will consider existing monitoring programs of the CAs, municipalities, province and stakeholder groups and develop specific monitoring programs for the Source Protection Plan. These monitoring programs should include programs which will monitor the effectiveness of the plan on issues identified in the Assessment Report as well as emerging issues related to drinking water sources, and Great Lakes Targets. Monitoring programs will be considered to evaluate compliance with the Source Protection Plan including Risk Management Plans and Municipal Planning alignment with the policies included in the Source Protection Plan. Municipal monitoring and reporting programs will be considered to ensure that the municipalities within the region with regard to their implementation of the Plan. The monitoring programs included in the Source Protection Plan will facilitate the requirement in the Clean Water and Regulations to report to the Province on the source protection planning.

The staff and SPC costs associated with this task are included with the task related to coordinating and supporting projects associated with the Source Protection Plan.

<i>Lead</i>		Source Protection Committee
01-Apr-09	<i>to</i>	20-Aug-12
<i>Year</i>	<i>Est'd Cost</i>	
2009/2010	NA	
2010/2011	NA	
2011/2012	NA	
2012/2013	NA	
Total :		

Task Name: Policy development for Great Lakes elements (where required/permissible in Act & Regs)
Task#: 86 *TaskID:* 610
Geographic Area: All three Source Protection Areas (SPAs) of the Thames-Sydenham and Region Source Protection Region: Upper Thames River SPA, Lower Thames Valley SPA and St. Clair Region SPA
Water System Name: Multiple systems or watershed based task
Comment: The Clean Water Act includes the ability of the Minister of the Environment to set Great Lakes targets for watershed. The Source Protection Plan must assist in achieving those Great Lakes targets. Further guidance from the MOE is expected. It is also required that the Source Protection Plan consider Great Lakes Agreements. It is assumed that consultation with other regions draining into each of the Great Lakes that the watershed of the TSR drain into will be required. As well, consultation will be required with Provincial and Federal organizations with responsibilities under the Great Lakes Agreements.

Although the scope of the work associated with this task is largely unknown, an allowance for work associated with this task, for both staff and SPC, are included with the task related to coordinating and supporting projects associated with the Source Protection Plan. The estimated cost is included in the tasks in the LTVSPA and SCRSPA to include the additional cost of consultation.

<i>Lead</i>		Source Protection Committee
01-Apr-09	<i>to</i>	20-Aug-12
<i>Year</i>	<i>Est'd Cost</i>	
2009/2010	NA	
2010/2011	NA	
2011/2012	NA	
2012/2013	NA	
Total :		

Task Name: Establishing timelines for policy implementation
Task#: 87 *TaskID:* 611
Geographic Area: All three Source Protection Areas (SPAs) of the Thames-Sydenham and Region Source Protection Region: Upper Thames River SPA, Lower Thames Valley SPA and St. Clair Region SPA
Water System Name: Multiple systems or watershed based task
Comment: In developing policies for the Source Protection Plan timelines for the implementation of those policies must be established. In developing these timelines the SPC will consult with the municipalities and other stakeholders. The SPC will apply its guiding principles, including the principal of being fair and reasonable, to establishing those timelines. In establishing the timelines the SPC also needs to meet the requirements of the Act and its Rules and Regulations.

<i>Lead</i>		Source Protection Committee
01-Apr-09	<i>to</i>	20-Aug-12
<i>Year</i>	<i>Est'd Cost</i>	
2009/2010	NA	
2010/2011	NA	
2011/2012	NA	
2012/2013	NA	
Total :		

Task Name: Consultation on the overall proposed source protection plan
Task#: 88 *TaskID:* 597
Geographic Area: All three Source Protection Areas (SPAs) of the Thames-Sydenham and Region Source Protection Region: Upper Thames River SPA, Lower Thames Valley SPA and St. Clair Region SPA
Water System Name: Multiple systems or watershed based task
Comment: It is anticipated that the Source Protection Plan Rules and Regulations will have specific requirements to consult on the proposed Source Protection Plan. It is expected that these requirements will be similar to the requirements for the consultation on the proposed Terms of Reference and the proposed requirements for consultation on the Assessment Report (included in the proposed Regulation and Rules on the Assessment Report which have been posted for comments). As the requirements for this consultation are yet unknown the planned activities included in this task will need to be re-evaluated once the Rules and Regulations are in place.

<i>Lead</i>		Source Protection Committee
01-Jan-12	<i>to</i>	31-Jul-12
<i>Year</i>	<i>Est'd Cost</i>	
2011/2012	\$10,000	
2012/2013	\$15,000	
Total :		\$25,000

It is anticipated that the SPC will be required to post a draft and publish a notice. Advertising costs related to this are included in this task. Although it is expected that a single meeting will be required we have included in this task holding a series of open houses and forums in addition an anticipated requirement to hold a public meeting. Initiatives included on the task related to undertaking communications initiatives related to the Source Protection Plan complement the proposed consultation included in this task.

Staff time related to this task has been allowed for in the task related to coordinating and supporting projects for the Source Protection Plan.

Task Name: Delineating and applying vulnerability scores to WHPAs or IPZs
Task#: 89 *TaskID:* 662
Geographic Area: All Middlesex County and City of London wells within the Thames Sydenham and Region Source Protection Region - City of London Standby, Birr, Dorchester, Melrose, Kilworth Heights Subdivision, Mount Brydges and Thorndale
Water System Name: Multiple systems or watershed based task
Comment: Proposed costs are estimates of the updates and further work required to ensure the technical studies meet the Director's Technical Rules posted on the Ministry of Environment Environmental Bill of Rights Registry in June 2008. The scope of this task may change as a result of changes to the rules from those posted. Related, previously funded work for the same well supply systems is led by the City of London and shown in a separate task ' Delineating and applying vulnerability scores to WHPAs or IPZs' (Task No. 49 in the ToR Guide).

Lead Upper Thames River Conservation Authority

01-Dec-08	<i>to</i>	30-Jun-09
<i>Year</i>		<i>Est'd Cost</i>
2008/2009		\$29,000
2009/2010		
Total :		\$29,000

Task Name: Identifying issues, inventorying threats and assessing hazards in WHPAs or IPZs
Task#: 90 *TaskID:* 663
Geographic Area: All Middlesex County and City of London wells within the Thames Sydenham and Region Source Protection Region - City of London Standby, Birr, Dorchester, Melrose, Kilworth Heights Subdivision, Mount Brydges and Thorndale
Water System Name: Multiple systems or watershed based task
Comment: Proposed costs are estimates of the updates and further work required to ensure the technical studies meet the Director's Technical Rules posted on the Ministry of Environment Environmental Bill of Rights Registry in June 2008. The scope of this task may change as a result of changes to the rules from those posted. Related, previously funded work for the same well supply systems is led by the City of London and shown in a separate task ' Identifying issues, inventorying threats and assessing hazards in WHPAs or IPZs' (Task No. 57 in the ToR Guide).

Lead Upper Thames River Conservation Authority

01-Dec-08	<i>to</i>	30-Jun-09
<i>Year</i>		<i>Est'd Cost</i>
2008/2009		\$143,000
2009/2010		
Total :		\$143,000

Task Name: Assess risk in WHPAs or IPZs
Task#: 91 *TaskID:* 664
Geographic Area: All Middlesex County and City of London wells within the Thames Sydenham and Region Source Protection Region - City of London Standby, Birr, Dorchester, Melrose, Kilworth Heights Subdivision, Mount Brydges and Thorndale
Water System Name: Multiple systems or watershed based task
Comment: The 2008-2009 cost estimates are for individual contact with landowners where risks could be significant, and updating risk assessment based on survey results. Proposed costs are estimates of the updates and further work required to ensure the technical studies meet the Director's Technical Rules posted on the Ministry of Environment Environmental Bill of Rights Registry in June 2008. The scope of this task may change as a result of changes to the rules from those posted. Related, previously funded work for the same well supply systems is led by the City of London and shown in a separate task ' Assess risk in WHPAs or IPZs' (Task No. 64 in the ToR Guide).

Lead Upper Thames River Conservation Authority

01-Apr-06	<i>to</i>	30-Jun-09
<i>Year</i>		<i>Est'd Cost</i>
2006/2007		
2007/2008		
2008/2009		\$194,000
2009/2010		
Total :		\$194,000

Total for Region:

\$15,358,649

9 ***Cost Estimates***

The Terms of Reference Regulation, (Ontario Regulation 287/07) requires that the Terms of Reference include a work plan that identifies all the major tasks to be completed in the preparation of the Assessment Report and the Source Protection Plan. That work plan is to include an estimate of the cost of the task. The list of tasks in section 8.2 includes a table of estimated annual costs for each task. In some cases the costs are blank as the costs have been included with another task or within the Terms of Reference for one of the other Source Protection Authorities in the Region.

The Province has committed to funding the development of the Source Protection Plans. Some of the work on the Assessment Report has been funded by MOE to municipalities and CAs. Future funding for the work contained in the approved Terms of Reference will be provided by the Province through transfer payments to the SPR's lead Conservation Authority (UTRCA) to allocate to the lead for the task. Transfer payments will be based on an annual business plans submitted by the lead CA for review and approval by the Province.

It is important to realize that the costs included with each task are estimates based on our current understanding of guidance and rules, and in many cases, on assumptions. Final Regulations and Rules which will define the requirements of the Assessment Report are not yet available. Proposed Source Protection Plan Rules and Regulations are not expected for some time. As such assumptions on the requirements have been made to allow estimates to be calculated.

In many cases the scope of a task will not be defined until other tasks are completed. As such, changes in scope may result in cost being significantly different than the estimates provided herein. In some cases certain tasks may not even be necessary (e.g. the Tier 1 Water Budget establishes whether a Tier 2 Water Budget is required).

It is therefore anticipated that costs associated with some tasks will be significantly different than the estimates included in the attached Terms of Reference documents. The costs of the tasks will be approved by the province within annual work plans discussed above. It is anticipated that revisions to the Terms of Reference will not be required to update the cost estimates.

Appendix

A – Glossary of Terms and Acronyms

B – List of Tasks Available for Use in the Terms of Reference

C – Lower Thames Valley Source Protection Area Terms of Reference Document

D – St. Clair Region Source Protection Area Terms of Reference Document

E – Upper Thames River Source Protection Area Terms of Reference Document

F – Summary of Consultation on the Terms of Reference – *to be added following consultation*

G – Comments Considered in Submission of the Terms of Reference to the SPA – *to be added following consultation*

Appendix A – Glossary of Terms and Acronyms

Note: The definitions provided in this glossary are meant to assist readers of the Terms of Reference documents and are based on Ministry of Environment draft Director’s Rules and Regulations which are subject to change, and where needed, past draft MOE technical guidance. For actual definitions, please refer to The Clean Water Act, 2006 Regulations, Rules on definitions and technical rules.

Term or Acronym	Definition
<i>ABMV</i>	Ausable Bayfield - Maitland Valley
<i>Assessment Report</i>	The Assessment Report is a science based document that identifies vulnerable areas, drinking water threats and issues within those areas, and assesses risks due to those threats in terms of their significance
<i>Aquifer</i>	An underground saturated permeable geological formation that is capable of transmitting water in sufficient quantities under ordinary hydraulic gradients to serve as a source of groundwater supply. Water from <i>aquifers</i> is extracted for use through wells.
<i>AVI</i>	Aquifer Vulnerability Index: a numerical indicator of an aquifer’s intrinsic or inherent vulnerability or susceptibility, to contamination, expressed as a function of the thickness and permeability of overlying layers
<i>CA</i>	Conservation Authority
<i>CWA</i>	Clean Water Act, 2006
<i>Drinking water threat</i>	An activity or condition that adversely affects or has the potential to adversely affect the quality or quantity of any water that is or may be used as a source of drinking water, and includes an activity or condition that is prescribed by the regulations as a drinking water threat
<i>Drinking water issue</i>	The presence of a parameter in source water which would result in exceedence of the Ontario Drinking Water Standard after treatment, or a continued increasing trend would result in exceedence of the Ontario Drinking Water Standard after treatment (Part XI.1 of Clean Water Act, 2006, Draft Technical Rules of June 2008)
<i>EBR</i>	Environmental Bill of Rights (Province of Ontario)
<i>ERCA/ERSPA</i>	Essex Region Conservation Authority/Essex Region Source Protection Area
<i>Groundwater</i>	Subsurface water that occurs beneath the water table in soils and geological formations that are fully saturated (<i>aquifers</i>)
<i>GUDI</i>	Groundwater Under the Direct Influence (of surface water): Groundwater sources (wells, springs, infiltration galleries, etc.) where microbial pathogens are able to travel from nearby surface water to the groundwater source. Potential GUDI wells will be considered to be under the direct influence of surface water unless a hydrogeological study proves otherwise to the satisfaction of the Director. In accordance with the Ontario Drinking Water Standards, water from GUDI wells must receive chemically assisted filtration and disinfection or an equivalent treatment process unless this hydrogeological study shows, to the satisfaction of the Director, that the aquifer is providing effective in-situ filtration.
<i>HVA</i>	Highly Vulnerable Aquifer: an aquifer that is or is likely to be significantly and adversely affected from external sources, and includes the land above the aquifer

Term or Acronym	Definition
<i>IPZ</i>	Intake Protection Zone: an area that is related to a surface water intake and within which it is desirable to regulate or monitor drinking water threats. These zones are to be delineated in accordance with the Assessment Report Director's Rules. According to the proposed rules IPZ1 is generally a fixed radius from the intake, IPZ2 is based on a minimum 2 hour travel time to the intake and IPZ3 is generally the water contributing area of the intake.
<i>ISI</i>	Intrinsic Susceptibility Index: a numerical indicator that helps to indicate where contamination of groundwater resulting from surface contamination is more or less likely to occur due to natural hydrogeological features
<i>LTVCA</i>	Lower Thames Valley Conservation Authority
<i>LTVSPA</i>	Lower Thames Valley Source Protection Area
<i>MOE</i>	Ministry of the Environment (Province of Ontario)
<i>Risk</i>	The likelihood of a drinking water threat rendering a drinking water source impaired, unusable or unsustainable, or compromising the effectiveness of a drinking water treatment process, resulting in the potential for adverse human health effects
<i>SCRCA</i>	St. Clair Region Conservation Authority
<i>SCRSPA</i>	St. Clair Region Source Protection Area
<i>SGRA</i>	Significant Groundwater Recharge Areas: an area within which it is desirable to regulate or monitor drinking water threats that may affect the movement of precipitation to an aquifer. These areas will be delineated based on criteria established in the Assessment Report Director's Rules.
<i>SP</i>	Source Protection
<i>SPA</i>	Source Protection Area (or sometimes Authority): established in Ontario Regulation 284/07 under the Clean Water Act.
<i>SPC</i>	Source Protection Committee: the committee established under the Clean Water Act and Ontario Regulation 288/07 and responsible for developing the Source Protection Plans for the Source Protection Region
<i>SPP</i>	Source Protection Plan: a document that sets out policies to protect source water against existing and potential drinking water threats identified in the Assessment Report
<i>SPR</i>	Source Protection Region: established in Ontario Regulation 284/07 under the Clean Water Act which combine multiple Source Protection Areas into a single region with a single Source Protection Committee. Some Source Protection Areas are not combined into a Source Protection Region.
<i>Surface Water</i>	Water that is present on the earth's surface and may occur as rivers, lakes, wetlands, ponds, etc.
<i>ToR</i>	Terms of Reference: is a formal document that describes the work needed to complete the Assessment Report and the Source Protection Plan
<i>TSR</i>	Thames-Sydenham and Region
<i>Uncertainty analysis</i>	An assessment of the accuracy of a technical studies task; investigates the effects of lack of knowledge and other potential sources of error
<i>UTRCA</i>	Upper Thames River Conservation Authority
<i>UTRSPA</i>	Upper Thames River Source Protection Authority
<i>Watershed</i>	An area that is drained by a river and its tributaries

Appendix

Guide to proposed

Thames-Sydenham and Region Terms of Reference

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Term or Acronym	Definition
<i>WHPA</i>	Well Head Protection Area: an area that is related to a wellhead and within which it is desirable to regulate or monitor drinking water threats. These areas are to be defined based on the Assessment Report Director's Rules. According to the proposed rules these zones are generally defined on travel time (2, 5, 25 years) within the <i>aquifer</i> as calculated through the use of hydrogeologic models (in our Region).
<i>WTP</i>	Water Treatment Plant
<i>Terms of Reference Wizard</i>	Electronic tool developed by the Ministry of Environment (Ontario) to help prepare the Terms of Reference. It is comprised of a Microsoft Access database and a Microsoft Word Template and includes tools to populate the template with information in the database. Together the database and template satisfy the requirement that the Terms of Reference be submitted in a format acceptable to the MOE.

Appendix B – List of Tasks Available for Use in the Terms of Reference

Task#	TaskName (ToR Wizard)	Description	Overall Status	Sub Tasks
Assessment Report Preparation				
AR1	Coordinating and supporting projects for the assessment report	Undertaking administrative support, staffing, management support, and training necessary to provide project coordination for the assessment report components and direct support to the source protection committee.	In progress	
AR2	Undertaking communications initiatives for the assessment report	Local area engagement, outreach and creation of communications products that support the assessment report process.	In progress	
AR3	Information management for the assessment report preparation	Conducting overall data management, data sharing agreements, standards, mapping, software and maintenance.	In progress	
AR4	Undertaking a watershed characterization	Identifying and describing watersheds in the source protection area. May include water quality analysis and peer review for water quality analysis. Details on how to complete this task will be available in the Assessment Report regulation, Director's Rules, and guidance when they are developed.	Complete	The Watershed Characterization is a description of the local watershed area. A 'watershed' is the entire area of land that is drained by a river and its tributaries. The team will develop a watershed description by accumulating all the available information about the area. It will include information on natural characteristics, the population distribution, and land use. The water quality conditions and trends in the watershed are described. The objective is to describe the quality of surface water and groundwater using existing information. The team will identify long-term trends to determine if the water quality is improving, deteriorating, or remaining constant. An inventory of water use will also be conducted. It will show the current draw on the water, as well as historical takings, to illustrate where most of the water is going and at what times during the year. The inventory will estimate population growth in the watershed area, which has a significant impact on future water demands. Preliminary vulnerable areas in the watershed are identified. These are areas which are particularly sensitive to impacts on the quality or quantity of drinking water sources. A preliminary list of land use activities that are known to pose a threat to the quality or quantity of drinking water is prepared. A summary of the issues and concerns that exist in the watershed is prepared.

Task#	TaskName (ToR Wizard)	Description	Overall Status	Sub Tasks
AR5	Conducting a conceptual water budget	Describing the overall flow system dynamics for each watershed in the source protection area taking into consideration surface water and groundwater features, land cover (e.g. proportion of urban vs. rural uses), human-made structures (e.g. dams, channel diversions, water crossings), and water takings. Details on how to complete this task will be available in the Assessment Report regulation, Director's Rules, and guidance when they are developed.	Complete	
AR6	Conducting a tier 1 water budget analysis and stress assessment	Conducting a tier 1 water budget analysis, stress assessment, and delineation of significant groundwater recharge areas. May also include the identification of water quantity concerns and an analysis of uncertainty. Details on how to complete this task will be available in the Assessment Report regulation, Director's Rules, and guidance when they are developed.	In progress	
AR7	Conducting a tier 2 water budget analysis and stress assessment	If determined necessary from a tier 1 water budget analysis and stress assessment, conducting a tier 2 water budget analysis and stress assessment, and refining the delineation of significant groundwater recharge areas. May also include the identification of water quantity concerns and an analysis of uncertainty. Details on how to complete this task will be available in the Assessment Report regulation, Director's Rules, and guidance when they are developed.	If deemed necessary	

Task#	TaskName (ToR Wizard)	Description	Overall Status	Sub Tasks
AR8	Conducting a tier 3 water budget analysis and water quantity risk assessment	If determined necessary from a tier 2 water budget analysis and stress assessment, conducting a tier 3 water budget analysis and water quantity risk assessment. May include identifying significant, moderate and low water quantity threats. May also include consultation with property owners/residents/stakeholders impacted by a significant drinking water threat scoring and an analysis of uncertainty. Details on how to complete this task will be available in the Assessment Report regulation, Director's Rules, and guidance when they are developed.	If deemed necessary	
AR9	Delineating and applying vulnerability scores to HVAs	Delineating the location and extent of highly vulnerable aquifers in the source protection area and applying vulnerability scores. An uncertainty analysis may be included in this task. Details on how to complete this task will be available in the Assessment Report regulation, Director's Rules, and guidance when they are developed. HVA: Highly Vulnerable Aquifer ISI: Intrinsic Susceptibility Index	In progress	<p>Regional ISI: Intrinsic Susceptibility Index is a specific indexing approach that takes advantage of the existing Water Well Information System (WWIS) database within the province to produce an index or numerical score for each well in the database. The index considers the overburden soil type and thickness above the aquifer and the static water level in the well. This index value is then interpolated (estimated using mathematical formulae) between the well locations to produce a complete spatial assessment (map) of the intrinsic vulnerability of the aquifer(s).</p> <p>HVA Delineation: Based on various methods like ISI.</p> <p>HVA Vulnerability Score: Having delineated the vulnerable areas, and assessed the relative vulnerability of the aquifers within these areas as High, Medium or Low, the vulnerability <i>scoring</i> within each of the vulnerable areas must be completed. It is this vulnerability <i>score</i> that is carried forward into the risk analysis aspects of the overall assessment report. The two main steps are: 1. Categorizing the relative vulnerability of the aquifer as "High", "Medium" or "Low", 2. In the case of municipal supply wells (WHPAs), mapping the WHPA zones and intersecting these areas with the above categorization of vulnerability to assign the intrinsic vulnerability score.</p>

Task#	TaskName (ToR Wizard)	Description	Overall Status	Sub Tasks
				<p>Uncertainty Analysis (HVA vulnerability score): In addition to the vulnerability score, an uncertainty analysis is completed in order to provide a rating for each vulnerable area, as well as provide direction for future data collection and analysis methods. Ultimately, the uncertainty for the vulnerability scores will need to be categorized as either <i>high</i> or <i>low</i>. The uncertainty rating established for the vulnerable areas is important since it will be used, along with the risk assessment score, to determine the need for (and spatial extent of) additional data collection and/or analysis.</p> <p>Update Module 3 to meet Current Guidance: Some technical studies may have been done previously when MOE guidance was not available. In many instances these studies have been updated to meet current MOE guidance.</p> <p>Update to meet Director's Rules: New Director's Rules are yet to come from MOE. Technical studies may need to be updated to meet the Director's Rules.</p>
AR10	Identifying issues, inventorying threats and assessing hazards in HVAs	Listing and describing drinking water quality issues, inventorying threats and assessing hazards (including uncertainty analysis) in the highly vulnerable aquifers. Details on how to complete this task will be available in the Assessment Report regulation, Director's rules, and guidance when they are developed.		<p>Threats Inventory in HVA: Threats are activities on the landscape that, if managed improperly, may cause an issue to occur in the future. Threats may include landfills, activities resulting in the transport, disposal, or generation of hazardous waste, and land application of materials such as manure or pesticides. In particular, the inventory will focus on the identification of threats in vulnerable areas because these areas have the greatest potential to allow contaminants to travel and impact sources of drinking water. For groundwater, vulnerable areas include wellhead protection areas, highly vulnerable aquifers, significant groundwater recharge areas and future municipal supply areas.</p>

Task#	TaskName (ToR Wizard)	Description	Overall Status	Sub Tasks
				<p>Issue Identification in HVA: Issues are problems that currently exist in the source water, or that can be reasonably predicted to be a problem in the near term if rising trends continue. In consultation with the public and local stakeholders, drinking water issues and concerns that affect the quality of water in a vulnerable area will be identified and evaluated, as well as the drinking water threats that may be causing the issue. In situations where several issues exist, the list of drinking water issues to be evaluated would have to be prioritized. Priority would be given to those that are deemed to, either directly or indirectly, pose the greatest danger to human health. Contaminants of concern are associated with each drinking water issue. The list of issues is also used to help prioritize drinking water threats for risk management. Where the source of an issue can be linked to a drinking water threat on the landscape, these threats would be deemed significant drinking water threats.</p> <p>Hazard Score in HVA: A hazard rating is a scientifically based value which represents the relative potential for a contaminant of concern to impact drinking water sources at concentrations significant enough to cause human illness. The rating gives each contaminant of concern a high, medium, or low ranking. There are two types of hazard ratings: chemical and pathogenic.</p> <p>Uncertainty Analysis (HVA Hazard Score): On a broader scale, the uncertainty associated with the hazard rating is related to knowledge and understanding of which chemical contaminants are present for a specific land use activity. The better this knowledge and information is, specifically about what substances are used, the lower the uncertainty, and hence the greater the confidence that the hazard rating reflects the likelihood that this activity could negatively affect drinking water sources. Each hazard rating determined for the pathogenic contaminants of concern will require an analysis of the uncertainty associated with the hazard rating. For pathogens, uncertainty exists at many levels. Uncertainty exists regarding the sources and environmental fate of specific pathogens. Uncertainty also exists regarding the occurrence of pathogens in the environment. Uncertainty as it relates to the pathogen hazard rating will rely on the information collected on the land use itself.</p>

Task#	TaskName (ToR Wizard)	Description	Overall Status	Sub Tasks
				<p>Update to Meet Director's Rules: New Director's Rules are yet to come from MOE. Technical studies may need to be updated to meet the Director's Rules.</p>
AR11	Assessing risks in HVAs	Identifying any significant, moderate, low, and negligible drinking water threats, undertaking an issues evaluation, and analyzing uncertainty in highly vulnerable aquifers. Details on how to complete this task will be available in the Assessment Report regulation, Director's Rules, and guidance when they are developed.		<p>Threats Prioritization in HVA: The list of threats in WHPAs, HVAs, SGRAs and IPZs will be reviewed. The risk associated with a threat is assessed and a score is assigned based on two factors: its hazard to human health, and the vulnerability of the drinking water source. On the basis of the initial risk assessment, the team will place the threat in one of four risk categories: significant risk, moderate risk, low risk, or negligible risk. If the risk is negligible, no further action is needed. Threats that fall into the other categories may be passed on to the risk management component of source water protection planning or may be reassessed, depending on the quality of information available to undertake the initial risk assessment. Threats X Vulnerability = Risk</p> <p>Issues Evaluation in HVA: In situations where several issues exist, the list of drinking water issues to be evaluated would have to be prioritized. Priority would be given to those that are deemed to, either directly or indirectly, pose the greatest danger to human health. Contaminants of concern are associated with each drinking water issue. The list of issues is also used to help prioritize drinking water threats for risk management. Where the source of an issue can be linked to a drinking water threat on the landscape, these threats would be deemed significant drinking water threats.</p> <p>Uncertainty Analysis (HVA): Where uncertainty and risk are considered to be moderate or high, the team will undertake a second assessment for the threat using improved data to reassess the risk. The second assessment may yield a different risk rating for a threat, or confirm the previous assessment results. If a threat poses little risk (low or negligible), no further risk assessment is required.</p> <p>Update to Meet Director's Rules: New Director's Rules are yet to come from MOE. Technical studies may need to be updated to meet the Director's Rules.</p>

Task#	TaskName (ToR Wizard)	Description	Overall Status	Sub Tasks
AR12	Applying vulnerability scores to SGRAs	Applying vulnerability scores to significant groundwater recharge areas in the source protection area (delineated in the water budget process). Details on how to complete this task will be available in the Assessment Report regulation, Director's Rules, and guidance when they are developed. SGRA: Significant Groundwater Recharge Area	In Progress	<p>SGRA Delineation: Can be delineated by various methods. Recharge is the process by which water moves from the ground surface, through the unsaturated zone, to arrive at the water table. Significant recharge areas must be delineated through the source water plans and will be considered vulnerable from both a quality and quantity perspective. Source protection plans will consider these areas as: vulnerable to urbanization which can restrict recharge to subsurface aquifers; and vulnerable to cumulative contaminant loading impacts.</p> <p>SGRA Vulnerability Score: Having delineated the vulnerable areas, and assessed the relative vulnerability of the aquifers within these areas as High, Medium or Low, the vulnerability scoring within each of the vulnerable areas must be completed. It is this vulnerability score that is carried forward into the risk analysis aspects of the overall assessment report. The two main steps are: 1. Categorizing the relative vulnerability of the aquifer as "High", "Medium" or "Low", 2. In the case of municipal supply wells (WHPAs), mapping the WHPA zones and intersecting these areas with the above categorization of vulnerability to assign the intrinsic vulnerability score.</p> <p>Update Module 3 to Meet Current Guidance: Some technical studies may have been done previously when MOE guidance was not available. In many instances these studies have been updated to meet current MOE guidance.</p> <p>Update to Meet Director's Rules: New Director's Rules are yet to come from MOE. Technical studies may need to be updated to meet the Director's Rules.</p>
AR13	Identifying issues, inventorying threats and assessing hazards in SGRAs	Listing and describing drinking water quality issues, inventorying threats and assessing hazards (including uncertainty analysis) in the significant groundwater recharge areas. Details on how to complete this task will be available in the Assessment Report regulation, Director's Rules, and guidance when they are developed.		<p>Threats Inventory in SGRA: Threats are activities on the landscape that, if managed improperly, may cause an issue to occur in the future. Threats may include landfills, activities resulting in the transport, disposal, or generation of hazardous waste, and land application of materials such as manure or pesticides. In particular, the inventory will focus on the identification of threats in vulnerable areas because these areas have the greatest potential to allow contaminants to travel and impact sources of drinking water. For groundwater, vulnerable areas include wellhead protection areas, highly vulnerable aquifers, significant groundwater recharge areas and future municipal supply areas.</p>

Task#	TaskName (ToR Wizard)	Description	Overall Status	Sub Tasks
				<p>Issue Identification in SGRA: Issues are problems that currently exist in the source water, or that can be reasonably predicted to be a problem in the near term if rising trends continue. In consultation with the public and local stakeholders, drinking water issues and concerns that affect the quality of water in a vulnerable area will be identified and evaluated, as well as the drinking water threats that may be causing the issue. In situations where several issues exist, the list of drinking water issues to be evaluated would have to be prioritized. Priority would be given to those that are deemed to, either directly or indirectly, pose the greatest danger to human health. Contaminants of concern are associated with each drinking water issue.</p> <p>The list of issues is also used to help prioritize drinking water threats for risk management. Where the source of an issue can be linked to a drinking water threat on the landscape, these threats would be deemed significant drinking water threats.</p> <p>Hazard Score in SGRA: A hazard rating is a scientifically based value which represents the relative potential for a contaminant of concern to impact drinking water sources at concentrations significant enough to cause human illness. The rating gives each contaminant of concern a high, medium, or low ranking. There are two types of hazard ratings: chemical and pathogenic.</p> <p>Uncertainty Analysis (SGRA Hazard Score): On a broader scale, the uncertainty associated with the hazard rating is related to knowledge and understanding of which chemical contaminants are present for a specific land use activity. The better this knowledge and information is, specifically about what substances are used, the lower the uncertainty, and hence the greater the confidence that the hazard rating reflects the likelihood that this activity could negatively affect drinking water sources.</p> <p>Each hazard rating determined for the pathogenic contaminants of concern will require an analysis of the uncertainty associated with the hazard rating. For pathogens, uncertainty exists at many levels. Uncertainty exists regarding the sources and environmental fate of specific pathogens. Uncertainty also exists regarding the occurrence of pathogens in the environment. Uncertainty as it relates to the pathogen hazard rating will rely on the information collected on the land use itself.</p>

Task#	TaskName (ToR Wizard)	Description	Overall Status	Sub Tasks
				Update to Meet Director's Rules: New Director's Rules are yet to come from MOE. Technical studies may need to be updated to meet the Director's Rules.
AR14	Assessing risk in SGRAs	Identifying any significant, moderate, low, and negligible drinking water threats, undertaking an issues evaluation, and analyzing uncertainty in significant groundwater recharge areas. Details on how to complete this task will be available in the Assessment Report regulation, Director's Rules, and guidance when they are developed.		<p>Threats Prioritization in SGRA: The list of threats in WHPAs, HVAs, SGRAs and IPZs will be reviewed. The risk associated with a threat is assessed and a score is assigned based on two factors: its hazard to human health, and the vulnerability of the drinking water source. On the basis of the initial risk assessment, the team will place the threat in one of four risk categories: significant risk, moderate risk, low risk, or negligible risk. If the risk is negligible, no further action is needed. Threats that fall into the other categories may be passed on to the risk management component of source water protection planning or may be reassessed, depending on the quality of information available to undertake the initial risk assessment. Threats X Vulnerability = Risk</p> <p>Issues Evaluation in SGRA: In situations where several issues exist, the list of drinking water issues to be evaluated would have to be prioritized. Priority would be given to those that are deemed to, either directly or indirectly, pose the greatest danger to human health. Contaminants of concern are associated with each drinking water issue. The list of issues is also used to help prioritize drinking water threats for risk management. Where the source of an issue can be linked to a drinking water threat on the landscape, these threats would be deemed significant drinking water threats.</p> <p>Uncertainty Analysis (SGRA): Where uncertainty and risk are considered to be moderate or high, the team will undertake a second assessment for the threat using improved data to reassess the risk. The second assessment may yield a different risk rating for a threat, or confirm the previous assessment results. If a threat poses little risk (low or negligible), no further risk assessment is required.</p> <p>Update to Meet Director's Rules: New Director's Rules are yet to come from MOE. Technical studies may need to be updated to meet the Director's Rules.</p>

Task#	TaskName (ToR Wizard)	Description	Overall Status	Sub Tasks
AR15	Delineating and applying vulnerability scores to WHPAs or IPZs	<p>Delineating the location and extent of the vulnerable area around a drinking water system (well head protection areas for drinking water systems using groundwater or intake protection zones for drinking water systems withdrawing from surface water) in the source protection area and applying a vulnerability score. Uncertainty analysis and peer review may be required. In addition, consultation with property owners/residents/stakeholders affected by the delineation and scoring for these two vulnerable areas may be required. Details on how to complete this task will be available in the Assessment Report regulation, Director's Rules, and guidance when they are developed.</p> <p>WHPA: Well Head Protection Area IPZ: Intake Protection Zone ISI: Intrinsic Susceptibility Index AVI: Aquifer Vulnerability Index</p>	In Progress	<p>WHPA or IPZ Delineation: Protection zones are delineated around surface water intakes and groundwater well heads to show areas that may be vulnerable to contamination. A minimum zone is set up and refined based on local scientific assessment.</p> <p>WHPA or IPZ Vulnerability Score: A vulnerability score is assigned for each of the drinking water intake or well head zones. The score refers to the comparative likelihood of a contaminant of concern reaching an intake or a well</p> <p>WHPA ISI: Intrinsic Susceptibility Index is a specific indexing approach that takes advantage of the existing Water Well Information System (WWIS) database within the province to produce an index or numerical score for each well in the database. The index considers the overburden soil type and thickness above the aquifer and the static water level in the well.</p> <p>WHPA AVI: Aquifer Vulnerability Index (AVI) is an index approach where spatial calculations are completed with the available hydrogeological data and mapping products (e.g., overburden soil type and thickness; depth to aquifer; etc.) to produce an index or numerical score that reflects the relative amount of protection provided by the physical features that overlie the aquifer.</p> <p>Uncertainty Analysis (WHPA or IPZ): There will be some level of uncertainty associated with the delineation of vulnerable areas. An assessment and rating of the uncertainty associated with the vulnerability score must be provided. Ultimately, the uncertainty for the vulnerability scores will need to be categorized as either <i>high</i> or <i>low</i>. The uncertainty rating established for the vulnerable areas is important since it will be used, along with the risk assessment score, to determine the need for (and spatial extent of) additional data collection and/or analysis.</p> <p>Peer Review: A peer review of the technical work conducted is suggested in order to evaluate the soundness in technical methodology used as well as provide suggestions of additional work that may be needed.</p>

Task#	TaskName (ToR Wizard)	Description	Overall Status	Sub Tasks
				<p>Update to Module 3 and 4 to Meet Current Guidance: Some technical studies on well heads and intakes may have been done previously when MOE guidance was not available. In many instances these studies have been updated to meet current MOE guidance.</p> <p>Update to Meet Director's Rules: New Director's Rules are yet to come from MOE. Technical studies may need to be updated to meet the Director's Rules.</p>
AR16	Identifying issues, inventorying threats and assessing hazards in WHPAs or IPZs	Listing and describing drinking water quality issues, inventorying threats and assessing hazards (including uncertainty analysis) in well head protection areas and/or intake protection zones. Details on how to complete this task will be available in the Assessment Report regulation, Director's Rules, and guidance when they are developed.	In Progress	<p>Threats Inventory in WHPA or IPZ: Threats are activities on the landscape that, if managed improperly, may cause an issue to occur in the future. Threats may include landfills, activities resulting in the transport, disposal, or generation of hazardous waste, and land application of materials such as manure or pesticides. In particular, the inventory will focus on the identification of threats in vulnerable areas because these areas have the greatest potential to allow contaminants to travel and impact sources of drinking water. For groundwater, vulnerable areas include well head protection areas, highly vulnerable aquifers, significant groundwater recharge areas and future municipal supply areas. For surface water, the vulnerable areas are designated as the surface water intake protection zones.</p> <p>Issue Identification in WHPA or IPZ: Issues are problems that currently exist in the source water, or that can be reasonably predicted to be a problem in the near term if rising trends continue. In consultation with the public and local stakeholders, drinking water issues and concerns that affect the quality of water in a vulnerable area will be identified and evaluated, as well as the drinking water threats that may be causing the issue. In situations where several issues exist, the list of drinking water issues to be evaluated would have to be prioritized. Priority would be given to those that are deemed to, either directly or indirectly, pose the greatest danger to human health. Contaminants of concern are associated with each drinking water issue. The list of issues is also used to help prioritize drinking water threats for risk management. Where the source of an issue can be linked to a drinking water threat on the landscape, these threats would be deemed significant drinking water threats.</p>

Task#	TaskName (ToR Wizard)	Description	Overall Status	Sub Tasks
				<p>Hazard Score in WHPA or IPZ: A hazard rating is a scientifically based value which represents the relative potential for a contaminant of concern to impact drinking water sources at concentrations significant enough to cause human illness. The rating gives each contaminant of concern a high, medium, or low ranking. There are two types of hazard ratings: chemical and pathogenic.</p> <p>Uncertainty Analysis (WHPA or IPZ Hazard Score): On a broader scale, the uncertainty associated with the hazard rating is related to knowledge and understanding of which chemical contaminants are present for a specific land use activity. The better this knowledge and information is, specifically about what substances are used, the lower the uncertainty, and hence the greater the confidence that the hazard rating reflects the likelihood that this activity could negatively affect drinking water sources.</p> <p>Each hazard rating determined for the pathogenic contaminants of concern will require an analysis of the uncertainty associated with the hazard rating. For pathogens, uncertainty exists at many levels. Uncertainty exists regarding the sources and environmental fate of specific pathogens. Uncertainty also exists regarding the occurrence of pathogens in the environment. Uncertainty as it relates to the pathogen hazard rating will rely on the information collected on the land use itself.</p> <p>Update to Meet Director's Rules: New Director's Rules are yet to come from MOE. Technical studies may need to be updated to meet the Director's Rules.</p>
AR17	Assess risk in WHPAs or IPZs	Identifying any significant, moderate, low, and negligible drinking water threats, undertaking an issues evaluation, and analyzing uncertainty in well head protection areas or intake protection zones. Consultation may be required with stakeholders impacted by significant drinking water threats scoring. Consultation with adjacent source protection areas or regions may also be required for shared Great Lakes drinking water issues. Details on how to complete this task will be available in the Assessment Report regulation, Director's Rules, and guidance		<p>Threats Prioritization in WHPA or IPZ: The list of threats in WHPAs, HVAs, SGRAs and IPZs will be reviewed.</p> <p>The risk associated with a threat is assessed and a score is assigned based on two factors: its hazard to human health, and the vulnerability of the drinking water source. On the basis of the initial risk assessment, the team will place the threat in one of four risk categories: significant risk, moderate risk, low risk, or negligible risk. If the risk is negligible, no further action is needed. Threats that fall into the other categories may be passed on to the risk management component of source water protection planning or may be reassessed, depending on the quality of information available to undertake the initial risk assessment.</p> <p>Threats X Vulnerability = Risk</p>

Task#	TaskName (ToR Wizard)	Description	Overall Status	Sub Tasks
		when they are developed. HVA: Highly Vulnerable Aquifer SGRA: Significant Groundwater Recharge Area		<p>Issues Evaluation in WHPA or IPZ: In situations where several issues exist, the list of drinking water issues to be evaluated would have to be prioritized. Priority would be given to those that are deemed to, either directly or indirectly, pose the greatest danger to human health. Contaminants of concern are associated with each drinking water issue. The list of issues is also used to help prioritize drinking water threats for risk management. Where the source of an issue can be linked to a drinking water threat on the landscape, these threats would be deemed significant drinking water threats.</p> <p>Uncertainty Analysis (WHPA or IPZ): Where uncertainty and risk are considered to be moderate or high, the team will undertake a second assessment for the threat using improved data to reassess the risk. The second assessment may yield a different risk rating for a threat, or confirm the previous assessment results. If a threat poses little risk (low or negligible), no further risk assessment is required.</p> <p>Update to Meet Director's Rules (Tier 1): New Director's Rules are yet to come from MOE. Technical studies may need to be updated to meet the Director's Rules.</p> <p>Tier 2 Risk Assessment: Where uncertainty and risk are considered to be moderate or high, the team will undertake a second assessment for the threat using improved data to reassess the risk. The second assessment may yield a different risk rating for a threat, or confirm the previous assessment results. If a threat poses little risk (low or negligible), no further risk assessment is required.</p>
AR18	Consultation on the overall proposed Assessment Report	Meeting the legislative and regulatory requirements on the consultation and submission process of the proposed Assessment Report. Details on how to complete this task will be available in the Assessment Report regulation, Director's Rules, and guidance when they are developed.	In progress	
AR19	Other Assessment Report Preparation Task	If required, add other tasks to complete the assessment report. Describe in detail.		Detail on each of these tasks is provided with the general task description in the Terms of Reference. This task is utilized significantly for updating past work to meet the Director's Rules or new guidance.

Task#	TaskName (ToR Wizzard)	Description	Status
Source Protection Plan Preparation			
SPP1	Coordinating and supporting projects for the source protection plan (SPP)	Undertaking administrative support, staffing, management support, and training necessary to provide project coordination for the source protection plan components and direct support to the source protection committee.	In progress
SPP2	Undertaking communications initiatives for the source protection plan	Local area engagement, outreach and creation of communications products that support the source protection plan process.	In progress
SPP3	Information management for source protection plan preparation	Conducting overall data management, data sharing agreements, standards, mapping, software and maintenance.	In progress
SPP4	Policy development to address drinking water threats (where required and/or permissible in Act/Regs)	Policy development to address drinking water threats (where required and/or permissible in the Act and source protection plan regulation). Detailed requirements and guidance will be provided in the source protection plan regulation and guidance document when they are developed.	
SPP5	Policy development for monitoring (where required, advisable and/or permissible in Act & Regs)	Policy development for monitoring activities (where required, advisable and/or permissible in the Act and source protection plan regulation), including determining who is responsible for implementing these policies. Detailed requirements and guidance will be provided in the source protection plan regulation and guidance document when they are developed.	
SPP6	Policy development for Great Lakes elements (where required/permissible in Act & Regs)	Policy development for Great Lakes associated elements (where directed by the Minister and required or permissible in the Act and source protection plan regulation), including monitoring policies to assist in implementing and determining the effectiveness of achieving Great Lake target(s) policies, determining who is responsible for implementing those policies, and determining the need to identify any of these policies as "designated Great Lakes policies". Detailed requirements and guidance will be provided in the source protection plan regulation and guidance document when they are developed.	
SPP7	Establishing timelines for policy implementation	Establishing timelines for policy implementation after all policies for the SPP are developed, giving consideration to the policies developed, key players affected, capacity for implementation, the assessed risks, and natural, social, and economic considerations, including local community interests/needs. Detailed requirements and guidance will be provided in the source protection plan regulation and guidance document when they are developed.	
SPP8	Consultation on the overall proposed source protection plan	Consultation and submission process of the overall proposed source protection plan. Details on how to conduct the consultations on the overall proposed source protection plan will be provided in the source protection plan regulation and guidance document when they are developed.	In progress
SPP9	Other Source Protection Plan Preparation Task:	If required, add other tasks to complete the source protection plan. Describe in detail.	

Appendix C – Lower Thames Valley Source Protection Area Terms of Reference Document

Terms of Reference for Lower Thames Valley Source Protection
Area

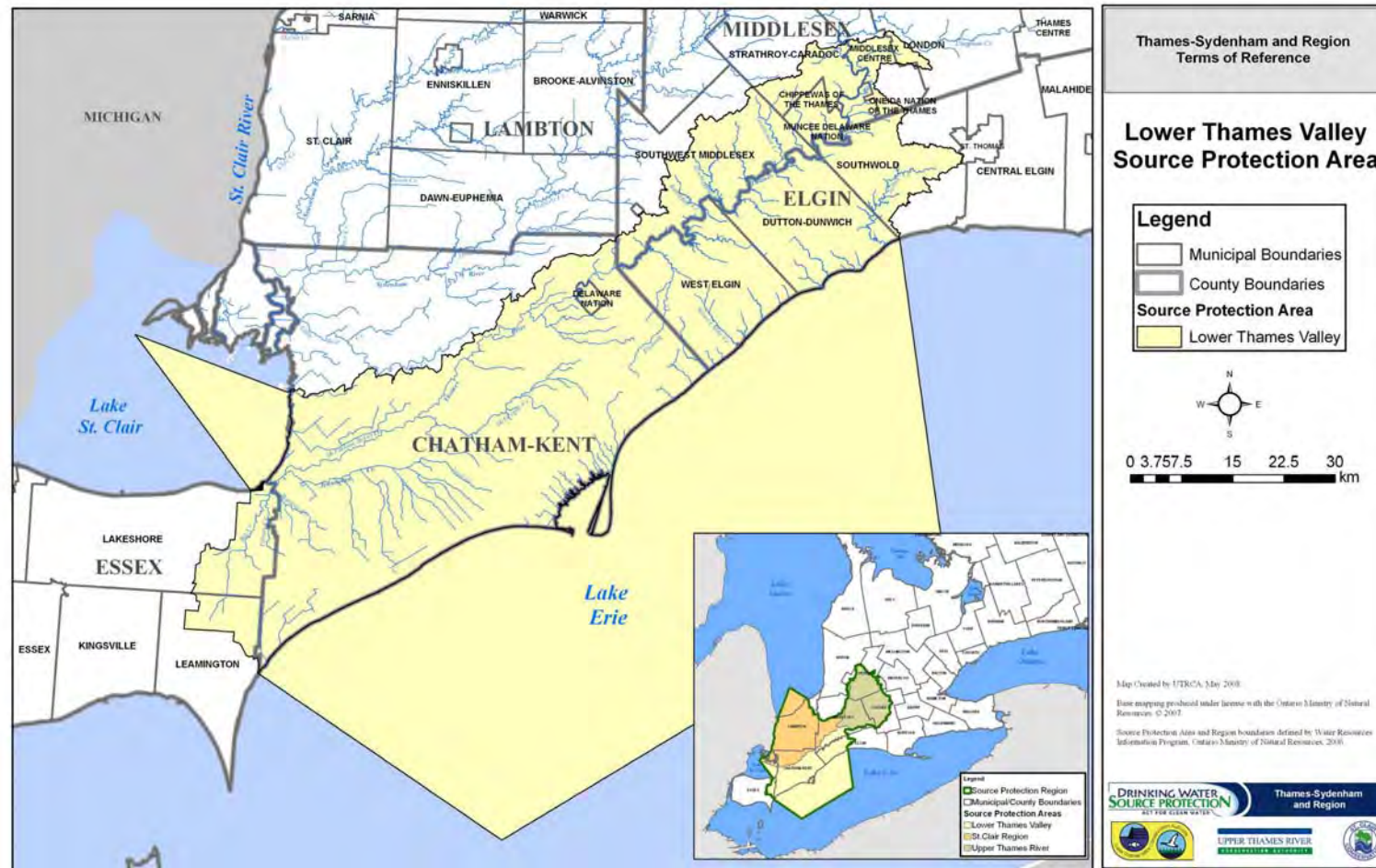
Thames-Sydenham and Region Source Protection Committee

2008-Oct-12

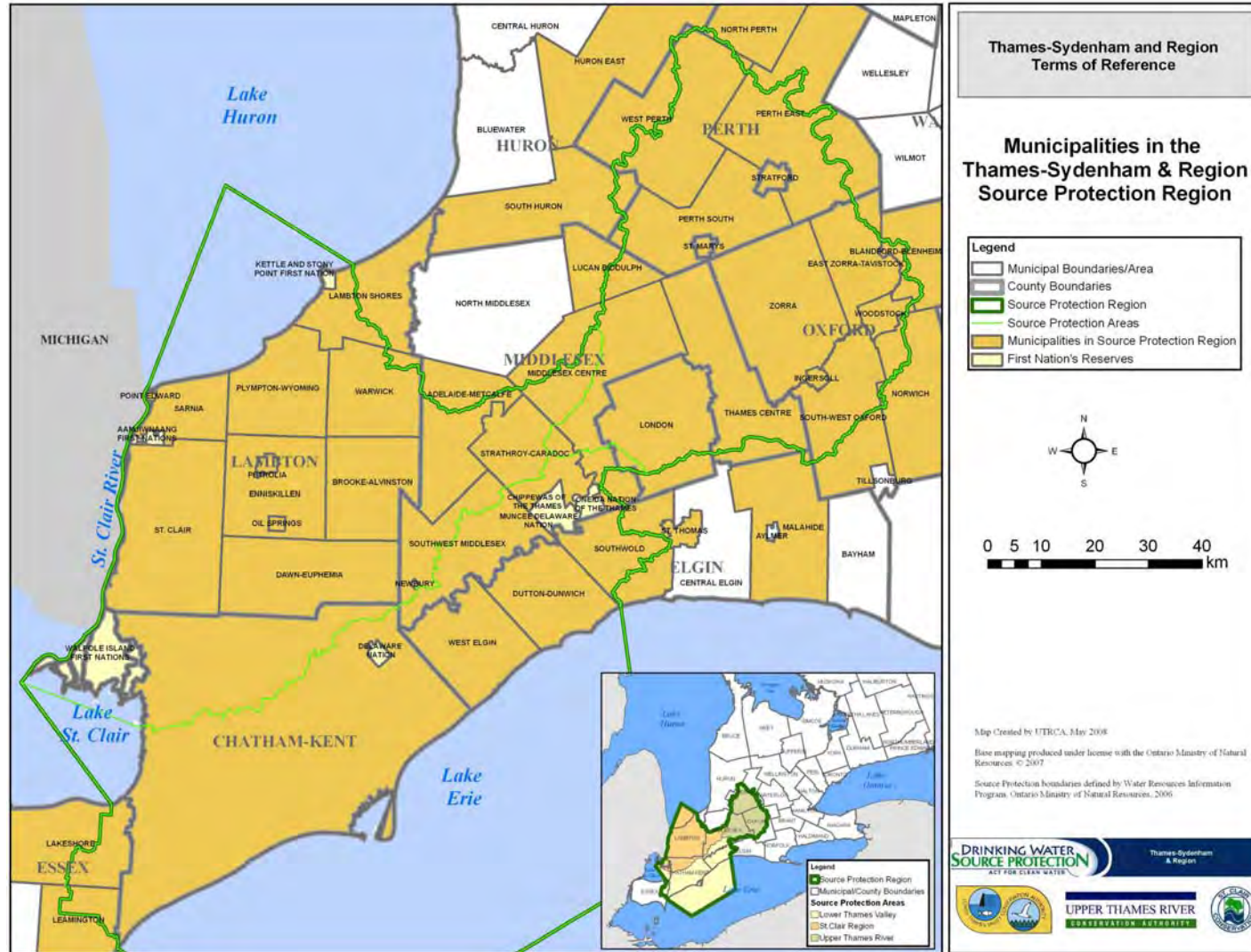
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Map of Source Protection Area



Map of Source Protection Region



List of Municipalities Located in the Lower Thames Valley Source Protection Area

Legal Name of Municipality
Chatham-Kent, Municipality of
Elgin, County of
Essex, County of
Middlesex, County of
Dutton/Dunwich, Municipality of
Southwold, Township of
St. Thomas, City of
West Elgin, Municipality of
Lakeshore, Town of
Leamington, Municipality of
London, City of
Middlesex Centre, Municipality of
Newbury, Village of
Southwest Middlesex, Municipality of
Strathroy-Caradoc, Municipality of

List of Municipal Residential Drinking Water System(s)

Type of System (existing or planned)	Drinking Water System Number	Drinking Water System Name	Owner	Operating Authority	Type of Source Water (surface, ground, both)
Existing	220003378	Chatham Water Treatment Plant	Municipality of Chatham-Kent	Chatham-Kent Public Utilities Commission	Surface Water
Existing	260015587	Highgate Well Supply	Municipality of Chatham-Kent	Chatham-Kent Public Utilities Commission	Surface and Groundwater
Existing	220003369	Ridgetown Well Supply	Municipality of Chatham-Kent	Chatham-Kent Public Utilities Commission	Groundwater
Existing	260024999	South Chatham-Kent Water Treatment Plant	Municipality of Chatham-Kent	Chatham-Kent Public Utilities Commission	Surface Water
Existing	220002949	West Elgin Water Treatment Plant	Municipality of West Elgin	Ontario Clean Water Agency	Surface Water
Existing	220003332	Wheatley Water Treatment Plant	Municipality of Chatham-Kent	Chatham-Kent Public Utilities Commission	Surface Water

List of Drinking Water System(s) Included by Municipal Council Resolution

(Not Municipal Residential Drinking Water Systems)

Type of System (existing or planned)	Drinking Water System Number	Drinking Water System Name	Owner	Operating Authority	Type of Source Water (surface, ground, both)	Title of Council Resolution
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No systems included.

List of Drinking Water Systems Serving Reserve(s)

(Not Municipal Residential Drinking Water Systems)

Type of System (existing or planned)	Drinking Water System Number	Drinking Water System Name	Owner	Operating Authority	Type of Source Water (surface, ground, both)	Regulation Reference
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No systems included.

List of Fully or Partially Exempted Municipal Residential Drinking Water System(s)

Type of System (existing or planned)	Drinking Water System Number	Drinking Water System Name	Owner	Operating Authority	Type of Source Water (surface, ground, both)	Title of Council Resolution
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No systems exempted.

List of Drinking Water System(s) Included by Minister of the Environment

(Not Municipal Residential Drinking Water Systems)

Type of System (existing or planned)	Drinking Water System Number	Drinking Water System Name	Owner	Operating Authority	Type of Source Water (surface, ground, both)
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No systems included.

List of Matter(s) that Affect Other Source Protection Committees

Source Protection Committees Affected	Source Protection Area	Description of Matter
Essex Region SPC	Essex Region Source Protection Area	The Wheatley Water Treatment Plant (WTP) is situated in the Lower Thames Valley SPA of the Thames-Sydenham and Region Source Protection Region. This WTP is owned by The Municipality of Chatham-Kent and the Public Utilities Commission and serves parts of the Town of Lakeshore. However, it supplies water to parts of the Municipality of Leamington that lie in the Essex Region Source Protection Area and the IPZ extends into the Essex Region Source Protection Area. Work related to the Assessment Report and Source Protection Plan in the Wheatley IPZ will be undertaken through a collaborative approach involving both the TSR SPC and the ER SPC. It is understood that certain aspects of the work will be undertaken by ERCA who has the relevant data in the area.
Essex Region SPC	Essex Region Source Protection Area	The Town of Lakeshore and the Municipality of Leamington, although primarily within the Essex Region Source Protection Area, have areas extending into the jurisdiction of the Thames-Sydenham and Region Source Protection Region. A coordinated approach to technical studies and source protection planning policies must be considered.
Essex Region SPC	Essex Region Source Protection Area	The Stoney Point Water Treatment Plant is located in the Town of Lakeshore in the Essex Region SPA. It takes surface water from Lake St. Clair and serves the north-eastern portion of the Town of Lakeshore, including parts in the Lower Thames Valley SPA. Although the work will be undertaken by the Essex Region SPA, consultation with the Thames-Sydenham and Region SPR and the supplied municipalities within the Thames-Sydenham and Region SPR needs to be undertaken in developing the Assessment Report and Source Protection Plan as they relate to this supply.
Essex Region SPC	Essex Region Source Protection Area	The Union Water Treatment Plant is located in the Town of Kingsville, west of Leamington in the Essex Region SPA. It takes surface water from Lake Erie and serves the Town of Leamington and parts of the Town of Lakeshore including parts in the Lower Thames Valley SPA. Although the work will be undertaken by the Essex Region SPA, consultation with the Thames-Sydenham and Region SPR and the supplied municipalities within the Thames-Sydenham and Region SPR needs to be undertaken in developing the Assessment Report and Source Protection Plan as they relate to this supply.
Essex Region SPC	Essex Region Source Protection Area	The Minister may direct a Source Protection Authority to prepare and submit a report on any matter relating to the use of the Great Lakes as a source of drinking water or to assist another Source Protection Authority in preparing a report. In addition, the Minister may establish targets relating to the use of the Great Lakes as a source of drinking water for one or more source protection areas that contribute water to the Great Lakes.

		There will be a need to consult with the Essex Region SPA on Great Lakes issues.
Lake Erie SPC	Lake Erie Source Protection Region	The Minister may direct a Source Protection Authority to prepare and submit a report on any matter relating to the use of the Great Lakes as a source of drinking water or to assist another Source Protection Authority in preparing a report. In addition, the Minister may establish targets relating to the use of the Great Lakes as a source of drinking water for one or more source protection areas that contribute water to the Great Lakes. There will be a need to consult with the Lake Erie SPR on Great Lakes issues.
Lake Erie SPC	Lake Erie Source Protection Region	The Elgin Area Primary Water Supply System (EAPWSS) services communities in the Lower Thames Valley SPA of the Thames-Sydenham and Region SPR including the City of London, Municipality of Dutton/Dunwich and Township of Southwold. The Water Treatment Plant is located east of the village of Port Stanley in Central Elgin on Lake Erie, in the Lake Erie Source Protection Region. Although the work will be undertaken by the Lake Erie SP Region, consultation with the Thames-Sydenham and Region SPR and the supplied municipalities within the Thames-Sydenham and Region SPR needs to be undertaken in developing the Assessment Report and Source Protection Plan as they relate to this supply.
Ausable Bayfield-Maitland Valley SPC	Ausable Bayfield-Maitland Valley Source Protection Region	The Lake Huron Primary Water Supply System (LHPWSS) services the City of London and parts of the Municipalities of Middlesex Centre and Strathroy-Caradoc in the Lower Thames Valley SPA of the Thames-Sydenham and Region SPR. The Water Treatment Plant is located north of the community of Grand Bend on Lake Huron, in the Ausable Bayfield-Maitland Valley Source Protection Region. Although the work will be undertaken by the Ausable Bayfield-Maitland Valley (ABMV) SPR, consultation with the Thames-Sydenham and Region SPR and the supplied municipalities within the Thames-Sydenham and Region SPR needs to be undertaken in developing the Assessment Report and Source Protection Plan as they relate to this supply.
Essex Region SPC	Essex Region Source Protection Area	Water Budget work needs to consider groundwater flow into and out of each region. Consultation with neighbouring regions will be required to ensure that groundwater flow between regions is consistently represented in the water budget products of each region.
Lake Erie SPC	Lake Erie Source Protection Region	Water Budget work needs to consider groundwater flow into and out of each region. Consultation with neighbouring regions will be required to ensure that groundwater flow between regions is consistently represented in the water budget products of each region.
Lake Erie SPC	Lake Erie Source Protection Region	Edge matching of map products, of the Assessment Report and SP Plan, such as Significant Groundwater Recharge Areas and Highly Vulnerable Aquifers need to be undertaken. Consultation on the methods employed and products produced will be necessary.
Essex Region SPC	Essex Region Source Protection Area	Edge matching of map products, of the Assessment Report and SP Plan, such as Significant Groundwater Recharge Areas and Highly Vulnerable Aquifers need to be

		undertaken. Consultation on the methods employed and products produced will be necessary.
Lake Erie SPC	Lake Erie Source Protection Region	The City of London, City of St. Thomas, Township of Southwold (in Elgin County) and Municipality of Middlesex Centre (in Middlesex County) straddle the watershed divide between the Lower Thames Valley SPA of the Thames-Sydenham and Region SPR and the Lake Erie SPR. A coordinated approach to technical studies and source protection planning policies must be considered. Consultation on consistent policies within these shared municipalities needs to be considered.
Essex Region SPC	Essex Region Source Protection Area	Work related to the IPZ3 pertaining to Lake St. Clair intakes of Stoney Point, Belle river and possibly the Windsor Water treatment plant (in ER SPA) be undertaken through a collaborative approach between the TSR SPC and the ER SPC. It is understood that some aspects of the work within the TSR will be undertaken by the LTVCA, SCRCA and UTRCA who have the relevant data in the area. This work is allowed for in the task 'Delineating and applying vulnerability scores to WHPAs or IPZs' in the UTR SPA ToR, led by UTRCA (Task No. 55 in the Guide).

The Work Plan to Complete the Assessment Report

By Source Protection Area/ Drinking Water System Name	Task	Assigned Lead(s)	Estimated Completion Date	Estimated Cost
Lower Thames Valley Source Protection Area	Delineating and applying vulnerability scores to HVAs	Upper Thames River Conservation Authority	2008-Dec-31	
Lower Thames Valley Source Protection Area	Identifying issues, inventorying threats and assessing hazards in HVAs	Upper Thames River Conservation Authority	2009-Jun-01	
Lower Thames Valley Source Protection Area	Assessing risks in HVAs	Upper Thames River Conservation Authority	2009-Aug-01	
Lower Thames Valley Source Protection Area	Applying vulnerability scores to SGRAs	Upper Thames River Conservation Authority	2008-Dec-01	
Lower Thames Valley Source Protection Area	Identifying issues, inventorying threats and assessing hazards in SGRAs	Upper Thames River Conservation Authority	2009-Jun-01	
Lower Thames Valley Source Protection Area	Assessing risk in SGRAs	Upper Thames River Conservation Authority	2009-Aug-01	
Lower Thames Valley Source Protection Area	Delineating and applying vulnerability scores to WHPAs or IPZs	Essex Region Conservation Authority	2009-May-31	\$482,500
Lower Thames Valley Source Protection Area	Delineating and applying vulnerability scores to WHPAs or IPZs	Upper Thames River Conservation Authority	2009-Jun-01	
Lower Thames Valley Source Protection Area	Delineating and applying vulnerability scores to WHPAs or IPZs	Municipality of Chatham-Kent	2009-Mar-31	\$45,873
Lower Thames Valley Source	Identifying issues, inventorying threats and assessing hazards in WHPAs or IPZs	Essex Region Conservation Authority	2009-Jun-30	\$194,000

Protection Area				
Lower Thames Valley Source Protection Area	Identifying issues, inventorying threats and assessing hazards in WHPAs or IPZs	Municipality of Chatham-Kent	2009-Mar-31	\$74,067
Lower Thames Valley Source Protection Area	Assess risk in WHPAs or IPZs	Essex Region Conservation Authority	2009-Oct-31	\$90,500
Lower Thames Valley Source Protection Area	Assess risk in WHPAs or IPZs	Municipality of Chatham-Kent	2009-Jun-30	\$89,967
Lower Thames Valley Source Protection Area	GUDI IPZ Study - Preliminary Screening, Vulnerability Assessment, Threats Inventory and Risk Assessment	Upper Thames River Conservation Authority	2009-Mar-31	
Municipal Residential Drinking Water Systems				
West Elgin Water Treatment Plant	Delineating and applying vulnerability scores to WHPAs or IPZs	Municipality of West Elgin	2009-Oct-31	\$155,500
West Elgin Water Treatment Plant	Identifying issues, inventorying threats and assessing hazards in WHPAs or IPZs	Municipality of West Elgin	2009-Jun-30	\$66,280
West Elgin Water Treatment Plant	Assess risk in WHPAs or IPZs	Municipality of West Elgin	2009-Jun-30	\$38,900
Drinking Water Systems By Municipal Resolution				
Drinking Water Systems By Band Resolution				
Fully or Partially Exempt Drinking Water Systems				
Drinking Water Systems Included By Minister				

The Work Plan to Complete the Source Protection Plan

By Source Protection Area/ Drinking Water System Name	Task	Assigned Lead(s)	Estimated Completion Date	Estimated Cost
Lower Thames Valley Source Protection Area	Policy development for Great Lakes elements (where required/permisible in Act & Regs)	Source Protection Committee	2012-Aug-20	\$65,000
Municipal Residential Drinking Water Systems				
Drinking Water Systems By Municipal Resolution				
Drinking Water Systems By Band Resolution				
Fully or Partially Exempt Drinking Water Systems				
Drinking Water Systems Included By Minister				

The Date the Source Protection Plan is to be Submitted to the Minister for Approval by the Lower Thames Valley Conservation Authority:

2012-Aug-20

Council Resolution(s) to Include Drinking Water System(s)

No systems included.

Council Resolution(s) to Exempt Municipal Residential Drinking Water System(s)

No systems exempted.

Detailed Information

Detailed Information on Municipal Residential Drinking Water System(s)

Drinking Water System Type (planned or existing)	Drinking Water System Number	Drinking Water System Name	Owner	Operating Authority	Source Water Type (surface, ground, both)	Number of Wells
Existing	260015587	Highgate Well Supply	Municipality of Chatham-Kent	Chatham-Kent Public Utilities Commission	Surface and Groundwater	2
Number of Surface Water Intakes	Comments					
0						

Drinking Water System Type (planned or existing)	Drinking Water System Number	Drinking Water System Name	Owner	Operating Authority	Source Water Type (surface, ground, both)	Number of Wells
Existing	220003369	Ridgetown Well Supply	Municipality of Chatham-Kent	Chatham-Kent Public Utilities Commission	Groundwater	6
Number of Surface Water Intakes	Comments					
0						

Drinking Water System Type (planned or existing)	Drinking Water System Number	Drinking Water System Name	Owner	Operating Authority	Source Water Type (surface, ground, both)	Number of Wells
Existing	220002949	West Elgin Water Treatment Plant	Municipality of West Elgin	Ontario Clean Water Agency	Surface Water	0
Number of Surface Water Intakes	Comments					
1	The West Elgin WTP also has an emergency shoreline intake that has been used in the past when frazzle ice conditions occurred. It is yet to be determined if the intake is still available for use.					

Drinking Water System Type (planned or existing)	Drinking Water System Number	Drinking Water System Name	Owner	Operating Authority	Source Water Type (surface, ground, both)	Number of Wells
Existing	220003378	Chatham Water Treatment Plant	Municipality of Chatham-Kent	Chatham-Kent Public Utilities Commission	Surface Water	0
Number of Surface Water Intakes	Comments					
1	The Chatham WTP shares an intake with the South Chatham-Kent WTP.					

Drinking Water System Type (planned or existing)	Drinking Water System Number	Drinking Water System Name	Owner	Operating Authority	Source Water Type (surface, ground, both)	Number of Wells
Existing	260024999	South Chatham-Kent Water Treatment Plant	Municipality of Chatham-Kent	Chatham-Kent Public Utilities Commission	Surface Water	0
Number of Surface Water Intakes	Comments					
1	The Chatham WTP shares an intake with the South Chatham-Kent WTP.					

Drinking Water System Type (planned or existing)	Drinking Water System Number	Drinking Water System Name	Owner	Operating Authority	Source Water Type (surface, ground, both)	Number of Wells
Existing	220003332	Wheatley Water Treatment Plant	Municipality of Chatham-Kent	Chatham-Kent Public Utilities Commission	Surface Water	0
Number of Surface Water Intakes	Comments					
2	The Wheatley WTP has 2 intakes, one of which is an emergency intake used when frazzle ice conditions occur.					

Detailed Information on Drinking Water System(s) Included by Municipal Council Resolution

(Not Municipal Residential Drinking Water Systems)

No systems included.

Detailed Information on Drinking Water System(s) Included by Bands Serving Reserve(s)

(Not Municipal Residential Drinking Water Systems)

No systems included.

Detailed Information on Fully or Partially Exempted Municipal Residential Drinking Water System(s)

No systems exempted.

Detailed Information on Drinking Water System(s) Included by the Minister of the Environment

(Not Municipal Residential Drinking Water Systems)

No systems included.

Detailed Work Plan to Complete the Assessment Report

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Lower Thames Valley Source Protection Area	Delineating and applying vulnerability scores to HVAs	Upper Thames River Conservation Authority	2008-May-01	2008-Dec-31
Comments		Defined Geographic Area		Estimated Cost
<p>Intrinsic Susceptibility Index scores have been completed through past groundwater studies across the region. The mapping products from these separate county based studies have been compiled into a single mapping product, however there are issues with conflicting scoring at areas of overlap. This was to be expected as each study relied on the interpretation of data from within their study area. Near the edges of the study area different interpolation and extrapolations results should be expected based on the use of different data points near the boundaries. The work proposed under this task includes the mapping of ISI, based on the same methodologies employed in the groundwater studies, but utilizing a single data set across the entire region. Based on this scoring HVA will be delineated and vulnerability will be scored for these areas.</p> <p>Costs for this task have been included in the Upper Thames Region SPA Terms of Reference (since it is the lead on this study) and also include costs for the St. Clair Region SPA. Total costs are estimated to be \$29,000.</p>		Thames-Sydenham and Region Source Protection Region including the LTVSPA, SCRSPA and the UTRSPA		

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Lower Thames Valley Source Protection Area	Identifying issues, inventorying threats and assessing hazards in HVAs	Upper Thames River Conservation Authority	2008-Oct-01	2009-Jun-01
Comments		Defined Geographic Area		Estimated Cost
<p>Once delineated these areas will be assessed for the general nature of the types of threats contained in the areas. All threats which could result in a significant risk will be inventoried. Current guidance suggests a vulnerability score of 6 for these areas. As such it is not anticipated that significant risks will be identified in these areas. General types of land use in these areas will be characterized to the extent necessary to develop appropriate policies for these</p>		Thames-Sydenham and Region Source Protection Region including the LTVSPA, SCRSPA and the UTRSPA		

<p>types of threats in HVAs.</p> <p>Issues in these areas will be identified through the analysis of monitoring wells and municipal wells in the general areas as well as through discussions with the local health units who may be able to rely on interpretation of private well information.</p> <p>Issues may be considered in determining whether certain types of threats need to be inventoried in the area, however no allowance has been made in this task for a detailed inventory of such threats.</p> <p>Costs for this task have been included in the Upper Thames Region SPA Terms of Reference (since it is the lead on this study) and also include costs for the St. Clair Region SPA. Total costs are estimated to be \$40,000.</p>		
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By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Lower Thames Valley Source Protection Area	Assessing risks in HVAs	Upper Thames River Conservation Authority	2009-Apr-01	2009-Aug-01
Comments		Defined Geographic Area		Estimated Cost
Based on vulnerability scores and general threats characterization in the HVAs, possible risk scores will be assessed.		Thames-Sydenham and Region Source Protection Region including the LTVSPA, SCRSPA and the UTRSPA		
Costs for this task have been included in the Upper Thames Region SPA Terms of Reference (since it is the lead on this study) and also include costs for the St. Clair Region SPA. Total costs are estimated to be \$42,000.				

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Lower Thames Valley Source Protection Area	Applying vulnerability scores to SGRAs	Upper Thames River Conservation Authority	2008-Oct-01	2008-Dec-01
Comments		Defined Geographic Area		Estimated Cost
SGRAs will be defined through the Water Budget work. The vulnerability of these areas will be assessed based on Director's Rules and guidance. ISI scores are available for WHPAs as well as the regional ISI scores developed through the HVA delineation project. These results will need to be compared and the most appropriate scoring applied to the SGRA. It will be important that		Thames-Sydenham and Region Source Protection Region including the LTVSPA, SCRSPA and the UTRSPA		

<p>the vulnerability score associated with these areas be consistent with those parts of the WHPA which are part of the SGRA.</p> <p>Costs for this task have been included in the Upper Thames Region SPA Terms of Reference (since it is the lead on this study) and also include costs for the St. Clair Region SPA. Total costs are estimated to be \$15,000.</p>		
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By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Lower Thames Valley Source Protection Area	Identifying issues, inventorying threats and assessing hazards in SGRAs	Upper Thames River Conservation Authority	2008-Oct-01	2009-Jun-01
Comments		Defined Geographic Area	Estimated Cost	
<p>Once delineated these areas will be assessed for the general nature of the types of threats contained in the areas. All threats which could result in a significant risk will be inventoried. Current guidance suggests a vulnerability score of 6 for these areas. As such it is not anticipated that significant risks will be identified in these areas. General types of land use in these areas will be characterized to the extent necessary to develop appropriate policies for these types of threats in SGRAs.</p> <p>Issues in these areas will be identified through the analysis of monitoring wells and municipal wells in the general areas as well as through discussions with the local health units who may be able to rely on interpretation of private well information.</p> <p>Issues may be considered in determining whether certain types of threats need to be inventoried in the area, however no allowance has been made in this task for a detailed inventory of such threats.</p> <p>Costs for this task have been included in the Upper Thames Region SPA Terms of Reference (since it is the lead on this study) and also include costs for the St. Clair Region SPA. Total costs are estimated to be \$50,000.</p>		Thames-Sydenham and Region Source Protection Region including the LTVSPA, SCRSPA and the UTRSPA		

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Lower Thames Valley Source Protection Area	Assessing risk in SGRAs	Upper Thames River Conservation Authority	2009-Apr-01	2009-Aug-01

Comments	Defined Geographic Area	Estimated Cost
Costs for this task have been included in the Upper Thames Region SPA Terms of Reference (since it is the lead on this study) and also include costs for the St. Clair Region SPA. Total costs are estimated to be \$42,000.	Thames-Sydenham and Region Source Protection Region including the LTVSPA, SCRSPA and the UTRSPA	

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Lower Thames Valley Source Protection Area	Delineating and applying vulnerability scores to WHPAs or IPZs	Essex Region Conservation Authority	2005-Apr-01	2009-May-31
Comments	Defined Geographic Area	Estimated Cost		
<p>The Essex Region Conservation Authority (ERCA) led technical study includes two Lower Thames Valley (LTV) SPA surface water intakes at Wheatley and Erie Beach, and one St. Clair Region SPA intake at Wallaceburg. Stantec Consultants are conducting the study. In the LTVSPA, the intakes feed raw water to the (1) Wheatley water treatment plant (WTP), and (2) Chatham and South Chatham-Kent WTPs (shared Erie Beach intake).</p> <p>Proposed costs are estimates of the updates and further work required to ensure the technical studies meet the Director's Technical Rules posted on the Ministry of Environment Environmental Bill of Rights Registry in June 2008. The scope of this task may change as a result of changes to the rules from those posted.</p>	Intakes at Wheatley, Erie Beach (which supplies 2 systems - South Chatham-Kent and the Chatham Water Treatment Plants) in the LTVSPA and Wallaceburg in the SCRSPA as well as intakes in the Essex Region SPA	\$482,500		

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Lower Thames Valley Source Protection Area	Delineating and applying vulnerability scores to WHPAs or IPZs	Upper Thames River Conservation Authority	2008-Oct-01	2009-Jun-01
Comments	Defined Geographic Area	Estimated Cost		
<p>It is anticipated that the Director's Rules will require the delineation, vulnerability assessment and Risk Assessment of IPZ3 (or other methodologies for assessing risks resulting from issues or concerns outside of IPZ1 &2) for intakes on Lake St Clair and the Wallaceburg intake.</p> <p>Delineation and applying vulnerability scores for IPZ3 related to the Lake St Clair and Wallaceburg intakes will be completed according to the requirements of the Director's Rules. The MISED models developed through the past work will be used to identify areas, outside of the original model scope (developed to</p>	Wallaceburg intake in the St. Clair Region SPA as well as intakes on Lake St. Clair within Essex Region SPA			

<p>delineate IPZ2), which can contribute risks to the intakes. The models will be combined and improved to include discharges from the major rivers which may contribute risks to the intakes. Watercourses available in Conservation Authority and provincial data sets will be utilized to delineate the IPZ3 within the contributing watersheds. The modelling will be used as an indicator of areas more vulnerable (more likely to contribute risks) than others within the delineated IPZ3 and vulnerability scores will be assigned accordingly.</p> <p>Costs for this task have been included in the Upper Thames Region SPA Terms of Reference (since it is the lead on this study) and also include costs for the St. Clair Region SPA. Total costs are estimated to be \$95,000.</p>		
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By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Lower Thames Valley Source Protection Area	Delineating and applying vulnerability scores to WHPAs or IPZs	Municipality of Chatham-Kent	2006-Apr-01	2009-Mar-31
Comments		Defined Geographic Area		Estimated Cost
<p>Chatham-Kent Groundwater Technical Study for the Ridgetown and Highgate well supply systems in the Lower Thames Valley SPA. Dillon Consulting is conducting the study.</p> <p>Costs shown are from two sources: (1) MOE \$26,966.67 and (2) Chatham-Kent Public Utilities Commission \$8,906.00. The PUC funding is additional and meant to offset the MOE funding shortfall for numerical modeling of the Ridgetown well supply system.</p> <p>Proposed costs are estimates of the updates and further work required to ensure the technical studies meet the Director's Technical Rules posted on the Ministry of Environment Environmental Bill of Rights Registry in June 2008. The scope of this task may change as a result of changes to the rules from those posted.</p>		Ridgetown and Highgate well supply systems in the Lower Thames Valley SPA		\$45,873

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Lower Thames Valley Source Protection Area	Identifying issues, inventorying threats and assessing hazards in WHPAs or IPZs	Essex Region Conservation Authority	2005-Apr-01	2009-Jun-30
Comments		Defined Geographic Area		Estimated Cost
The Essex Region Conservation Authority (ERCA) led technical study includes		Intakes at Wheatley, Erie Beach (which supplies 2 systems -		\$194,000

<p>two Lower Thames Valley (LTV) SPA surface water intakes at Wheatley and Erie Beach, and one St. Clair Region SPA intake at Wallaceburg. Stantec Consultants are conducting the study. In the LTVSPA, the intakes feed raw water to the (1) Wheatley water treatment plant (WTP), and (2) Chatham and South Chatham-Kent WTPs (shared Erie Beach intake).</p> <p>Proposed costs are estimates of the updates and further work required to ensure the technical studies meet the Director's Technical Rules posted on the Ministry of Environment Environmental Bill of Rights Registry in June 2008. The scope of this task may change as a result of changes to the rules from those posted.</p>	<p>South Chatham-Kent and the Chatham Water Treatment Plants) in the LTVSPA and Wallaceburg in the SCRSPA as well as intakes in the Essex Region SPA</p>	
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By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Lower Thames Valley Source Protection Area	Identifying issues, inventorying threats and assessing hazards in WHPAs or IPZs	Municipality of Chatham-Kent	2006-Apr-01	2009-Mar-31
Comments		Defined Geographic Area		Estimated Cost
<p>Chatham-Kent Groundwater Technical Study for the Ridgetown and Highgate well supply systems in the Lower Thames Valley SPA. Dillon Consulting is conducting the study.</p> <p>Proposed costs are estimates of the updates and further work required to ensure the technical studies meet the Director's Technical Rules posted on the Ministry of Environment Environmental Bill of Rights Registry in June 2008. The scope of this task may change as a result of changes to the rules from those posted.</p>		Ridgetown and Highgate well supply systems in the Lower Thames Valley SPA		\$74,067

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Lower Thames Valley Source Protection Area	Assess risk in WHPAs or IPZs	Essex Region Conservation Authority	2006-Apr-01	2009-Oct-31
Comments		Defined Geographic Area		Estimated Cost
<p>The Essex Region Conservation Authority (ERCA) led technical study includes two Lower Thames Valley (LTV) SPA surface water intakes at Wheatley and Erie Beach, and one St. Clair Region SPA intake at Wallaceburg. Stantec Consultants are conducting the study. In the LTVSPA, the intakes feed raw water to the (1) Wheatley water treatment plant (WTP), and (2) Chatham and</p>		Intakes at Wheatley, Erie Beach (which supplies 2 systems - South Chatham-Kent and the Chatham Water Treatment Plants) in the LTVSPA and Wallaceburg in the SCRSPA as well as intakes in the Essex Region SPA		\$90,500

South Chatham-Kent WTPs (shared Erie Beach intake).		
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By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Lower Thames Valley Source Protection Area	Assess risk in WHPAs or IPZs	Municipality of Chatham-Kent	2006-Apr-01	2009-Jun-30
Comments		Defined Geographic Area		Estimated Cost
<p>Chatham-Kent Groundwater Technical Study for the Ridgetown and Highgate well supply systems in the Lower Thames Valley SPA. Dillon Consulting is conducting the study.</p> <p>The 2008-2009 cost estimates are for individual contact with landowners where risks could be significant, and updating risk assessment based on survey results.</p>		Ridgetown and Highgate well supply systems in the Lower Thames Valley SPA		\$89,967

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Lower Thames Valley Source Protection Area	GUDI IPZ Study - Preliminary Screening, Vulnerability Assessment, Threats Inventory and Risk Assessment	Upper Thames River Conservation Authority	2008-Apr-01	2009-Mar-31
Comments		Defined Geographic Area		Estimated Cost
<p>MOE proposed rules related to Groundwater Under the Direct Influence of surface water (GUDI)- Intake Protection Zone (IPZ) studies was posted in June 2008. It is anticipated that the rules will require that IPZ type vulnerable zones will be required for GUDI wells. The preliminary screening of the systems will compile available information, delineate approximate IPZ3 based on that available information and assess the types and magnitude of potential treats in that area. Based on the preliminary screening the zones will be delineated, vulnerability assessed, threats inventoried and risks assessed.</p> <p>MOE proposed rules related to Groundwater Under the Direct Influence of surface water (GUDI)- Intake Protection Zone (IPZ) studies was posted in June 2008. It is anticipated that the rules will require that IPZ type vulnerable zones will be required for GUDI wells. Costs related to this task is included within 2 similar tasks in the UTRSPA (\$25000 for preliminary screening and \$110,000 for the vulnerability, threats and risk assessment).</p>		GUDI wells of these drinking water systems: City of London back up (Fanshawe wells), Dorchester, Kilworth Heights and Highgate systems		

By Drinking Water System Name	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
West Elgin Water Treatment Plant	Delineating and applying vulnerability scores to WHPAs or IPZs	Municipality of West Elgin	2005-Apr-01	2009-Oct-31
Comments		Defined Geographic Area		Estimated Cost
<p>Municipality of West Elgin Surface Water Technical study is led by the Municipality of West Elgin and conducted by Stantec Consulting. The intake studied is the Lake Erie raw water intake to the West Elgin Water Treatment Plant at West Lorne. Draft report was completed in March 2008.</p> <p>Proposed costs are estimates of the updates required to ensure the technical studies meet the Director's Technical Rules posted on the Ministry of Environment Environmental Bill of Rights Registry in June 2008. The scope of this task may change as a result of changes to the rules from those posted.</p>		The intake studied is the Lake Erie raw water intake to the West Elgin Water Treatment Plant at West Lorne		\$155,500

By Drinking Water System Name	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
West Elgin Water Treatment Plant	Identifying issues, inventorying threats and assessing hazards in WHPAs or IPZs	Municipality of West Elgin	2006-Apr-01	2009-Jun-30
Comments		Defined Geographic Area		Estimated Cost
<p>Municipality of West Elgin Surface Water Technical study is lead by the Municipality of West Elgin and conducted by Stantec Consulting.</p> <p>The intake studied is the Lake Erie raw water intake to the West Elgin Water Treatment Plant at West Lorne. Work is yet to be completed.</p> <p>Proposed costs are estimates of the updates required to ensure the technical studies meet the Director's Technical Rules posted on the Ministry of Environment Environmental Bill of Rights Registry in June 2008. The scope of this task may change as a result of changes to the rules from those posted.</p>		West Elgin Water Treatment Plant at West Lorne in the Lower Thames Valley SPA		\$66,280

By Drinking Water System Name	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
West Elgin Water Treatment Plant	Assess risk in WHPAs or IPZs	Municipality of West Elgin	2006-Apr-01	2009-Jun-30

Comments	Defined Geographic Area	Estimated Cost
<p>Municipality of West Elgin Surface Water Technical study is lead by the Municipality of West Elgin and conducted by Stantec Consulting. The intake studied is the Lake Erie raw water intake to the West Elgin Water Treatment Plant at West Lorne. Work is yet to be completed.</p> <p>Proposed costs are estimates of the updates and further work required to ensure the technical studies meet the Director's Technical Rules posted on the Ministry of Environment Environmental Bill of Rights Registry in June 2008. The scope of this task may change as a result of changes to the rules from those posted.</p>	<p>West Elgin Water Treatment Plant at West Lorne in the Lower Thames Valley SPA</p>	<p>\$38,900</p>

Detailed Work Plan to Complete the Source Protection Plan

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Lower Thames Valley Source Protection Area	Policy development for Great Lakes elements (where required/permissible in Act & Regs)	Source Protection Committee	2009-Jan-01	2012-Aug-20
Comments		Defined Geographic Area		Estimated Cost
<p>The Clean Water Act includes the ability of the Minister of the Environment to set Great Lakes targets for watershed. The Source Protection Plan must assist in achieving those Great Lakes targets. Further guidance from the MOE is expected. It is also required that the Source Protection Plan consider Great Lakes Agreements. It is assumed that consultation with other regions draining into each of the Great Lakes that the watershed of the TSR drain into will be required. As well, consultation will be required with Provincial and Federal organizations with responsibilities under the Great Lakes Agreements.</p> <p>Although the scope of the work associated with this task is largely unknown, an allowance for work associated with this task, for both staff and SPC, are included with the task related to coordinating and supporting projects associated with the Source Protection Plan. The estimated cost included in this tasks and a similar task in the SCRSPA include the additional cost of consultation.</p>		<p>All three Source Protection Areas (SPAs) of the Thames-Sydenham and Region Source Protection Region: Upper Thames River SPA, Lower Thames Valley SPA and St. Clair Region SPA</p>		<p>\$65,000</p>

Summary of Financial Statistics

	Tasks Done by Source Protection Area or Drinking Water System	Estimated Costs for Tasks Under the Assessment Report	Estimated Costs for Tasks Under the Source Protection Plan	Subtotal
	Lower Thames Valley Source Protection Area	\$976,906	\$65,000	\$1,041,906
Municipal Residential Drinking Water Systems				
	Chatham Water Treatment Plant			
	Highgate Well Supply			
	Ridgetown Well Supply			
	South Chatham-Kent Water Treatment Plant			
	West Elgin Water Treatment Plant	\$260,680		\$260,680
	Wheatley Water Treatment Plant			
Drinking Water Systems By Municipal Resolution				
Drinking Water Systems By Band Resolutions				
Drinking Water Systems Included By Minister				
Total Estimated Costs		\$1,237,586	\$65,000	\$1,302,586

Terms of Reference

Drinking Water System Category / Source Protection Area	Tasks	Fiscal Year 04/05	Fiscal Year 05/06	Fiscal Year 06/07	Fiscal Year 07/08	Fiscal Year 08/09	Fiscal Year 09/10	Fiscal Year 10/11	Fiscal Year 11/12	Fiscal Year 12/13
	Policy development for Great Lakes elements (where required/permissible in Act & Regs)	\$0	\$0	\$0	\$0	\$25,000	\$10,000	\$10,000	\$10,000	\$10,000
Municipal Residential Drinking Water Systems										
	Delineating and applying vulnerability scores to WHPAs or IPZs	\$0	\$117,000	\$0	\$0	\$38,500	\$0	\$0	\$0	\$0
	Identifying issues, inventorying threats and assessing hazards in WHPAs or IPZs	\$0	\$0	\$46,280	\$0	\$20,000	\$0	\$0	\$0	\$0
	Assess risk in WHPAs or IPZs	\$0	\$0	\$17,400	\$0	\$21,500	\$0	\$0	\$0	\$0
Drinking Water Systems By Municipal Resolution										
Drinking Water Systems by Band Resolution										
Drinking Water Systems Included by Minister										
Fiscal Year Total		\$0	\$300,000	\$553,586	\$0	\$409,000	\$10,000	\$10,000	\$10,000	\$10,000

Terms of Reference

Process Checklist

Regulatory Process	Completion Date	Done By
Notify band Chiefs on the commencement of the terms of reference.	1/31/2008	SPCommittee
Notify municipal clerks on the commencement of the terms of reference.	2/5/2008	SPCommittee
Give a copy of the comments on proposed terms of reference to the source protection committee.	10/3/2008	SPAuthority
Give copy of draft proposed ToR to groups created pursuant to Great Lakes Water Quality Agreement & involved in developing/implementing RAPs & LaMPs.	8/15/2008	SPCommittee
Make provisions to consider Great Lakes Agreements.	8/15/2008	SPCommittee
Make the draft proposed terms of reference available at other locations.	8/18/2008	SPCommittee
Make the proposed terms of reference available at other locations.	10/17/2008	SPCommittee
Municipal council resolutions have been passed agreeing upon work.	9/23/2008	SPCommittee
Notice for consultation on draft proposed ToR includes information on public meeting scheduled at least 21 days after newspaper notice is published.	8/15/2008	SPCommittee
Notice for consultation on draft proposed ToR includes requests for comments submitted within 35 days of notice published in the newspaper.	8/15/2008	SPCommittee
Post draft proposed terms of reference on Internet.	8/15/2008	SPCommittee
Post proposed terms of reference on the Internet for 30 days.	10/17/2008	SPCommittee
Provide a copy of draft proposed terms of reference to the clerks of municipalities located in the source protection area.	8/15/2008	SPCommittee
Provide a copy of draft to the chiefs of bands whose reserves are located in the source protection area.	8/15/2008	SPCommittee
Provide a copy of proposed terms of reference to the chiefs of bands whose reserves are located in the source protection area.	10/17/2008	SPCommittee
Provide a copy of proposed terms of reference to the clerks of municipalities located in the source protection area.	10/17/2008	SPCommittee
Provide a copy of proposed terms of reference to the source protection authority.	10/17/2008	SPCommittee
Provide any unresolved comments from municipalities and bands to the Minister as part of the approval package for the proposed terms of reference.		SPAuthority
Provide any unresolved comments from municipalities and bands to the source protection authority on the draft proposed terms of reference.	10/17/2008	SPCommittee
Provide copy of draft proposed ToR to chairs of SPCs who have been listed in table that describes matters that affect other source protection areas.	8/15/2008	SPCommittee
Publish newspaper notice to publicly view draft proposed ToR on Internet and at other locations (as determined by the source protection committee).	8/15/2008	SPCommittee
Receive comments from the 30 day Internet posting from the public, municipalities, bands, and other stakeholders.		SPAuthority

Terms of Reference

Appendix: Full Task Descriptions

Subject Area	Task Name	Full Task Description
Assessment Report Preparation	Coordinating and supporting projects for the assessment report	Undertaking administrative support, staffing, management support, and training necessary to provide project coordination for the assessment report components and direct support to the source protection committee.
Assessment Report Preparation	Undertaking communications initiatives for the assessment report	Local area engagement, outreach and creation of communications products that support the assessment report process.
Assessment Report Preparation	Information management for the assessment report preparation	Conducting overall data management, data sharing agreements, standards, mapping, software and maintenance.
Assessment Report Preparation	Undertaking a watershed characterization	Identifying and describing watersheds in the source protection area. May include water quality analysis and peer review for water quality analysis. Details on how to complete this task will be available in the Assessment Report regulation, Director's rules, and guidance when they are developed.
Assessment Report Preparation	Conducting a conceptual water budget	Describing the overall flow system dynamics for each watershed in the source protection area taking into consideration surface water and groundwater features, land cover (e.g. proportion of urban vs. rural uses), human-made structures (e.g. dams, channel diversions, water crossings), and water takings. Details on how to complete this task will be available in the Assessment Report regulation, Director's rules, and guidance when they are developed.
Assessment Report Preparation	Conducting a tier 1 water budget analysis and stress assessment	Conducting a tier 1 water budget analysis, stress assessment, and delineation of significant groundwater recharge areas. May also include the identification of water quantity concerns and an analysis of uncertainty. Details on how to complete this task will be available in the Assessment Report regulation, Director's rules, and guidance when they are developed.
Assessment Report Preparation	Conducting a tier 2 water budget analysis and stress assessment	If determined necessary from a tier 1 water budget analysis and stress assessment, conducting a tier 2 water budget analysis and stress assessment, and refining the delineation of significant groundwater recharge areas. May also include the identification of water quantity concerns and an analysis of uncertainty. Details on how to complete this task will be available in the Assessment Report regulation, Director's rules, and guidance when they are developed.
Assessment Report Preparation	Conducting a tier 3 water budget analysis and water quantity risk assessment	If determined necessary from a tier 2 water budget analysis and stress assessment, conducting a tier 3 water budget analysis and water quantity risk assessment. May include identifying significant, moderate and low water quantity threats. May also include consultation with property owners/residents/stakeholders impacted by a significant drinking water threat scoring and an analysis of uncertainty. Details on how to complete this task will be available in the Assessment Report regulation, Director's rules, and guidance when they are developed.
Assessment Report Preparation	Delineating and applying vulnerability scores to HVAs	Delineating the location and extent of highly vulnerable aquifers in the source protection area and applying vulnerability scores. An uncertainty analysis may be included in this task. Details on how to complete this task will be available in the Assessment Report regulation, Director's rules, and guidance when they are developed.

Terms of Reference

Assessment Report Preparation	Identifying issues, inventorying threats and assessing hazards in HVAs	Listing and describing drinking water quality issues, inventorying threats and assessing hazards (including uncertainty analysis) in the highly vulnerable aquifers. Details on how to complete this task will be available in the Assessment Report regulation, Director's rules, and guidance when they are developed.
Assessment Report Preparation	Assessing risks in HVAs	Identifying any significant, moderate, low, and negligible drinking water threats, undertaking an issues evaluation, and analysing uncertainty in highly vulnerable aquifers. Details on how to complete this task will be available in the Assessment Report regulation, Director's rules, and guidance when they are developed.
Assessment Report Preparation	Applying vulnerability scores to SGRAs	Applying vulnerability scores to significant groundwater recharge areas in the source protection area (delineated in the water budget process). Details on how to complete this task will be available in the Assessment Report regulation, Director's rules, and guidance when they are developed.
Assessment Report Preparation	Identifying issues, inventorying threats and assessing hazards in SGRAs	Listing and describing drinking water quality issues, inventorying threats and assessing hazards (including uncertainty analysis) in the significant groundwater recharge areas. Details on how to complete this task will be available in the Assessment Report regulation, Director's rules, and guidance when they are developed.
Assessment Report Preparation	Assessing risk in SGRAs	Identifying any significant, moderate, low, and negligible drinking water threats, undertaking an issues evaluation, and analysing uncertainty in significant groundwater recharge areas. Details on how to complete this task will be available in the Assessment Report regulation, Director's rules, and guidance when they are developed.
Assessment Report Preparation	Delineating and applying vulnerability scores to WHPAs or IPZs	Delineating the location and extent of the vulnerable area around a drinking water system (wellhead protection areas for drinking water systems using groundwater or intake protection zones for drinking water systems withdrawing from surface water) in the source protection area and applying a vulnerability score. Uncertainty analysis and peer review may be required. In addition, consultation with property owners/residents/stakeholders affected by the delineation and scoring for these two vulnerable areas may be required. Details on how to complete this task will be available in the Assessment Report regulation, Director's rules, and guidance when they are developed.
Assessment Report Preparation	Identifying issues, inventorying threats and assessing hazards in WHPAs or IPZs	Listing and describing drinking water quality issues, inventorying threats and assessing hazards (including uncertainty analysis) in wellhead protection areas and/or intake protection zones. Details on how to complete this task will be available in the Assessment Report regulation, Director's rules, and guidance when they are developed.
Assessment Report Preparation	Assess risk in WHPAs or IPZs	Identifying any significant, moderate, low, and negligible drinking water threats, undertaking an issues evaluation, and analysing uncertainty in wellhead protection areas or intake protection zones. Consultation may be required with stakeholders impacted by significant drinking water threats scoring. Consultation with adjacent source protection areas or regions may also be required for shared Great Lakes drinking water issues. Details on how to complete this task will be available in the Assessment Report regulation, Director's rules, and guidance when they are developed.
Assessment Report Preparation	Consultation on the overall proposed assessment report	Meeting the legislative and regulatory requirements on the consultation and submission process of the proposed assessment report. Details on how to complete this task will be available in the Assessment Report regulation, Director's rules, and guidance when they are developed.
Assessment Report		If required, add other tasks to complete the assessment report. Describe in detail.

Terms of Reference

Preparation		
Source Protection Plan Preparation	Coordinating and supporting projects for the source protection plan (SPP)	Undertaking administrative support, staffing, management support, and training necessary to provide project coordination for the source protection plan components and direct support to the source protection committee.
Source Protection Plan Preparation	Undertaking communications initiatives for the source protection plan	Local area engagement, outreach and creation of communications products that support the source protection plan process.
Source Protection Plan Preparation	Information management for source protection plan preparation	Conducting overall data management, data sharing agreements, standards, mapping, software and maintenance.
Source Protection Plan Preparation	Policy development to address drinking water threats (where required and/or permissible in Act/Regs)	Policy development to address drinking water threats (where required and/or permissible in the Act and source protection plan regulation). Detailed requirements and guidance will be provided in the Source Protection Plan regulation and guidance document when they are developed.
Source Protection Plan Preparation	Policy development for monitoring (where required, advisable and/or permissible in Act & Regs)	Policy development for monitoring activities (where required, advisable and/or permissible in the Act and source protection plan regulation), including determining who is responsible for implementing these policies. Detailed requirements and guidance will be provided in the Source Protection Plan regulation and guidance document when they are developed.
Source Protection Plan Preparation	Policy development for Great Lakes elements (where required/permissible in Act & Regs)	Policy development for Great Lakes associated elements (where directed by the Minister and required or permissible in the Act and source protection plan regulation), including monitoring policies to assist in implementing and determining the effectiveness of achieving Great Lake target(s) policies, determining who is responsible for implementing those policies, and determining the need to identify any of these policies as "designated Great Lakes policies". Detailed requirements and guidance will be provided in the Source Protection Plan regulation and guidance document when they are developed.
Source Protection Plan Preparation	Establishing timelines for policy implementation	Establishing timelines for policy implementation after all policies for the SPP are developed, giving consideration to the policies developed, key players affected, capacity for implementation, the assessed risks, and natural, social, and economic considerations, including local community interests/needs. Detailed requirements and guidance will be provided in the Source Protection Plan regulation and guidance document when they are developed.
Source Protection Plan Preparation	Consultation on the overall proposed source protection plan	Consultation and submission process of the overall proposed source protection plan. Details on how to conduct the consultations on the overall proposed source protection plan will be provided in the Source Protection Plan regulation and guidance document when they are developed.
Source Protection Plan Preparation		If required, add other tasks to complete the source protection plan. Describe in detail.

Appendix D – St. Clair Region Source Protection Area Terms of Reference Document

Terms of Reference for St. Clair Region Source Protection Area

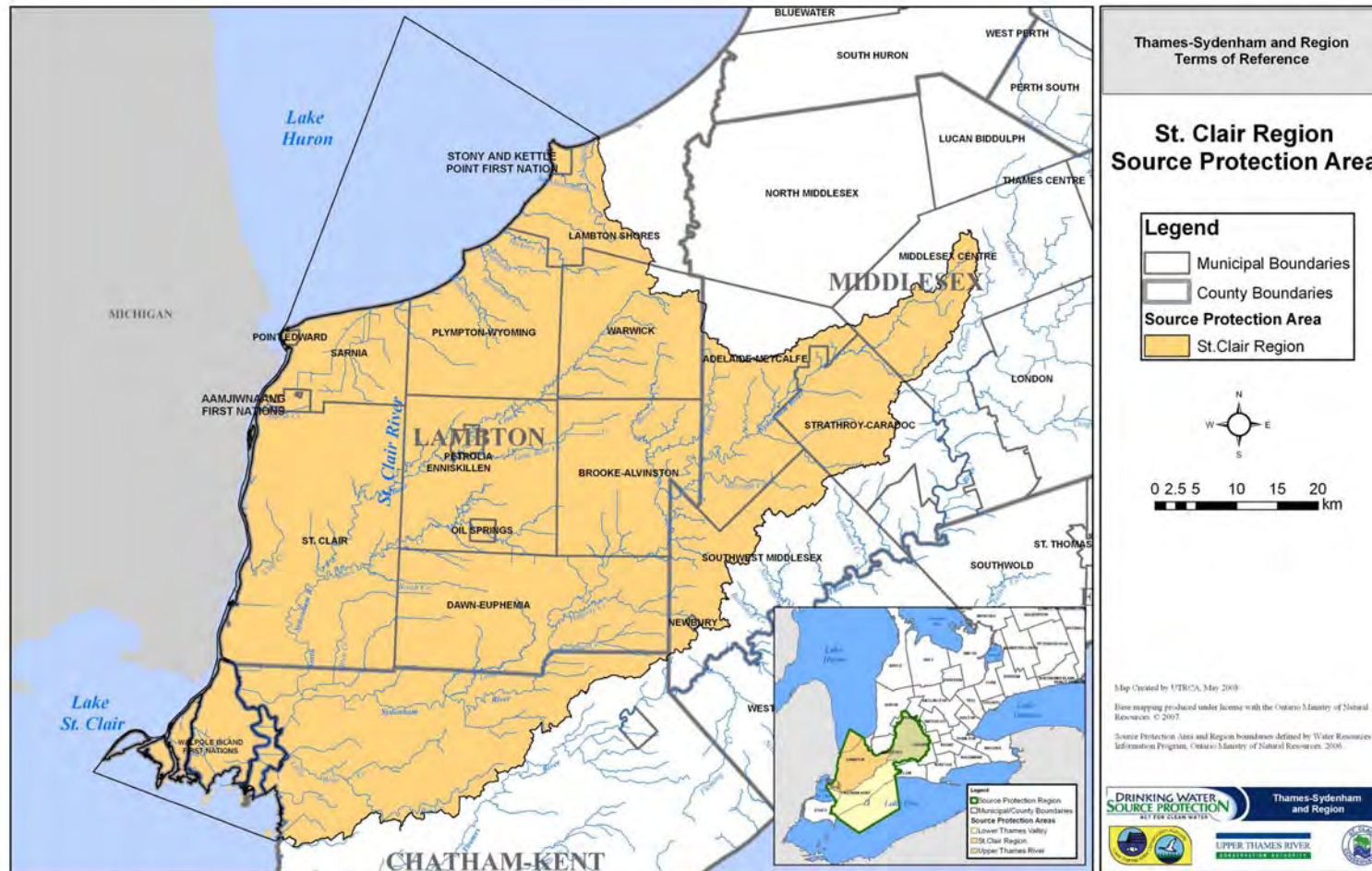
Thames-Sydenham and Region Source Protection Committee

2008-Oct-12

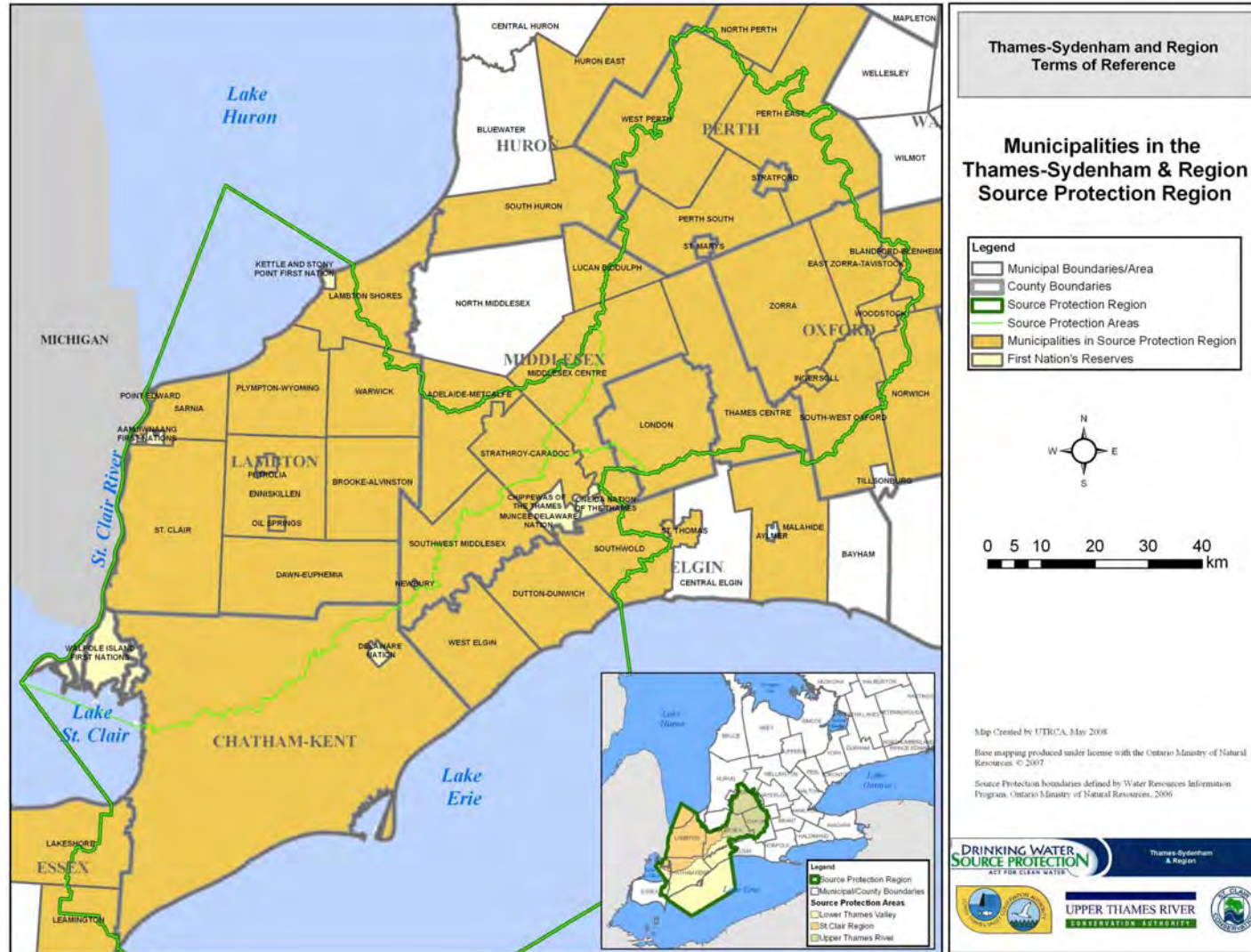
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Map of Source Protection Area



Map of Source Protection Region



List of Municipalities Located in the St. Clair Region Source Protection Area

Legal Name of Municipality
Middlesex, County of
Lambton, County of
Chatham-Kent, Municipality of
Adelaide-Metcalfe, Municipality of
Middlesex Centre, Municipality of
Newbury, Village of
Southwest Middlesex, Municipality of
Strathroy-Caradoc, Municipality of
Brooke-Alvinston, Township of
Dawn-Euphemia, Township of
Enniskillen, Township of
Lambton Shores, Municipality of
Oil Springs, Village of
Petrolia, Town of
Plympton-Wyoming, Town of
Point Edward, Village of
Sarnia, City of
St. Clair, Township of
Warwick, Township of

List of Municipal Residential Drinking Water System(s)

Type of System (existing or planned)	Drinking Water System Number	Drinking Water System Name	Owner	Operating Authority	Type of Source Water (surface, ground, both)
Existing	210000906	Lambton Area Water Supply System	Lambton Area Water Supply System	Ontario Clean Water Agency	Surface Water
Existing	220002903	Town Of Petrolia Water Treatment Plant	Town of Petrolia	Waterworks Environmental Services Inc.	Surface Water
Existing	220003341	Wallaceburg Water Treatment Plant	Municipality of Chatham-Kent	Chatham-Kent Public Utilities Commission	Surface Water

List of Drinking Water System(s) Included by Municipal Council Resolution

(Not Municipal Residential Drinking Water Systems)

Type of System (existing or planned)	Drinking Water System Number	Drinking Water System Name	Owner	Operating Authority	Type of Source Water (surface, ground, both)	Title of Council Resolution
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No systems included.

List of Drinking Water Systems Serving Reserve(s)

(Not Municipal Residential Drinking Water Systems)

Type of System (existing or planned)	Drinking Water System Number	Drinking Water System Name	Owner	Operating Authority	Type of Source Water (surface, ground, both)	Regulation Reference
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No systems included.

List of Fully or Partially Exempted Municipal Residential Drinking Water System(s)

Type of System (existing or planned)	Drinking Water System Number	Drinking Water System Name	Owner	Operating Authority	Type of Source Water (surface, ground, both)	Title of Council Resolution
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No systems exempted.

List of Drinking Water System(s) Included by Minister of the Environment

(Not Municipal Residential Drinking Water Systems)

Type of System (existing or planned)	Drinking Water System Number	Drinking Water System Name	Owner	Operating Authority	Type of Source Water (surface, ground, both)
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No systems included.

List of Matter(s) that Affect Other Source Protection Committees

Source Protection Committees Affected	Source Protection Area	Description of Matter
Ausable Bayfield-Maitland Valley SPC	Ausable Bayfield-Maitland Valley Source Protection Region	The Lake Huron Primary Water Supply System (LHPWSS) services parts of the Municipalities of Middlesex Centre, Lucan-Biddulph and Strathroy-Caradoc in the St Clair Region SPA of the Thames-Sydenham and Region SPR. The Water Treatment Plant is located north of the community of Grand Bend on Lake Huron, in the Ausable Bayfield-Maitland Valley Source Protection Region. Although the work will be undertaken by the Ausable Bayfield-Maitland Valley (ABMV) SPR, consultation with the Thames-Sydenham and Region SPR and the supplied municipalities within the Thames-Sydenham and Region SPR needs to be undertaken in developing the Assessment Report and Source Protection Plan as they relate to this supply.
Ausable Bayfield-Maitland Valley SPC	Ausable Bayfield-Maitland Valley Source Protection Region	A number of municipalities are shared with the Ausable Bayfield-Maitland Valley Source Protection Region: the Township of Adelaide Metcalfe, the Municipality of Middlesex Centre, the Township of Warwick and the Municipality of Lambton Shores. A coordinated approach to technical studies and source protection planning policies must be considered. Consultation on consistent policies within these shared municipalities needs to be considered.
Ausable Bayfield-Maitland Valley SPC	Ausable Bayfield-Maitland Valley Source Protection Region	The two bands Kettle and Stony Point form one First Nation, the Kettle and Stony Point First Nation. The reserve for Stony Point (in transition from former Camp Ipperwash) is within the the ABMV SPR, but the reserve for Kettle Point is about 1 km outside the ABMV SPR in the Thames, Sydenham & Region Source Protection Committee. Given the jurisdictional complexities outside of this process, they may wish to work with one SPR as the lead. The anticipated resolution from Band Council should indicate which SPR they would like to work with.
Ausable Bayfield-Maitland Valley SPC	Ausable Bayfield-Maitland Valley Source Protection Region	The Minister may direct a Source Protection Authority to prepare and submit a report on any matter relating to the use of the Great Lakes as a source of drinking water or to assist another Source Protection Authority in preparing a report. In addition, the Minister may establish targets relating to the use of the Great Lakes as a source of drinking water for one or more source protection areas that contribute water to the Great Lakes. There will be a need to consult with the ABMV SPR on Great Lakes issues.
Ausable Bayfield-Maitland Valley SPC	Ausable Bayfield-Maitland Valley Source Protection Region	Water Budget work needs to consider groundwater flow into and out of each region. Consultation with neighbouring regions will be required to ensure that groundwater flow between regions is consistently represented in the water budget products of each region.
Ausable Bayfield-Maitland Valley SPC	Ausable Bayfield-Maitland Valley	Edge matching of map products, of the Assessment Report and SP Plan, such as

	Source Protection Region	Significant Groundwater Recharge Areas and Highly Vulnerable Aquifers need to be undertaken. Consultation on the methods employed and products produced will be necessary.
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The Work Plan to Complete the Assessment Report

By Source Protection Area/ Drinking Water System Name	Task	Assigned Lead(s)	Estimated Completion Date	Estimated Cost
St. Clair Region Source Protection Area	Delineating and applying vulnerability scores to HVAs	Upper Thames River Conservation Authority	2008-Dec-31	
St. Clair Region Source Protection Area	Identifying issues, inventorying threats and assessing hazards in HVAs	Upper Thames River Conservation Authority	2009-Jun-01	
St. Clair Region Source Protection Area	Assessing risks in HVAs	Upper Thames River Conservation Authority	2009-Aug-01	
St. Clair Region Source Protection Area	Applying vulnerability scores to SGRAs	Upper Thames River Conservation Authority	2008-Dec-01	
St. Clair Region Source Protection Area	Identifying issues, inventorying threats and assessing hazards in SGRAs	Upper Thames River Conservation Authority	2009-Jun-01	
St. Clair Region Source Protection Area	Assessing risk in SGRAs Review past work to check consistency with other technical studies. WHPA will be re-modelled based on updated pumping rates and vulnerability assessment will be completed.	Upper Thames River Conservation Authority	2009-Aug-01	
St. Clair Region Source Protection Area	Delineating and applying vulnerability scores to WHPAs or IPZs	Upper Thames River Conservation Authority	2009-Jun-01	
St. Clair Region Source Protection Area	Delineating and applying vulnerability scores to WHPAs or IPZs	St. Clair Region Conservation Authority	2009-Jun-30	\$248,500
St. Clair Region Source Protection Area	Identifying issues, inventorying threats and assessing hazards in WHPAs or IPZs	St. Clair Region Conservation Authority	2009-Jun-30	\$104,000
St. Clair Region	Assess risk in WHPAs or IPZs	St. Clair Region Conservation	2009-Jun-30	\$70,000

Source Protection Area		Authority		
Municipal Residential Drinking Water Systems				
Wallaceburg Water Treatment Plant	Delineating and applying vulnerability scores to WHPAs or IPZs	Essex Region Conservation Authority	2008-Mar-31	
Wallaceburg Water Treatment Plant	Identifying issues, inventorying threats and assessing hazards in WHPAs or IPZs	Essex Region Conservation Authority	2009-Jun-30	
Wallaceburg Water Treatment Plant	Assess risk in WHPAs or IPZs	Essex Region Conservation Authority	2009-Oct-31	
Wallaceburg Water Treatment Plant	Update technical studies to meet Assessment Report Rules an Regulation	Essex Region Conservation Authority	2009-Oct-31	
Drinking Water Systems By Municipal Resolution				
Drinking Water Systems By Band Resolution				
Fully or Partially Exempt Drinking Water Systems				
Drinking Water Systems Included By Minister				

The Work Plan to Complete the Source Protection Plan

By Source Protection Area/ Drinking Water System Name	Task	Assigned Lead(s)	Estimated Completion Date	Estimated Cost
St. Clair Region Source Protection Area	Policy development for Great Lakes elements (where required/permissible in Act & Regs)	Source Protection Committee	2012-Aug-20	\$65,000
Municipal Residential Drinking Water Systems				
Drinking Water Systems By Municipal Resolution				
Drinking Water Systems By Band Resolution				
Fully or Partially Exempt Drinking Water Systems				
Drinking Water Systems Included By Minister				

The Date the Source Protection Plan is to be Submitted to the Minister for Approval by the St. Clair Region Conservation Authority:

2012-Aug-20

Council Resolution(s) to Include Drinking Water System(s)

No systems included.

Council Resolution(s) to Exempt Municipal Residential Drinking Water System(s)

No systems exempted.

Detailed Information

Detailed Information on Municipal Residential Drinking Water System(s)

Drinking Water System Type (planned or existing)	Drinking Water System Number	Drinking Water System Name	Owner	Operating Authority	Source Water Type (surface, ground, both)	Number of Wells
Existing	220003341	Wallaceburg Water Treatment Plant	Municipality of Chatham-Kent	Chatham-Kent Public Utilities Commission	Surface Water	0
Number of Surface Water Intakes	Comments					
1	<p>The Chatham-Kent intake at Wallaceburg, located in the St. Clair Region SPA and is included under the Essex Region Conservation Authority (ERCA) led technical study. The intake feeds the Wallaceburg Water Treatment Plant.</p> <p>The ERCA led study also includes two Lower Thames Valley (LTV) SPA surface water intakes at Wheatley and Erie Beach. Stantec Consultants are conducting the study.</p> <p>The costs of the ERCA led study for these three intakes are shown in the Lower Thames Valley SPA Terms of Reference.</p>					

Drinking Water System Type (planned or existing)	Drinking Water System Number	Drinking Water System Name	Owner	Operating Authority	Source Water Type (surface, ground, both)	Number of Wells
Existing	210000906	Lambton Area Water Supply System	Lambton Area Water Supply System	Ontario Clean Water Agency	Surface Water	0
Number of Surface Water Intakes	Comments					
1	<p>The Lambton Area Water Supply System (LAWSS) is owned by the joint board which has members from the municipalities that it supplies: City of Sarnia, Township of St. Clair, Town of Plympton-Wyoming, Village of Point Edward, Township of Warwick, Municipality of Lambton Shores</p>					

Drinking Water System Type (planned or existing)	Drinking Water System Number	Drinking Water System Name	Owner	Operating Authority	Source Water Type (surface, ground, both)	Number of Wells
Existing	220002903	Town Of Petrolia Water Treatment Plant	Town of Petrolia	Waterworks Environmental Services	Surface Water	0

Number of Surface Water Intakes	Comments
1	'Town Of Petrolia (Bright's Grove) Water Treatment Plant' is the official name of the system.

Detailed Information on Drinking Water System(s) Included by Municipal Council Resolution

(Not Municipal Residential Drinking Water Systems)

No systems included.

Detailed Information on Drinking Water System(s) Included by Bands Serving Reserve(s)

(Not Municipal Residential Drinking Water Systems)

No systems included.

Detailed Information on Fully or Partially Exempted Municipal Residential Drinking Water System(s)

No systems exempted.

Detailed Information on Drinking Water System(s) Included by the Minister of the Environment

(Not Municipal Residential Drinking Water Systems)

No systems included.

Detailed Work Plan to Complete the Assessment Report

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
St. Clair Region Source Protection Area	Delineating and applying vulnerability scores to HVAs	Upper Thames River Conservation Authority	2008-May-01	2008-Dec-31
Comments		Defined Geographic Area		Estimated Cost
<p>Intrinsic Susceptibility Index scores have been completed through past groundwater studies across the region. The mapping products from these separate county based studies have been compiled into a single mapping product, however there are issues with conflicting scoring at areas of overlap. This was to be expected as each study relied on the interpretation of data from within their study area. Near the edges of the study area different interpolation and extrapolations results should be expected based on the use of different data points near the boundaries. The work proposed under this task includes the mapping of ISI, based on the same methodologies employed in the groundwater studies, but utilizing a single data set across the entire region. Based on this scoring HVA will be delineated and vulnerability will be scored for these areas.</p> <p>Costs for this task have been included in the Upper Thames Region SPA Terms of Reference (since it is the lead on this study) and also include costs for the Lower Thames Valley SPA. Total costs are estimated to be \$29,000.</p>		Thames-Sydenham and Region Source Protection Region including the LTVSPA, SCRSPA and the UTRSPA.		

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
St. Clair Region Source Protection Area	Identifying issues, inventorying threats and assessing hazards in HVAs	Upper Thames River Conservation Authority	2008-Oct-01	2009-Jun-01
Comments		Defined Geographic Area		Estimated Cost
<p>Once delineated these areas will be assessed for the general nature of the types of threats contained in the areas. All threats which could result in a significant risk will be inventoried. Current guidance suggests a vulnerability score of 6 for these areas. As such it is not anticipated that significant risks will be identified in these areas. General types of land use in these areas will be characterized to the extent necessary to develop appropriate policies for these</p>		Thames-Sydenham and Region Source Protection Region including the LTVSPA, SCRSPA and the UTRSPA.		

<p>types of threats in HVAs.</p> <p>Issues in these areas will be identified through the analysis of monitoring wells and municipal wells in the general areas as well as through discussions with the local health units who may be able to rely on interpretation of private well information.</p> <p>Issues may be considered in determining whether certain types of threats need to be inventoried in the area, however no allowance has been made in this task for a detailed inventory of such threats.</p> <p>Costs for this task have been included in the Upper Thames Region SPA Terms of Reference (since it is the lead on this study) and also include costs for the Lower Thames Valley SPA. Total costs are estimated to be \$40,000.</p>		
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By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
St. Clair Region Source Protection Area	Assessing risks in HVAs	Upper Thames River Conservation Authority	2009-Apr-01	2009-Aug-01
Comments		Defined Geographic Area		Estimated Cost
Based on vulnerability scores and general threats characterization in the HVAs, possible risk scores will be assessed.		Thames-Sydenham and Region Source Protection Region including the LTVSPA, SCRSPA and the UTRSPA.		
Costs for this task have been included in the Upper Thames Region SPA Terms of Reference (since it is the lead on this study) and also include costs for the Lower Thames Valley SPA. Total costs are estimated to be \$42,000.				

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
St. Clair Region Source Protection Area	Applying vulnerability scores to SGRAs	Upper Thames River Conservation Authority	2008-Oct-01	2008-Dec-01
Comments		Defined Geographic Area		Estimated Cost
SGRAs will be defined through the Water Budget work. The vulnerability of these areas will be assessed based on Director's Rules and guidance. ISI scores are available for WHPAs as well as the regional ISI scores developed through the HVA delineation project. These results will need to be compared and the most appropriate scoring applied to the SGRA. It will be important that		Thames-Sydenham and Region Source Protection Region including the LTVSPA, SCRSPA and the UTRSPA		

<p>the vulnerability score associated with these areas be consistent with those parts of the WHPA which are part of the SGRA.</p> <p>Costs for this task have been included in the Upper Thames Region SPA Terms of Reference (since it is the lead on this study) and also include costs for the Lower Thames Valley SPA. Total costs are estimated to be \$15,000.</p>		
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By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
St. Clair Region Source Protection Area	Identifying issues, inventorying threats and assessing hazards in SGRAs	Upper Thames River Conservation Authority	2008-Oct-01	2009-Jun-01
Comments		Defined Geographic Area		Estimated Cost
<p>Once delineated these areas will be assessed for the general nature of the types of threats contained in the areas. All threats which could result in a significant risk will be inventoried. Current guidance suggests a vulnerability score of 6 for these areas. As such it is not anticipated that significant risks will be identified in these areas. General types of land use in these areas will be characterized to the extent necessary to develop appropriate policies for these types of threats in SGRAs.</p> <p>Issues in these areas will be identified through the analysis of monitoring wells and municipal wells in the general areas as well as through discussions with the local health units who may be able to rely on interpretation of private well information.</p> <p>Issues may be considered in determining whether certain types of threats need to be inventoried in the area, however no allowance has been made in this task for a detailed inventory of such threats.</p> <p>Costs for this task have been included in the Upper Thames Region SPA Terms of Reference (since it is the lead on this study) and also include costs for the Lower Thames Valley SPA. Total costs are estimated to be \$50,000.</p>		Thames-Sydenham and Region Source Protection Region including the LTVSPA, SCRSPA and the UTRSPA		

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
St. Clair Region Source Protection Area	Assessing risk in SGRAs; Review past work to check consistency with other technical studies.	Upper Thames River Conservation Authority	2009-Apr-01	2009-Aug-01

	WHPA will be re-modelled based on updated pumping rates and vulnerability assessment will be completed.		
Comments		Defined Geographic Area	Estimated Cost
	Costs for this task have been included in the Upper Thames Region SPA Terms of Reference (since it is the lead on this study) and also include costs for the Lower Thames Valley SPA. Total costs are estimated to be \$42,000.	Thames-Sydenham and Region Source Protection Region including the LTVSPA, SCRSPA and the UTRSPA	

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
St. Clair Region Source Protection Area	Delineating and applying vulnerability scores to WHPAs or IPZs	Upper Thames River Conservation Authority	2008-Oct-01	2009-Jun-01
Comments		Defined Geographic Area	Estimated Cost	
	<p>It is anticipated that the Director's Rules will require the delineation, vulnerability assessment and Risk Assessment of IPZ3 (or other methodologies for assessing risks resulting from issues or concerns outside of IPZ1 & 2) for intakes on Lake St Clair and the Wallaceburg intake.</p> <p>Delineation and applying vulnerability scores for IPZ3 related to the Lake St Clair and Wallaceburg intakes will be completed according to the requirements of the Director's Rules. The MISED models developed through the past work will be used to identify areas, outside of the original model scope (developed to delineate IPZ2), which can contribute risks to the intakes. The models will be combined and improved to include discharges from the major rivers which may contribute risks to the intakes. Watercourses available in Conservation Authority and provincial data sets will be utilized to delineate the IPZ3 within the contributing watersheds. The modelling will be used as an indicator of areas more vulnerable (more likely to contribute risks) than others within the delineated IPZ3 and vulnerability scores will be assigned accordingly.</p> <p>Costs for this task have been included in the Upper Thames Region SPA Terms of Reference (since it is the lead on this study) and also include costs for the Lower Thames Valley SPA. Total costs are estimated to be \$95,000.</p>	Wallaceburg intake in the St. Clair Region SPA as well as intakes in the Essex Region SPA on Lake St. Clair. IPZ3 will include the Thames and Sydenham Watersheds as well as smaller tributaries which drain directly into the St. Clair River and Lake St. Clair.		

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
St. Clair Region Source	Delineating and applying vulnerability scores to	St. Clair Region Conservation Authority	2006-Apr-01	2009-Jun-30

Protection Area	WHPAs or IPZs			
Comments		Defined Geographic Area		Estimated Cost
<p>The funded amount includes \$60,000 to refine the IPZs based on additional data collection and model refinement. Southern Lake Huron Surface Water Technical Study led by the St. Clair Region Conservation Authority, study conducted by R.V. Anderson.</p> <p>Proposed costs are estimates of the updates and further work required to ensure the technical studies meet the Director's Technical Rules posted on the Ministry of Environment Environmental Bill of Rights Registry in June 2008. The scope of this task may change as a result of changes to the rules from those posted.</p>		<p>The two intakes studied are Lake Huron raw water intake to the Petrolia Water Treatment Plant and Lake Huron (at the mouth of the St. Clair River) raw water intake to the Lambton Area Water Supply System (LAWSS).</p>		\$248,500

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
St. Clair Region Source Protection Area	Identifying issues, inventorying threats and assessing hazards in WHPAs or IPZs	St. Clair Region Conservation Authority	2006-Apr-01	2009-Jun-30
Comments		Defined Geographic Area		Estimated Cost
<p>Southern Lake Huron Surface Water Technical Study led by the St. Clair Region Conservation Authority, study conducted by R.V. Anderson.</p> <p>Proposed costs are estimates of the updates and further work required to ensure the technical studies meet the Director's Technical Rules posted on the Ministry of Environment Environmental Bill of Rights Registry in June 2008. The scope of this task may change as a result of changes to the rules from those posted.</p>		<p>The two intakes studied are Lake Huron raw water intake to the Petrolia Water Treatment Plant and Lake Huron (at the mouth of the St. Clair River) raw water intake to the Lambton Area Water Supply System (LAWSS)</p>		\$104,000

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
St. Clair Region Source Protection Area	Assess risk in WHPAs or IPZs	St. Clair Region Conservation Authority	2006-Apr-01	2009-Jun-30
Comments		Defined Geographic Area		Estimated Cost
<p>Southern Lake Huron Surface Water Technical Study led by the St. Clair Region Conservation Authority, study conducted by R.V. Anderson.</p> <p>Proposed costs are estimates of the updates and further work required to ensure the technical studies meet the Director's Technical Rules posted on the</p>		<p>The two intakes studied are Lake Huron raw water intake to the Petrolia Water Treatment Plant and Lake Huron (at the mouth of the St. Clair River) raw water intake to the Lambton Area Water Supply System (LAWSS).</p>		\$70,000

Ministry of Environment Environmental Bill of Rights Registry in June 2008. The scope of this task may change as a result of changes to the rules from those posted.		
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By Drinking Water System Name	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Wallaceburg Water Treatment Plant	Delineating and applying vulnerability scores to WHPAs or IPZs	Essex Region Conservation Authority	2005-Apr-01	2008-Mar-31
Comments		Defined Geographic Area		Estimated Cost
Costs estimates on this task are included in the Lower Thames Valley SPA ToR, along with those for the Chatham-Kent intakes (Wheatley and Erie Beach), as the project, led by Essex Region CA, includes these 3 intakes. The total funded cost for this task for the Wallaceburg, Wheatley and Erie Beach intakes is \$376,000.		Wallaceburg intake work is combined with the work undertaken on Wheatley and Erie Beach intakes in the Lower Thames Valley SPA as well as the intakes in the Essex Region SPA.		

By Drinking Water System Name	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Wallaceburg Water Treatment Plant	Identifying issues, inventorying threats and assessing hazards in WHPAs or IPZs	Essex Region Conservation Authority	2005-Apr-01	2009-Jun-30
Comments		Defined Geographic Area		Estimated Cost
Costs estimates on this task are included in the Lower Thames Valley SPA ToR, along with those for the Chatham-Kent intakes (Wheatley and Erie Beach), as the project, led by Essex Region CA, includes these 3 intakes. The total funded cost for this task for the Wallaceburg, Wheatley and Erie Beach intakes is \$143,000.		Wallaceburg intake work is combined with the work undertaken on Wheatley and Erie Beach intakes in the LTVSPA as well as the intakes in Essex Region SPA.		

By Drinking Water System Name	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Wallaceburg Water Treatment Plant	Assess risk in WHPAs or IPZs	Essex Region Conservation Authority	2006-Apr-01	2009-Oct-31
Comments		Defined Geographic Area		Estimated Cost
Costs estimates on this task are included in the Lower Thames Valley SPA ToR, along with those for the Chatham-Kent intakes (Wheatley and Erie Beach), as the project, led by Essex Region CA, includes these 3 intakes. The total funded cost so far for the Wallaceburg, Wheatley and Erie Beach intakes is \$35,000. The total proposed cost for work yet to be done is \$55,500.		Wallaceburg intake work is combined with the work undertaken on Wheatley and Erie Beach intakes in the Lower Thames Valley SPA as well as the intakes in Essex Region SPA.		

By Drinking Water System Name	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Wallaceburg Water Treatment Plant	Update technical studies to meet Assessment Report Rules an Regulation	Essex Region Conservation Authority	2008-Apr-01	2009-Oct-31
Comments		Defined Geographic Area		Estimated Cost
<p>Update technical studies to meet MOE proposed new guidance, may include updates to consider identified technical uncertainties and data gaps. Does not include items related to the delineation of IPZ 3 which is included in a separate task.</p> <p>Costs estimates on this task are included in the Lower Thames Valley SPA ToR, along with those for the Chatham-Kent intakes (Wheatley and Erie Beach), as the project, led by Essex Region CA, includes these 3 intakes. Estimated costs are \$157,500.</p>		<p>Wallaceburg intake work is combined with the work undertaken on Wheatley and Erie Beach intakes in the Lower Thames Valley SPA as well as the intakes in Essex Region Source Protection Area.</p>		

Detailed Work Plan to Complete the Source Protection Plan

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
St. Clair Region Source Protection Area	Policy development for Great Lakes elements (where required/permissible in Act & Regs)	Source Protection Committee	2009-Jan-01	2012-Aug-20
Comments		Defined Geographic Area		Estimated Cost
<p>The Clean Water Act includes the ability of the Minister of the Environment to set Great Lakes targets for watershed. The Source Protection Plan must assist in achieving those Great Lakes targets. Further guidance from the MOE is expected. It is also required that the Source Protection Plan consider Great Lakes Agreements. It is assumed that consultation with other regions draining into each of the Great Lakes that the watershed of the TSR drain into will be required. As well, consultation will be required with Provincial and Federal organizations with responsibilities under the Great Lakes Agreements.</p> <p>Although the scope of the work associated with this task is largely unknown, an allowance for work associated with this task, for both staff and SPC, are included with the task related to coordinating and supporting projects associated with the Source Protection Plan. The estimated cost included in this tasks and a similar task in the LTVSPA include the additional cost of consultation.</p>		All three Source Protection Areas (SPAs) of the Thames-Sydenham and Region Source Protection Region: Upper Thames River SPA, Lower Thames Valley SPA and St. Clair Region SPA		\$65,000

Summary of Financial Statistics

	Tasks Done by Source Protection Area or Drinking Water System	Estimated Costs for Tasks Under the Assessment Report	Estimated Costs for Tasks Under the Source Protection Plan	Subtotal
	St. Clair Region Source Protection Area	\$422,500	\$65,000	\$487,500
Municipal Residential Drinking Water Systems				
	Lambton Area Water Supply System			
	Town Of Petrolia Water Treatment Plant			
	Wallaceburg Water Treatment Plant			
Drinking Water Systems By Municipal Resolution				
Drinking Water Systems By Band Resolutions				
Drinking Water Systems Included By Minister				
Total Estimated Costs		\$422,500	\$65,000	\$487,500

Estimated Costs for Tasks by Fiscal Year

Fiscal Year defined as April 1 to March 31

Drinking Water System Category / Source Protection Area	Tasks	Fiscal Year 04/05	Fiscal Year 05/06	Fiscal Year 06/07	Fiscal Year 07/08	Fiscal Year 08/09	Fiscal Year 09/10	Fiscal Year 10/11	Fiscal Year 11/12	Fiscal Year 12/13
St. Clair Region Source Protection Area										
	Delineating and applying vulnerability scores to HVAs	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	Identifying issues, inventorying threats and assessing hazards in HVAs	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	Assessing risks in HVAs	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	Applying vulnerability scores to SGRAs	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	Identifying issues, inventorying threats and assessing hazards in SGRAs	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	Assessing risk in SGRAs; Review past work to check consistency with other technical studies. WHPA will be re-modelled based on updated pumping rates and vulnerability assessment will be completed.	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	Delineating and applying vulnerability scores to WHPAs or IPZs	\$0	\$0	\$176,500	\$0	\$72,000	\$0	\$0	\$0	\$0
	Identifying issues, inventorying threats and assessing hazards in WHPAs or IPZs	\$0	\$0	\$69,000	\$0	\$35,000	\$0	\$0	\$0	\$0

Terms of Reference

Drinking Water System Category / Source Protection Area	Tasks	Fiscal Year 04/05	Fiscal Year 05/06	Fiscal Year 06/07	Fiscal Year 07/08	Fiscal Year 08/09	Fiscal Year 09/10	Fiscal Year 10/11	Fiscal Year 11/12	Fiscal Year 12/13
	Assess risk in WHPAs or IPZs	\$0	\$0	\$32,000	\$0	\$38,000	\$0	\$0	\$0	\$0
	Policy development for Great Lakes elements (where required/permissible in Act & Regs)	\$0	\$0	\$0	\$0	\$25,000	\$10,000	\$10,000	\$10,000	\$10,000
Municipal Residential Drinking Water Systems										
	Delineating and applying vulnerability scores to WHPAs or IPZs	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	Identifying issues, inventorying threats and assessing hazards in WHPAs or IPZs	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	Assess risk in WHPAs or IPZs	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	Update technical studies to meet Assessment Report Rules an Regulation	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Drinking Water Systems By Municipal Resolution										
Drinking Water Systems by Band Resolution										
Drinking Water Systems Included by Minister										
Fiscal Year Total		\$0	\$0	\$277,500	\$0	\$170,000	\$10,000	\$10,000	\$10,000	\$10,000

Terms of Reference

Process Checklist

Regulatory Process	Completion Date	Done By
Notify band Chiefs on the commencement of the terms of reference.	1/31/2008	SPCommittee
Notify municipal clerks on the commencement of the terms of reference.	2/5/2008	SPCommittee
Give a copy of the comments on proposed terms of reference to the source protection committee.	10/3/2008	SPAuthority
Give copy of draft proposed ToR to groups created pursuant to Great Lakes Water Quality Agreement & involved in developing/implementing RAPs & LaMPs.	8/15/2008	SPCommittee
Make provisions to consider Great Lakes Agreements.	8/15/2008	SPCommittee
Make the draft proposed terms of reference available at other locations.	8/18/2008	SPCommittee
Make the proposed terms of reference available at other locations.	10/17/2008	SPCommittee
Municipal council resolutions have been passed agreeing upon work.	9/23/2008	SPCommittee
Notice for consultation on draft proposed ToR includes information on public meeting scheduled at least 21 days after newspaper notice is published.	8/15/2008	SPCommittee
Notice for consultation on draft proposed ToR includes requests for comments submitted within 35 days of notice published in the newspaper.	8/15/2008	SPCommittee
Post draft proposed terms of reference on Internet.	8/15/2008	SPCommittee
Post proposed terms of reference on the Internet for 30 days.	10/17/2008	SPCommittee
Provide a copy of draft proposed terms of reference to the clerks of municipalities located in the source protection area.	8/15/2008	SPCommittee
Provide a copy of draft to the chiefs of bands whose reserves are located in the source protection area.	8/15/2008	SPCommittee
Provide a copy of proposed terms of reference to the chiefs of bands whose reserves are located in the source protection area.	10/17/2008	SPCommittee
Provide a copy of proposed terms of reference to the clerks of municipalities located in the source protection area.	10/17/2008	SPCommittee
Provide a copy of proposed terms of reference to the source protection authority.	10/17/2008	SPCommittee
Provide any unresolved comments from municipalities and bands to the Minister as part of the approval package for the proposed terms of reference.		SPAuthority
Provide any unresolved comments from municipalities and bands to the source protection authority on the draft proposed terms of reference.	10/17/2008	SPCommittee
Provide copy of draft proposed ToR to chairs of SPCs who have been listed in table that describes matters that affect other source protection areas.	8/15/2008	SPCommittee
Publish newspaper notice to publicly view draft proposed ToR on Internet and at other locations (as determined by the source protection committee).	8/15/2008	SPCommittee
Receive comments from the 30 day Internet posting from the public, municipalities, bands, and other stakeholders.		SPAuthority

Terms of Reference

Appendix: Full Task Descriptions

Subject Area	Task Name	Full Task Description
Assessment Report Preparation	Coordinating and supporting projects for the assessment report	Undertaking administrative support, staffing, management support, and training necessary to provide project coordination for the assessment report components and direct support to the source protection committee.
Assessment Report Preparation	Undertaking communications initiatives for the assessment report	Local area engagement, outreach and creation of communications products that support the assessment report process.
Assessment Report Preparation	Information management for the assessment report preparation	Conducting overall data management, data sharing agreements, standards, mapping, software and maintenance.
Assessment Report Preparation	Undertaking a watershed characterization	Identifying and describing watersheds in the source protection area. May include water quality analysis and peer review for water quality analysis. Details on how to complete this task will be available in the Assessment Report regulation, Director's rules, and guidance when they are developed.
Assessment Report Preparation	Conducting a conceptual water budget	Describing the overall flow system dynamics for each watershed in the source protection area taking into consideration surface water and groundwater features, land cover (e.g. proportion of urban vs. rural uses), human-made structures (e.g. dams, channel diversions, water crossings), and water takings. Details on how to complete this task will be available in the Assessment Report regulation, Director's rules, and guidance when they are developed.
Assessment Report Preparation	Conducting a tier 1 water budget analysis and stress assessment	Conducting a tier 1 water budget analysis, stress assessment, and delineation of significant groundwater recharge areas. May also include the identification of water quantity concerns and an analysis of uncertainty. Details on how to complete this task will be available in the Assessment Report regulation, Director's rules, and guidance when they are developed.
Assessment Report Preparation	Conducting a tier 2 water budget analysis and stress assessment	If determined necessary from a tier 1 water budget analysis and stress assessment, conducting a tier 2 water budget analysis and stress assessment, and refining the delineation of significant groundwater recharge areas. May also include the identification of water quantity concerns and an analysis of uncertainty. Details on how to complete this task will be available in the Assessment Report regulation, Director's rules, and guidance when they are developed.
Assessment Report Preparation	Conducting a tier 3 water budget analysis and water quantity risk assessment	If determined necessary from a tier 2 water budget analysis and stress assessment, conducting a tier 3 water budget analysis and water quantity risk assessment. May include identifying significant, moderate and low water quantity threats. May also include consultation with property owners/residents/stakeholders impacted by a significant drinking water threat scoring and an analysis of uncertainty. Details on how to complete this task will be available in the Assessment Report regulation, Director's rules, and guidance when they are developed.
Assessment Report Preparation	Delineating and applying vulnerability scores to HVAs	Delineating the location and extent of highly vulnerable aquifers in the source protection area and applying vulnerability scores. An uncertainty analysis may be included in this task. Details on how to complete this task will be available in the Assessment Report regulation, Director's rules, and guidance when they are developed.

Terms of Reference

Assessment Report Preparation	Identifying issues, inventorying threats and assessing hazards in HVAs	Listing and describing drinking water quality issues, inventorying threats and assessing hazards (including uncertainty analysis) in the highly vulnerable aquifers. Details on how to complete this task will be available in the Assessment Report regulation, Director's rules, and guidance when they are developed.
Assessment Report Preparation	Assessing risks in HVAs	Identifying any significant, moderate, low, and negligible drinking water threats, undertaking an issues evaluation, and analysing uncertainty in highly vulnerable aquifers. Details on how to complete this task will be available in the Assessment Report regulation, Director's rules, and guidance when they are developed.
Assessment Report Preparation	Applying vulnerability scores to SGRAs	Applying vulnerability scores to significant groundwater recharge areas in the source protection area (delineated in the water budget process). Details on how to complete this task will be available in the Assessment Report regulation, Director's rules, and guidance when they are developed.
Assessment Report Preparation	Identifying issues, inventorying threats and assessing hazards in SGRAs	Listing and describing drinking water quality issues, inventorying threats and assessing hazards (including uncertainty analysis) in the significant groundwater recharge areas. Details on how to complete this task will be available in the Assessment Report regulation, Director's rules, and guidance when they are developed.
Assessment Report Preparation	Assessing risk in SGRAs	Identifying any significant, moderate, low, and negligible drinking water threats, undertaking an issues evaluation, and analysing uncertainty in significant groundwater recharge areas. Details on how to complete this task will be available in the Assessment Report regulation, Director's rules, and guidance when they are developed.
Assessment Report Preparation	Delineating and applying vulnerability scores to WHPAs or IPZs	Delineating the location and extent of the vulnerable area around a drinking water system (wellhead protection areas for drinking water systems using groundwater or intake protection zones for drinking water systems withdrawing from surface water) in the source protection area and applying a vulnerability score. Uncertainty analysis and peer review may be required. In addition, consultation with property owners/residents/stakeholders affected by the delineation and scoring for these two vulnerable areas may be required. Details on how to complete this task will be available in the Assessment Report regulation, Director's rules, and guidance when they are developed.
Assessment Report Preparation	Identifying issues, inventorying threats and assessing hazards in WHPAs or IPZs	Listing and describing drinking water quality issues, inventorying threats and assessing hazards (including uncertainty analysis) in wellhead protection areas and/or intake protection zones. Details on how to complete this task will be available in the Assessment Report regulation, Director's rules, and guidance when they are developed.
Assessment Report Preparation	Assess risk in WHPAs or IPZs	Identifying any significant, moderate, low, and negligible drinking water threats, undertaking an issues evaluation, and analysing uncertainty in wellhead protection areas or intake protection zones. Consultation may be required with stakeholders impacted by significant drinking water threats scoring. Consultation with adjacent source protection areas or regions may also be required for shared Great Lakes drinking water issues. Details on how to complete this task will be available in the Assessment Report regulation, Director's rules, and guidance when they are developed.
Assessment Report Preparation	Consultation on the overall proposed assessment report	Meeting the legislative and regulatory requirements on the consultation and submission process of the proposed assessment report. Details on how to complete this task will be available in the Assessment Report regulation, Director's rules, and guidance when they are developed.
Assessment Report		If required, add other tasks to complete the assessment report. Describe in detail.

Terms of Reference

Preparation		
Source Protection Plan Preparation	Coordinating and supporting projects for the source protection plan (SPP)	Undertaking administrative support, staffing, management support, and training necessary to provide project coordination for the source protection plan components and direct support to the source protection committee.
Source Protection Plan Preparation	Undertaking communications initiatives for the source protection plan	Local area engagement, outreach and creation of communications products that support the source protection plan process.
Source Protection Plan Preparation	Information management for source protection plan preparation	Conducting overall data management, data sharing agreements, standards, mapping, software and maintenance.
Source Protection Plan Preparation	Policy development to address drinking water threats (where required and/or permissible in Act/Regs)	Policy development to address drinking water threats (where required and/or permissible in the Act and source protection plan regulation). Detailed requirements and guidance will be provided in the Source Protection Plan regulation and guidance document when they are developed.
Source Protection Plan Preparation	Policy development for monitoring (where required, advisable and/or permissible in Act & Regs)	Policy development for monitoring activities (where required, advisable and/or permissible in the Act and source protection plan regulation), including determining who is responsible for implementing these policies. Detailed requirements and guidance will be provided in the Source Protection Plan regulation and guidance document when they are developed.
Source Protection Plan Preparation	Policy development for Great Lakes elements (where required/permissible in Act & Regs)	Policy development for Great Lakes associated elements (where directed by the Minister and required or permissible in the Act and source protection plan regulation), including monitoring policies to assist in implementing and determining the effectiveness of achieving Great Lake target(s) policies, determining who is responsible for implementing those policies, and determining the need to identify any of these policies as "designated Great Lakes policies". Detailed requirements and guidance will be provided in the Source Protection Plan regulation and guidance document when they are developed.
Source Protection Plan Preparation	Establishing timelines for policy implementation	Establishing timelines for policy implementation after all policies for the SPP are developed, giving consideration to the policies developed, key players affected, capacity for implementation, the assessed risks, and natural, social, and economic considerations, including local community interests/needs. Detailed requirements and guidance will be provided in the Source Protection Plan regulation and guidance document when they are developed.
Source Protection Plan Preparation	Consultation on the overall proposed source protection plan	Consultation and submission process of the overall proposed source protection plan. Details on how to conduct the consultations on the overall proposed source protection plan will be provided in the Source Protection Plan regulation and guidance document when they are developed.
Source Protection Plan Preparation		If required, add other tasks to complete the source protection plan. Describe in detail.

Appendix E – Upper Thames River Source Protection Area Terms of Reference Document

Terms of Reference for Upper Thames River Source Protection Area

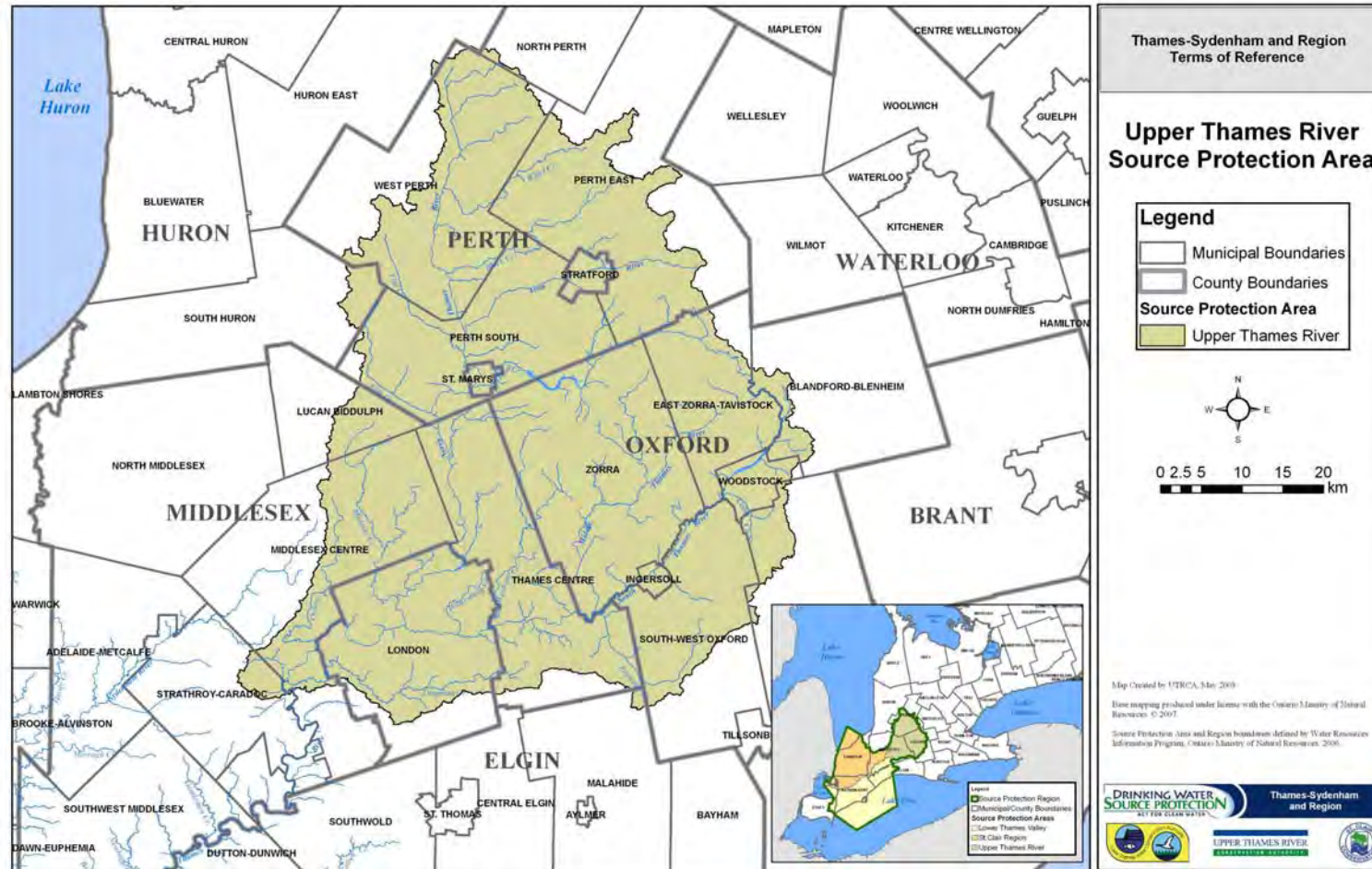
Thames-Sydenham and Region Source Protection Committee

2008-Oct-12

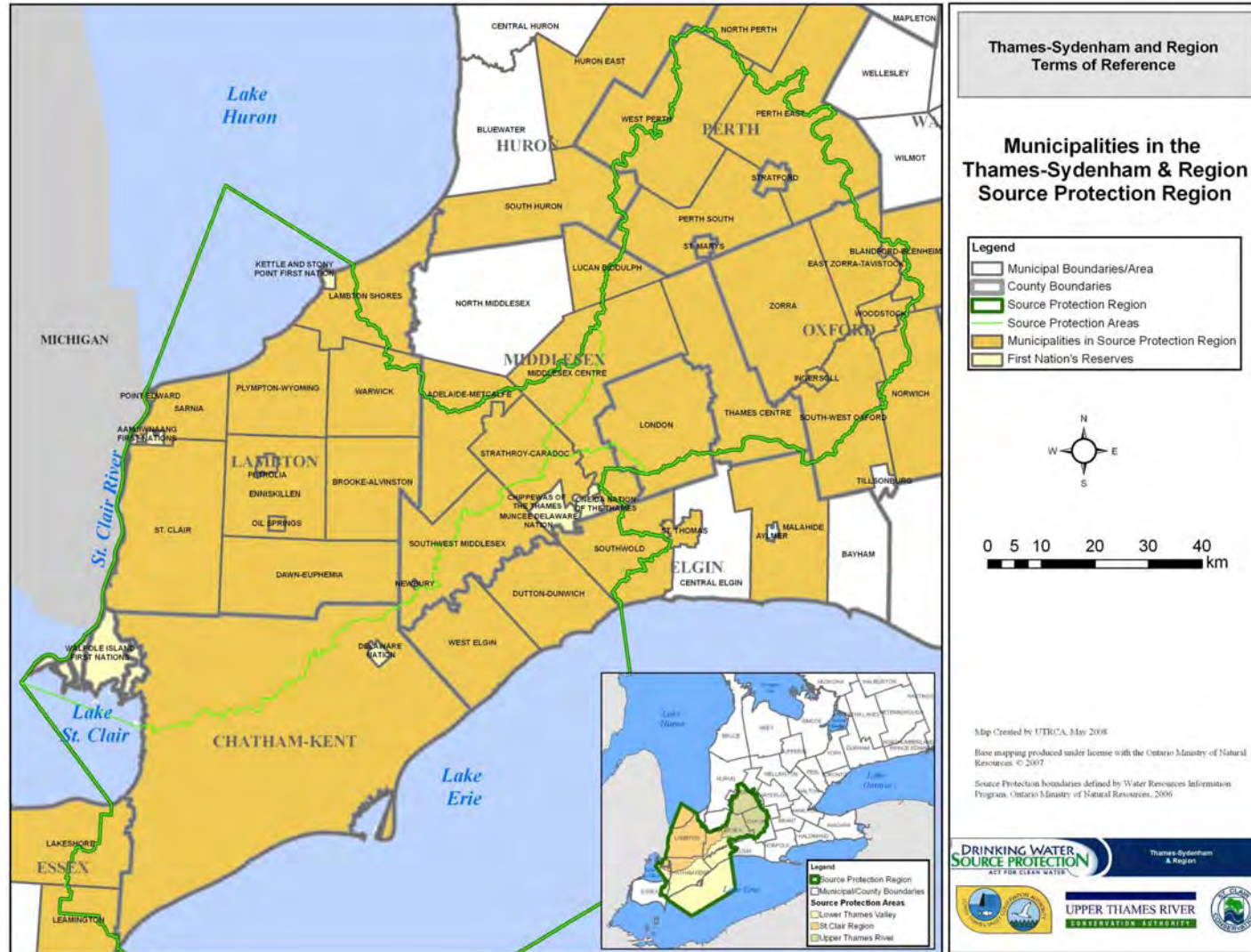
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Map of Source Protection Area



Map of Source Protection Region



List of Municipalities Located in the Upper Thames River Source Protection Area

Legal Name of Municipality
Oxford, County of
Huron, County of
London, City of
Middlesex, County of
Elgin, County of
Perth, County of
St. Marys, Town of
Stratford, City of
Malahide, Township of
Huron East, Municipality of
South Huron, Municipality of
Lucan-Biddulph, Municipality of
Middlesex Centre, Municipality of
Strathroy-Caradoc, Municipality of
Thames Centre, Municipality of
Blandford-Blenheim, Township of
East Zorra-Tavistock, Township of
Ingersoll, Town of
Norwich, Township of
South-West Oxford, Township of
Woodstock, City of
Zorra, Township of
North Perth, Municipality of
Perth East, Township of
Perth South, Township of
West Perth, Municipality of

List of Municipal Residential Drinking Water System(s)

Type of System (existing or planned)	Drinking Water System Number	Drinking Water System Name	Owner	Operating Authority	Type of Source Water (surface, ground, both)
Existing	220000674	Beachville-Loweville Well Supply	County of Oxford	County of Oxford	Groundwater
Existing	220005492	Birr Well Supply	Township of Middlesex Centre	Ontario Clean Water Agency	Groundwater
Existing	220002146	Dorchester Well Supply	Municipality of Thames Centre	Municipality of Thames Centre	Surface and Groundwater
Existing	220000665	Embros Well Supply	County of Oxford	County of Oxford	Groundwater
Existing	220006124	Hickson King Subdivision Well Supply	County of Oxford	County of Oxford	Groundwater
Existing	220000692	Ingersoll Well Supply	County of Oxford	County of Oxford	Groundwater
Existing	260046995	Innerkip Well Supply	County of Oxford	County of Oxford	Groundwater
Existing	210003994	Kilworth Heights Subdivision Well Supply	Township of Middlesex Centre	Ontario Clean Water Agency	Surface and Groundwater
Existing	220007533	Lakeside Well Supply	County of Oxford	County of Oxford	Groundwater
Existing	260004917	London Water Supply	City of London	The Corporation of the City of London	Surface and Groundwater
Existing	260002915	Melrose Well Supply	Township of Middlesex Centre	Ontario Clean Water Agency	Groundwater
Existing	210000577	Mitchell Well Supply	Municipality of West Perth	West Perth Power Inc.	Groundwater
Existing	210003985	Mount Brydges Well Supply	Township of Strathroy-Caradoc	Township of Strathroy-Caradoc	Groundwater
Existing	220000629	Mount Elgin Well Supply	County of Oxford	County of Oxford	Groundwater
Existing	260003084	Sebringville Well Supply	Township of Perth South	Ontario Clean Water Agency	Groundwater
Existing	260002317	Shakespeare Well Supply	Township of Perth East	American Water Canada Corp.	Groundwater

Existing	220000521	St. Marys Well Supply	Town of St. Marys	Town of St. Marys	Surface and Groundwater
Existing	220003948	St. Pauls Well Supply	Township of Perth South	Township of Perth South	Groundwater
Existing	220000530	Stratford Well Supply	City of Stratford	City of Stratford	Groundwater
Existing	220000647	Tavistock Well Supply	County of Oxford	County of Oxford	Groundwater
Existing	220000610	Thamesford WS	County of Oxford	County of Oxford	Surface and Groundwater
Existing	220006115	Thorndale Well Supply	Municipality of Thames Centre	Municipality of Thames Centre	Groundwater
Existing	220000709	Woodstock Well Supply	County of Oxford	County of Oxford	Surface and Groundwater
Planned	220000629	Mount Elgin Well Supply - New Well	County of Oxford	County of Oxford	Groundwater
Planned	220002146	New Dorchester Planned Well	Municipality of Thames Centre	Municipality of Thames Centre	Surface and Groundwater
Planned	220000709	Woodstock Well Supply - New Well	County of Oxford	County of Oxford	Groundwater

List of Drinking Water System(s) Included by Municipal Council Resolution

(Not Municipal Residential Drinking Water Systems)

Type of System (existing or planned)	Drinking Water System Number	Drinking Water System Name	Owner	Operating Authority	Type of Source Water (surface, ground, both)	Title of Council Resolution
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No systems included.

List of Drinking Water Systems Serving Reserve(s)

(Not Municipal Residential Drinking Water Systems)

Type of System (existing or planned)	Drinking Water System Number	Drinking Water System Name	Owner	Operating Authority	Type of Source Water (surface, ground, both)	Regulation Reference
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No systems included.

List of Fully or Partially Exempted Municipal Residential Drinking Water System(s)

Type of System (existing or planned)	Drinking Water System Number	Drinking Water System Name	Owner	Operating Authority	Type of Source Water (surface, ground, both)	Title of Council Resolution
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No systems exempted.

List of Drinking Water System(s) Included by Minister of the Environment

(Not Municipal Residential Drinking Water Systems)

Type of System (existing or planned)	Drinking Water System Number	Drinking Water System Name	Owner	Operating Authority	Type of Source Water (surface, ground, both)
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No systems included.

List of Matter(s) that Affect Other Source Protection Committees

Source Protection Committees Affected	Source Protection Area	Description of Matter
Ausable Bayfield-Maitland Valley SPC	Ausable Bayfield-Maitland Valley Source Protection Region	The Lake Huron Primary Water Supply System (LHPWSS) services the City of London and parts of the Municipalities of Middlesex Centre, Lucan-Biddulph and Strathroy-Caradoc in the Upper Thames River SPA of the Thames-Sydenham and Region SPR. The Water Treatment Plant is located north of the community of Grand Bend on Lake Huron, in the Ausable Bayfield-Maitland Valley Source Protection Region. Although the work will be undertaken by the Ausable Bayfield-Maitland Valley (ABMV) SPR consultation with the Thames-Sydenham and Region SPR and the supplied municipalities within the Thames-Sydenham and Region SPR needs to be undertaken in developing the Assessment Report and Source Protection Plan as they relate to this supply.
Lake Erie SPC	Lake Erie Source Protection Region	The Elgin Area Primary Water Supply System (EAPWSS) services communities in the Upper Thames River SPA of the Thames-Sydenham and Region SPR including the City of London. The Water Treatment Plant is located east of the village of Port Stanley in Central Elgin on Lake Erie, in the Lake Erie Source Protection Region. Although the work will be undertaken by the Lake Erie SP Region, consultation with the Thames-Sydenham and Region SPR and the supplied municipalities within the Thames-Sydenham and Region SPR needs to be undertaken in developing the Assessment Report and Source Protection Plan as they relate to this supply.
Lake Erie SPC	Lake Erie Source Protection Region	There are many municipalities in Perth, Oxford, Middlesex and Elgin Counties that straddle the watershed divide between the Upper Thames River SPA of the Thames-Sydenham and Region SPR and as the Lake Erie SPR. A coordinated approach to technical studies and source protection planning policies must be considered. Consultation on consistent policies within these shared municipalities needs to be considered.
Ausable Bayfield-Maitland Valley SPC	Ausable Bayfield-Maitland Valley Source Protection Region	A number of municipalities are shared with the Ausable Bayfield-Maitland Valley Source Protection Region: the Municipality of West Perth, the Township of Perth South, the Township of Lucan Biddulph, the Municipality of Middlesex Centre, the Municipality of North Perth, Municipality of South Huron, and Municipality of Huron East. A coordinated approach to the development of WHPA and IPZ should be undertaken. Consultation on consistent policies within these shared municipalities needs to be considered.
Ausable Bayfield-Maitland Valley SPC	Ausable Bayfield-Maitland Valley Source Protection Region	The Minister may direct a Source Protection Authority to prepare and submit a report on any matter relating to the use of the Great Lakes as a source of drinking water or to assist another Source Protection Authority in preparing a report. In addition, the Minister may

		establish targets relating to the use of the Great Lakes as a source of drinking water for one or more source protection areas that contribute water to the Great Lakes. There will be a need to consult with the Ausable Bayfield-Maitland Valley (ABMV) SPR on Great Lakes issues.
Lake Erie SPC	Lake Erie Source Protection Region	A number of Well Head Protection Areas originate in the Lake Erie SPR and extend into the Thames-Sydenham and Region SPR including wells systems of Norwich, Dereham Centre and Belmont. Consultation with the Thames-Sydenham and Region SPC and affected municipalities within the region will be necessary.
Lake Erie SPC	Lake Erie Source Protection Region	Edge matching of map products, of the Assessment Report and SP Plan, such as Significant Groundwater Recharge Areas and Highly Vulnerable Aquifers need to be undertaken. Consultation on the methods employed and products produced will be necessary.
Ausable Bayfield-Maitland Valley SPC	Ausable Bayfield-Maitland Valley Source Protection Region	Edge matching of map products, of the Assessment Report and SP Plan, such as Significant Groundwater Recharge Areas and Highly Vulnerable Aquifers need to be undertaken. Consultation on the methods employed and products produced will be necessary.
Lake Erie SPC	Lake Erie Source Protection Region	Water Budget work needs to consider groundwater flow into and out of each region. Consultation with neighbouring regions will be required to ensure that groundwater flow between regions is consistently represented in the water budget products of each region.
Ausable Bayfield-Maitland Valley SPC	Ausable Bayfield-Maitland Valley Source Protection Region	Water Budget work needs to consider groundwater flow into and out of each region. Consultation with neighbouring regions will be required to ensure that groundwater flow between regions is consistently represented in the water budget products of each region.
Lake Erie SPC	Lake Erie Source Protection Region	Princeton water is currently supplied from the City of Woodstock in Oxford County. Consultation on policies developed related to these systems is required.

The Work Plan to Complete the Assessment Report

By Source Protection Area/ Drinking Water System Name	Task	Assigned Lead(s)	Estimated Completion Date	Estimated Cost
Upper Thames River Source Protection Area	Coordinating and supporting projects for the assessment report	Upper Thames River Conservation Authority	2010-Jan-31	\$4,380,098
Upper Thames River Source Protection Area	Undertaking communications initiatives for the assessment report	Upper Thames River Conservation Authority	2010-Jan-31	\$352,750
Upper Thames River Source Protection Area	Information management for the assessment report preparation	Upper Thames River Conservation Authority	2010-Jan-31	\$405,521
Upper Thames River Source Protection Area	Undertaking a watershed characterization	Upper Thames River Conservation Authority	2008-Mar-31	\$29,274
Upper Thames River Source Protection Area	Conducting a conceptual water budget	Upper Thames River Conservation Authority	2008-Mar-31	\$566,174
Upper Thames River Source Protection Area	Conducting a tier 1 water budget analysis and stress assessment	Upper Thames River Conservation Authority	2008-Aug-31	\$411,500
Upper Thames River Source Protection Area	Conducting a tier 2 water budget analysis and stress assessment	Upper Thames River Conservation Authority	2009-May-31	\$330,000
Upper Thames River Source Protection Area	Conducting a tier 3 water budget analysis and water quantity risk assessment	Upper Thames River Conservation Authority	2009-Nov-30	\$650,000
Upper Thames River Source Protection Area	Delineating and applying vulnerability scores to HVAs	Upper Thames River Conservation Authority	2008-Dec-31	\$29,000
Upper Thames River Source Protection Area	Identifying issues, inventorying threats and assessing hazards in HVAs	Upper Thames River Conservation Authority	2009-Jun-01	\$40,000
Upper Thames River	Assessing risks in HVAs	Upper Thames River Conservation	2009-Aug-01	\$42,000

Source Protection Area		Authority		
Upper Thames River Source Protection Area	Applying vulnerability scores to SGRAs	Upper Thames River Conservation Authority	2008-Dec-01	\$15,000
Upper Thames River Source Protection Area	Identifying issues, inventorying threats and assessing hazards in SGRAs	Upper Thames River Conservation Authority	2009-Jun-01	\$50,000
Upper Thames River Source Protection Area	Assessing risk in SGRAs	Upper Thames River Conservation Authority	2009-Aug-01	\$42,000
Upper Thames River Source Protection Area	Delineating and applying vulnerability scores to WHPAs or IPZs	Upper Thames River Conservation Authority	2009-Jun-30	\$29,000
Upper Thames River Source Protection Area	Delineating and applying vulnerability scores to WHPAs or IPZs	City of London	2009-Jun-30	\$82,150
Upper Thames River Source Protection Area	Delineating and applying vulnerability scores to WHPAs or IPZs	County of Oxford	2009-Mar-31	\$41,233
Upper Thames River Source Protection Area	Delineating and applying vulnerability scores to WHPAs or IPZs	Upper Thames River Conservation Authority	2009-Jun-01	\$95,000
Upper Thames River Source Protection Area	Delineating and applying vulnerability scores to WHPAs or IPZs	Upper Thames River Conservation Authority	2009-Apr-30	\$26,515
Upper Thames River Source Protection Area	Identifying issues, inventorying threats and assessing hazards in WHPAs or IPZs	County of Oxford	2009-Mar-31	\$80,734
Upper Thames River Source Protection Area	Identifying issues, inventorying threats and assessing hazards in WHPAs or IPZs	Upper Thames River Conservation Authority	2009-Apr-30	\$141,333
Upper Thames River Source Protection Area	Identifying issues, inventorying threats and assessing hazards in WHPAs or IPZs	City of London	2009-Jun-30	\$187,634
Upper Thames River Source Protection Area	Identifying issues, inventorying threats and assessing hazards in WHPAs or IPZsThreats caused by	Upper Thames River Conservation Authority	2009-Sep-30	

Area	transportation corridors (land, water) shall be identified and considered in risk assessment.			
Upper Thames River Source Protection Area	Identifying issues, inventorying threats and assessing hazards in WHPAs or IPZs	Upper Thames River Conservation Authority	2009-Jun-30	\$143,000
Upper Thames River Source Protection Area	Assess risk in WHPAs or IPZs	County of Oxford	2009-Jun-30	\$67,500
Upper Thames River Source Protection Area	Assess risk in WHPAs or IPZs	City of London	2009-Jun-30	\$43,348
Upper Thames River Source Protection Area	Assess risk in WHPAs or IPZs	Upper Thames River Conservation Authority	2009-Apr-30	\$54,949
Upper Thames River Source Protection Area	Assess risk in WHPAs or IPZs	Upper Thames River Conservation Authority	2009-Jun-30	\$194,000
Upper Thames River Source Protection Area	Consultation on the overall proposed assessment report	Upper Thames River Conservation Authority	2010-Mar-31	\$15,000
Upper Thames River Source Protection Area	GUDI - IPZ Studies - Threats Inventories and Risk Assessment	County of Oxford	2009-Sep-30	\$15,000
Upper Thames River Source Protection Area	GUDI IPZ Study - Preliminary Screening	Upper Thames River Conservation Authority	2009-Mar-31	\$25,000
Upper Thames River Source Protection Area	Peer Review and resulting edits of Vulnerability Assessment work	Upper Thames River Conservation Authority	2009-Jul-31	\$270,000
Upper Thames River Source Protection Area	GUDI - IPZ Studies - Vulnerability Assessment, Threats Inventory and Risk Assessment	Upper Thames River Conservation Authority	2009-Mar-31	\$110,000
Upper Thames River Source Protection Area	Prescreening of First Nations Water Supplies	to be determined		\$60,000
Municipal Residential Drinking Water Systems				

Dorchester Well Supply	Delineating and applying vulnerability scores to WHPAs or IPZs	Municipality of Thames Centre	2007-Jun-30	\$91,000
Woodstock Well Supply - New Well	Delineating and applying vulnerability scores to WHPAs or IPZs	County of Oxford	2009-Jun-30	\$16,000
Mount Elgin Well Supply - New Well	Delineating and applying vulnerability scores to WHPAs or IPZs	County of Oxford	2009-Jun-30	\$5,850
St. Marys Well Supply	Delineating and applying vulnerability scores to WHPAs or IPZs	Town of St. Marys	2008-Aug-31	\$28,167
Dorchester Well Supply	Delineating and applying vulnerability scores to WHPAs or IPZs	Upper Thames River Conservation Authority	2009-Mar-31	\$40,000
Woodstock Well Supply - New Well	Identifying issues, inventorying threats and assessing hazards in WHPAs or IPZs	County of Oxford	2009-Jun-30	\$8,000
Mount Elgin Well Supply - New Well	Identifying issues, inventorying threats and assessing hazards in WHPAs or IPZs	County of Oxford	2009-Jun-30	\$10,000
St. Marys Well Supply	Identifying issues, inventorying threats and assessing hazards in WHPAs or IPZs	Town of St. Marys	2009-Jan-31	\$63,667
Woodstock Well Supply - New Well	Assess risk in WHPAs or IPZs	County of Oxford	2009-Sep-30	\$1,000
Mount Elgin Well Supply - New Well	Assess risk in WHPAs or IPZs	County of Oxford	2009-Sep-30	\$2,000
St. Marys Well Supply	Assess risk in WHPAs or IPZs	Town of St. Marys	2009-Apr-30	\$21,167
Thamesford WS	GUDI-IPZ 2 delineation and vulnerability scoring; study of need for IPZ 3	County of Oxford	2009-Jul-31	\$40,000
Woodstock Well Supply	GUDI IPZ work - IPZ2 delineation and vulnerability scoring	County of Oxford	2009-Jul-31	\$25,000
Thorndale Well Supply	Update existing WHPA to account for system expansion and mandatory connection	Upper Thames River Conservation Authority	2009-Mar-31	\$15,000
Dorchester Well Supply	Review of past work, remodeling of WHPA in overburden wells and assigning vulnerability scores	Municipality of Thames Centre	2009-Mar-31	\$12,000
Drinking Water Systems By Municipal Resolution				
Drinking Water Systems By Band Resolution				
Fully or Partially Exempt Drinking Water Systems				
Drinking Water Systems Included By				

Minister	
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The Work Plan to Complete the Source Protection Plan

By Source Protection Area/ Drinking Water System Name	Task	Assigned Lead(s)	Estimated Completion Date	Estimated Cost
Upper Thames River Source Protection Area	Coordinating and supporting projects for the source protection plan (SPP)	Upper Thames River Conservation Authority	2012-Aug-20	\$3,670,000
Upper Thames River Source Protection Area	Undertaking communications initiatives for the source protection plan	Source Protection Committee	2012-Aug-20	\$230,000
Upper Thames River Source Protection Area	Information management for source protection plan preparation	Upper Thames River Conservation Authority	2012-Aug-20	\$190,000
Upper Thames River Source Protection Area	Policy development to address drinking water threats (where required and/or permissible in Act/Regs)	Source Protection Committee	2012-Aug-20	
Upper Thames River Source Protection Area	Policy development to address drinking water threats (where required and/or permissible in Act/Regs)	County of Oxford	2011-Mar-31	\$50,000
Upper Thames River Source Protection Area	Policy development for monitoring (where required, advisable and/or permissible in Act & Regs)	Source Protection Committee	2012-Aug-20	
Upper Thames River Source Protection Area	Policy development for Great Lakes elements (where required/permissible in Act & Regs)	Source Protection Committee	2012-Aug-20	
Upper Thames River Source Protection Area	Establishing timelines for policy implementation	Source Protection Committee	2012-Aug-20	
Upper Thames River Source Protection Area	Consultation on the overall proposed source protection plan	Source Protection Committee	2012-Jul-31	\$25,000
Municipal Residential Drinking Water				

Systems	
Drinking Water Systems By Municipal Resolution	
Drinking Water Systems By Band Resolution	
Fully or Partially Exempt Drinking Water Systems	
Drinking Water Systems Included By Minister	

The Date the Source Protection Plan is to be Submitted to the Minister for Approval by the Upper Thames River Conservation Authority:

2012-Aug-20

Council Resolution(s) to Include Drinking Water System(s)

None.

Council Resolution(s) to Exempt Municipal Residential Drinking Water System(s)

None.

Detailed Information

Detailed Information on Municipal Residential Drinking Water System(s)

Drinking Water System Type (planned or existing)	Drinking Water System Number	Drinking Water System Name	Owner	Operating Authority	Source Water Type (surface, ground, both)	Number of Wells
Existing	220000674	Beachville-Loweville Well Supply	County of Oxford	County of Oxford	Groundwater	1
Number of Surface Water Intakes	Comments					
0						

Drinking Water System Type (planned or existing)	Drinking Water System Number	Drinking Water System Name	Owner	Operating Authority	Source Water Type (surface, ground, both)	Number of Wells
Existing	220000665	Embros Well Supply	County of Oxford	County of Oxford	Groundwater	2
Number of Surface Water Intakes	Comments					
0						

Drinking Water System Type (planned or existing)	Drinking Water System Number	Drinking Water System Name	Owner	Operating Authority	Source Water Type (surface, ground, both)	Number of Wells
Existing	220006124	Hickson King Subdivision Well Supply	County of Oxford	County of Oxford	Groundwater	1
Number of Surface Water Intakes	Comments					
0						

Drinking Water System Type (planned or existing)	Drinking Water System Number	Drinking Water System Name	Owner	Operating Authority	Source Water Type (surface, ground, both)	Number of Wells
Existing	220000692	Ingersoll Well Supply	County of Oxford	County of Oxford	Groundwater	7

Number of Surface Water Intakes	Comments
0	

Drinking Water System Type (planned or existing)	Drinking Water System Number	Drinking Water System Name	Owner	Operating Authority	Source Water Type (surface, ground, both)	Number of Wells
Existing	260046995	Innerkip Well Supply	County of Oxford	County of Oxford	Groundwater	2
Number of Surface Water Intakes	Comments					
0						

Drinking Water System Type (planned or existing)	Drinking Water System Number	Drinking Water System Name	Owner	Operating Authority	Source Water Type (surface, ground, both)	Number of Wells
Existing	220007533	Lakeside Well Supply	County of Oxford	County of Oxford	Groundwater	1
Number of Surface Water Intakes	Comments					
0						

Drinking Water System Type (planned or existing)	Drinking Water System Number	Drinking Water System Name	Owner	Operating Authority	Source Water Type (surface, ground, both)	Number of Wells
Existing	220000629	Mount Elgin Well Supply	County of Oxford	County of Oxford	Groundwater	1
Number of Surface Water Intakes	Comments					
0						

Drinking Water System Type (planned or existing)	Drinking Water System Number	Drinking Water System Name	Owner	Operating Authority	Source Water Type (surface, ground, both)	Number of Wells
Existing	220000647	Tavistock Well Supply	County of Oxford	County of Oxford	Groundwater	3
Number of Surface Water Intakes	Comments					
0						

Drinking Water System Type (planned or existing)	Drinking Water System Number	Drinking Water System Name	Owner	Operating Authority	Source Water Type (surface, ground, both)	Number of Wells
Existing	220000610	Thamesford WS	County of Oxford	County of Oxford	Surface and Groundwater	3
Number of Surface Water Intakes	Comments					
0						

Drinking Water System Type (planned or existing)	Drinking Water System Number	Drinking Water System Name	Owner	Operating Authority	Source Water Type (surface, ground, both)	Number of Wells
Existing	220000709	Woodstock Well Supply	County of Oxford	County of Oxford	Surface and Groundwater	10
Number of Surface Water Intakes	Comments					
0						

Drinking Water System Type (planned or existing)	Drinking Water System Number	Drinking Water System Name	Owner	Operating Authority	Source Water Type (surface, ground, both)	Number of Wells
Planned	220000709	Woodstock Well Supply - New Well	County of Oxford	County of Oxford	Groundwater	1
Number of Surface Water Intakes	Comments					
0	Planned 'Bond Well' to be a part of the existing Woodstock Well Supply System.					

Drinking Water System Type (planned or existing)	Drinking Water System Number	Drinking Water System Name	Owner	Operating Authority	Source Water Type (surface, ground, both)	Number of Wells
Planned	220000629	Mount Elgin Well Supply - New Well	County of Oxford	County of Oxford	Groundwater	1
Number of Surface Water Intakes	Comments					
0	Planned 'Graydon Well' to be a part of the existing Mount Elgin Well Supply System.					

Drinking Water	Drinking Water	Drinking Water System Name	Owner	Operating Authority	Source Water Type	Number
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System Type (planned or existing)	System Number				(surface, ground, both)	of Wells
Existing	220000521	St. Marys Well Supply	Town of St. Marys	Town of St. Marys	Surface and Groundwater	3
Number of Surface Water Intakes	Comments					
0						

Drinking Water System Type (planned or existing)	Drinking Water System Number	Drinking Water System Name	Owner	Operating Authority	Source Water Type (surface, ground, both)	Number of Wells
Existing	220000530	Stratford Well Supply	City of Stratford	City of Stratford	Groundwater	11
Number of Surface Water Intakes	Comments					
0						

Drinking Water System Type (planned or existing)	Drinking Water System Number	Drinking Water System Name	Owner	Operating Authority	Source Water Type (surface, ground, both)	Number of Wells
Existing	260003084	Sebringville Well Supply	Township of Perth South	Ontario Clean Water Agency	Groundwater	1
Number of Surface Water Intakes	Comments					
0						

Drinking Water System Type (planned or existing)	Drinking Water System Number	Drinking Water System Name	Owner	Operating Authority	Source Water Type (surface, ground, both)	Number of Wells
Existing	220003948	St. Pauls Well Supply	Township of Perth South	Township of Perth South	Groundwater	1
Number of Surface Water Intakes	Comments					
0						

Drinking Water System Type	Drinking Water System Number	Drinking Water System Name	Owner	Operating Authority	Source Water Type (surface, ground, both)	Number of Wells
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(planned or existing)					both)	
Existing	260002317	Shakespeare Well Supply	Township of Perth East	American Water Canada Corp.	Groundwater	1
Number of Surface Water Intakes	Comments					
0						

Drinking Water System Type (planned or existing)	Drinking Water System Number	Drinking Water System Name	Owner	Operating Authority	Source Water Type (surface, ground, both)	Number of Wells
Existing	210000577	Mitchell Well Supply	Municipality of West Perth	West Perth Power Inc.	Groundwater	3
Number of Surface Water Intakes	Comments					
0						

Drinking Water System Type (planned or existing)	Drinking Water System Number	Drinking Water System Name	Owner	Operating Authority	Source Water Type (surface, ground, both)	Number of Wells
Existing	260004917	London Water Supply	City of London	The Corporation of the City of London	Surface and Groundwater	7
Number of Surface Water Intakes	Comments					
0						

Drinking Water System Type (planned or existing)	Drinking Water System Number	Drinking Water System Name	Owner	Operating Authority	Source Water Type (surface, ground, both)	Number of Wells
Existing	220005492	Birr Well Supply	Township of Middlesex Centre	Ontario Clean Water Agency	Groundwater	1
Number of Surface Water Intakes	Comments					
0						

Drinking Water System Type	Drinking Water System Number	Drinking Water System Name	Owner	Operating Authority	Source Water Type (surface, ground, both)	Number of Wells
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(planned or existing)					both)	
Existing	220002146	Dorchester Well Supply	Municipality of Thames Centre	Municipality of Thames Centre	Surface and Groundwater	8
Number of Surface Water Intakes	Comments					
0						

Drinking Water System Type (planned or existing)	Drinking Water System Number	Drinking Water System Name	Owner	Operating Authority	Source Water Type (surface, ground, both)	Number of Wells
Existing	210003994	Kilworth Heights Subdivision Well Supply	Township of Middlesex Centre	Ontario Clean Water Agency	Surface and Groundwater	3
Number of Surface Water Intakes	Comments					
0						

Drinking Water System Type (planned or existing)	Drinking Water System Number	Drinking Water System Name	Owner	Operating Authority	Source Water Type (surface, ground, both)	Number of Wells
Existing	260002915	Melrose Well Supply	Township of Middlesex Centre	Ontario Clean Water Agency	Groundwater	2
Number of Surface Water Intakes	Comments					
0						

Drinking Water System Type (planned or existing)	Drinking Water System Number	Drinking Water System Name	Owner	Operating Authority	Source Water Type (surface, ground, both)	Number of Wells
Existing	220006115	Thorndale Well Supply	Municipality of Thames Centre	Municipality of Thames Centre	Groundwater	2
Number of Surface Water Intakes	Comments					
0						

Drinking Water System Type	Drinking Water System Number	Drinking Water System Name	Owner	Operating Authority	Source Water Type (surface, ground, both)	Number of Wells
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(planned or existing)					both)	
Existing	210003985	Mount Brydges Well Supply	Township of Strathroy-Caradoc	Township of Strathroy-Caradoc	Groundwater	2
Number of Surface Water Intakes	Comments					
0	Mount Brydges well supply system lies in the Upper Thames River SPA and supplies water to residents in the St. Clair Region SPA also.					

Drinking Water System Type (planned or existing)	Drinking Water System Number	Drinking Water System Name	Owner	Operating Authority	Source Water Type (surface, ground, both)	Number of Wells
Planned	220002146	New Dorchester Planned Well	Municipality of Thames Centre	Municipality of Thames Centre	Surface and Groundwater	1
Number of Surface Water Intakes	Comments					
0	The proposed well is undergoing an Environmental Assessment (EA) in order to qualify for being a 'planned well'. It will be a part of the existing Dorchester well supply system. The EA is expected to be posted to the MOE EBR in September 2008.					

Detailed Information on Drinking Water System(s) Included by Municipal Council Resolution

(Not Municipal Residential Drinking Water Systems)

No systems included.

Detailed Information on Drinking Water System(s) Included by Bands Serving Reserve(s)

(Not Municipal Residential Drinking Water Systems)

No systems included.

Detailed Information on Fully or Partially Exempted Municipal Residential Drinking Water System(s)

No systems exempted.

Detailed Information on Drinking Water System(s) Included by the Minister of the Environment

(Not Municipal Residential Drinking Water Systems)

No systems included.

Detailed Work Plan to Complete the Assessment Report

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Upper Thames River Source Protection Area	Coordinating and supporting projects for the assessment report	Upper Thames River Conservation Authority	2005-Jan-01	2010-Jan-31
Comments		Defined Geographic Area		Estimated Cost
Includes costs and work done on the St. Clair Region SPA and the Lower Thames Valley SPA.		Upper Thames River, Lower Thames Valley, St. Clair Region SPA		\$4,380,098

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Upper Thames River Source Protection Area	Undertaking communications initiatives for the assessment report	Upper Thames River Conservation Authority	2005-Jan-01	2010-Jan-31
Comments		Defined Geographic Area		Estimated Cost
<p>This task includes communications initiatives related to the formation of the SPC including engaging sectors such as the agricultural, municipal, industrial and first nations in the SPC formation process. Also included are initiatives related to public outreach on the Source Protection Planning process and the Clean Water Act.</p> <p>Future initiatives will focus on communications related to the assessment report and the technical work to support the Assessment Report. Communications initiatives included in this task include the production of displays, presentation materials, tabloids, newsletters, printed materials as well as support of work groups, forums, and stakeholder meetings to discuss the technical work with stakeholders. Specific outreach will be undertaken in areas where significant risks are likely.</p> <p>The Assessment Report Regulation will likely require specific consultation on the proposed Assessment Report. Costs estimates to meet those anticipated requirements are included in a separate task. The initiatives included in this task will complement those requirements.</p> <p>Staff time related to this item have been included with the task related to the coordination and support of the Assessment Report.</p>		All three Source Protection Areas (SPAs) of the Thames-Sydenham and Region Source Protection Region: Upper Thames River SPA, Lower Thames Valley SPA and St. Clair Region SPA		\$352,750

Includes costs and work done on the St. Clair Region SPA and the Lower Thames Valley SPA.		
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By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Upper Thames River Source Protection Area	Information management for the assessment report preparation	Upper Thames River Conservation Authority	2005-Jan-01	2010-Jan-31
Comments		Defined Geographic Area		Estimated Cost
Includes costs and work done on the St. Clair Region SPA and the Lower Thames Valley SPA.		Upper Thames River, Lower Thames Valley, St. Clair Region SPA		\$405,521

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Upper Thames River Source Protection Area	Undertaking a watershed characterization	Upper Thames River Conservation Authority	2005-Jan-01	2008-Mar-31
Comments		Defined Geographic Area		Estimated Cost
Production of a Watershed Characterization Report for the St Clair Source Protection Area and Thames Watershed and Region.		Upper Thames River, Lower Thames Valley, St. Clair Region SPA		\$29,274

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Upper Thames River Source Protection Area	Conducting a conceptual water budget	Upper Thames River Conservation Authority	2005-Jan-01	2008-Mar-31
Comments		Defined Geographic Area		Estimated Cost
Completed a Conceptual Water Budget for the Thames-Sydenham and Region		Upper Thames River, Lower Thames Valley, St. Clair Region SPA		\$566,174

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Upper Thames River Source Protection Area	Conducting a tier 1 water budget analysis and stress assessment	Upper Thames River Conservation Authority	2007-Aug-01	2008-Aug-31
Comments		Defined Geographic Area		Estimated Cost
Developing T1 Water Budgets for each of St Clair Region, Lower Thames Valley and Upper Thames River SPA.		Upper Thames River, Lower Thames Valley, St. Clair Region SPA		\$411,500

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Upper Thames River Source Protection Area	Conducting a tier 2 water budget analysis and stress assessment	Upper Thames River Conservation Authority	2008-Oct-01	2009-May-31
Comments		Defined Geographic Area		Estimated Cost
The need for and scope of this project is dependant on the outcomes of the Tier 1 Water Budget. The Tier 2 Water Budget will refine the water supply and demand components of the Tier 1 Water Budgets and reassess the potential for stress in those watersheds. The Tier 2 Water Budget will also consider drought scenarios not considered in the Tier 1.		Potentially stressed sub-watersheds within the Upper Thames River, Lower Thames Valley, St. Clair Region SPA		\$330,000

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Upper Thames River Source Protection Area	Conducting a tier 3 water budget analysis and water quantity risk assessment	Upper Thames River Conservation Authority	2009-Apr-01	2009-Nov-30
Comments		Defined Geographic Area		Estimated Cost
Tier 3 Water Budgets are required to be undertaken on areas contributing to municipal water systems in sub-watersheds which are shown as potentially stressed through the completion of the Tier 2 Water Budgets.		Tier 3 Water budgets will be required in any areas which are shown as possibly under stress following the completion of the Tier 2 Water Budget. As such the municipal water systems which will be considered has not yet been determined.		\$650,000

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Upper Thames River Source Protection Area	Delineating and applying vulnerability scores to HVAs	Upper Thames River Conservation Authority	2008-May-01	2008-Dec-31
Comments		Defined Geographic Area		Estimated Cost
Intrinsic Susceptibility Index scores have been completed through past groundwater studies across the region. The mapping products from these separate county based studies have been compiled into a single mapping product, however there are issues with conflicting scoring at areas of overlap. This was to be expected as each study relied on the interpretation of data from within their study area. Near the edges of the study area different interpolation and extrapolations results should be expected based on the use of different data points near the boundaries.		Thames-Sydenham and Region Source Protection Region including the LTVSPA, SCRSPA and the UTRSPA		\$29,000
Costs for this task include work in the SCRSPA and LTVSPA.				

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Upper Thames River Source Protection Area	Identifying issues, inventorying threats and assessing hazards in HVAs	Upper Thames River Conservation Authority	2008-Oct-01	2009-Jun-01
Comments		Defined Geographic Area		Estimated Cost
<p>Once delineated these areas will be assessed for the general nature of the types of threats contained in the areas. All threats which could result in a significant risk will be inventoried. Current guidance suggests a vulnerability score of 6 for these areas. As such it is not anticipated that significant risks will be identified in these areas. General types of land use in these areas will be characterized to the extent necessary to develop appropriate policies for these types of threats in HVAs.</p> <p>Issues in these areas will be identified through the analysis of monitoring wells and municipal wells in the general areas as well as through discussions with the local health units who may be able to rely on interpretation of private well information.</p> <p>Issues may be considered in determining whether certain types of threats need to be inventoried in the area, however no allowance has been made in this task for a detailed inventory of such threats.</p> <p>Costs for this task include work in the SCRSPA and LTVSPA.</p>		Thames-Sydenham and Region Source Protection Region including the LTVSPA, SCRSPA and the UTRSPA		\$40,000

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Upper Thames River Source Protection Area	Assessing risks in HVAs	Upper Thames River Conservation Authority	2009-Apr-01	2009-Aug-01
Comments		Defined Geographic Area		Estimated Cost
<p>Based on vulnerability scores and general threats characterization in the HVAs, possible risk scores will be assessed.</p> <p>Costs for this task include work in the SCRSPA and LTVSPA.</p>		Thames-Sydenham and Region Source Protection Region including the LTVSPA, SCRSPA and the UTRSPA		\$42,000

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Upper Thames River	Applying vulnerability scores to SGRAs	Upper Thames River Conservation	2008-Oct-01	2008-Dec-01

Source Protection Area		Authority	
Comments		Defined Geographic Area	
<p>SGRAs will be defined through the Water Budget work. The vulnerability of these areas will be assessed based on Director's Rules and guidance. ISI scores are available for WHPAs as well as the regional ISI scores developed through the HVA delineation project. These results will need to be compared and the most appropriate scoring applied to the SGRA. It will be important that the vulnerability score associated with these areas be consistent with those parts of the WHPA which are part of the SGRA.</p> <p>Costs for this task include work in the LTVSPA and SCRSPA.</p>		<p>Thames-Sydenham and Region Source Protection Region including the LTVSPA, SCRSPA and the UTRSPA</p> <p style="text-align: right;">\$15,000</p>	

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Upper Thames River Source Protection Area	Identifying issues, inventorying threats and assessing hazards in SGRAs	Upper Thames River Conservation Authority	2008-Oct-01	2009-Jun-01
Comments		Defined Geographic Area		Estimated Cost
<p>Once delineated these areas will be assessed for the general nature of the types of threats contained in the areas. All threats which could result in a significant risk will be inventoried. Current guidance suggests a vulnerability score of 6 for these areas. As such it is not anticipated that significant risks will be identified in these areas. General types of land use in these areas will be characterized to the extent necessary to develop appropriate policies for these types of threats in SGRAs.</p> <p>Issues in these areas will be identified through the analysis of monitoring wells and municipal wells in the general areas as well as through discussions with the local health units who may be able to rely on interpretation of private well information.</p> <p>Issues may be considered in determining whether certain types of threats need to be inventoried in the area, however no allowance has been made in this task for a detailed inventory of such threats.</p> <p>Costs for this task include work in the LTVSPA and SCRSPA.</p>		<p>Thames-Sydenham and Region Source Protection Region including the LTVSPA, SCRSPA and the UTRSPA</p> <p style="text-align: right;">\$50,000</p>		

By Source Protection	Task	Assigned Lead(s)	Estimated Start	Estimated
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Area			Date	Completion Date
Upper Thames River Source Protection Area	Assessing risk in SGRAs	Upper Thames River Conservation Authority	2009-Apr-01	2009-Aug-01
Comments		Defined Geographic Area		Estimated Cost
Costs for this task include work in the LTVSPA and SCRSPA.		Thames-Sydenham and Region Source Protection Region including the LTVSPA, SCRSPA and the UTRSPA		\$42,000

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Upper Thames River Source Protection Area	Delineating and applying vulnerability scores to WHPAs or IPZs	Upper Thames River Conservation Authority	2008-Oct-01	2009-Jun-01
Comments		Defined Geographic Area		Estimated Cost
<p>It is anticipated that the Director's Rules will require the delineation, vulnerability assessment and Risk Assessment of IPZ3 (or other methodologies for assessing risks resulting from issues or concerns outside of IPZ1 & 2) for intakes on Lake St Clair and the Wallaceburg intake.</p> <p>Delineation and applying vulnerability scores for IPZ3 related to the Lake St Clair and Wallaceburg intakes will be completed according to the requirements of the Director's Rules. The MISED models developed through the past work will be used to identify areas, outside of the original model scope (developed to delineate IPZ2), which can contribute risks to the intakes. The models will be combined and improved to include discharges from the major rivers which may contribute risks to the intakes. Watercourses available in Conservation Authority and provincial data sets will be utilized to delineate the IPZ3 within the contributing watersheds. The modelling will be used as an indicator of areas more vulnerable (more likely to contribute risks) than others within the delineated IPZ3 and vulnerability scores will be assigned accordingly.</p> <p>Costs for this task include work to be done in the Lower Thames Valley SPA and the St. Clair Region SPA. Costs are shown here in the Upper Thames Region SPA Terms of Reference since it is the lead on this study.</p>		Wallaceburg intake in the St. Clair Region SPA as well as intakes in the Essex Region SPA on Lake St. Clair. IPZ3 will include the Thames and Sydenham Watersheds as well as smaller tributaries which drain directly into the St. Clair River and Lake St. Clair.		\$95,000

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Upper Thames River Source Protection Area	Delineating and applying vulnerability scores to WHPAs or IPZs	City of London	2005-Apr-01	2009-Jun-30

Comments	Defined Geographic Area	Estimated Cost
Work for this task is funded by the Ministry of Environment through an agreement with the project lead. Proposed work for the same well supply systems is led by the UTRCA and shown in a separate task 'Delineating and applying vulnerability scores to WHPAs or IPZs' (Task No. 89 in the ToR Guide).	All Middlesex County and City of London wells within the Thames Sydenham and Region Source Protection Region - City of London Standby, Birr, Dorchester, Melrose, Kilworth Heights Subdivision, Mount Brydges and Thorndale	\$82,150

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Upper Thames River Source Protection Area	Delineating and applying vulnerability scores to WHPAs or IPZs	County of Oxford	2006-Apr-01	2009-Mar-31
Comments	Defined Geographic Area	Estimated Cost		
Oxford County Groundwater Technical Study: costs shown are estimates for the 10 County of Oxford well supply systems of the Thames-Sydenham and Region. Includes funded amounts for the two planned wells (Bond and Graydon - \$5,750 each). Proposed costs are estimates of the updates and further work required to ensure the technical studies meet the Director's Technical Rules posted on the Ministry of Environment Environmental Bill of Rights Registry in June 2008. The scope of this task may change as a result of changes to the rules from those posted.	County of Oxford systems in the TSR: Beachville-Loweville Subdivision, Embro, Hickson-King Subdivision, Ingersoll, Innerkip, Lakeside, Mount Elgin, Tavistock, Thamesford and Woodstock	\$41,233		

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Upper Thames River Source Protection Area	Delineating and applying vulnerability scores to WHPAs or IPZs	Upper Thames River Conservation Authority	2005-Apr-01	2009-Apr-30
Comments	Defined Geographic Area	Estimated Cost		
Perth County Groundwater Technical Study. Proposed costs are estimates of the updates and further work required to ensure the technical studies meet the Proposed Director's Technical Rules posted on the Ministry of Environment Environmental Bill of Rights Registry in June 2008. The scope of this task may change as a result of changes to the rules from those posted. The task includes one well supply in the Lake Erie SPR, however those costs are not included here).	St. Marys, Stratford well supply systems as well as the Perth County systems of Mitchell, Sebringville (Black Creek Estates), Shakespeare (Miller Ave.) and St. Paul's	\$26,515		

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Upper Thames River Source Protection Area	Identifying issues, inventorying threats and assessing hazards in WHPAs or IPZs	County of Oxford	2005-Apr-01	2009-Mar-31
Comments		Defined Geographic Area		Estimated Cost
Oxford County Groundwater Technical Study included 10 systems in the Thames Sydenham and Region. Proposed costs are estimates of the updates and further work required to ensure the technical studies meet the Director's Technical Rules posted on the Ministry of Environment Environmental Bill of Rights Registry in June 2008. The scope of this task may change as a result of changes to the rules from those posted.		County of Oxford systems: Beachville-Loweville Subdivision, Embro, Hickson-King Subdivision, Ingersoll, Innerkip, Lakeside, Mount Elgin, Tavistock, Thamesford and Woodstock		\$80,734

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Upper Thames River Source Protection Area	Identifying issues, inventorying threats and assessing hazards in WHPAs or IPZs	Upper Thames River Conservation Authority	2005-Apr-01	2009-Apr-30
Comments		Defined Geographic Area		Estimated Cost
Perth County Groundwater Technical Study. Proposed costs are estimates of the updates and further work required to ensure the technical studies meet the Director's Technical Rules posted on the Ministry of Environment Environmental Bill of Rights Registry in June 2008. The scope of this task may change as a result of changes to the rules from those posted.		St. Marys, Stratford well supply systems as well as the Perth County systems of Mitchell, Sebringville (Black Creek Estates), Shakespeare (Miller Ave.) and St. Paul's		\$141,333

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Upper Thames River Source Protection Area	Identifying issues, inventorying threats and assessing hazards in WHPAs or IPZs	City of London	2005-Apr-01	2009-Jun-30
Comments		Defined Geographic Area		Estimated Cost
Work for this task is funded by the Ministry of Environment through an agreement with the project lead. Proposed work for the same well supply systems is led by the UTRCA and shown in a separate task 'Identifying issues, inventorying threats and assessing hazards in WHPAs or IPZs' (Task No. 90 in the ToR Guide).		All Middlesex County and City of London wells within the Thames Sydenham and Region Source Protection Region - City of London Standby, Birr, Dorchester, Melrose, Kilworth Heights Subdivision, Mount Brydges and Thorndale		\$187,634

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Upper Thames River Source Protection Area	Identifying issues, inventorying threats and assessing hazards in WHPAs or IPZsThreats caused by transportation corridors (land, water) shall be identified and considered in risk assessment.	Upper Thames River Conservation Authority	2009-Apr-01	2009-Sep-30
Comments		Defined Geographic Area		Estimated Cost
<p>Many of the technical studies, through which threats in the Well Head Protection Areas and Intake Protection Zones were inventoried, will consider potential threats posed by corridors and the transportation of materials. The transportation of materials in corridors is an activity which would pose a risk to drinking water sources if those materials were released in those areas. Corridors to be considered will include pipelines as well as significant transportation corridors including rail, road and shipping. Although the June 2008 drafts of the Assessment Report Regulations and Rules do not specifically identify corridors as a threat, they do allow for the SPC to identify activities not included in the list of threats which they feel present a risk to drinking water sources.</p> <p>Through work associated with this task, the SPC will assess the extent to which the local threats inventories considered corridors and the transportation of materials within the WHPAs and IPZs, determine if there are data gaps in that work and identify methodologies to fill those gaps. The SPC will also consider a means to assess the risk to the drinking water sources that these potential threats pose. It is hoped that the Province will include in the final Rules and Regulations a methodology which adequately allows these threats to be considered by the SPC. Further, it is hoped that the Province will coordinate and provide guidance as to how the SPC may deal locally with these potential threats. This task will allow the SPC and CA staff to liaise with the Province to ensure that these potential threats are properly considered in the Assessment Report and Source Protection Plan. In the absence of Provincial direction, this task will allow for the SPC to consider the local impact of these activities on the local drinking water supplies.</p> <p>Cost for this task are dependant on the level of work undertaken and</p>		Thames-Sydenham and Region: Lower Thames SPA, St. Clair SPA, Upper Thames SPA.		

coordinated provincially. As such costs for this task are yet to be determined.		
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By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Upper Thames River Source Protection Area	Assess risk in WHPAs or IPZs	Upper Thames River Conservation Authority	2006-Apr-01	2009-Apr-30
Comments		Defined Geographic Area		Estimated Cost
Perth County Groundwater Technical Study. Proposed costs are estimates of the updates and further work required to ensure the technical studies meet the Director's Technical Rules posted on the Ministry of Environment Environmental Bill of Rights Registry in June 2008. The scope of this task may change as a result of changes to the rules from those posted.		St. Marys, Stratford well supply systems as well as the Perth County systems of Mitchell, Sebringville (Black Creek Estates), Shakespeare (Miller Ave.) and St. Paul's		\$54,949

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Upper Thames River Source Protection Area	Assess risk in WHPAs or IPZs	City of London	2006-Apr-01	2009-Jun-30
Comments		Defined Geographic Area		Estimated Cost
Work for this task is funded by the Ministry of Environment through an agreement with the project lead. Proposed work for the same well supply systems is led by the UTRCA and shown in a separate task 'Assess risk in WHPAs or IPZs' (Task No. 91 in the ToR Guide).		All Middlesex County and City of London wells within the Thames Sydenham and Region Source Protection Region - City of London Standby, Birr, Dorchester, Melrose, Kilworth Heights Subdivision, Mount Brydges and Thorndale		\$43,348

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Upper Thames River Source Protection Area	Assess risk in WHPAs or IPZs	County of Oxford	2006-Apr-01	2009-Jun-30
Comments		Defined Geographic Area		Estimated Cost
Oxford County Groundwater Technical Study: costs shown are for the 10 County of Oxford well supply systems in the Thames Sydenham and Region. Proposed costs are estimates of the updates and further work required to ensure the technical studies meet the Director's Technical Rules posted on the Ministry of Environment Environmental Bill of Rights Registry in June 2008.		County of Oxford systems: Beachville-Loweville Subdivision, Embro, Hickson-King Subdivision, Ingersoll, Innerkip, Lakeside, Mount Elgin, Tavistock, Thamesford and Woodstock		\$67,500

The scope of this task may change as a result of changes to the rules from those posted.		
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By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Upper Thames River Source Protection Area	Consultation on the overall proposed assessment report	Upper Thames River Conservation Authority	2009-Dec-01	2010-Mar-31
Comments		Defined Geographic Area		Estimated Cost
<p>It is anticipated that the Assessment Report Rules and Regulations will have specific requirements to consult on the proposed Assessment Report. It is expected that these requirements will be similar to the requirements for the consultation the proposed requirements for consultation on the Assessment Report included in the proposed Regulation and Rules on the Assessment Report which have been posted for comments. As the requirements for this consultation are yet unknown the planned activities included in this task will need to be re-evaluated once the Rules and Regulations are in place.</p> <p>It is anticipated that the SPC will be required to post a draft and publish a notice. Advertising costs related to this are included in this task. Although it is expected that a single meeting will be required we have included in this task holding a series of open houses and forums in addition an anticipated requirement to hold a public meeting. Initiatives included on the task related to undertaking communications initiatives related to the Assessment Report complement the proposed consultation included in this task.</p> <p>Staff time related to this task has been allowed for in the task related to coordinating and supporting projects for the Assessment Report.</p>		All three Source Protection Areas (SPAs) of the Thames-Sydenham and Region Source Protection Region: Upper Thames River SPA, Lower Thames Valley SPA and St. Clair Region SPA		\$15,000

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Upper Thames River Source Protection Area	GUDI - IPZ Studies - Threats Inventories and Risk Assessment	County of Oxford	2009-Jul-01	2009-Sep-30
Comments		Defined Geographic Area		Estimated Cost
MOE draft new guidance on Groundwater Under the Direct Influence of surface water (GUDI)- Intake Protection Zone (IPZ) studies was posted in June 2008.		Oxford County GUDI well systems in the Thames-Sydenham and Region Source Protection Region: Woodstock (Thornton and Tabor wellfields) and Thamesford (Wells #1 and 2)		\$15,000

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Upper Thames River Source Protection Area	GUDI - IPZ Studies - Vulnerability Assessment, Threats Inventory and Risk Assessment	Upper Thames River Conservation Authority	2008-Apr-01	2009-Mar-31
Comments		Defined Geographic Area		Estimated Cost
MOE proposed rules related to Groundwater Under the Direct Influence of surface water (GUDI)- Intake Protection Zone (IPZ) studies was posted in June 2008. It is anticipated that the rules will require that IPZ type vulnerable zones will be required for GUDI wells.		GUDI wells of these drinking water systems: City of London back up (Fanshawe wells), Dorchester, Kilworth Heights and Highgate (in LTVSPA)		\$110,000

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Upper Thames River Source Protection Area	Prescreening of First Nations Water Supplies	to be determined	2008-Dec-31	
Comments		Defined Geographic Area		Estimated Cost
<p>A provision is made for preliminary assessment of First Nations supplies should the First Nations wish to have this work undertaken for their systems. This assessment would, among other things, determine what additional work would be required on these systems and may assist the First Nations Communities with determining their involvement in Source Protection Planning in the region.</p> <p>It is understood that Chippewas of Kettle and Stony Point First Nation have requested to have their intake included in the ABMVSPA. Chippewas of Aamjiwnaang (Sarnia) are supplied water from the LAWSS system and Caldwell First Nation is supplied by private wells.</p> <p>The schedule for undertaking this work is dependent on when the First Nations indicate that they are interested in undertaking the work. The lead for this work would be determined through discussions with the First Nations.</p>		Bkejwanong First Nation (Walpole Island), Chippewas of the Thames First Nation, Delaware Nation Council, Munsee-Delaware Nation, Oneida Nation of the Thames		\$60,000

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Upper Thames River Source Protection Area	Peer Review and resulting edits of Vulnerability Assessment work	Upper Thames River Conservation Authority	2008-Oct-01	2009-Jul-31
Comments		Defined Geographic Area		Estimated Cost
Establish peer review committees for Surface Water, Groundwater and GUDI		Thames-Sydenham and Region		\$270,000

work to review the vulnerability assessment completed through various projects led by both municipalities and CAs. A modest allowance has been included to undertake revisions to work which has been accepted by the lead. It is anticipated that much of the work required as a result of the peer reviews has been included under tasks associated with updating work to meet the Director's Rules. An allowance has also been included for a review of the data sets utilized in each of the projects.		
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By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Upper Thames River Source Protection Area	GUDI IPZ Study - Preliminary Screening	Upper Thames River Conservation Authority	2008-Apr-01	2009-Mar-31
Comments		Defined Geographic Area	Estimated Cost	
MOE proposed rules related to Groundwater Under the Direct Influence of surface water (GUDI)- Intake Protection Zone (IPZ) studies was posted in June 2008. It is anticipated that the rules will require that IPZ type vulnerable zones will be required for GUDI wells. The preliminary screening of the systems will compile available information, delineate approximate IPZ3 based on that available information and assess the types and magnitude of potential treats in that area.		GUDI wells of these drinking water systems: City of London back up (Fanshawe wells), Dorchester, Kilworth Heights and Highgate systems	\$25,000	
Costs include work on the Highgate system in the LTVSPA				

By Drinking Water System Name	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Dorchester Well Supply	Delineating and applying vulnerability scores to WHPAs or IPZs	Municipality of Thames Centre	2005-Apr-01	2007-Jun-30
Comments		Defined Geographic Area	Estimated Cost	
In this project led by the Municipality of Thames Centre, the Dorchester well supply system WHPAs were delineated and vulnerability scores assigned.		Dorchester Well supply only	\$91,000	

By Drinking Water System Name	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Woodstock Well Supply - New Well	Delineating and applying vulnerability scores to WHPAs or IPZs	County of Oxford	2009-Jan-01	2009-Jun-30
Comments		Defined Geographic Area	Estimated Cost	

Delineating WHPA and applying vulnerability score for the new planned 'Bond Well' within the existing Woodstock well supply system. Cost estimate excludes a \$5,750 portion of an already funded amount (\$31,233.25) for a similar task for all ten County of Oxford systems.	New planned well ('Bond' well) within the existing Woodstock well supply system	\$16,000
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By Drinking Water System Name	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Mount Elgin Well Supply - New Well	Delineating and applying vulnerability scores to WHPAs or IPZs	County of Oxford	2009-Jan-01	2009-Jun-30
Comments		Defined Geographic Area		Estimated Cost
Delineating WHPA and applying vulnerability scores to the WHPA of the new planned 'Graydon Well' of the Mount Elgin well supply system. Cost estimate excludes a \$5,750 portion of an already funded amount (\$31,233.25) for a similar task for all ten County of Oxford systems.		New planned 'Graydon Well' of the Mount Elgin well supply system of the County of Oxford		\$5,850

By Drinking Water System Name	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
St. Marys Well Supply	Delineating and applying vulnerability scores to WHPAs or IPZs	Town of St. Marys	2006-Apr-01	2008-Aug-31
Comments		Defined Geographic Area		Estimated Cost
MOE proposed rules on Groundwater Under the Direct Influence of surface water (GUDI)- include requirements to delineate Intake Protection Zone (IPZ) type zones around GUDI wells. The Town of St Marys proposed to MOE the need to look at surface water based process for considering threats to their GUDI wells. This work was approved by the MOE following generally the approach for IPZ1 and 2 on surface water sources. This work includes the delineation of the zones (proposed as WHPA E & F) and the assignment of vulnerability scores to those areas. Although IPZ 3 (proposed WHPA zone F) was to be delineated through that project threats inventories in that zone were not included in the previous proposal.		St. Marys GUDI Well		\$28,167

By Drinking Water System Name	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Dorchester Well Supply	Delineating and applying vulnerability scores to WHPAs or IPZs	Upper Thames River Conservation Authority	2008-Aug-01	2009-Mar-31
Comments		Defined Geographic Area		Estimated Cost

This task is an update to previous modelling of the Dorchester wells. The bedrock wells were not modelled as part of previous studies as they are rarely used due to aesthetic concerns about the water quality from these wells.	Dorchester Wells	\$40,000
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By Drinking Water System Name	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Woodstock Well Supply - New Well	Identifying issues, inventorying threats and assessing hazards in WHPAs or IPZs	County of Oxford	2009-Jan-04	2009-Jun-30
Comments		Defined Geographic Area		Estimated Cost
New planned 'Bond Well' within the existing Woodstock well supply system - threats, issues lists and hazard assessment		New planned 'Bond Well' within the existing Woodstock well supply system of the County of Oxford		\$8,000

By Drinking Water System Name	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Mount Elgin Well Supply - New Well	Identifying issues, inventorying threats and assessing hazards in WHPAs or IPZs	County of Oxford	2009-Apr-01	2009-Jun-30
Comments		Defined Geographic Area		Estimated Cost
New planned 'Graydon Well' of the Mount Elgin well supply system in the County of Oxford - list issues and threats and assess hazards.		New planned 'Graydon Well' of the Mount Elgin well supply system in the County of Oxford		\$10,000

By Drinking Water System Name	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
St. Marys Well Supply	Identifying issues, inventorying threats and assessing hazards in WHPAs or IPZs	Town of St. Marys	2006-Apr-01	2009-Jan-31
Comments		Defined Geographic Area		Estimated Cost
MOE proposed rules on Groundwater Under the Direct Influence of surface water (GUDI)- include requirements to delineate Intake Protection Zone (IPZ) type zones around GUDI wells. The Town of St Marys proposed to MOE the need to look at surface water based process for considering threats to their GUDI wells. This work was approved by the MOE following generally the approach for IPZ1 and 2 on surface water sources. This work includes the delineation of the zones (proposed as WHPA E & F) and the assignment of vulnerability scores to those areas. Although IPZ3 (proposed WHPA zone F) was to be delineated through that project threats inventories in that zone were not included in the previous proposal.		St. Marys GUDI Well		\$63,667

By Drinking Water System Name	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Woodstock Well Supply - New Well	Assess risk in WHPAs or IPZs	County of Oxford	2009-Jun-01	2009-Sep-30
Comments		Defined Geographic Area		Estimated Cost
New planned 'Bond Well' within the existing Woodstock well supply system - assess risks in WHPA.		New planned 'Bond Well' within the existing Woodstock well supply system of the County of Oxford		\$1,000

By Drinking Water System Name	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Mount Elgin Well Supply - New Well	Assess risk in WHPAs or IPZs	County of Oxford	2009-Jun-01	2009-Sep-30
Comments		Defined Geographic Area		Estimated Cost
New planned 'Graydon Well' of the Mount Elgin well supply system in the County of Oxford - assess risks.		New planned 'Graydon Well' of the Mount Elgin well supply system in the County of Oxford		\$2,000

By Drinking Water System Name	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
St. Marys Well Supply	Assess risk in WHPAs or IPZs	Town of St. Marys	2006-Apr-01	2009-Apr-30
Comments		Defined Geographic Area		Estimated Cost
Risk Assessment will be undertaken for the surface water threats to the GUDI well in the zones proposed by the Director's Rules as WHPA - E & F. The previously approved project did not include an allowance for this work in WHPA F (IPZ3) and has been added to this task in 2008/09.		St. Marys Wells		\$21,167

By Drinking Water System Name	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Thamesford WS	GUDI-IPZ 2 delineation and vulnerability scoring; study of need for IPZ 3	County of Oxford	2008-Oct-01	2009-Jul-31
Comments		Defined Geographic Area		Estimated Cost
Thamesford well supply system (GUDI) - IPZ2 delineation and vulnerability scoring; study of need for IPZ3. Involves modelling, fieldwork, reporting.		Thamesford well supply system (GUDI) of the County of Oxford		\$40,000

By Drinking Water System Name	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Woodstock Well Supply	GUDI IPZ work - IPZ2 delineation and vulnerability	County of Oxford	2008-Oct-01	2009-Jul-31

	scoring			
Comments		Defined Geographic Area		Estimated Cost
Woodstock GUDI wells (Thornton and Tabor wells) - IPZ 2 delineation and vulnerability scoring, including modelling, fieldwork, reporting		Woodstock GUDI wells (Thornton & Tabor wells) of the County of Oxford		\$25,000

By Drinking Water System Name	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Thorndale Well Supply	Update existing WHPA to account for system expansion and mandatory connection	Upper Thames River Conservation Authority	2008-Apr-01	2009-Mar-31
Comments		Defined Geographic Area		Estimated Cost
Update the model for the Thorndale system based on new pumping rates resulting from system expansion and mandatory connection to the expanded system. Pumping rates have substantially increased from pumping rates used in the Middlesex-London study.		Thorndale system.		\$15,000

By Drinking Water System Name	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Dorchester Well Supply	Review of past work, remodeling of WHPA in overburden wells and assigning vulnerability scores	Municipality of Thames Centre	2008-Jun-01	2009-Mar-31
Comments		Defined Geographic Area		Estimated Cost
Review of past work to check consistency with other technical studies. Will include the remodelling of the overburden wells to delineate WHPA as well as assigning vulnerability scores.		Dorchester well supply system		\$12,000

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Upper Thames River Source Protection Area	Delineating and applying vulnerability scores to WHPAs or IPZs	Upper Thames River Conservation Authority	2008-Dec-01	2009-Jun-30
Comments		Defined Geographic Area		Estimated Cost
Proposed costs are estimates of the updates and further work required to ensure the technical studies meet the Director's Technical Rules posted on the Ministry of Environment Environmental Bill of Rights Registry in June 2008. The scope of this task may change as a result of changes to the rules from those posted. Related, previously funded work for the same well supply systems is led by the City of London and shown in a separate task ' Delineating		All Middlesex County and City of London wells within the Thames Sydenham and Region Source Protection Region - City of London Standby, Birr, Dorchester, Melrose, Kilworth Heights Subdivision, Mount Brydges and Thorndale		\$29,000

and applying vulnerability scores to WHPAs or IPZs' (Task No. 49 in the ToR Guide).		
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By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Upper Thames River Source Protection Area	Identifying issues, inventorying threats and assessing hazards in WHPAs or IPZs	Upper Thames River Conservation Authority	2008-Dec-01	2009-Jun-30
Comments		Defined Geographic Area		Estimated Cost
Proposed costs are estimates of the updates and further work required to ensure the technical studies meet the Director's Technical Rules posted on the Ministry of Environment Environmental Bill of Rights Registry in June 2008. The scope of this task may change as a result of changes to the rules from those posted. Related, previously funded work for the same well supply systems is led by the City of London and shown in a separate task 'Identifying issues, inventorying threats and assessing hazards in WHPAs or IPZs' (Task No. 57 in the ToR Guide).		All Middlesex County and City of London wells within the Thames Sydenham and Region Source Protection Region - City of London Standby, Birr, Dorchester, Melrose, Kilworth Heights Subdivision, Mount Brydges and Thorndale		\$143,000

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Upper Thames River Source Protection Area	Assess risk in WHPAs or IPZs	Upper Thames River Conservation Authority	2006-Apr-01	2009-Jun-30
Comments		Defined Geographic Area		Estimated Cost
The 2008-2009 cost estimates are for individual contact with landowners where risks could be significant, and updating risk assessment based on survey results. Proposed costs are estimates of the updates and further work required to ensure the technical studies meet the Director's Technical Rules posted on the Ministry of Environment Environmental Bill of Rights Registry in June 2008. The scope of this task may change as a result of changes to the rules from those posted. Related, previously funded work for the same well supply systems is led by the City of London and shown in a separate task 'Assess risk in WHPAs or IPZs' (Task No. 64 in the ToR Guide).		All Middlesex County and City of London wells within the Thames Sydenham and Region Source Protection Region - City of London Standby, Birr, Dorchester, Melrose, Kilworth Heights Subdivision, Mount Brydges and Thorndale		\$194,000

Detailed Work Plan to Complete the Source Protection Plan

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Upper Thames River Source Protection Area	Coordinating and supporting projects for the source protection plan (SPP)	Upper Thames River Conservation Authority	2009-Apr-01	2012-Aug-20
Comments		Defined Geographic Area		Estimated Cost
This task includes the support for the SPC to develop the Source Protection Plan. The Rules, Regulations and provincial guidance on the development of the Source Protection Plan are yet to be released. As such this task is a placeholder for the development of the plan which will need to be revised once the work to complete the plan is better defined.		All three Source Protection Areas (SPAs) of the Thames-Sydenham and Region Source Protection Region: Upper Thames River SPA, Lower Thames Valley SPA and St. Clair Region SPA		\$3,670,000

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Upper Thames River Source Protection Area	Undertaking communications initiatives for the source protection plan	Source Protection Committee	2010-Apr-01	2012-Aug-20
Comments		Defined Geographic Area		Estimated Cost
<p>Developing the Source Protection Plan will be a consultative process requiring significant communications initiatives. As with the SPC formation, Terms of Reference and Assessment Report, stakeholder forums and working groups will be utilized to engage stakeholders throughout the plan development stage as well as the formal consultation which will be required on the proposed plan. These stakeholder engagement initiatives will be complemented by various communications products including newsletters, tabloids and presentations. Local media will be utilized to keep stakeholders informed on Drinking Water Source Protection and progress on the Source Protection Plan as well as stakeholder group distribution (where available).</p> <p>The Rules, Regulations and provincial guidance on the Source Protection Plan are yet to be released. The Rules and Regulations are likely to include significant consultation requirements on the proposed Source Protection Plan. A separate task is included in this Terms of Reference for consultation on the proposed Source Protection Plan which includes anticipated requirements for posting, advertising, notices and consultation on the proposed plan. The initiative included in this task will complement the requirements for consultation</p>		All three Source Protection Areas (SPAs) of the Thames-Sydenham and Region Source Protection Region: Upper Thames River SPA, Lower Thames Valley SPA and St. Clair Region SPA		\$230,000

<p>on the proposed Plan which are included in the other task. In addition to the required consultation on the proposed Source Protection Plan, many of the plan components will also be consulted on. Specific outreach will be undertaken in areas where significant risks are likely.</p> <p>This task will need to be re-evaluated and possibly revised once the Rules and Regulations are in place to ensure that the planned communications initiatives meet the needs of the SPC and the stakeholders in the region as well as satisfy the regulatory requirements.</p> <p>Staff involvement related to communications initiatives are included in the coordinating and supporting projects for the Source Protection Plan (SPP) task. Costs included in this task includes efforts in all 3 SPAs.</p>		
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By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Upper Thames River Source Protection Area	Information management for source protection plan preparation	Upper Thames River Conservation Authority	2010-Feb-01	2012-Aug-20
Comments		Defined Geographic Area		Estimated Cost
While preparing the Source Protection Plan the SPC, staff, working groups and municipalities will require access to Assessment Report products as well as the development of SPP data products. Software licensing and hardware maintenance similar to that included in the task related to the information management for the Assessment Report is included in this task.		Source Protection Region including the Upper Thames River SPA, Lower Thames Valley SPA and St. Clair Region SPA		\$190,000
Staff costs associated with this task are included in the task related to the coordination of the SPP.				

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Upper Thames River Source Protection Area	Policy development to address drinking water threats (where required and/or permissible in Act/Regs)	Source Protection Committee	2010-Jan-01	2012-Aug-20
Comments		Defined Geographic Area		Estimated Cost
In considering policies to include in the Source Protection Plan the SPC will consider the Clean Water Act and its Regulations, Rules and other provincial guidance. The SPC will also consider the types of policies being implemented		All three Source Protection Areas (SPAs) of the Thames-Sydenham and Region Source Protection Region: Upper Thames River SPA, Lower Thames Valley SPA and St. Clair Region SPA		

<p>in neighbouring regions. Criteria will be developed by the SPC to compare risk management measures and policies to be included in the Source Protection Plan. These criteria will be consistent with the SPC's mission statement and guiding principles including the principal of being "fair and reasonable". In developing these policies, the SPC will have regard for the financial impact on those affected including normal business or standard practices and expectations for existing situations. The policies may also consider the cost of the change, any ongoing or repetitive costs, long term impacts and any impacts on productive capacity or competitive advantage. Both existing and new programs, opportunities, financial instruments, and education and outreach policies and programs will be considered. Where there are water quantity threats to drinking water sources included in the ToR the SPC will need to consider policies to address those threats. More general policies related to water conservation may also be considered by the SPC in developing the policies to be included in the Source Protection Plan.</p> <p>The staff and SPC costs associated with this task are included with the task related to coordinating and supporting projects associated with the Source Protection Plan. This task will require extensive consultation with stakeholder groups which has been included in the task related to undertaking communications initiatives for the Source Protection Plan.</p>		
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By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Upper Thames River Source Protection Area	Policy development to address drinking water threats (where required and/or permissible in Act/Regs)	County of Oxford	2010-Apr-01	2011-Mar-31
Comments		Defined Geographic Area		Estimated Cost
The County of Oxford will work with the SPC and staff of the CA to develop policies to address drinking water threats in vulnerable areas associated with the WHPAs for the County's wells. This task includes staff time to develop policies and consider how they can be incorporated into County of Oxford policies including the Official Plan. The cost shown for this task is approximately half of the cost associated with this task as work will also be required in the Lake Erie SPR.		County of Oxford		\$50,000

By Source Protection	Task	Assigned Lead(s)	Estimated Start	Estimated
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Area			Date	Completion Date
Upper Thames River Source Protection Area	Policy development for monitoring (where required, advisable and/or permissible in Act & Regs)	Source Protection Committee	2009-Apr-01	2012-Aug-20
Comments		Defined Geographic Area		Estimated Cost
<p>The SPC will consider existing monitoring programs of the CAs, municipalities, province and stakeholder groups and develop specific monitoring programs for the Source Protection Plan. These monitoring programs should include programs which will monitor the effectiveness of the plan on issues identified in the Assessment Report as well as emerging issues related to drinking water sources, and Great Lakes Targets. Monitoring programs will be considered to evaluate compliance with the Source Protection Plan including Risk Management Plans and Municipal Planning alignment with the policies included in the Source Protection Plan. Municipal monitoring and reporting programs will be considered to ensure that the municipalities within the region with regard to their implementation of the Plan. The monitoring programs included in the Source Protection Plan will facilitate the requirement in the Clean Water and Regulations to report to the Province on the source protection planning.</p> <p>The staff and SPC costs associated with this task are included with the task related to coordinating and supporting projects associated with the Source Protection Plan.</p>		All three Source Protection Areas (SPAs) of the Thames-Sydenham and Region Source Protection Region: Upper Thames River SPA, Lower Thames Valley SPA and St. Clair Region SPA		

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Upper Thames River Source Protection Area	Policy development for Great Lakes elements (where required/permissible in Act & Regs)	Source Protection Committee	2009-Apr-01	2012-Aug-20
Comments		Defined Geographic Area		Estimated Cost
<p>The Clean Water Act includes the ability of the Minister of the Environment to set Great Lakes targets for watershed. The Source Protection Plan must assist in achieving those Great Lakes targets. Further guidance from the MOE is expected. It is also required that the Source Protection Plan consider Great Lakes Agreements. It is assumed that consultation with other regions draining into each of the Great Lakes that the watershed of the TSR drain into will be required. As well, consultation will be required with Provincial and Federal organizations with responsibilities under the Great Lakes Agreements.</p>		All three Source Protection Areas (SPAs) of the Thames-Sydenham and Region Source Protection Region: Upper Thames River SPA, Lower Thames Valley SPA and St. Clair Region SPA		

<p>Although the scope of the work associated with this task is largely unknown, an allowance for work associated with this task, for both staff and SPC, are included with the task related to coordinating and supporting projects associated with the Source Protection Plan. The estimated cost is included in the tasks in the LTVSPA and SCRSPA to include the additional cost of consultation.</p>		
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By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Upper Thames River Source Protection Area	Establishing timelines for policy implementation	Source Protection Committee	2009-Apr-01	2012-Aug-20
Comments		Defined Geographic Area		Estimated Cost
<p>In developing policies for the Source Protection Plan timelines for the implementation of those policies must be established. In developing these timelines the SPC will consult with the municipalities and other stakeholders. The SPC will apply its guiding principles, including the principal of being fair and reasonable, to establishing those timelines. In establishing the timelines the SPC also needs to meet the requirements of the Act and its Rules and Regulations.</p>		<p>All three Source Protection Areas (SPAs) of the Thames-Sydenham and Region Source Protection Region: Upper Thames River SPA, Lower Thames Valley SPA and St. Clair Region SPA</p>		

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Upper Thames River Source Protection Area	Consultation on the overall proposed source protection plan	Source Protection Committee	2012-Jan-01	2012-Jul-31
Comments		Defined Geographic Area		Estimated Cost
<p>It is anticipated that the Source Protection Plan Rules and Regulations will have specific requirements to consult on the proposed Source Protection Plan. It is expected that these requirements will be similar to the requirements for the consultation on the proposed Terms of Reference and the proposed requirements for consultation on the Assessment Report (included in the proposed Regulation and Rules on the Assessment Report which have been posted for comments). As the requirements for this consultation are yet unknown the planned activities included in this task will need to be re-evaluated once the Rules and Regulations are in place.</p> <p>It is anticipated that the SPC will be required to post a draft and publish a</p>		<p>All three Source Protection Areas (SPAs) of the Thames-Sydenham and Region Source Protection Region: Upper Thames River SPA, Lower Thames Valley SPA and St. Clair Region SPA</p>		\$25,000

<p>notice. Advertising costs related to this are included in this task. Although it is expected that a single meeting will be required we have included in this task holding a series of open houses and forums in addition an anticipated requirement to hold a public meeting. Initiatives included on the task related to undertaking communications initiatives related to the Source Protection Plan complement the proposed consultation included in this task.</p> <p>Staff time related to this task has been allowed for in the task related to coordinating and supporting projects for the Source Protection Plan.</p>		
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Summary of Financial Statistics

	Tasks Done by Source Protection Area or Drinking Water System	Estimated Costs for Tasks Under the Assessment Report	Estimated Costs for Tasks Under the Source Protection Plan	Subtotal
	Upper Thames River Source Protection Area	\$9,024,713	\$4,165,000	\$13,189,713
Municipal Residential Drinking Water Systems				
	Beachville-Loweville Well Supply			
	Birr Well Supply			
	Dorchester Well Supply	\$143,000		\$143,000
	Embro Well Supply			
	Hickson King Subdivision Well Supply			
	Ingersoll Well Supply			
	Innerkip Well Supply			
	Kilworth Heights Subdivision Well Supply			
	Lakeside Well Supply			
	London Water Supply			
	Melrose Well Supply			
	Mitchell Well Supply			
	Mount Brydges Well Supply			
	Mount Elgin Well Supply			
	Mount Elgin Well Supply - New Well	\$17,850		\$17,850
	New Dorchester Planned Well			
	Sebringville Well Supply			
	Shakespeare Well Supply			
	St. Marys Well Supply	\$113,000		\$113,000
	St. Pauls Well Supply			
	Stratford Well Supply			
	Tavistock Well Supply			
	Thamesford WS	\$40,000		\$40,000

	Thorndale Well Supply	\$15,000		\$15,000
	Woodstock Well Supply	\$25,000		\$25,000
	Woodstock Well Supply - New Well	\$25,000		\$25,000
Drinking Water Systems By Municipal Resolution				
Drinking Water Systems By Band Resolutions				
Drinking Water Systems Included By Minister				
Total Estimated Costs		\$9,403,563	\$4,165,000	\$13,568,563

Estimated Costs for Tasks by Fiscal Year

Fiscal Year defined as April 1 to March 31

Drinking Water System Category / Source Protection Area	Tasks	Fiscal Year 04/05	Fiscal Year 05/06	Fiscal Year 06/07	Fiscal Year 07/08	Fiscal Year 08/09	Fiscal Year 09/10	Fiscal Year 10/11	Fiscal Year 11/12	Fiscal Year 12/13
Upper Thames River Source Protection Area										
	Coordinating and supporting projects for the assessment report	\$0	\$634,100	\$663,858	\$1,064,640	\$1,017,500	\$1,000,000	\$0	\$0	\$0
	Undertaking communications initiatives for the assessment report	\$0	\$21,319	\$9,600	\$100,831	\$126,000	\$95,000	\$0	\$0	\$0
	Information management for the assessment report preparation	\$0	\$57,507	\$132,027	\$50,987	\$65,000	\$100,000	\$0	\$0	\$0
	Undertaking a watershed characterization	\$0	\$2,163	\$6,499	\$20,612	\$0	\$0	\$0	\$0	\$0
	Conducting a conceptual water budget	\$0	\$92,323	\$276,052	\$197,798	\$0	\$0	\$0	\$0	\$0
	Conducting a tier 1 water budget analysis and stress assessment	\$0	\$0	\$0	\$156,800	\$254,700	\$0	\$0	\$0	\$0
	Conducting a tier 2 water budget analysis and stress assessment	\$0	\$0	\$0	\$0	\$165,000	\$165,000	\$0	\$0	\$0
	Conducting a tier 3 water budget analysis and water quantity risk assessment	\$0	\$0	\$0	\$0	\$0	\$650,000	\$0	\$0	\$0
	Delineating and applying vulnerability scores to HVAs	\$0	\$0	\$0	\$0	\$29,000	\$0	\$0	\$0	\$0
	Identifying issues, inventorying threats and assessing hazards in HVAs	\$0	\$0	\$0	\$0	\$20,000	\$20,000	\$0	\$0	\$0
	Assessing risks in HVAs	\$0	\$0	\$0	\$0	\$0	\$42,000	\$0	\$0	\$0

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System Category / Source Protection Area	Year 04/05	05/06	06/07	07/08	08/09	09/10	10/11	11/12	12/13	
Peer Review and resulting edits of Vulnerability Assessment work	\$0	\$0	\$0	\$0	\$135,000	\$135,000	\$0	\$0	\$0	
Prescreening of First Nations Water Supplies	\$0	\$0	\$0	\$0	\$60,000	\$0	\$0	\$0	\$0	
Coordinating and supporting projects for the source protection plan (SPP)	\$0	\$0	\$0	\$0	\$0	\$210,000	\$1,350,000	\$1,350,000	\$760,000	
Undertaking communications initiatives for the source protection plan	\$0	\$0	\$0	\$0	\$0	\$0	\$90,000	\$90,000	\$50,000	
Information management for source protection plan preparation	\$0	\$0	\$0	\$0	\$0	\$20,000	\$60,000	\$60,000	\$50,000	
Policy development to address drinking water threats (where required and/or permissible in Act/Regs)	\$0	\$0	\$0	\$0	\$0	\$0	\$50,000	\$0	\$0	
Policy development for monitoring (where required, advisable and/or permissible in Act & Regs)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Policy development for Great Lakes elements (where required/permissible in Act & Regs)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Establishing timelines for policy implementation	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Consultation on the overall proposed source protection plan	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$10,000	\$15,000	
Drinking Water System Category	Tasks	Fiscal Year	Fiscal Year 05/06	Fiscal Year 06/07	Fiscal Year 07/08	Fiscal Year 08/09	Fiscal Year 09/10	Fiscal Year 10/11	Fiscal Year 11/12	Fiscal Year 12/13

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/ Source Protection Area		04/05								
Municipal Residential Drinking Water Systems										
	Delineating and applying vulnerability scores to WHPAs or IPZs	\$0	\$91,000	\$28,167	\$0	\$61,850	\$0	\$0	\$0	\$0
	Identifying issues, inventorying threats and assessing hazards in WHPAs or IPZs	\$0	\$0	\$33,667	\$0	\$38,000	\$10,000	\$0	\$0	\$0
	Assess risk in WHPAs or IPZs	\$0	\$0	\$11,167	\$0	\$10,000	\$3,000	\$0	\$0	\$0
	GUDI IPZ work - IPZ2 delineation and vulnerability scoring	\$0	\$0	\$0	\$0	\$25,000	\$0	\$0	\$0	\$0
	GUDI-IPZ 2 delineation and vulnerability scoring; study of need for IPZ 3	\$0	\$0	\$0	\$0	\$40,000	\$0	\$0	\$0	\$0
	Review of past work, remodeling of WHPA in overburden wells and assigning vulnerability scores	\$0	\$0	\$0	\$0	\$12,000	\$0	\$0	\$0	\$0
	Update existing WHPA to account for system expansion and mandatory connection	\$0	\$0	\$0	\$0	\$15,000	\$0	\$0	\$0	\$0
Drinking Water Systems By Municipal Resolution										
Drinking Water System Category / Source	Tasks	Fiscal Year 04/05	Fiscal Year 05/06	Fiscal Year 06/07	Fiscal Year 07/08	Fiscal Year 08/09	Fiscal Year 09/10	Fiscal Year 10/11	Fiscal Year 11/12	Fiscal Year 12/13

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Protection Area										
Drinking Water Systems by Band Resolution										
Drinking Water Systems Included by Minister										
Fiscal Year Total		\$0	\$1,254,973	\$1,447,702	\$1,591,668	\$2,697,220	\$2,642,000	\$1,550,000	\$1,510,000	\$875,000

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Process Checklist

Regulatory Process	Completion Date	Done By
Notify band Chiefs on the commencement of the terms of reference.	1/31/2008	SPCommittee
Notify municipal clerks on the commencement of the terms of reference.	2/5/2008	SPCommittee
Give a copy of the comments on proposed terms of reference to the source protection committee.	10/3/2008	SPAuthority
Give copy of draft proposed ToR to groups created pursuant to Great Lakes Water Quality Agreement & involved in developing/implementing RAPs & LaMPs.	8/15/2008	SPCommittee
Make provisions to consider Great Lakes Agreements.	8/15/2008	SPCommittee
Make the draft proposed terms of reference available at other locations.	8/18/2008	SPCommittee
Make the proposed terms of reference available at other locations.	10/17/2008	SPCommittee
Municipal council resolutions have been passed agreeing upon work.	9/23/2008	SPCommittee
Notice for consultation on draft proposed ToR includes information on public meeting scheduled at least 21 days after newspaper notice is published.	8/15/2008	SPCommittee
Notice for consultation on draft proposed ToR includes requests for comments submitted within 35 days of notice published in the newspaper.	8/15/2008	SPCommittee
Post draft proposed terms of reference on Internet.	8/15/2008	SPCommittee
Post proposed terms of reference on the Internet for 30 days.	10/17/2008	SPCommittee
Provide a copy of draft proposed terms of reference to the clerks of municipalities located in the source protection area.	8/15/2008	SPCommittee
Provide a copy of draft to the chiefs of bands whose reserves are located in the source protection area.	8/15/2008	SPCommittee
Provide a copy of proposed terms of reference to the chiefs of bands whose reserves are located in the source protection area.	10/17/2008	SPCommittee
Provide a copy of proposed terms of reference to the clerks of municipalities located in the source protection area.	10/17/2008	SPCommittee
Provide a copy of proposed terms of reference to the source protection authority.	10/17/2008	SPCommittee
Provide any unresolved comments from municipalities and bands to the Minister as part of the approval package for the proposed terms of reference.		SPAuthority
Provide any unresolved comments from municipalities and bands to the source protection authority on the draft proposed terms of reference.	10/17/2008	SPCommittee
Provide copy of draft proposed ToR to chairs of SPCs who have been listed in table that describes matters that affect other source protection areas.	8/15/2008	SPCommittee
Publish newspaper notice to publicly view draft proposed ToR on Internet and at other locations (as determined by the source protection committee).	8/15/2008	SPCommittee
Receive comments from the 30 day Internet posting from the public, municipalities, bands, and other stakeholders.		SPAuthority

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Appendix: Full Task Descriptions

Subject Area	Task Name	Full Task Description
Assessment Report Preparation	Coordinating and supporting projects for the assessment report	Undertaking administrative support, staffing, management support, and training necessary to provide project coordination for the assessment report components and direct support to the source protection committee.
Assessment Report Preparation	Undertaking communications initiatives for the assessment report	Local area engagement, outreach and creation of communications products that support the assessment report process.
Assessment Report Preparation	Information management for the assessment report preparation	Conducting overall data management, data sharing agreements, standards, mapping, software and maintenance.
Assessment Report Preparation	Undertaking a watershed characterization	Identifying and describing watersheds in the source protection area. May include water quality analysis and peer review for water quality analysis. Details on how to complete this task will be available in the Assessment Report regulation, Director's rules, and guidance when they are developed.
Assessment Report Preparation	Conducting a conceptual water budget	Describing the overall flow system dynamics for each watershed in the source protection area taking into consideration surface water and groundwater features, land cover (e.g. proportion of urban vs. rural uses), human-made structures (e.g. dams, channel diversions, water crossings), and water takings. Details on how to complete this task will be available in the Assessment Report regulation, Director's rules, and guidance when they are developed.
Assessment Report Preparation	Conducting a tier 1 water budget analysis and stress assessment	Conducting a tier 1 water budget analysis, stress assessment, and delineation of significant groundwater recharge areas. May also include the identification of water quantity concerns and an analysis of uncertainty. Details on how to complete this task will be available in the Assessment Report regulation, Director's rules, and guidance when they are developed.
Assessment Report Preparation	Conducting a tier 2 water budget analysis and stress assessment	If determined necessary from a tier 1 water budget analysis and stress assessment, conducting a tier 2 water budget analysis and stress assessment, and refining the delineation of significant groundwater recharge areas. May also include the identification of water quantity concerns and an analysis of uncertainty. Details on how to complete this task will be available in the Assessment Report regulation, Director's rules, and guidance when they are developed.
Assessment Report Preparation	Conducting a tier 3 water budget analysis and water quantity risk assessment	If determined necessary from a tier 2 water budget analysis and stress assessment, conducting a tier 3 water budget analysis and water quantity risk assessment. May include identifying significant, moderate and low water quantity threats. May also include consultation with property owners/residents/stakeholders impacted by a significant drinking water threat scoring and an analysis of uncertainty. Details on how to complete this task will be available in the Assessment Report regulation, Director's rules, and guidance when they are developed.
Assessment Report Preparation	Delineating and applying vulnerability scores to HVAs	Delineating the location and extent of highly vulnerable aquifers in the source protection area and applying vulnerability scores. An uncertainty analysis may be included in this task. Details on how to complete this task

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		will be available in the Assessment Report regulation, Director's rules, and guidance when they are developed.
Assessment Report Preparation	Identifying issues, inventorying threats and assessing hazards in HVAs	Listing and describing drinking water quality issues, inventorying threats and assessing hazards (including uncertainty analysis) in the highly vulnerable aquifers. Details on how to complete this task will be available in the Assessment Report regulation, Director's rules, and guidance when they are developed.
Assessment Report Preparation	Assessing risks in HVAs	Identifying any significant, moderate, low, and negligible drinking water threats, undertaking an issues evaluation, and analysing uncertainty in highly vulnerable aquifers. Details on how to complete this task will be available in the Assessment Report regulation, Director's rules, and guidance when they are developed.
Assessment Report Preparation	Applying vulnerability scores to SGRAs	Applying vulnerability scores to significant groundwater recharge areas in the source protection area (delineated in the water budget process). Details on how to complete this task will be available in the Assessment Report regulation, Director's rules, and guidance when they are developed.
Assessment Report Preparation	Identifying issues, inventorying threats and assessing hazards in SGRAs	Listing and describing drinking water quality issues, inventorying threats and assessing hazards (including uncertainty analysis) in the significant groundwater recharge areas. Details on how to complete this task will be available in the Assessment Report regulation, Director's rules, and guidance when they are developed.
Assessment Report Preparation	Assessing risk in SGRAs	Identifying any significant, moderate, low, and negligible drinking water threats, undertaking an issues evaluation, and analysing uncertainty in significant groundwater recharge areas. Details on how to complete this task will be available in the Assessment Report regulation, Director's rules, and guidance when they are developed.
Assessment Report Preparation	Delineating and applying vulnerability scores to WHPAs or IPZs	Delineating the location and extent of the vulnerable area around a drinking water system (wellhead protection areas for drinking water systems using groundwater or intake protection zones for drinking water systems withdrawing from surface water) in the source protection area and applying a vulnerability score. Uncertainty analysis and peer review may be required. In addition, consultation with property owners/residents/stakeholders affected by the delineation and scoring for these two vulnerable areas may be required. Details on how to complete this task will be available in the Assessment Report regulation, Director's rules, and guidance when they are developed.
Assessment Report Preparation	Identifying issues, inventorying threats and assessing hazards in WHPAs or IPZs	Listing and describing drinking water quality issues, inventorying threats and assessing hazards (including uncertainty analysis) in wellhead protection areas and/or intake protection zones. Details on how to complete this task will be available in the Assessment Report regulation, Director's rules, and guidance when they are developed.
Assessment Report Preparation	Assess risk in WHPAs or IPZs	Identifying any significant, moderate, low, and negligible drinking water threats, undertaking an issues evaluation, and analysing uncertainty in wellhead protection areas or intake protection zones. Consultation may be required with stakeholders impacted by significant drinking water threats scoring. Consultation with adjacent source protection areas or regions may also be required for shared Great Lakes drinking water issues. Details on how to complete this task will be available in the Assessment Report regulation, Director's rules, and guidance when they are developed.
Assessment Report Preparation	Consultation on the overall proposed assessment report	Meeting the legislative and regulatory requirements on the consultation and submission process of the proposed assessment report. Details on how to complete this task will be available in the Assessment Report

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		regulation, Director's rules, and guidance when they are developed.
Assessment Report Preparation		If required, add other tasks to complete the assessment report. Describe in detail.
Source Protection Plan Preparation	Coordinating and supporting projects for the source protection plan (SPP)	Undertaking administrative support, staffing, management support, and training necessary to provide project coordination for the source protection plan components and direct support to the source protection committee.
Source Protection Plan Preparation	Undertaking communications initiatives for the source protection plan	Local area engagement, outreach and creation of communications products that support the source protection plan process.
Source Protection Plan Preparation	Information management for source protection plan preparation	Conducting overall data management, data sharing agreements, standards, mapping, software and maintenance.
Source Protection Plan Preparation	Policy development to address drinking water threats (where required and/or permissible in Act/Regs)	Policy development to address drinking water threats (where required and/or permissible in the Act and source protection plan regulation). Detailed requirements and guidance will be provided in the Source Protection Plan regulation and guidance document when they are developed.
Source Protection Plan Preparation	Policy development for monitoring (where required, advisable and/or permissible in Act & Regs)	Policy development for monitoring activities (where required, advisable and/or permissible in the Act and source protection plan regulation), including determining who is responsible for implementing these policies. Detailed requirements and guidance will be provided in the Source Protection Plan regulation and guidance document when they are developed.
Source Protection Plan Preparation	Policy development for Great Lakes elements (where required/permissible in Act & Regs)	Policy development for Great Lakes associated elements (where directed by the Minister and required or permissible in the Act and source protection plan regulation), including monitoring policies to assist in implementing and determining the effectiveness of achieving Great Lake target(s) policies, determining who is responsible for implementing those policies, and determining the need to identify any of these policies as "designated Great Lakes policies". Detailed requirements and guidance will be provided in the Source Protection Plan regulation and guidance document when they are developed.
Source Protection Plan Preparation	Establishing timelines for policy implementation	Establishing timelines for policy implementation after all policies for the SPP are developed, giving consideration to the policies developed, key players affected, capacity for implementation, the assessed risks, and natural, social, and economic considerations, including local community interests/needs. Detailed requirements and guidance will be provided in the Source Protection Plan regulation and guidance document when they are developed.
Source Protection Plan Preparation	Consultation on the overall proposed source protection plan	Consultation and submission process of the overall proposed source protection plan. Details on how to conduct the consultations on the overall proposed source protection plan will be provided in the Source Protection Plan regulation and guidance document when they are developed.
Source Protection Plan Preparation		If required, add other tasks to complete the source protection plan. Describe in detail.

Thames- Sydenham and Region

Appendix F

Summary of Consultation on the Terms of Reference

September 2008

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Notice of Public Open Houses & Public Meeting Regarding the Draft Proposed Terms of Reference

The Thames-Sydenham and Region Source Protection Committee would like to receive your input on their draft proposed Terms of Reference. The Terms of Reference, a legal requirement under the Clean Water Act (2006), describes the work that is required to complete the Assessment Report (a technical document) and the Source Protection Plan. It includes municipal, Source Protection Committee and Source Protection Authority responsibilities, task timelines and costs, as well as a list of drinking water systems that will be included in the plan.

**To find out if you live in the Thames-Sydenham and Region, go to
www.sourcewaterprotection.on.ca/SPC_TofR.htm or call 519-354-7310 ext. 228.**

We Welcome Your Comments

The public is welcome to submit written comments regarding the draft proposed Terms of Reference, during a 35-day comment period that ends September 19 at 4:00 p.m. local time. The draft proposed Terms of Reference is available online at www.sourcewaterprotection.on.ca/SPC_TofR.htm. Copies are also available for viewing at the following locations (Monday to Friday):

- Upper Thames River Conservation Authority
1424 Clarke Rd., London, 8:30 am – 4:30 pm
- St. Clair Region Conservation Authority
205 Mill Pond Cr., Strathroy, 8:00 am – 5:00 pm
- Lower Thames Valley Conservation Authority
100 Thames St., Chatham, 8:30 am – 4:30 pm

There will be four public Open Houses and one Public Meeting held across the region, to give local residents an opportunity to learn about the Source Protection Planning process and the Terms of Reference. The Open Houses are drop in format, while the Public Meeting will include scheduled presentations.

Comments may be submitted at an open house or the public meeting, or may be sent to:
Chitra Gowda, SP Technical Coordinator, Lower Thames Valley Conservation Authority, 100 Thames St., Chatham, ON, N7L 2Y8, or emailed to gowdac@thamesriver.on.ca

Public Open Houses

Ridgetown – Wednesday, September 3
University of Guelph,
Ridgetown Campus, Willson Conference Room
120 Main Street East, Ridgetown
6:00 - 7:30 pm

St. Marys – Thursday, September 4
Municipal Operations Centre Boardroom
408 James Street South, St. Marys
6:00 - 7:30 pm

Wyoming – Monday, September 8
Lambton County Council Chambers
789 Broadway Street, Wyoming
6:00 - 7:30 pm

London – Tuesday, September 9
Masonville Public Library
30 North Centre Road, London
5:00 – 6:00 pm

Public Meeting

Masonville Public Library - Tuesday, September 9
30 North Centre Road, London
6:00 - 7:30 pm

**If you would like to make a presentation at
the public meeting, please call Chitra Gowda
at 519-354-7310 ext. 228 by September 5.**



"Made Possible with funding support from the Province of Ontario"

Thames, Sydenham & Region Terms of Reference Ad Distribution		
	Newspaper	Date Sent to papers
1	London Free Press	August 13
2	Chatham-Daily News	August 13
3	Sarnia Observer	August 13
4	Woodstock Sentinel Review	August 13
5	Stratford Beacon Harold	August 13
6	St. Mary's Journal Argus	August 13
7	Ingersoll Times	August 13
8	Mitchell Advocate	August 14
9	Wallaceburg Courier News	August 14
10	Petrolia Topic	August 14
11	Wheatley Journal	August 14
12	Ridgetown Independent	August 14
13	West Elgin Chronicle	August 14
14	Ontario Farmer	August 14
15	Farm Market Chatham	August 14



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

August 15th, 2008

Municipal Clerks
Address Placeholder

Dear,

Re: **Thames-Sydenham and Region Draft Proposed Terms of Reference**

Please find enclosed the Thames-Sydenham and Region 'Draft Proposed Terms of Reference' documents, being sent to you as part of a consultation process as per the Clean Water Act (2006) Terms of Reference Regulation (Ontario Regulation 287/07). These documents are also available on our website at www.sourcewaterprotection.on.ca. There are three documents, one for each of the three Source Protection Areas within our Source Protection Region. Also attached is our guide to the Thames-Sydenham and Region draft proposed Terms of Reference documents. The guide helps explain the purpose and legislative requirements to the reader, and summarizes the content of the Terms of Reference as they relate to protection of surface and groundwater sources of municipal drinking water systems in the Thames-Sydenham and Region.

As part of the consultation on the draft proposed Terms of Reference we will be hosting municipal forums and public open houses in addition to the required public meeting. An invitation to the municipal forums is included in this package. This consultation is intended to provide the Source Protection Committee with stakeholder input into the draft proposed Terms of Reference. Written comments are encouraged at the forums and open houses.

In the Thames-Sydenham and Region, there are six surface water intakes drawing water from Lake Erie, Lake Huron, St. Clair River, and the Chenal Ecarte near Lake St. Clair. The Region also receives water from intakes located outside of the Region that draw water from Lake St. Clair, Lake Erie and Lake Huron. The Thames-Sydenham and Region also relies on twenty-five groundwater well supply systems.

The Terms of Reference describe the work to be undertaken by the Source Protection Committee, Municipalities and Conservation Authorities to complete the Assessment Report and Source Protection Plans for the three Source Protection Areas in the Region. The work plan identifies tasks to be completed, leads for the tasks, as well as estimated costs and estimated start and end dates for the tasks. Throughout Section 8.2 of the guide and in the draft proposed Terms of Reference

Lower Thames Valley Conservation Authority
100 Thames Street, Chatham, Ontario,
N7L 2Y8

St. Clair Region Conservation Authority
205 Mill Pond Cres., Strathroy, Ontario,
N7G 3P9

Upper Thames River Conservation Authority
1424 Clarke Road, London, ON
N5V 5B9

phone 519-354-7310, fax 519-352-3435

phone 519-245-3710, fax. 519-245-3348

phone 519-451-2800, fax 519-451-1188

<http://www.sourcewaterprotection.on.ca/>

Page 1 of 2



documents, are several Assessment Report tasks (technical studies), some of which are already underway and other which are proposed to be undertaken, to assess vulnerability, hazards and risks in vulnerable areas. We are awaiting final technical study requirements, currently in the proposed technical Rules that were posted for comments by the Ontario Ministry of Environment. The finalization of these Rules is expected in fall 2008. Tasks, dates and costs related to the technical Assessment Report document are estimated based on the yet to be finalized Rules and as a result those estimates may need to be adjusted.

Also in the Section 8.2 of the guide and in the draft proposed Terms of Reference documents are Source Protection Planning tasks. Guidance, Regulations and Rules related to the Source Protection Plan are yet to be released by the province. Therefore, tasks related to the Source Protection Plan in our draft proposed Terms of Reference documents are general.

We appreciate your comments on the attached Thames-Sydenham and Region draft proposed Terms of Reference documents by September 19th, 2008. This date is the end of a 35 day comment period required by the Terms of Reference Regulation. The Thames-Sydenham and Region Source Protection Committee will then consider comments prior to submitting the proposed Terms of Reference to the Source Protection Authorities before October 15th, 2008 as set by the Minister of the Environment.

Please contact Chris Tasker, Source Protection Project Manager or Chitra Gowda, Source Protection Technical Coordinator or myself if you need any more information or have any questions.

Sincerely,
THAMES-SYDENHAM AND REGION

Bob Bedggood, Chair
Source Protection Committee

Encl:

1. Notice of Publishing the Draft Proposed Terms of Reference
2. Municipal Forums Invitation
3. Thames-Sydenham and Region Draft Proposed Terms of Reference Guide and Documents

Thames, Sydenham & Region Municipalities		
	Municipality	Clerk/CAO (some cases)
1	Municipality of Strathroy-Caradoc	Jim Fairlie
2	Municipality of North Perth	Patricia Berfelz
3	Municipality of Huron East	John McLachlan
4	Township of Southwest Oxford	Allen Forrester
5	Town of Ingersoll	Elaine Clark
6	Municipality of West Perth	Hazel-Soady-Easton
7	Township of Blanford-Blenheim	Keith Reibling
8	Town of St. Mary's	Bruce Grant
9	City of Stratford	Joan Thomson
10	Township of East Zorra-Tavistock	Jeff Carswell
11	Township of Zorra	Donald W. MacLeod
12	City of Woodstock	Louise Gartshore
13	Township of Southwold	Dianne Caryn
14	Municipality of West Elgin	Norma Bryant
15	Township of Adelaide-Metcalf	Fran Urbshott
16	Township of Middlesex Centre	Cathy Saunders
17	Village of Oil Springs	Christine Poland
18	Village of Newbury	Betty Gordan
19	Township of Warwick	Don Bruder
20	Municipality of Dutton-Dunwich	Ken Loveland
21	Township of Lucan-Biddulph	Ron Reymer
22	Municipality of Thames Center	Margaret Lewis
23	City of London	Kevin Bain
24	Municipality of Lambton Shores	Carol McKenzie
25	Town of Plympton-Wyoming	Caroline DeSchutter
26	Town of Petrolia	Dela Horley
27	Village of Point Edward	Peggy Cramp
28	Municipality of Leamington	Brian Sweet
29	Municipality of South Huron	Sandra Strang
30	Towns of Lakeshore	Mary Masse
31	County of Perth	Renato Pullia
32	County of Essex	Mary Brennan
33	County of Elgin	Mark McDonald
34	County of Oxford	Ken Whiteford
35	County of Middlesex	Kathleen Bunting
36	Municipality of SW Middlesex	Janneke Newitt
37	Township of Dawn-Euphemia	Scott Gawly
38	Township of Enniskillen	Duncan McTavish
39	County of Huron	Barbara A Leamen
40	Township of Norwich	Betteanne Cadman
41	Township of Perth East	Kerri Ann O'Rourke
42	Township of Perth South	Muriel King
43	Township of Malahide	Randall Millard
44	City of St. Thomas	Wendell Graves
45	Municipality of Strathroy-Caradoc	Angela Toth
46	County of Lambton	Ron Van Horne
47	Municipality of Chatham-Kent	Elinor Mifflin
48	City of Sarnia	Brian Knott
49	Township of St. Clair	John DeMars
50	Township of Brooke-Alvinston	Cathy Case



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

August 15th, 2008

First Nation Chiefs
Address Placeholder

Dear,

Re: Draft Proposed Terms of Reference of the Thames-Sydenham and Region Source Protection Region

Please find enclosed the Thames-Sydenham and Region 'Draft Proposed Terms of Reference' documents, being sent to you as part of a consultation process as per the Clean Water Act (2006) Terms of Reference Regulation (Ontario Regulation 287/07). These documents are also available on our website at www.sourcewaterprotection.on.ca. There are three documents based on the three Source Protection Areas within our Source Protection Region. Also attached is our guide to the Thames-Sydenham and Region draft proposed Terms of Reference documents. The guide helps explain the purpose and legislative requirements to the reader, and summarizes the content of the Terms of Reference as they relate to protection of surface and groundwater sources of municipal drinking water systems in the Thames-Sydenham and Region.

As part of the consultation on the proposed draft Terms of Reference we will be hosting municipal forums, First Nations forums and public open houses in addition to the required public meeting. We will be holding 2 First Nations forums as outlined in the enclosed invitation and would encourage band council and staff to attend either of these sessions. A light lunch will be served. Open houses are also planned which will allow an opportunity for informal discussions about the Source Protection Planning process and opportunities for First Nations participation in the planning process. The First Nations forums will contain all of the material discussed at the municipal forums as well as information specifically related to First Nations involvement. An invitation to the municipal forums is also included this package. This consultation is intended to provide the Source Protection Committee with stakeholder input into the draft proposed Terms of Reference. Written comments are encouraged at the forums and open houses.

The Thames-Sydenham and Region Terms of Reference includes a task related to preliminary screening of First Nations drinking water supply sources. This screening would, should the First Nations wish to undertake them, be a first step in undertaking vulnerability assessment, threats inventories and risk assessment on First Nations drinking water sources as has been initiated on

Lower Thames Valley Conservation Authority
100 Thames Street, Chatham, Ontario,
N7L 2Y8

St. Clair Region Conservation Authority
205 Mill Pond Cres., Strathroy, Ontario,
N7G 3P9

Upper Thames River Conservation Authority
1424 Clarke Road, London, ON
N5V 5B9

phone 519-354-7310, fax 519-352-3435

phone 519-245-3710, fax. 519-245-3348

phone 519-451-2800, fax 519-451-1188

<http://www.sourcewaterprotection.on.ca/>

Page 1 of 2



municipal drinking water sources across the Region. For the systems included in the Terms of Reference, the Source Protection Plan provides an opportunity to municipalities and First Nations to cooperate to protect this shared drinking water resource. Municipalities are required by the Clean Water Act (2006) to participate in the Source Protection Planning process and to abide by the Source Protection Plan in their land use planning and infrastructure operation and development.

We appreciate your comments on the attached Thames-Sydenham and Region draft proposed Terms of Reference documents by September 19th, 2008. This date is the end of a 35 day comment period required by the Terms of Reference Regulation (Ontario Regulation 287/07). The Thames-Sydenham and Region Source Protection Committee will then consider comments prior to submission of the proposed Terms of Reference to the Source Protection Authorities before October 15th, 2008.

Please contact Chris Tasker, Source Protection Project Manager, or Chitra Gowda, Source Protection Technical Coordinator or myself if you need any more information or have any questions. We look forward to seeing you and other representatives of your community at one of the forums or open houses.

Sincerely,
THAMES-SYDENHAM AND REGION

Bob Bedggood, Chair
Source Protection Committee

Encl:

1. Notice of Publishing the Draft Proposed Terms of Reference
2. First Nations Forum Invitation
3. First Nations Open House Invitation
4. Municipal Forums Invitation
5. Thames-Sydenham and Region Draft Proposed Terms of Reference Guide and Documents

Thames, Sydenham & Region Contacts			
First Nations			
<i>Lower Thames</i>			
	First Nation	Chief	Location
1	Chippewa of the Thames	Vaughn Albert	Muncey
2	Delaware First Nation	Greg Peters	Thamesville
3	Munsee-Delaware First Nation	Patrick Waddilove	Muncey
4	Oneida First Nation	Joel Abram	Southwold
5	Caldwell First Nation	Louise Hillier	Blenheim
<i>St. Clair</i>			
1	Aamjiwnaang First Nation	Chris Plain	Sarnia
2	Kettle & Stoney Point First Nation	Elizabeth J. Cloud	Forest
3	Walpole Island First Nation- Bkejwanong Territory	Joseph Gilbert	Wallaceberg
Total: (8) in the region			
	Southern First Nations Secretariat	Executive Director	Bothwell



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

August 15th, 2008

Great Lakes Contact Person
Address Placeholder

Dear,

Re: Draft Proposed Terms of Reference of the Thames-Sydenham and Region Source Protection Region

Please find attached the Thames-Sydenham and Region 'Draft Proposed Terms of Reference' documents, being sent to you as part of a consultation process as per the Clean Water Act (2006) Terms of Reference Regulation (Ontario Regulation 287/07). These documents are also available on our website at www.sourcewaterprotection.on.ca. There are three documents based on the three Source Protection Areas within our Source Protection Region. Also attached is our guide to the Thames-Sydenham and Region draft proposed Terms of Reference documents. The guide helps explain the purpose and legislative requirements to the reader, and summarizes the content of the Terms of Reference as they relate to protection of surface and groundwater sources of municipal drinking water systems in the Thames-Sydenham and Region.

In the Thames-Sydenham and Region, there are six surface water intakes, drawing water from Lake Erie (three), Lake Huron (one), St. Clair River (one), and the Chenal Ecarte near Lake St. Clair (one). The Region also receives water from intakes located outside of the Region that draw water from Lake St. Clair, Lake Erie and Lake Huron.

A copy of the draft proposed Terms of Reference is to be circulated to groups created pursuant to Great Lakes Water Quality Agreement and involved in developing or implementing the Remedial Action Plans and Lakewide Management Plans. The accompanying guide includes a section on consultation with stakeholders including Great Lakes bodies.

In drafting the proposed Terms of Reference documents, consideration of the Great Lakes-St. Lawrence River Agreements is required if a Source Protection Area contains water that flows into a Great Lake or the St. Lawrence River. Throughout Section 8.2 of the guide and in the draft proposed Terms of Reference documents, there are several Assessment Report (technical studies) tasks already complete or proposed to be undertaken to assess vulnerability, hazards and risks in intake protection zones. Also in the guide and the draft proposed Terms of Reference documents, a Source Protection Planning task on 'Policy development for Great Lakes elements' is included.

We are awaiting technical studies requirements, currently in the draft technical rules posted for comments by the Ontario Ministry of Environment on the Environment Bill of Rights Registry. The finalization of these Rules is expected in Fall 2008. Guidance and Regulations from the Province on Source Protection Planning is yet to come. Hence tasks related to the Source Protection Plan in our draft proposed Terms of Reference documents are general.

We appreciate your comments on the attached Thames-Sydenham and Region draft proposed Terms of Reference documents by September 19th, 2008 so that the Thames-Sydenham and Region Source Protection Committee may consider your comments prior to submission to our Source Protection Authorities on October 15th, 2008.

Please contact me if you need any more information or have any questions.

Sincerely,
THAMES-SYDENHAM AND REGION

Bob Bedggood, Chair
Source Protection Committee

Encl:

1. Notice of Publishing the Draft Proposed Terms of Reference
2. Thames-Sydenham and Region Draft Proposed Terms of Reference Guide and Documents

Canadian Remedial Action Plans (RAP)	Name of Coordinator	Mailing Address
St. Clair River	Sandra Kok Great Lakes Areas of Concern	Environment Canada 867 Lakeshore Road Burlington, Ontario L7R 4A6
Wheatley Harbour	Luca Cargnelli	Environment Canada 867 Lakeshore Road Burlington, Ontario L7R 4A6

Lake-wide Management Plan (LaMP)	Name of Coordinator	Mailing Address
Lake Erie LaMP	Mary Ellen Scanlon	Great Lakes Adviser - PROGRAM SERVICES SECTION Ministry of the Environment 12th Floor 119 King St W Hamilton ON L8P 4Y7
Lake Huron LaMP	Ted Briggs	Great Lakes Adviser - PROGRAM SERVICES SECTION Ministry of the Environment 733 Exeter Rd London ON N6E1L3

Other	Name of Coordinator	Mailing Address
Lake St. Clair Canadian Coordination Council	Marie-Claire Doyle	Lake St. Clair Canadian Coordination Council Environment Canada 867 Lakeshore Road Burlington ON L7R 4A6



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

August 15th, 2008

SPC Chair
Address Placeholder

Dear,

Re: Draft Proposed Terms of Reference of the Thames-Sydenham and Region Source Protection Region

Please find enclosed the Thames-Sydenham and Region 'Draft Proposed Terms of Reference' documents, being sent to you as part of a consultation process as per the Clean Water Act (2006) Terms of Reference Regulation (Ontario Regulation 287/07). These documents are also available on our website at www.sourcewaterprotection.on.ca. There are three documents based on the three Source Protection Areas within our Source Protection Region. Also attached is our guide to the draft proposed Terms of Reference documents, which summarizes the content of the documents as they relate to protection of surface and groundwater sources of municipal drinking water systems in the Thames-Sydenham and Region.

In the Thames-Sydenham and Region, there are six surface water intakes, some of which supply water to other Source Protection Areas. The Region also receives water from intakes located outside of the Region. The Thames-Sydenham and Region also relies on twenty-five groundwater well supply systems, the resources of which are shared with neighbouring Source Protection Areas.

The Terms of Reference Regulation (Ontario Regulation 287/07) requires that the Terms of Reference include a list of matters that affect other Source Protection Committees. The Thames-Sydenham and Region guide and the draft proposed Terms of Reference documents contain a list of items which require discussion with each of our neighbouring Source Protection Committees. The list is sorted by the Thames-Sydenham and Region Source Protection Area whose Terms of Reference it will be included in, and then by neighbouring Region or Area.

Since we are awaiting final Assessment Report Rules and Regulations from the Ontario Ministry of Environment, (expected in Fall 2008), tasks, dates and costs related to the Report are based on the yet to be finalized Rules and as a result those estimates may need to be adjusted. As well, since guidance and Regulations on the Source Protection Plan are yet to be provided by MOE, tasks related to the Plan are general.

Lower Thames Valley Conservation Authority
100 Thames Street, Chatham, Ontario,
N7L 2Y8

St. Clair Region Conservation Authority
205 Mill Pond Cres., Strathroy, Ontario,
N7G 3P9

Upper Thames River Conservation Authority
1424 Clarke Road, London, ON
N5V 5B9

phone 519-354-7310, fax 519-352-3435

phone 519-245-3710, fax. 519-245-3348

phone 519-451-2800, fax 519-451-1188

<http://www.sourcewaterprotection.on.ca/>

Page 1 of 2



We appreciate your comments on the attached Thames-Sydenham and Region draft proposed Terms of Reference documents by September 19, 2008. This date is the end of a 35 day comment period required by the Terms of Reference Regulation (Ontario Regulation 287/07). The Thames-Sydenham and Region Source Protection Committee will then consider comments prior to submission of the proposed Terms of Reference to the Source Protection Authorities before October 15, 2008. The proposed Terms of Reference documents will be submitted to the Minister of Environment in December 2008.

Please contact Chris Tasker, Source Protection Project Manager or Chitra Gowda, Source Protection Technical Coordinator or myself if you need any more information or have any questions.

Sincerely,
THAMES-SYDENHAM AND REGION

Bob Bedggood, Chair
Source Protection Committee

Encl:

1. Notice of Publishing the Draft Proposed Terms of Reference
2. Thames-Sydenham and Region Draft Proposed Terms of Reference Guide and Documents

**ADDRESSES OF SPC CHAIRS (OF OTHER SPA OR SPRs) TO WHOM WE
SEND OUR TERMS OF REFERENCE DOCUMENTS:**

Mr. Tom Fuerth, Chair
Essex Region Source Protection Committee
c/o Essex Region Conservation Authority
360 Fairview Avenue West, Suite 311
Essex, ON
N8M 1Y6

Laurence Brown, Chair
Ausable Bayfield-Maitland Valley Source Protection Committee
c/o Ausable Bayfield Conservation Authority
71108 Morrison Line RR 3
Exeter, ON
N0M1S5

Craig Ashbaugh, Chair
Lake Erie Region Source Protection Committee
c/o Grand River Conservation Authority
400 Clyde Road,
PO Box 729
Cambridge, ON
N1R 5W6

Memo to: Source Protection Committee Cc: Chitra Gowda
CA GMS (with 2 copies for public viewing)

From: Chris Tasker Date: August 15, 2008

Re: Posting of Terms of Reference

The Thames-Sydenham and Region draft proposed Terms of Reference is now posted for stakeholder input. Advertisements will be in local papers starting August 15, 2008. Letters to Municipal Clerks, Band Chiefs, neighboring SPC Chairs and Great Lakes agencies will be couriered early in the week of August 18.

The internet posting is available from our home page <http://www.sourcewaterprotection.on.ca/> either from the link on the right hand side or from the Terms of Reference menu item under the SP Committee menu. Copies of the Terms of Reference Guide complete with the three draft proposed Terms of Reference Documents will be available at each of the Conservation Authority offices as well as at all of the public open houses and meetings. The CAs are required to post the Notice of Public Open Houses and Public Meeting in a public area and have the Terms of Reference documents available for public viewing.

Included with draft proposed Terms of Reference Guide bound and enclosed in this package are the notices and posting. As was mentioned at the August 8 SPC meeting, the Committees' attendance at these sessions is encouraged. Each of the sessions in the various locations will contain the same content so you are encouraged to attend those that are in your source protection area. It is not expected that you would attend all of the sessions. For those with an interest in the First Nations participation in Drinking Water Source Protection we would also encourage you to attend the forums focused on the First Nations communities. Both Aamjiwnaang and Chippewa of the Thames have been quite interested in hosting these discussions.

You are also reminded that at the public meeting in London an opportunity for stakeholders to make formal presentations is provided. It is important that as many SPC members as possible attend that session to hear the comments and concerns first hand so that you are better able to consider those concerns in any revisions to the draft proposed Terms of Reference. When attending these sessions we would ask that you make sure that you sign the SPC attendance form and indicate mileage where appropriate.

Please remember when people approach you to express their concerns or comments on the draft proposed Terms of Reference, that it is important to encourage them to submit their comments in writing. This will ensure that the comments may be accurately documented and considered by the SPC in developing the proposed Terms of Reference. If you have any questions or concerns, please do not hesitate to contact Chitra Gowda at the LTVCA or Debra Kirk at the SCRCA.

Enclosures: draft proposed Terms of Reference Guide (as posted)
 Notice of posting
 Invitation to municipal forums
 Invitation to First Nations council forums
 Invitation to Public First Nations open houses

Email to Water System Operators, Planners, Groundwater/Surface Water Groups and Health Units:
August 19, 2008

The Thames-Sydenham and Region 'Draft Proposed Terms of Reference' documents, required under the Clean Water Act (2006) Terms of Reference Regulation (Ontario Regulation 287/07) are now available on our website at www.sourcewaterprotection.on.ca. There are three Terms of Reference documents, one for each of the three Source Protection Areas in our Source Protection Region. Also on the website is our guide to the documents which explains the purpose and legislative requirements to the reader, and summarizes the content of the Terms of Reference as they relate to protection of sources of municipal drinking water systems in the Thames-Sydenham and Region.

In the Thames-Sydenham and Region, there are six surface water intakes drawing water from Lake Erie, Lake Huron, St. Clair River, and the Chenal Ecarte near Lake St. Clair. The Region also receives water from intakes located outside of the Region that draw water from Lake St. Clair, Lake Erie and Lake Huron. The Thames-Sydenham and Region also relies on twenty-five groundwater well supply systems.

The Terms of Reference documents describe work to be undertaken by the Source Protection Committee, Municipalities and Conservation Authorities to complete the Assessment Report and Source Protection Plans for the three Source Protection Areas. It identifies tasks to be completed, leads for the tasks, as well as estimated costs and estimated start and end dates for the tasks. Tasks, dates and costs related to the Assessment Report tasks (technical studies) are estimates based on the yet to be finalized Ministry of Environment Rules (expected in Fall 2008) and as a result the estimates may need to be adjusted. Guidance, Regulations and Rules on the Source Protection Planning tasks are yet to be released by the Province. Hence tasks related to the Source Protection Plan in the draft proposed Terms of Reference documents are general.

As part of the consultation process we will be hosting municipal forums, public open houses and the required public meeting to provide the Source Protection Committee with stakeholder input into the draft proposed Terms of Reference. Written comments are encouraged at the forums and open houses.

We appreciate your comments on the attached Thames-Sydenham and Region draft proposed Terms of Reference documents by September 19, 2008. This date is the end of a 35 day comment period required by the Terms of Reference Regulation. The Thames-Sydenham and Region Source Protection Committee will then consider comments prior to submitting the proposed Terms of Reference to the Source Protection Authorities before October 15, 2008 as set by the Minister of the Environment.

Please contact Chris Tasker, Source Protection Project Manager or Chitra Gowda, Source Protection Technical Coordinator if you need any more information or have any questions.

Water System Operators and Planners to which email was sent

Andrew Taylor	county-lambton.on.ca
Barry Uittvlugt	county-lambton.on.ca
Chad Ikert	county-lambton.on.ca
Dave Hanly	perthcounty.ca
kmclagan@westperth.com	westperth.com
ksnell@town.northperth.on.ca	town.northperth.on.ca
Marg Misek-Evans	county.oxford.on.ca
Maureen Looby	middlesexcentre.on.ca
mharris@strathroy-caradoc.ca	strathroy-caradoc.ca
Ralph Pugliese	chatham-kent.ca
Reg McMichael	lawss
Steve Evans	county.middlesex.on.ca

GROUNDWATER WELLHEAD SYSTEMS CONTACTS

CA	Well Supply System	Contact
Upper Thames River (UTRCA)	Beachville-Loweville WS	Deborah Goudreau, Manager of Water Services, Oxford County
	Embro WS	
	Hickson King Subdivision WS	
	Ingersoll WS	
	Innerkip WS	
	Lakeside WS	
	Mount Elgin WS	
	Tavistock WS	
	Thamesford WS	
	Woodstock WS	
	St. Marys WS	Todd Smythe , Supervisor of Water Works
	Stratford WS	Joe Salter, Manager of Water Treatment and Distribution, City of Stratford
	Sebringville WS	Bill Doupe, Operations Manager, Township of Perth South
	St. Pauls WS	
	Shakespeare WS	Bud Markham, Public Works Manager, Township of Perth East
	Mitchell WS	Mike Kraemer, Operations Manager, Municipality of West Perth
London Water Supply	Andrew Henry, Manager of Regional Water Supply, and Matt Feldberg, Water Technologist, City of London	
Dorchester WS	Eric Boere, Director of Environmental Services, and Jarrod Craven, Suptd. Of Environmental Services, Municipality of Thames Centre	
Thorndale WS		
Birr WS	Maureen A. Looby, Manager, Public Works and Engineering, Township of Middlesex Center	
Kilworth Heights Subdivision WS		
Melrose WS		
Upper Thames/St. Clair Region	Mount Brydges WS	Mark Harris, Director of Environmental Services
Lower Thames Valley (LTVCA)	Highgate WS	Tom Kissner, General Manager, Chatham-Kent PUC
	Ridgetown WS	

List of Water System Operators

					Contact
THAMES - SYDENHAM & REGION	Lower Thames Valley (LTVCA)	West Elgin WTP	220002949	Municipality of West Elgin	Andrew Valickis and Holly Wirth, Ontario Clean Water Agency
		Chatham WTP*	220003378	Municipality of Chatham-Kent	Tom Kissner, General Manager, Chatham- Kent PUC
		South Chatham-Kent WTP*	260024999	Municipality of Chatham-Kent	
		Wheatley WTP	220003332	Municipality of Chatham-Kent	
	St. Clair Region (SCRCA)	Wallaceburg WTP	220003341	Municipality of Chatham-Kent	Reg McMichael, Manager, Lambton Area Water Supply System
		Lambton Area Water Supply System	210000906	Lambton Area Water Supply System	
		Town Of Petrolia (Bright's Grove) WTP	220002903	Town of Petrolia	Terry Blackmore, Director of Operations, Town of Petrolia

*Share the same intake

Members of Surface Water Municipal Working Group

No.	Name	Title
1	CHAIR: Pat Donnelly	Urban Watershed Program Manager, Environmental Programs and Customer Relations, City of London
2	Andrew Valickis	Senior Project Manager, Engineering Services, Ontario Clean
3	Dave Posliff	Manager of Planning and Development Services, County of
4	David Fielding/Bryan Prouse*	City Engineer, City of Sarnia/Operations Manager, City of Sarnia
5	Duncan McTavish	Clerk, Township of Enniskillen
6	Mike Schnare	Director of Planning & Building, City of Sarnia
7	Reg McMichael	Manager, Lambton Area Water Supply System
8	Terry Blackmore	Director of Operations, Town of Petrolia
9	Tom Kissner	Area Manager of the North, Municipality of Chatham-Kent Public Utilities Commission

*Bryan Prouse will be representing David at the meetings

Members of Groundwater Municipal Working Group

No.	Name	Title
1	CHAIR: Joe Salter	Manager of Water Treatment and Distribution, City of Stratford
2	Dave Hanly	Director of Planning, Perth County
3	Deborah Goudreau	Manager of Water Services, Oxford County
4	Deb Zehr	Environmental Compliance Coordinator, Town of St. Marys
5	Eric Boere	Director of Environmental Services, Municipality of Thames Centre
6	Margaret Misek-Evans	Corporate Manager of Community and Strategic Planning, County
7	Roland Welker	Division Manager, Water Engineering, City of London
8	Tom Kissner	Area Manager of the North, Municipality of Chatham-Kent Public

List of Health Units Emailed

Health Unit	Contact Person	Address
Chatham-Kent Health Unit	Rosemarie Arndt, Program Manager, Environmental Health	P.O. Box 1136 435 Grand Avenue West Chatham, ON N7M 5L8
Lambton Health Unit	Andrew Taylor, Manager, Environmental Health and Prevention Services	Community Health Services Department 160 Exmouth Street Point Edward, ON N7T 7Z6
Huron County Health Unit	Pam Scharfe	Health and Library Complex Highway 4 South R.R. 5, P.O.Box 1120 Clinton, ON N0M 1L0
Middlesex-London Health Unit (London Office)	Jim Reffle, Director, Environmental Health and Chronic Disease Prevention Services	50 King Street London, ON N6A 5L7
Middlesex-London Health Unit (Strathroy Office)	David White	Kenwick Mall, 51 Front Street East Strathroy, Ontario N7G 1Y5
Elgin-St. Thomas Health Unit	Mary Lynn Maerten, Manager of Environmental Health Protection	99 Edward Street St. Thomas, ON N5P 1Y8
Perth District Health Unit	Donna Taylor, Director of Health Protection	653 West Gore Street Stratford, ON N5A 1L4
Oxford County - Public Health & Emergency Services	Mary Metcalfe	410 Buller Street Woodstock, ON N4S 4N2

Terms of Reference Open Houses – Fall 2008

There will be three public Open Houses and one Public Meeting held across the region, to give local residents an opportunity to learn about the Source Protection Planning process and the Terms of Reference. The Open Houses are drop in format, while the Public Meeting will include scheduled presentations.

Public Open Houses

Ridgetown – Wednesday, September 3

University of Guelph, Ridgetown Campus, Willson Conference Room

120 Main Street East, Ridgetown

6:00 - 7:30 pm

St. Marys – Thursday, September 4

Municipal Operations Centre Boardroom

408 James Street South, St. Marys

6:00 - 7:30 pm

Wyoming – Monday, September 8

Lambton County Council Chambers

789 Broadway Street, Wyoming

6:00 - 7:30 pm

Public Meeting

Tuesday, September 9

Masonville Public Library

30 North Centre Road, London

6:00 - 7:30 pm

Final Tabloid Distribution

Newspaper	Number	Size	Insert Date
Lower Thames			
Chatham Daily and C-K Citizen	34,947	8.5 x 11	Sat Aug 23 -fri is packed with things) Citizen - Fri Aug 22
Elgin County Market	956	8.5 x 11	Fri Aug 22
Chronicle – West Lorne	5,245	8.5 x 11	Thurs Aug 21
Upper Thames			
London Free Press	44,400	8.5 x 11	Sat Aug 23
Stratford Beacon Herald	8,100	8.5 x 11	Sat Aug 23
Ingersoll Times	3,500	8.5 x 11	Wed Aug 20
Woodstock Sentinel Review	7,082	8.5 x 11	Fri Aug 22
Regional Country News: – Perth County – Oxford County	3,546 (Perth) 2,089 (Oxford)	8.5 x 11	Sept 5
Mitchell Advocate	2,600	8.5 x 11	Wed Aug 20
St. Marys Journal Argus	3,400	8.5 x 11	Wed Aug 20
Stratford Gazette	11,609	8.5 x 11	Fri Aug 22
Dorchester Signpost	2,400	8.5 x 11	Wed Aug 20
St. Clair			
Age Dispatch Focus	9,500	Age-4,500 folded to 8.5 x 5.5 Focus- 5,000 @ 8.5 x 11	Wed Aug 27
Lambton Leisure/ Sarnia Observer	36,947	8.5 x 11	Fri Aug 22
Glencoe Transcript	2,000	8.5 x 11	Wed Aug 20
Bothwell Spirit	1,000	8.5 x 11	Wed Aug 20
Total for Newspapers	179,321		
Extras for UTRCA	660	8.5 x 11	—
Grand Total	179,981		

Thames – Sydenham and Region Municipal Councilors and Staff Please plan to attend

Municipal Meetings Regarding the Draft Proposed Source Protection Terms of Reference

The Thames-Sydenham and Region Source Protection Committee would like to receive your input on their draft proposed Terms of Reference. The Terms of Reference, a legal requirement under the Clean Water Act (2006), describes the work that is required to complete the Assessment Report (a technical document) and the Source Protection Plan. It includes municipal, Source Protection Committee and Source Protection Authority responsibilities, task timelines and costs, as well as a list of drinking water systems that will be included in the plan.

Municipal Meetings

Municipal councilors and staff are invited to attend a municipal meeting to review the draft terms of reference. These meetings will be held from 3:30 to 5 p.m. at the following locations:

Ridgetown – Wednesday, September 3
University of Guelph, Ridgetown Campus,
Willson Conference Room
120 Main Street East, Ridgetown

Wyoming – Monday, September 8
Lambton County Council Chambers
789 Broadway Street, Wyoming

St. Marys – Thursday, September 4
Municipal Operations Centre Boardroom
408 James Street South, St. Marys

Public Open Houses and Public Meeting

There will be four Public Open Houses and one Public Meeting held across the region, to give local stakeholders an opportunity to learn about the Source Protection Planning process and the Terms of Reference. The Open Houses are drop in format, while the Public Meeting will include scheduled presentations.

Public Open Houses will be held on the same dates and locations as the municipal meetings and will be open to the public from 6 – 7:30 pm each evening. A Public Open House will also be held on Tuesday, September 9 at Masonville Public Library, 30 North Centre Road, London from 5 to 6 pm. This Open House will be followed by a Public Meeting from 6 to 7:30 pm.

We Welcome Your Comments

The public is welcome to submit written comments regarding the draft proposed Terms of Reference, during a 35-day comment period that ends September 19 at 4:00 p.m. local time. Comments may be submitted at an open house or the public meeting, or may be sent to: Chitra Gowda, SP Technical Coordinator, Lower Thames Valley Conservation Authority, 100 Thames St., Chatham, ON, N7L 2Y8, or emailed to gowdac@thamesriver.on.ca

The draft proposed Terms of Reference is available online at:

www.sourcewaterprotection.on.ca/SPC_TofR.htm .

Copies are also available for viewing at the following locations (Monday to Friday):

- Upper Thames River Conservation Authority
1424 Clarke Rd., London, 8:30 am – 4:30 pm
- St. Clair Region Conservation Authority
205 Mill Pond Cr., Strathroy, 8:30 am – 5:00 pm
- Lower Thames Valley Conservation Authority
100 Thames St., Chatham, 8:30 am – 4:30 pm



Thames – Sydenham and Region
Terms of Reference Municipal Forums
Meeting Agenda
3:30-5:00

Wednesday, September 3, 2008
Wilson Conference Room
Ridgetown Campus
University of Guelph
120 Main St East, Ridgetown

Thursday, September 4, 2008
Town of St Marys
Municipal Operations Centre
boardroom
408 James St South, St Marys

Monday, September 9, 2008
Lambton County
Council Chambers
789 Broadway St, Wyoming

Agenda

1. Welcome and Introductions (10 min)
2. SP Overview – where are we in the process (10 min)
3. Terms of Reference Requirements (10 min)
4. Review of the Terms of Reference Guide (20 min)
5. Discussion

Note: Municipal forums are being followed by public open houses and a Public meeting is being held Tuesday, September 9, 2008 (6-7:30) at Masonville Public Library, 30 North Centre Road, London.

Thames-Sydenham and Region Municipal Forums Notes (Forums for municipal council members and staff)

Municipal Forum at Ridgetown

Location: Willson Hall – University of Guelph, Ridgetown Campus

Date: Wednesday, September 3, 2008

Time: 3:30 p.m. to 5 p.m.

Attendance: 3 municipal staff

Introduction by Bob Bedggood

Presentation by Chris Tasker

Discussion:

- TSR communications group should send out info packages to councils with a note to follow-up
- Information needs to go to all council members suspect that they are not receiving it and/or it is not being discussed at council meetings
- Attendees expressed disappointment that no council members showed at meeting
- Mention of Wallaceburg intake type that is yet to be decided
- TSR response included that information is already flowing to the councils via the clerk and that each SPA/CA has Directors that are also on Municipal Council and they should be aware of what is going on and able to speak to other councilors, as well as municipal representative on the SPC

Municipal Forum at Town of St. Marys

Location: Municipal Operations Centre Boardroom, Town of St. Marys

Date: Thursday, September 4, 2008

Time: 3:30 p.m. to 5 p.m.

Attendance: 4 municipal staff

Introduction by Bob Bedggood

Presentation by Chris Tasker

Discussion:

- Great Lakes – how will the Source Protection regions coordinate with the federal and community efforts focused on the health of the Great Lakes
- Coordination among regions – how will they coordinate with each other – to make sure that policies have come consistency and that there is equity in how landowners / business operators are impacted
- Implementation –How do you see the plan being implemented in the future? Who will be involved?
- Financial Support / Stewardship - Who will pay for the implementation of the Source water Plan? Is the municipality eligible for grant programs?
- Planning – How will the Source Water plan impact existing official plans? Which takes precedence?

Municipal Forum at Wyoming

Location: Lambton County Council Chambers, Wyoming

Date: Monday, September 8, 2008

Time: 3:30 p.m. to 5 p.m.

Attendance: 2 municipal staff

Introduction by Bob Bedggood

Presentation by Chris Tasker

Discussion:

- How was the TSR ToR information brought to council's attention?
- Implications of source protection planning on land use activities
- Meeting message will be taken to council meeting by attendees

First Nation Forums for Chiefs, Band Councils and Staff

Water is critical to all aspects of our lives and it is important that we ensure there is a safe and reliable source of water for all our uses - now and in the future. In this area, the Upper Thames River, Lower Thames Valley and St. Clair Region Conservation Authorities have partnered together to coordinate the development of Source Protection Plans for our watersheds. This region includes 8 First Nation Communities. A Source Protection Committee was created to guide this process.



First Nations have been invited to be at the table to deal with this important issue. Two forums are being held in central locations and are open to all eight First Nation Communities. The forums are being held to provide an overview of Drinking Water Source Protection, how it can benefit First Nation Communities and how you can become involved. At the forums and open houses, the Thames-Sydenham and Region draft proposed Terms of Reference documents will be available. These documents provide a work plan to complete technical studies and source protection plans associated with drinking water systems included in the Terms of Reference.

Locations

Chippewa of the Thames First Nations

Community Centre
326 Chippewa Road, Chippewa of the Thames First Nations
Friday, September 5
10:30 – 12:00 noon (dinner to follow)

Maawn Doosh Gumig - Community Centre

Aamjiwnaang First Nation
1972 Virgil Ave., Sarnia
Thursday September 11
3:30 pm – 5:00 pm (dinner to follow)

For more information contact:

Teresa Hollingsworth, Source Protection Program Communications
c/o Upper Thames River Conservation Authority
519-451-2800 ext. 226

First Nation Public Forums

Water is critical to all aspects of our lives and it is important that we ensure there is a safe and reliable source of water for all our uses - now and in the future. In this area, the Upper Thames River, Lower Thames Valley and St. Clair Region Conservation Authorities have partnered together to coordinate the development of Source Protection Plans for our watersheds. This region includes 8 First Nation Communities. A Source Protection Committee was created to guide this process.

First Nations have been invited to be at the table to deal with this important issue. Two forums are being held in central locations and are open to all eight First Nation Communities. The forums are being held to provide an overview of the Drinking Water Source Protection, how it can benefit First Nation Communities and how you can become involved. At the forums and open houses, the Thames-Sydenham and Region draft proposed Terms of Reference documents will be available. These documents provide a work plan to complete technical studies and source protection plans associated with drinking water systems included in the Terms of Reference.



Locations

Chippewa of the Thames First Nations

Community Centre
326 Chippewa Road, Chippewa of the Thames First Nations
Wednesday, September 10
6 pm - 7:30 pm (refreshments provided)
With a presentation at 6:00 pm

Maawn Doosh Gumig - Community Centre

Aamjwinaang First Nation
1972 Virgil Ave., Sarnia
Thursday September 11
6 pm – 7:30 pm (refreshments provided)
With a presentation at 6:00 pm

For more information contact:

Teresa Hollingsworth, Source Protection Program Communications
c/o Upper Thames River Conservation Authority
519-451-2800 ext. 226

Thames-Sydenham and Region First Nations Forums Notes (Forums for First Nations chiefs, band council members and staff)

Chippewa of the Thames First Nations

Location: Community Centre, Muncey

Date: Friday, September 5, 2008

Time: 10:30 a.m. to 12 p.m.

Attendance: 16 First Nations representatives; 2 First Nations represented – Oneida and Chippewa

Introduction:

- Smudge ceremony using sage and prayer - to be cleansed of negative thoughts or energy, bad spirits or feelings
- First Nations consider that water must be cared for such that it is preserved for the next 7 generations
- Chief's welcome, Band Councilors welcome and introductions
- Bob Bedgood's introductory talk

Presentation:

- Chris Tasker's presentation on Terms of Reference and First Nations involvement

Discussion and questions/concerns:

Water quality and quantity:

- Landfill upstream of intake is an issue to Oneida and Chippewa
- Sewage treatment plant discharge is an issue
- US side issues and actions: SPC must look into first nations water issues that span across the international border as well
- Problem with water coming from Mt. Brydges through reserve to Thames
- Why isn't Health Canada allowing First Nations to tap into Great Lakes pipelines?
- Right step by the City of London to ban pesticide use on lawns; lawn pesticides is a big concern
- Pollution plan in for London 2011; concern plan won't be in place by 2011; concern London will not listen
- Number of cancer rates are going up tied to blob in Thames River
- The priority is to know how to deal with their own systems
- What about scarcity of water?
- Will the Terms of Reference look at USA diversions of water and water bottling companies?
- The U.S. mentality is that they get what they want, Oneida Nation lives on both sides of the border
- The Great Lakes is a really big issue
- Oneida is approaching capacity for water, what about pipelines?
- Municipalities are doubling and tripling growth around First Nations; concern that population increase in surrounding areas is affecting their drinking water
- Will the plan include scientific studies and do detailed analysis of water?
- Will there be an improvement on what is acceptable, looking at standards?

- First Nations need a meaningful monitoring plan

First Nations Involvement in the Terms of Reference and with the SPC:

- Notes that SPC meetings are open to the public so that First Nations people can also attend to keep informed and send concerns through FN representatives to the SPC
- Do First Nations committee members get per diems because of long driving distances between Nations?
- Would there be voting rights on the SPC?
- There are 4 First Nations on the Thames, therefore can there be 4 seats on the SPC?
- What about a First Nations working group and work with a representative from each of the 8?
- Each First Nation represents a Nation; with its own set of problems; 3 SPC seats for First Nations members is not enough
- Suggested to send a First Nations representative to a meeting and select from that group for SPC rep
- For example, Thames Valley School Board has 1 representative for all 8 Nations
- All get agendas so can go to meetings; process – agendas/minutes go to each First Nations
- Rob Olivier from the First Nations Secretariat has been at some SPC meetings (observer, not on committee), and past Chief Philips of Oneida has also attended a meeting several months ago
- People listen to our problems but when deal with government, no one listens to us
- In the past Chief Kelly Riley has been to meetings with other agencies, but no one listens

Source Protection Plan and possible funding:

- They have heard all this information before- it will be in the Plan. What will happen? Long history of disappointment
- Cost on upkeep of water tower: can the Source Water Program provide funding for such projects?
- SWP won't address immediate issues: SP Plan is about 4 years away; what about immediate First Nations issues?
- Who enforces the SP Plan on First Nation properties?
- Who ensures polluters are stopped?
- First Nations take a holistic approach, water is life blood for everything living; water affects our food, trees purify water

Aamjwinaang First Nations

Location: Maawn Doosh Gumig Community Centre, Sarnia

Date: Thursday, September 11, 2008

Time: 3:30 p.m. to 5:00 p.m.

Attendance: 9 First Nations representatives

Introduction:

- Chief's welcome and introductions
- Bob Bedggood's introductory talk

Presentation:

- Chris Tasker's presentation on Terms of Reference and First Nations involvement

Discussion and questions/concerns:

Water quality and quantity:

- Are SPC/SPAs aware of contamination in the creek that runs through the reserve and leads to the River?
- Suspected industrial discharge at night
- Any data on pharmaceuticals being collected?
- Aamjwinaang has some sediment and water data
- Talfourd Creek is the outlet of the whole sub-watershed; it is contaminated very badly. The government knows about this but does not do anything about it
- What impact do the brine wells have on water quality?
- Is it St. Clair CA that is taking samples on Talfourd Creek
- Had discussion of having regular meetings with SCRCA to look at data to coordinate what we are doing
- What are they testing for in the provincial surface water monitoring program?
- Benthic results shows water quality is okay except near mouth of Talfourd
- Sources of contamination are unknown; would the SWP allow finding those sources?
- Information sharing with Aamjwinaang Environmental committee on 'Healthy watershed' initiative is requested
- Land dump is a big concern
- Water line is old (iron/lead)
- Suncor digging had benzene leak- has it leaked into system?
- Only testing what City Sarnia adds to water – not for metals and other pollutants
- Problems with distribution system maintenance – leaky pipes
- Problem of people using bottled water instead of municipal water
- Cars sitting in the river –who's responsibility is it to move them?

First Nations Involvement in the Terms of Reference and with the SPC:

- How does the TSR proposed participation model set up fit into legal responsibility to consult with First Nations?
- What criteria were used to select other SPC members? Can same criteria be used to select First Nations members? It should have to do with competency versus

- politics. Could provide chiefs and council with a list of names from which they can pick.
- Suggested to have at least 1 First Nations SPC member
 - Suggested to have smaller sub-committee comprised of First Nations members that represents all 8 First Nations in the TSR, and the decide which 3 will be SPC members
 - Those First Nations with their own water system should be ones on the SP Committee
 - Stewards of resources should be taken seriously
 - Compensation for sub group formed for First Nations members?
 - Possible source of compensation: industry?

Source Protection Plan and possible funding:

- If Aamjwinaang has violators they should have to help deal with problems on the reserve

Thames – Sydenham and Region Terms of Reference Public Meeting

Tuesday, September 9, 2008
Masonville Public Library
30 North Centre Rd, London

Open House

5:00 – 6:00 pm

Public Meeting Agenda

1. Welcome and Opening Remarks (Robert Bedggood, Chair Source Protection Committee)	6:00
2. Overview of Drinking Water Source Protection (Chris Taker, SP Project Manager)	6:10
a. Question Period	
3. Public Presentations (5 min each)	6:30
a. Questions of Presenters	
4. Facilitated Discussion	
5. Wrap Up (Robert Bedggood)	7:20

Note: Written comments on the Terms of Reference will be received until 4:00 pm on September 19, 2008

Comments are to be submitted to:

Chitra Gowda,
Source Protection Technical Coordinator
gowdac@thamesriver.on.ca
Lower Thames Valley, Conservation Authority
100 Thames St, Chatham, ON, N7L 2Y8

Notes of the Thames-Sydenham and Region Public Meeting

Location: Masonville Public Library, London

Date: Tuesday, September 9, 2008

Time: 6:00 p.m. – 7:30 p.m.

In Attendance: 11 SPC members, 6 CA staff, 7 members of the public

Introductions by Bob Bedggood

Presentation by Chris Tasker

Public Presentations by:

1. **Reg Bowls from Kent Bridge, Chatham-Kent : Water quantity issues**
 - impact of private landowner well water supply due to nearby expanded hog farm operations
 - Livestock use aquifer; they are affecting the aquifer due to amount of use water table is noticed to be dropping
 - suggested that these hog farmers use municipal water lines nearby instead of aquifer water
 - suggested that municipality must guarantee water supply from the aquifer before giving building permit

2. **Bill Semeniuk of Thamesford: Possible long term negative impacts of the source protection plan**
 - Runs poultry operation
 - Page 3 of terms of reference on SPC: 'will have a regard for financial impact'
 - What will stop the committee from affecting land use through creating larger zones? 100 m-2 year-5 year? Geographic extent of the Plan is still open to change
 - Possible loss in market value of land within vulnerable areas due to land use restrictions
 - Effects will be felt by future generations who inherit land
 - Suggested that SPC send out registered letters to persons affected
 - Suggested to meter all wells; how can future water supply be ensured?
 - What will protect him from others taking too much water?

3. **George Von Dorp of Sweaburg: Compensation to landowners**
 - Expects to be regulated by Source Protection Plan since lives within the 2 year time of travel of a municipal wellhead
 - Landowners, farmers and industrial businesses living within the 2 year time of travel of a municipal wellhead are expected to be compensated for any land use activity restrictions or if have to change practices due to the Clean Water Act
 - take a closer look at hobby farms; they may not practice manure management
 - consider factors that protect the water such as wellhead on sloping landscape and manure management in 2 year time of travel

- it is suggested that instead the municipality curb urban sprawl which prevents recharge but contributes to runoff, instead of buying land for groundwater recharge purposes
 - need to ensure water supply for everyone
4. **Ken Dunlop of Lambton and Middlesex Federations of Agriculture: The Public must pay, if the developed Plan supports the Public Good**
- well water users must pay fully for limits placed on agricultural production practices if that is what is deemed necessary to protect municipal drinking water sources
 - currently the Clean Water Act is about protecting municipally operated drinking water systems, not other systems or water in the environment
 - suggested to use sound science in developing the Plans and consider all potential contaminant sources
 - would like to see, in bold print, in terms of reference document where SPC explains its position on financial assistance: “if loss in production occurs due to the Clean Water Act, the landowner will be compensated”

General discussion comments or questions at the London Public Meeting:

- Who develops the source protection plan – government regulations and guidance and the SPC
- Negotiated risk management plan by municipality – a tool in the Clean Water Act
- Concern about difference in interpretation by municipalities of the NMA
- There is currently no appeals process to the NMA; suggested to have a sounding board

Bob Bedggood ends the meeting at 6:45 pm.

Other discussion arose immediately after the public meeting was ended:

- Concern about London Free Press article on blue gold – U. S. considering selling our fresh water; this may impact the water budget
- To be fair, municipalities should also pay for solving the problems, solving should be a joint effort and not just by farmers
- we need to change our attitude towards the use of clean water (toilet flushing), we need to conserve water (rain barrels and downspouts), we need to recycle water

Terms of Reference Distribution List

August 18, 2008

50 copies to Municipalities

- Notice (ad) of open houses
- Municipal Invitations
- Letter from merged document
- Guide

9 copies to FN (including Secretarit)

- Notice
- Municipal Invitations
- FN Invitations for public & Chief, staff
- Letter from merge
- Guide

August 19, 2008

3 copies to SPC chairs -other CA's

- Letter
- Guide
- Notice

5 copies Great Lakes contacts

- Letter
- Guide
- Notice

29 copies one for each SPC Committee

- Memo
- Invitation to Municipal Forums
- Invitation to FN forums-open and to Chiefs/staff
- Guide
- Notice (ad)

2 copies to each of the 3 SPAs

- copies for public review
- Memo
- Notice to post

Open House and Staff Copies

- Copies available for review during all open houses, forums, public meeting

*Copies of the CD containing the Terms of Reference Guide were available at most sessions for those unable to download the document from the internet.

Thames- Sydenham and Region

Appendix G

***Comments Considered in Submission of the Terms of
Reference to the SPA***

September 2008

1. Summary of Comments and responses 2
2. Comments received..... 10

Thames-Sydenham and Region Draft Proposed Terms of Reference Comments

Com ment #	Subject Matter	ToR Document Page Number	ToR Guide Task Number	Comment	RESPONSE
1	A <i>List of matters affecting other SPCs</i>	<i>UTR SPA ToR pages 9, 10</i>	NA	The system in Princeton only services a 23-unit apartment building. In 2004 County of Oxford decommissioned the existing wells due to poor quality and constructed two small holding tanks. Water is trucked in twice weekly from the Woodstock system. This is the cross-border issue to which Simon is referring. To complicate matters further, County of Oxford is currently in the process of servicing the entire village through an extension/expansion of the existing Drumbo system. Once this is completed the cross-border issue will disappear. However the new system will not be commissioned until 2010.	Add this new matter to the list of matters that affect the Lake Erie SPR: "Princeton water is currently supplied from the City of Woodstock in Oxford County. Consultation on policies develop related to these systems is required."
2	A <i>List of matters affecting other SPCs</i>	<i>UTR SPA ToR pages 9, 10</i>	NA	It was recommended by Lake Erie SPR to list the fact that Princeton currently receives its water from Woodstock as a Cross-Region Matter, as opposed to including the Princeton system in the list of municipal systems. Once the source changes to the combined Drumbo-Princeton system, Lake Erie SPR can update the Terms of Reference, etc, to reflect this. The Cross-Region Matter is within one municipality, so there will be very little to do, but it must be listed in both the Grand River and Upper Thames Terms of Reference. Lake Erie SPR will use the following description in the Terms of Reference, which is consistent with other similar situations: 'Princeton water is supplied from the City of Woodstock in Oxford County. Ensure consultation takes place to develop policies acceptable to both source protection committees'.	Add this new matter to the list of matters that affect the Lake Erie SPR: "Princeton water is currently supplied from the City of Woodstock in Oxford County. Consultation on policies develop related to these systems is required."
21	A <i>A: List of matters affecting other SPCs</i>	<i>LTV SPA ToR Page 8 and 9</i>	NA	With respect to the sixth item involving the Essex Region in your List of Matters, regarding the Wheatley WTP, it is suggested that consideration be given to clarifying that the Essex Region Source Protection Area will undertake work in the portion of the IPZ which extends into this Area.	Modify the matter pertaining to the Wheatley intake IPZ to include a statement such as: "Work related to the Assessment Report and Source Protection Plan in the Wheatley IPZ will be undertaken through a collaborative approach involving both the TSR SPC and the ER SPC. It is understood that certain aspects of the work will be undertaken by ERCA who has the relevant data in the area".
22	A <i>List of matters affecting other SPCs</i>	<i>LTV SPA ToR Page 8 and 9</i>	NA	With respect to the fourth item involving the Essex Region in your List of Matters, regarding the Stoney Point WTP, it is suggested that consideration be given to clarifying that some of the work may be undertaken by the Thames-Sydenham and Region, if portions of the IPZ-3s extend into the Thames-Sydenham and Region (per next Item)	An additional item will be added in the list of matters "Work related to the IPZ3 pertaining to Lake St. Clair intakes of Stoney Point, Belle river and possibly the Windsor Water treatment plant (in ER SPA) be undertaken through a collaborative approach between the TSR SPC and the ER SPC. It is understood that some aspects of the work within the TSR will be undertaken by the LTVCA, SCRCA and UTRCA who have the relevant data in the area which is allowed for in Task No. 55 in the UTR SPA ToR."

Thames-Sydenham and Region Draft Proposed Terms of Reference Comments

Comment #	Subject Matter	ToR Document Page Number	ToR Guide Task Number	Comment	RESPONSE
23	A <i>List of matters affecting other SPCs</i>	LTV SPA ToR Page 8 and 9	NA	It is suggested that consideration be given to adding a new item to the list, indicating that the intakes for the Stoney Point, Belle River, and possibly Windsor WTPs, located in the Essex Region SP Area, are considered to be 'Type D' intakes based on the MOE's Draft Director's Rules, and as such the IPZ-3s for these intakes might encompass all tributaries of Lake St. Clair, including several in the Thames-Sydenham and Region. If this is the case, the Thames Sydenham and Region would be responsible for undertaking the work in those portions of the IPZ-3s within their Region. It is further suggested that it would be helpful if Thames-Sydenham and Region were to provide clarification as to whether the TSR plan to include such work at this time, or in the future, and the anticipated scope, etc.	An additional item will be added in the list of matters "Work related to the IPZ3 pertaining to Lake St. Clair intakes of Stoney Point, Belle river and possibly the Windsor Water treatment plant (in ER SPA) be undertaken through a collaborative approach between the TSR SPC and the ER SPC. It is understood that some aspects of the work within the TSR will be undertaken by the LTVCA, SCRCA and UTRCA who have the relevant data in the area which is allowed for in Task No. 55 in the UTR SPA ToR."
3	B <i>Assessing risks in vulnerable areas</i>	A-15	AR-14	Be cautious of statistical validity of secondary risk analysis (uncertainty analysis - SGRA); 2 factor analysis tends to be less accurate - understand that other sub factors may apply; please review failure modes effects analysis methodology used by Auto Parts industry	Risk analysis is based on many sub-factors; definitely more than 2. Analysis follows guidelines provided by Province; other methods, even though widely used, may not be applicable to the Source Water Program technical studies. No change to ToR required.
19	B <i>Assessing risks in vulnerable areas</i>			The science used to base the future plan may lack principle and be heavily weighted to theory. It is asked to ensure that the SPC thought process has models which have actually been field tested and are not just from a textbook. Nutrient management was first released using an index factor to determine nutrient application setbacks of phosphorous and nitrogen. These indexes were latter shown not to have been field proven and the government removed this measure. This created a great deal of confusion for farmers.	The tasks included in the ToR propose the use of methodologies described in provincial guidance and directors rules. Wherever reasonably possible the models (surface water and groundwater used to assess vulnerability are calibrated with available data. No change to the ToR is required to address this comment.
4	C <i>Delineating and applying vulnerability scores to vulnerable areas</i>	A-4	IPZ definition	Once the criteria for IPZ-1, 2 and 3 are finalized, they need to be clearly stated and publicized to the general public	Communications team to provide IPZ and WHPA definitions in letters going to landowners later; also may provide definitions in any newspaper/internet advertising
5	D <i>Policy implementation</i>	UTR SPA ToR page 47	84, 87	implementing policies	In developing the policies to be implemented the SPC will have regard for the implementation implications as outlined in task 84. Further, timelines for implementation will also consider the impact on those affected as per task 87. No change to the ToR is required.
6	E <i>Policy Development to address drinking water threats and-the concern for financial assistance</i>	UTR SPA ToR page 44	84	reimbursement to the farmer in the Thames Valley	While the committee has carefully considered the issue of compensation, the Clean Water Act does not allow for the provision of compensation. The Committee is satisfied that Task 84 addresses this issue at this time

Thames-Sydenham and Region Draft Proposed Terms of Reference Comments

Comment #	Subject Matter	ToR Document Page Number	ToR Guide Task Number	Comment	RESPONSE
12	E E: Policy Development to address drinking water threats and the concern for financial assistance	UTR SPA ToR page 44	84, 86	Terms of Reference was reviewed by Planning and development Department on behalf of the County of Huron. A very small portion of the County of Huron (a portion of the Municipality of South Huron and a portion of the Municipality of Huron East) falls into the Thames-Sydenham and Region SPR. Huron County sees a role in the Planning Department to play in assisting partner conservation authorities with developing and implementing policy to address drinking water threats. This offer, extended to the ABMV SPC, is also offered to the TSR SPC. The Corporation of Huron County has an interest in ensuring there is consistency in the development and implementation of policies to address drinking water threats in the different source water protection areas within Huron. It is asked that the TSR contact the director of Planning and Development Department, Mr. Scott Tousaw, if TSR would like assistance on policy development and implementation once the TSR gets to that stage of the work plan.	The concept of working groups and forums for stakeholders to participate in the development of the Source Protection Plan was established through the local process for the formation of the SPC. This is further strengthened in the SPC's policies where the process for establishing those working groups is established. Including municipal planners in the development of the Source Protection Plan through working groups and forums will continue as the work progresses to that stage. The establishment of those working groups is beyond the scope of the Terms of Reference, thus no change to the ToR is required.
14	E E: Policy Development to address drinking water threats and the concern for financial assistance	UTR SPA ToR page 44	84	At the very least the term "assistance" in regards to people effected by this legislation needs to be changed to "compensation" so that the public, who is the beneficiary of this legislation, will be paying for the changes.	While the committee has carefully considered the issue of compensation, the Clean Water Act does not allow for the provision of compensation. The Committee is satisfied that Task 84 addresses this issue at this time
18	E E: Policy Development to address drinking water threats and the concern for financial assistance		84	It is not recommended that municipalities employ a Risk Management Officer. Experience doing many nutrient management strategies between various townships has shown that the regulations are far to open to interpretation. Farmers do not have an appeal process under the Nutrient Management Act and as result there is a lack of equality in issuing building permits for the purpose of housing livestock or storing manure. Would much rather see a single body in charge of the "Risk Management Plans" or at least some form of appeal process where individuals feel these negotiations are dealt with fairly.	The opportunity for municipalities to have risk management officers is included in the Clean Water Act. Similarly appeal mechanism are dealt with in the legislation. No change in the ToR is required to address this comment.
20	E Policy Development to address drinking water threats and the concern for financial assistance	UTR SPA ToR page 44	84	With regards to Task 84 and the whole concept of compensation for land use restrictions, it is appreciated that this has been a sensitive area and there is comfort with the wording within Task 84; however, what assurances can the committee give that the future Source Water Protection Plan will not burden the landowner's family farm? Could there be an opportunity to strengthen the wording to ensure fair, just, and equitable treatment is applied to all stakeholders within the region?	While the committee has carefully considered the issue of compensation, the Clean Water Act does not allow for the provision of compensation. The Committee is satisfied that Task 84 addresses this issue at this time
24	E Policy Development to address drinking water threats and the concern for financial assistance	UTR SPA ToR page 44.	84	OCFA has had a long standing position that if you wish to have control over farmland and the practices on that farmland, then you own the property. However there may be farmers and landowners who do not wish to move off of their properties. Task # 84 regarding "Fair and Reasonable" is acceptable to the OCFA for those caught in a sensitive area due to no fault of their own doing.	While the committee has carefully considered the issue of compensation, the Clean Water Act does not allow for the provision of compensation. The Committee is satisfied that Task 84 addresses this issue at this time

Thames-Sydenham and Region Draft Proposed Terms of Reference Comments

Comment #	Subject Matter	ToR Document Page Number	ToR Guide Task Number	Comment	RESPONSE
27	E Policy Development to address drinking water threats and the concern for financial assistance	UTR SPA ToR page 44.	84	The members of National Farmers Union, Lambton Local 328, demand that the term 'assistance' be changed to 'compensation' in the Terms of Reference and that 'compensation' be provided for any property owner in all Source Water Protection Areas, that is negatively affected by any rule or regulation that is enacted as a result of Ontario MOE directions.	While the committee has carefully considered the issue of compensation, the Clean Water Act does not allow for the provision of compensation. The Committee is satisfied that Task 84 addresses this issue at this time
28	E Policy Development to address drinking water threats and the concern for financial assistance	76	84 of guide book	In Task 84 of the Draft Guide Book, it is extremely important that compensation be provided for landowners affected. The Projects are for the good of the public at large and the costs for projects should be shared by everyone. Safe Water protection is important for all people. Consultants should be communicating with commissioners of drains. In the consultation meeting held September 3, 2008, it was difficult to gather information in the Draft Book in such a short time line.	While the committee has carefully considered the issue of compensation, the Clean Water Act does not allow for the provision of compensation. The Committee is satisfied that Task 84 addresses this issue at this time
29	E E: Policy Development to address drinking water threats and the concern for	76	84	The wording of this task needs to be clearer on the need for compensation for affected landowners. When projects like this are done for the greater good then those costs should be borne by everyone. "Dumping" costs on the unfortunate few is not right or acceptable in a democratic society!	While the committee has carefully considered the issue of compensation, the Clean Water Act does not allow for the provision of compensation. The Committee is satisfied that Task 84 addresses this issue at this time
31	E Policy Development to address drinking water threats and the concern for financial assistance	UTR SPA ToR page 44	84	PCFA appreciate and support the Committee's reference in the Terms of Reference to the need for compensation for landowners who will be affected by the Clean Water Act and the subsequent Plans that will be developed. PCFA do believe that this issue is paramount, even if the Clean Water Act as currently written does not allow for compensation of affected landowners. PCFA have made this concern known to Minister Gerretsen in correspondence of which the TSR have been copied. PCFA do wish to again reinforce the idea that if the government believes Protection Plans are needed, then direct compensation to affected landowners needs to be a principle that these plans are based on. PCFA would then ask that the Thames-Sydenham Water Source Protection Committee again forward the issue of compensation to the Ministry as a concern you have received as part of the public consultation process for your Draft Terms of Reference.	SPC will forward with the proposed ToR all comments received including the concern of the PCFA regarding financial assistance/compensation of affected landowners.
37	E Policy Development to address drinking water threats and the concern for financial assistance			Well water users must pay fully for limits placed on agricultural production practices if that is what is deemed necessary to protect municipal drinking water sources - if developed Plans support the public good, then the public needs to pay. The CWA is about the protection of municipally operated drinking water systems and not about the water throughout the environment or other water systems. The need for a common sense approach to the development of the Plans based on sound science that looks at all potential contaminant sources	The risk assessment process as required through provincial guidance and rules is a science based approach which considers all threats and issue related to drinking water sources identified in the ToR. No change to the ToR is required to address this comment.

Thames-Sydenham and Region Draft Proposed Terms of Reference Comments

Comment #	Subject Matter	ToR Document Page Number	ToR Guide Task Number	Comment	RESPONSE
7	F First Nation issues and consultation	NA	Clean Water Act focus	There are many First Nations along the Great Lakes; different regions have different issues (but testing the same parameters provincially)	If the First Nations wish to include their water treatment plants in the ToR, drinking water issues and threats pertaining to each intake or well will be considered. It is a decision of the Band to include their systems. No change to the ToR can be made without Band resolution and direction by the Province.
8	F First Nation issues and consultation	<i>Task on threats and issues in a vulnerable area, in all</i>	Vulnerable Areas	mining, industry, farms (feces, urine, pesticides), road salt (mineral components)	Drinking water issues and threats and constructed pathways are considered in the assessment report technical studies. No change to the ToR can be made without Band resolution and direction by the Province.
9	F First Nation issues and consultation	NA	Vulnerable Areas	bottled drinking water (how many estimated liters per year?); plastic (recyclables)	The Water Budget must consider the impact on drinking water systems included in the ToR resulting from any significant volumes of water imported into the region or exported from the region. No change in the ToR is required to address this comment.
10	F First Nation issues and consultation	NA	First Nations Representation	Who still uses wells, septic tanks; who has water treatment plants; are there still farms on First Nations?	Such information may be collected and may be used in assessing risks to drinking water systems if first Nations wish to include their systems in the Terms of Reference. No change to the ToR can be made without Band resolution and direction by the Province.
11	F First Nation issues and consultation	NA	First Nations Working Group	Consultation? What would be the representation of 12 First Nations in South Western Ontario? Each First Nation may have different concerns; the committee (working group) could be VERY LARGE	First Nations forums and open houses held evoked some response; efforts to engage First Nations through the SPC. Participation in a First Nations working group has also been discussed. Committee and working group structure and membership is not within the scope of the Terms of Reference. No change in the ToR is required.
15	F First Nation issues and consultation	NA	NA	The SPC for efforts to date are thanked. The first concern is the absence thus far of the First Nations representation: questions what unknowns will come with a late entry into the process and possible railroading of the entire program, and what direction has the provincial government and their agencies given to committee surrounding First Nations actions.	First Nations forums and open houses held evoked some response; efforts to engage FN continue. The choice to participate is that of the band councils. No change to the ToR is required.

Thames-Sydenham and Region Draft Proposed Terms of Reference Comments

Comment #	Subject Matter	ToR Document Page Number	ToR Guide Task Number	Comment	RESPONSE
13	G Education and Outreach	UTR SPA ToR page 43	35, 81	It is a concern that the general public does not know what is in this document and how it will effect them. More time is needed to educate the public and get the information to them as to where public wells and water intakes are, the size of the controlled areas around them and how they will be effected.	Task 35 and 81 allow for the communications initiatives through the Assessment Report and Source Protection Plan. These efforts will include focus on those most affected in the vulnerable areas and will be coordinated with education and outreach efforts related to the early actions funded through the ODWSP. Amend task 35 and 81 to include specific reference to efforts to target those affected by adding: "Specific outreach will be undertaken in areas where significant risks are likely."
16	G Education and Outreach		84	A greater emphasis needs to be placed on water conservation. Efforts towards education need to reduce the wastage of this valuable resource. It is suggested the committee look to creating some kind of benchmarks to measure use and create goals for the plan to achieve. Incentives to promote reduction and recycling should be considered. An inevitable increase is seen in water rates as a result of the implementation of the future water plan, it is requested to ensure these rates properly reflect the cost incurred through these legislative changes and are not just simply downloaded to municipalities. Accurate accounting and according rate increases in themselves will help promote conservation.	Where there are water quantity threats to drinking water sources included in the ToR the SPC will need to consider policies to address those threats. More general policies related to water conservation may also be considered by the SPC in developing the policies to be included in the Source Protection Plan. The comment included with task 84 should be amended to include the above statements.
17	G Education and Outreach	??	84	With the higher water rates, there will be a renewed interest by individuals who have switched to municipal water sources from private wells, to return back to private well use. Many of these wells will have not been used in a long time, but have not been abandoned "just in case". Education again will play an important role to ensure people do not jeopardize their health due to consequences from this future plan.	Education and Outreach will be an ongoing component of the Source Protection Planning process as well as the implementation of the Source Protection Plan. Task 84 should be amended to include "education and outreach policies and programs"
30	G Education and Outreach	all pages	the whole document	The way this has been presented for comment - both in the document size and inability to get a copy of the document and the short timelines for public comment should be outlawed. The public meetings were a sham. To throw a 200 + page report in front of people and ask for comments is a joke. Interested people should have had access for at least 2 weeks prior to the meeting so we could have had real questions to be answered and provide comment on. "If I didn't know better, I would say they didn't really want any intelligent public comment on their work".	Notice was posted on August 15th and newspaper ads done on the same day. ToR was accessible at CA offices and at the TSR website prior to and following the open houses all leading up to the open house and the end of the 35 day comment period.

Thames-Sydenham and Region Draft Proposed Terms of Reference Comments

Comment #	Subject Matter	ToR Document Page Number	ToR Guide Task Number	Comment	RESPONSE
25	I Water budget studies	NA	NA	Regarding new wells and the placement thereof, the OCFA also has several comments on well placement. First if the area selected for a municipal well is OK when the well was drilled then why the need for all the restrictions in the 2-5 year time of travel areas years after it is up and running. Secondly, OCFA feels there is a need to develop a "MDS" system for locating wells, both municipal and private, as far as possible away from operations it will restrict. For example not placing a well on the property line and restricting farming around it. Finally, where possible new wells should be located in existing wellhead areas in order to further reduce restrictions in the areas around well fields. For example Woodstock's new well can be put inside a current well field instead of hooking up to a well kilometres away on Trillium Line. Thus creating new restrictions on neighbouring landowners by setting up new time of travel zones outside of existing travel zones.	The location of new wells municipal or otherwise is beyond the scope of the Source Protection Plan and therefore does not have a place in the Terms of Reference. This concern should be brought to the attention of the MOE and municipalities to ensure that the planning process for new municipal wells adequately consider the vulnerability of the wells and the activities which could pose threat to those wells. No change to the ToR is required to address this comment.
26	J Great Lakes agreements consideration	UTR SPA ToR page 46.	86	OCFA has a concern on the inclusion of the "Great Lakes Agreement" in the ToR and whether it qualifies as a drinking water standard.	The ToR and ultimately the Source Protection Plan is required to consider the Great Lakes Agreements. This comment cannot be addressed in the Terms of Reference and still meet the legislated obligations of the SPC.
35	J Great Lakes agreements consideration			SPC to consider downstream impacts on the Great Lakes, not just the watersheds only while developing source protection plans. Also, SPC to review objectives and priority actions being pursued under relevant LAMPs and RAPs. SPC is encouraged to consider goals and objectives of these Great Lakes initiatives when developing their own, to align their work accordingly. SPC should take advantage of existing mechanisms, partnerships and plans to advance mutual priorities and objectives.	The following shall be added following the last paragraph on page 9 (section 2.4 Great Lakes Agreements Consideration and Great Lakes Bodies Consultation): "LAMP goals and objectives will also be considered to determine inter-relationships between those goals and objectives and drinking water issues and risks to drinking water sources. SPC shall strive to work towards aiding Great Lakes bodies achieve targets as set out in existing Great Lakes agreements where those targets affect drinking water sources included in the ToR. "
32	K Changes needed in task cost, lead or dates	LTV SPA ToR Page 25	9	When reviewing the Thames-Sydenham and Region draft proposed terms of reference, the funded costs for the West Elgin intake were incorrect. The MOE funded \$117,000 for Phase 1 and \$63,680 for Phase 2 for a total of \$180,680 for the West Elgin intake. The allotment is shown below in the table. Please update the Thames-Sydenham and Region draft proposed terms of reference by changing the funded dollar amount for the task of 'Delineating and applying vulnerability scores to Intake Protection Zones' for the West Elgin intake to \$117,000.	The funded dollar amount is to be changed as per Municipality of West Elgin's comments, on page 25 of the LTV SPA ToR and task 9 of the guide.

Thames-Sydenham and Region Draft Proposed Terms of Reference Comments

Comment #	Subject Matter	ToR Document Page Number	ToR Guide Task Number	Comment	RESPONSE
33	K Changes needed in task cost, lead or dates			Since source protection planning will be ultimately impacting the Municipality of West Elgin both financially and from a land use planning perspective, it is imperative that the Municipality of West Elgin remain directly involved in the development of the assessment report and the Source Protection Plan as it pertains to their intake and system. The issue that concerns them greatly is where the funding will come from to allow for their continued involvement in the planning process. Funding of 12,000 per year for the participation of consultant for the municipality in working groups has been requested.	Funding for working groups participation is not included in the ToR and is not allowed based on the adopted policies of the SPC. Allowance for the cost of the participation of the municipality's consultant in technical work related to their drinking water systems should be included within the expenditures related to the appropriate technical work. No change to the ToR to accommodate this request is planned.
34	K Changes needed in task cost, lead or dates			Council report suggests that CA to lead future studies rather than City. Needs to be confirmed when resolution received.	Modify the lead on future City of London tasks to be consistent with City of London resolution. The tasks will continue to be undertaken through a partnership between the municipalities and the UTRCA.
36	K Changes needed in task cost, lead or dates	page 81, section 9 - Costs		Final Regulations and Rules which will define the requirements of the Assessment Report are not yet available and are not expected for some time. As such assumptions on the requirement have been made to allow estimates to be calculated. Estimates were developed by Oxford County staff and were provided to the SPA for inclusion in the TOR. The estimated costs associated with the completion of the tasks will be fully covered by funding provided through the Source Protection Region. Oxford County falls within two Source Protection Regions. The estimates for completion of technical work within the Thames-Sydenham and Region has been calculated with consideration for the associated work that must be completed in the Lake Erie Region	The TSR ToR cost and date estimates are based on yet to be finalized Rules and Regulations. They are subject to change once the Rules and Regulations are finalized. This has been identified in Section 9 of the Terms of Reference Guide and based on discussion with the province it is understood that cost estimates included in the ToR are "estimates" based on our current understanding of guidance and rules. The first sentence of the 3rd paragraph on page 81 shall be modified to include "are estimates based on our current understanding of guidance and rules, and in many cases, on assumptions."



September 15, 2008

SEP 16 2008

The Municipality of West Elgin

Thames – Sydenham and Region
C/o Upper Thames River Conservation Authority
1424 Clarke Road
LONDON, Ontario
N5V 5B9

Attention: Bob Bedggood, Chair
Source Protection Committee

Dear Mr. Bedggood;

**RE: Thames-Sydenham and Region
Draft Proposed Terms of Reference**

As requested, the Municipality of West Elgin has reviewed the draft Proposed Terms of Reference and offers the following comments and suggestions.

The Municipality of West Elgin owns the West Elgin WTP located near Eagle and is ultimately responsible for its operation and ensuring that a continuous supply of consistently high quality potable water is provided to our residents and the neighbouring municipalities. Since the intake and the WTP are located in our municipality, any initiatives related to source water protection will most likely directly impact our residents and certainly our water users.

While these impacts cannot be identified until the Source Protection Plan has been developed and its implementation has started, there most certainly will be impacts both from a land use planning perspective and a financial one. While the MOE may be financing most of the cost for the development of the various Source Protection Plans around the Province, they have clearly indicated that the municipalities will be involved in funding (in whole or in part) the implementation of those Plans.

Therefore, since source protection planning will be ultimately impacting us both financially and from a land use planning perspective, it is imperative that we, the Municipality of West Elgin, remain directly involved in the development of the Assessment Report and the Source Protection Plan as it pertains to our intake and water system.

To date, our Municipality has taken the lead for preparing the technical studies related to our intake. We have been working in full collaboration with the Conservation Authorities and will continue to do so until these technical studies have been completed. For this work, we have received full funding directly from the MOE.

Now that the Source Protection Committee has been established, funding for future work on the assessment report and the source protection plan will be provided to the Committee directly through the conservation authorities. The various tasks to be undertaken and the associated estimated costs, based on the limited information available from the MOE, have been outlined in the draft Proposed Terms of Reference.

.... 2

The issue that concerns us greatly is where the funding will come from to allow for our continued involvement in this very important planning process. While we participated in the Working Group to develop the draft Proposed Terms of Reference, the cost of that participation was borne solely by our Municipality. Being a small municipality, we do not have the staffing resources or the expertise in-house to allow us to participate in these types of initiatives. Instead we utilize the services of various outside experts on an as-needed basis. For water related issues, we rely on Mr. Andy Valickis, P.Eng., a senior project manager from the Ontario Clean Water Agency, who has been involved with our water system for over 20 years and has intimate knowledge of our water system. He is the project manager currently looking after our technical studies and was our representative on the Working Group. Our future involvement in any source water protection initiative will need to include Mr. Valickis and as a result, will impose a direct financial impact on our Municipality.

We would therefore request the Source Protection Committee to allocate sufficient funding to allow for our continued participation in the development of the Assessment Report and the Source Protection Plan.

We anticipate that our participation will be based on being involved working with the CA staff on the development of the Assessment Report and the Source Protection Plan so that we are intimately aware of any work that is being undertaken relating to our intake and any resulting issues and challenges. While most of this involvement could take place through various electronic media, we do anticipate that a number of meetings with CA staff and Committee maybe necessary each year, especially if we are to actively participate in any sub-committees of the SPC that may be established in the future. While the level of commitment cannot be well defined at this stage, a yearly allocation of \$12,000 would provide us with the resources to actively participate in this process.

We also request that we be directly involved in any future technical and planning studies that involve our intake, WTP or surrounding area and lands. We fully understand why the scope and costs associated with these future studies have not been well defined in the draft Proposed Terms of Reference. Once the Committee has had the opportunity to progress further in its mandate, obtained clearer directions from the MOE, and developed a more detailed approach and work plan, we would appreciate being given the chance to determine if there an opportunity to undertake some of this future work as a lead or as a direct partner with CA staff.

We have reviewed the draft document and have no other comments. The Committee and the CA staff have done a commendable job given the tight timeframes imposed by the Ministry and limited (and changing) information available.

Yours truly,



Joanne Groch, B.A., AMCT

Administrator/Treasurer



July 30, 2008

Ian Smith
Director, Source Protection Programs Branch
Ministry of the Environment, Drinking Water Management Division
2 St. Clair Avenue West, 8th Floor
Toronto, Ontario, M4V 1L5

AUG 05 2008

Re: Invitations to comment on Source Protection Committees' proposed Terms of Reference for the preparation of Assessment Reports and Source Protection Plans

Dear Mr. Smith:

Environment Canada employees have recently been contacted by a number of Source Protection (SP) Committees, inviting them to review and comment on the draft Terms of Reference that will guide the preparation of Assessment Reports and Source Protection Plans. Additional SP Committees may soon make similar requests, and I am writing to you, as well as to the Chairs of all SP Committees, to suggest how we might advance our mutual objectives.

Environment Canada commends the work that SP Committees are undertaking to identify, mitigate and prevent threats to drinking water quality. We value local and regional efforts to protect drinking water quality, and recognize the environmental benefits that will result from their work. I anticipate environmental benefits will likely include a positive impact on the Great Lakes, noting that Ontario's *Clean Water Act* makes strong linkages to watershed-based source protection planning and Great Lakes protection. Environment Canada encourages SP Committees to consider not only the watersheds for which they are developing source protection plans, but also downstream impacts on the Great Lakes.

To help the SP Committees comply with the requirement for relevant Terms of Reference to consider the Great Lakes Water Quality Agreement and the Canada-Ontario Agreement Respecting the Great Lakes Basin Ecosystem, we suggest that they review the objectives and priority actions being pursued under relevant Lakewide Management Plans and Remedial Action Plans. Given the complementary nature of source water protection and Great Lakes restoration and protection, we encourage SP Committees to consider the goals and objectives of these Great Lakes initiatives when developing their own, and to align their work accordingly.

Lakewide Management Plans (LaMPs) are comprehensive management plans that strive to restore and protect the waters in each of the Great Lakes. They involve multiple partners from federal, provincial and local governments, along with non-government and private sector stakeholders. Information and materials pertaining to the objectives and priority actions of the LaMPs can be found at www.binational.net, but in summary, these plans strive to:

- use existing science and monitoring programs to synthesize and assess the state of the ecosystem at the lakewide level;



- identify lakewide environmental concerns that can best be addressed at a lakewide management scale, including emerging issues;
- identify science and monitoring information needs in order to inform data collection and ultimately make informed management decisions;
- develop lakewide vision, goals, objectives, and measurable indicators;
- identify and promote actions required by management agencies, including other levels of government, to achieve the lakewide vision, goals and objectives;
- use an adaptive management approach and a long-term planning horizon;
- report regularly on progress towards achieving lakewide vision, goals, objectives; and
- communicate with, engage and build consensus among the broader lake community so that they can contribute to implementation of the required actions.

Remedial Action Plans (RAPs) are comprehensive endeavours to restore and protect environmentally degraded areas of the Great Lakes – called Areas of Concern – that have experienced significant environmental degradation and where beneficial uses of the ecosystem are impaired. Information and materials pertaining to the objectives and priority actions of RAPs can be found at www.ec.gc.ca/raps-pas, but overall, they involve all levels of government, industry, non-government organizations and individuals working to:

- identify environmental problems in specific geographic areas;
- determine sources and causes of the problems;
- establish community and stakeholder goals and objectives; and
- develop consensus on recommended actions, implementation plans and monitoring strategies.

Environment Canada remains committed to working with staff from Ontario, municipalities and conservation authorities, Aboriginal communities and organizations, non-government organizations, academic institutions and industrial, agricultural and other business sectors across Ontario in advancing Lakewide Management Plans and Remedial Action Plans for the Great Lakes. We believe these are an effective means to develop a shared vision and common approach to environmental restoration, watershed planning, water resource management, and monitoring and restoring wildlife habitat – all of which provide direct and indirect support for source water protection.

I trust that you, and the Chairs of the SP Committees, would agree that we should take advantage of existing mechanisms, partnerships and plans to advance our mutual priorities and objectives.

Yours sincerely,



for
Michael Goffin
Director, Strategic Integration & Partnerships Division
Environment Canada

c.c. list below

September 18, 2008

Bob Bedggood, SPC Chair
Thames-Sydenham and Region
c/o UTRCA
1424 Clarke Road
London, ON
N5V 5B9

Dear Sir

Re: Draft Proposed Terms of Reference for the Thames-Sydenham and Region SP Region

Thank you for your letter of August 15, 2008, inviting comments on the above. I understand that discussions are ongoing between our respective staff teams in order to achieve as much consistency as possible between our respective Terms of Reference, particularly in terms of the 'Lists of Matters Affecting Other SPCs'. We are generally impressed and in agreement for the most part, with the List of Matters' in your draft Proposed Terms of Reference. We find your information to be helpful to us in refining our Terms of Reference in this regard. We will likely include most if not all the items in your 'List of Matters', in our Terms of Reference.

We offer the following specific comments which may be of assistance in further discussions:

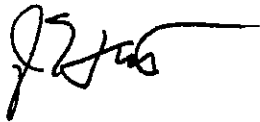
- 1) With respect to the sixth item involving the Essex Region in your List of Matters, regarding the Wheatley WTP, we suggest that consideration be given to clarifying that the Essex Region Source Protection Area will undertake work in the portion of the IPZ which extends into this Area.
- 2) With respect to the fourth item involving the Essex Region in your List of Matters, regarding the Stoney Point WTP, we suggest that consideration be given to clarifying that some of the work may be undertaken by the Thames-Sydenham and Region, if portions of the IPZ-3s extend into your Region.(per Item 3 below)
- 3) We suggest that consideration be given to adding a new item to the list, indicating that the intakes for the Stoney Point, Belle River, and possibly Windsor WTPs, located in the Essex Region SP Area, are considered to be 'Type D' intakes based on the MOE's Draft Director's Rules, and as such the IPZ-3s for these intakes might encompass all tributaries of Lake St. Clair, including several in the Thames-Sydenham and Region. If this is the case, the Thames Sydenham and Region would be responsible for undertaking the work in those portions of the IPZ-3s within their Region. We further suggest that it would be helpful if you were to provide clarification as to whether you plan to include such work at this time, or in the future, and the anticipated scope, etc.

Mr. Beggood
September 18, 2008
Page 2

We look forward to further discussions and continued collaboration between our respective Regions. We are particularly pleased with the continuing excellent collaboration between our respective staff teams, on various aspects of the ongoing technical work and other matters.

If you have any questions or concerns, please do not hesitate to contact me at (519)737-6649, or Stan Taylor, Source Protection Project Manager at (519) 776-5209, ext 354.

Sincerely,

A handwritten signature in black ink, appearing to read 'Tom Fuerth', with a long horizontal flourish extending to the right.

Tom Fuerth
Chair, Source Protection Committee
Essex Region Source Protection Area

Debra Kirk - source water protection

From: "Mac Brown" <macb@brktel.on.ca>
To: <taskerc@thamesriver.on.ca>
Date: 9/17/2008 7:57 AM
Subject: source water protection

Chris Tasker, P. Eng
Source Protection Project Manager
Upper Thames River Conservation Authority
1424 Clarke Rd.
London, On
N5V 5B9
519-451-2800 ext. 238

Dear Sir,

I would like to express my opinion on the terms of reference document associated with the source water protection legislation. I am very concerned that the general public does not know what is in this document and how it will effect then. More time is needed to educate the public and get the information to them as to where public wells and water intakes are, the size of the controlled areas around them and how they will be effected. At the very least the term "assistance" in regards to people effected by this legislation needs to be changed to "compensation" so that the public, who is the beneficiary of this ligitlation, will be paying for the changes.

Malcolm Brown
R.R. # 1, Inwood, Ontario N0N 1K0
519-844-2024

Chad Anderson
1327 Moore Line
Mooretown, On.
N0N 1M0
519-864-1161

To: Source Water Protection Committee
c/o Mr. Chris Tasker, St. Clair Region Conservation Authority

I am forwarding some concerns regarding the "Terms of Reference" as presented at the open house in London, Ontario, September 9, 2008. I first want to thank the committee for all their efforts to date; this must have been a gruelling process to accomplish. The task ahead looks to be no easier and you are to be congratulated on your dedication to our future generations in ensuring a safe and abundant water supply.

My first concern is the absence thus far of the First Nations representation. I question what unknowns will come with a late entry into the process and possible railroading of the entire program. What direction has the provincial government and their agencies given to committee surrounding First Nations actions?

I do believe a greater emphasis needs to be placed on water conservation. Efforts towards education need to reduce the wastage of this valuable resource. I would suggest the committee look to creating some kind of benchmarks to measure use and create goals for the plan to achieve. Incentives to promote reduction and recycling should be considered. I do see an inevitable increase in water rates as a result of the implementation of the future water plan, please ensure these rates properly reflect the cost incurred through these legislative changes and are not just simply downloaded to municipalities. Accurate accounting and according rate increases in themselves will help promote conservation.

With the higher water rates, there will be a renewed interest by individuals who have switched to municipal water sources from private wells, to return back to private well use. Many of these wells will have not been used in a long time, but have not been abandoned "just in case". Education again will play an important role to ensure people do not jeopardise their health due to consequences from this future plan.

I am not supportive of the municipalities employing a Risk Management Officer. My experience doing many nutrient management strategies between various townships is that the regulations are far too open to interpretation. Farmers do not have an appeal process under the Nutrient Management Act and as result there is a lack of equality in issuing building permits for the purpose of housing livestock or storing

manure. I would much rather see a single body in charge of the "Risk Management Plans" or at least some form of appeal process where individuals feel these negotiations are dealt with fairly.

I am worried that the science used to base the future plan may lack principle and be heavily weighted to theory. Please ensure that your thought process has models which have actually been field tested and are not just from a textbook. Nutrient management was first released using an index factor to determine nutrient application setbacks of phosphorous and nitrogen. These indexes were latter shown not to have been field proven and the government removed this measure. This created a great deal of confusion for farmers.

Finally, with regards to Task 84 and the whole concept of compensation for land use restrictions, I appreciate the sensitive area this has been and I am comfortable with the wording within Task 84; however, I would ask the committee what assurances they can give to me that the future Source Water Protection Plan will not burden my family farm? Could there be an opportunity to strengthen the wording to ensure fair, just, and equitable treatment is applied to all stakeholders within the region?

Thank-you for consideration,

Regards,

Chad Anderson

Mooretown

c.c.

Geri Kamenz, OFA President

Ken Dunlop, LFA President

Bob Bailey, Sarnia Lambton MPP

David Core, CAPLA

Debra Kirk - terms of reference

From: "tammy" <vantam@ebtech.net>
To: <taskerc@thamesriver.on.ca>
Date: 9/18/2008 10:08 AM
Subject: terms of reference

Chris Tasker
Source Protection Manager

The Members of the NFU, Lambton Local 328 issue the following statement regarding the Draft of the Terms of Reference:

The members of National Farmers Union, Lambton Local 328, demand that the term 'assistance' be changed to 'compensation' in the Terms of Reference and that 'compensation' be provided for any property owner in all Source Water Protection Areas, that is negatively affected by any rule or regulation that is enacted as a result of Ontario MOE directions.

National Farmers Union
Lambton Local 328
c/o Sec. Tammy VanTroost
R.R.#1 Brigden
N0N 1B0

Debra Kirk - SWP

From: "Municipality of West Elgin(Joanne)" <wstelgin@execulink.com>
To: Chitra Gowda <gowdac@thamesriver.on.ca>
Date: 9/19/2008 2:24 PM
Subject: SWP
CC: Holly Wirth <hwirth@ocwa.com>

Hi Chitra;

When reviewing the Thames-Sydenham and Region draft proposed terms of reference, the funded costs for the West Elgin intake were incorrect. The MOE funded \$117,000 for Phase 1 and \$63,680 for Phase 2 for a total of \$180,680 for the West Elgin intake. The allotment is shown below in the table.

Tasks	Funded cost	Proposed (estimated) cost	Estimated start and end date of task
Delineating and applying vulnerability scores to Intake Protection Zones	\$117, 000	\$38, 500	April 1, 2005 to October 31, 2009
Identifying issues, inventorying threats and assessing hazards in Intake Protection Zones	\$46, 280	\$20, 000	April 1, 2006 to June 30, 2009
Assess risk in Intake Protection Zones	\$17, 400	\$21, 500	April 1, 2006 to June 30, 2009
Total	\$180, 680	\$80, 000	

Please update the Thames-Sydenham and Region draft proposed terms of reference by changing the funded dollar amount for the task of 'Delineating and applying vulnerability scores to Intake Protection Zones' for the West Elgin intake to \$117,000.

Joanne Groch

Debra Kirk - Water Source Protection Terms of Reference

From: "PCFA" <ofaperth@quadro.net>
To: <gowdac@thamesriver.on.ca>
Date: 9/19/2008 10:15 AM
Subject: Water Source Protection Terms of Reference
CC: "PCFA Directors" <ofaperth@quadro.net>

September 19, 2008

Chitra Gowda, SP Technical Co-ordinator
Lower Thames Valley Conservation Authority
100 Thames St.,
Chatham ON
N7L 2Y8

via email gowdac@thamesriver.on.ca

Thames-Sydenham Water Source Protection Committee

The Perth County Federation of Agriculture appreciates the opportunity to comment on the Thames-Sydenham Water Source Protection Committee Terms of Reference.

We appreciate and support the Committee's reference in the Terms of Reference to the need for compensation for landowners who will be affected by the Clean Water Act and the subsequent Plans that will be developed. We do believe that this issue is paramount, even if the Clean Water Act as currently written does not allow for compensation of affected landowners. We have made this concern known to Minister Gerretsen in correspondence of which you have been copied (also attached for reference).

We do wish to again reinforce the idea that if the government believes Protection Plans are needed, then direct compensation to affected landowners needs to be a principle that these plans are based on. We would then ask that the Thames-Sydenham Water Source Protection Committee again forward the issue of compensation to the Ministry as a concern you have received as part of the public consultation process for your Draft Terms of Reference.

Sincerely,

Ed Danen, President
Perth County Federation of Agriculture

cc PCFA Board of Directors

July 26, 2008

Hon. John Gerretsen, MPP

Minister of Environment

135 St. Clair Avenue West, 12th Floor

Toronto, ON

M4P 1P5

Dear Minister,

The Perth County Federation of Agriculture has recently discussed the Provincial Clean Water Act, and the development of Source Protection Plans.

Each Source Protection Committee is in the process of writing a Terms of Reference document that lays out all of the various aspects that must be considered as they prepare both the Source Protection Plan, and the Assessment Report that precedes the Source Protection Plan. A point of contention arrived at early on in this process revolves around the concept of 'compensation' to those whose livelihood is impacted through land use restrictions that may be imposed by the Source Protection Plan.

Ever since Ontario's Source Water Protection legislation was being considered, it has sparked debate and concern throughout the province. Farmers and their organizations have identified some of the potential costs for farmers as a result of the legislation and those costs could be enormous.

Farmers have always used best management practices to minimize their impacts on the environment. We believe that if the government believes Protection Plans are needed, then direct compensation to affected landowners needs to be a principle that these plans are based

on. The farm community, as owners of a good percentage of the land in rural Ontario, can't afford to continue funding activities that benefit all citizens.

The current Clean Water Act does not allow for compensation to be paid to property owners affected by the developing Source Protection Plans. Therefore, we are looking for your leadership in resolving this situation, by amending the Clean Water Act to include policies that will compensate landowners whose property and/or business operations are negatively impacted by the Act, its Regulations, and Plans.

Sincerely,

Ed Danen, President
Perth County Federation of Agriculture

cc MPP John Wilkinson

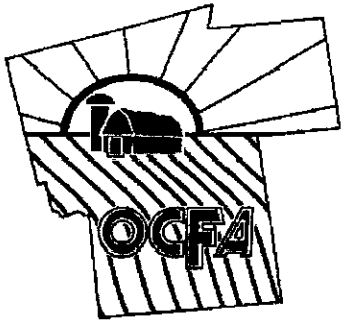
Drinking Water Source Protection Committee Chairs and Ag Reps

- Ausable Bayfield Maitland Valley
- Thames Sydenham
- Lake Erie Region

David Armitage, OFA Research

Agnes Denham, Secretary

Perth County Federation of Agriculture
4817 Line 46, Rostock. N0K 1T0
519-393-5555 phone
519-393-5552 fax
ofaperth@quadro.net



OXFORD COUNTY FEDERATION OF AGRICULTURE

Farmers Working for Farmers

President

John Van Dorp
(519) 537-8769
FAX 519-537-6580
email: vandorp@execulink.com

website: www.ofa.on.ca/oxford

Secretary / Co-Ordinator

June Nussey
276 Whiting St.
Ingersoll, ON N5C 3B8
(519) 485-2442
FAX 485-0776
email: j.k.nussey@sympatico.ca

September 18, 2008

Chitra Gowda
SP Technical Coordinator
Lower Thames Valley Conservation Authority
100 Thames St.
Chatham ON N7L 2Y8

Dear Chitra Gowda

RE: Terms of Reference for Thames-Sydenham and Region Source Protection

The Oxford County Federation of Agriculture (OCFA) has always been concerned with protecting drinking water and water in general. The OCFA has had representatives on both the Water Protection Committee as well as the Nutrient Management Committee for Oxford.

OCFA has had a long standing position that if you wish to have control over farmland and the practices on that farmland, then you own the property. However there may be farmers and landowners who do not wish to move off of their properties. Task # 84 regarding "Fair and Reasonable" is acceptable to the OCFA for those caught in a sensitive area due to no fault of their own doing.

Regarding new wells and the placement there of, the OCFA also has several comments on well placement. First if the area selected for a Municipal well is OK when the well was drilled then why the need for all the restrictions in the 2-5 year time of travel areas years after it is up and running. Secondly, OCFA feels there is a need to develop a "MDS" system for locating wells, both municipal and private, as far as possible away from operations it will restrict. For example not placing a well on the property line and restricting farming around it. Finally, where possible new wells should be located in existing wellhead areas in order to further reduce restrictions in the areas around well fields. For example Woodstock's new well can be put inside a current well field instead of hooking up to a well kilometres away on Trillium Line. Thus creating new restrictions on neighbouring landowners by setting up new time of travel zones outside of

...../2

existing travel zones.

OCFA has a concern on the inclusion of the "Great Lakes Agreement" in the ToR and whether it qualifies as a drinking water standard.

We thank you for the opportunity to make comments on the Terms of Reference. If you have any questions, please contact us.

Sincerely,

(Original signed)

Joe Wilson
1st Vice President
Oxford County Federation
of Agriculture



Community and Strategic Planning

P. O. Box 1614, 21 Reeve Street
Woodstock Ontario N4S 7Y3
Phone: 519-539-9800 • Fax: 519-421-4712
Web site: www.county.oxford.on.ca

Our File:

September 17, 2008

via email: gowdac@thamesriver.on.ca

Ms. Chitra Gowda
SP Technical Coordinator
Lower Thames Valley Conservation Authority
100 Thames Street
Chatham ON N2L 2Y8

Dear Ms. Gowda:

Re: Source Water Protection Terms of Reference for
Thames-Sydenham and Region

Please find enclosed Report 2008-75 which constitutes comments from the County of Oxford regarding the Terms of Reference consultation. Oxford County Council adopted the following resolution at its meeting of September 10, 2008:

"That Report No. D-5 2008-75 be adopted by County Council and be forwarded to Thames-Sydenham and Region Source Protection Region in response to Terms of Reference Consultation; and that County Council approve the work plans set out in the Terms of Reference for each Source Protection Area, of the Thames-Sydenham and Region Source Protection Region with jurisdiction in the County of Oxford particularly as it applies to the tasks and funding allocated to Oxford County."

If you have any questions regarding the above, please do not hesitate to contact me.

Yours Truly,

Margaret Misek-Evans
Corporate Manager

../lb
encl.

cc - D. Goudreau, County Public Works

COUNTY OF OXFORD
REPORT NO. D-5 2008-75
PUBLIC WORKS
SEPTEMBER 10, 2008

RECOMMENDATION CONTAINED IN REPORT NO. D-5 2008-75:

"That Report No. D-5 2008-75 be adopted by County Council and be forwarded to Thames-Sydenham and Region Source Protection Region in response to Terms of Reference Consultation; and that County Council approve the work plans set out in the Terms of Reference for each Source Protection Area, of the Thames-Sydenham and Region Source Protection Region with jurisdiction in the County of Oxford particularly as it applies to the tasks and funding allocated to Oxford County."

15.

Handing!

MUNICIPAL COUNCIL OF THE COUNTY OF OXFORD

Moved by: *[Signature]* Woodstock, Ontario
Seconded by: *[Signature]* September 10, 2008

Resolved: That the recommendation contained in Report No. D-5 2008-75, titled "Source Water Protection Terms of Reference for Thames-Sydenham and Region", be adopted.

Carried - Yes

The recommendation contained in Report No. D-5 2008-75 of the Department of Public Works, dated September 10, 2008, was adopted by Oxford County Council Resolution No. 15, dated September 10, 2008.

I, Brenda J. Tabor, Deputy Clerk of the County of Oxford, do hereby certify that the foregoing is a true copy of Resolution No. 15, dated September 10, 2008, passed by Oxford County Council on September 10, 2008.

[Signature]
Brenda J. Tabor, Deputy Clerk

TO: K. Whiteford, CAO/Clerk

FROM: M. Misek-Evans, Corporate Manager of Community and Strategic Planning
D. Goudreau, Manager of Water Services
M. Bragg, Director of Public Health and Emergency Services
R. Walton, Director of Public Works

SUBJECT: **Source Water Protection Terms of Reference for Thames-Sydenham and Region**

RECOMMENDATION:

That Report No. D-5 2008-75 be adopted by County Council and be forwarded to Thames-Sydenham and Region Source Protection Region in response to Terms of Reference Consultation; and that County Council approve the work plans set out in the Terms of Reference for each Source Protection Area, of the Thames-Sydenham and Region Source Protection Region with jurisdiction in the County of Oxford particularly as it applies to the tasks and funding allocated to Oxford County.

PURPOSE

To advise County Council of the status of technical work being completed by Oxford County within the Thames-Sydenham and Region as outlined in the draft proposed Terms of Reference as well as the stakeholder consultation requirements for the Terms of Reference. To secure a Council resolution in support of the draft proposed Terms of Reference and, particularly, the work plan and budget allocation of the County.

BACKGROUND

The Ontario government has introduced the Clean Water Act, 2006 to protect drinking water at its source. Although the legislation is not yet in place, the Ministry of Environment (MOE) recognizes the merit in early collection of technical information related to drinking water sources that will be used to produce future Assessment Reports and Source Protection Plans. In 2005, the Ministry announced over \$51 million in grants to municipalities and others for technical studies over the next 5 years to support the science needed for source water protection planning. Previous work completed in support of the Assessment Report was funded directly to Oxford County by the MOE. The two previous projects were referred to as 'MOE1' and 'MOE2', both of which have been delayed until the required Provincial information is made available, as described in County Council Report C-1 (CS) 2007-319. The remaining grant funds for this work will be carried over to 2008 and 2009, and the completion dates were extended.

Future funding for work contained in the Terms of Reference, once approved, will be provided by the Province through transfer payments to the Source Protection Authority (Upper Thames River Conservation Authority) of the Thames-Sydenham and Region Source Protection Region to allocate to the lead for each task. Oxford County is the lead for the tasks outlined in the table titled 'Tasks Included in the Terms of Reference' contained in this report.

The Terms of Reference are a regulatory requirement under the Clean Water Act 2006, that describe the work that the Source Protection Committee (SPC) will undertake to complete the Assessment Report and the Source Protection Plan. Both the Lake Erie Source Protection Region and the Thames-Sydenham Region have developed a TOR for each Source Protection Area, (which is the equivalent of a Conservation Authority).

In the Thames-Sydenham and Region, there are three Source Protection Areas (SPAs). Hence three Terms of Reference documents must be submitted to the Minister of the Environment. They are:

1. Upper Thames River Source Protection Area Terms of Reference
2. Lower Thames River Region Source Protection Area Terms of Reference
3. St. Clair River Source Protection Area Terms of Reference

County of Oxford drinking water systems within the Thames-Sydenham and Region are Beachville, Embro, Hickson, Ingersoll, Innerkip, Lakeside, Mount Elgin, Tavistock, Thamesford and Woodstock, all of which fall within the Upper Thames River Source Protection Area. For tasks pertaining to these municipal systems, the County of Oxford is the lead.

TERMS OF REFERENCE CONTENT

The Terms of Reference includes technical work to complete the Assessment Report, consultation regarding the Report, and engagement of stakeholders in the development of the Source Protection Plan. The requirements of the Terms of Reference are established in Ontario Regulation 287/07 and include:

- Maps showing boundaries of all municipalities, and Source Protection Areas within the Source Protection Region;
- A list of all municipalities in the SPA;
- A copy of all municipal resolutions that have been passed;
- Tables providing information on existing and planned drinking water systems, exempted drinking water systems, systems identified by the Minister that may need to be included; a list of matters that require consultation with a Source Protection Committee for another Source Protection Area;
- A work plan that identifies all of the major tasks to be completed in the preparation of the Assessment Report and Source Protection Plan; and
- The date by which the Source Protection Authority is required to submit the proposed Source Protection Plan to the Minister.

Ontario Regulation 285/07 (Timing Regulation) specifies deadlines for submission of the Terms of Reference and completion of the Assessment Report and Source Protection Plans. The Terms of Reference must be submitted by the Source Protection Authority to the Source Protection Committee one year after the appointment of the first chair of the SPC. The TOR must then be submitted to the Minister by the SPA in late 2008. Technical work, to be completed in support of the Assessment Report, outlined in the TOR must be completed by 2010. The Source Protection Plan must be completed by 2012, five years after the appointment of the first chair of the Source Protection Committee.

TERMS OF REFERENCE CONSULTATION

The Terms of Reference regulation requires that stakeholders be consulted in a number of ways. The Thames-Sydenham and Region SPR consultation includes the following:

- A draft proposed TOR has been circulated to municipal clerks, First Nation Chiefs, other SPCs with whom matters are shared, and Great Lakes bodies;

- A draft of the TOR has been posted on the internet at <http://www.sourcewaterprotection.on.ca/>;
- Host a series of four public open houses across the region to allow the public an opportunity to discuss the Terms of Reference. Dates and locations are as follows:

Ridgetown – Wednesday, September 3
University of Guelph, Ridgetown Campus, Wilson Conference Room
120 Main Street East, Ridgetown
6:00-7:30 pm

St. Mary's – Thursday, September 4
Municipal Operations Centre Boardroom
408 James Street South, St. Mary's
6:00-7:30 pm

Wyoming – Monday September 8
Lambton County Council Chambers
789 Broadway Street, Wyoming
6:00-7:30 pm

London – Tuesday, September 9
Masonville Public Library
30 North Centre Road, London
5:00-6:00 pm

- Printed copies of the Terms of Reference documents will be available for review at the offices of the three Conservation Authorities (SPAs) in the Region, as well as the open houses;
- Municipal resolutions supporting the draft proposed Terms of Reference must be submitted to the SPR by September 19, 2008;
- The SPA will submit the proposed TOR together with any comments received to the Minister of the Environment for approval.

Stakeholder consultation proposed to be undertaken by Thames-Sydenham and Region appears to meet the Terms of Reference requirements for consultation. The public comment period on the Terms of Reference began August 15, 2008. Written comments can be made up to September 19, 2008.

COMMENTARY

A joint response to the proposed Terms of Reference from the Planning Office, the Public Works Department and the Public Health and Emergency Services Department is provided in the commentary and outlines the tasks for which Oxford County has been identified as the lead and the costs and timelines associated with completion of these tasks.

TERMS OF REFERENCE CONTENT

The County of Oxford has taken the lead in completing much of the technical work for the County's municipal water systems. Technical work began in 2005/2006 and was funded by the MOE. In Spring 2008, technical work was halted at the request of MOE until such time as additional information pertaining to the contents and requirements of the Assessment Report

could be provided. As such, some of the tasks and associated costs in this Terms of Reference represent a continuation of work that began through the Source Protection Technical Studies Grant Program.

Tasks that Oxford County will be undertaking or continuing within the Thames-Sydenham and Region are:

Tasks Included in the Terms of Reference

Task	Year	Cost Estimate
Delineating WHPA and applying vulnerability score for the planned well in Woodstock.	2008/2009	\$16,000
Identify issues, inventorying threats and assessing hazards in the WHPA for the planned well in Woodstock.	2008-2009	\$8,000
Identify issues, inventorying threats and assessing hazards in the WHPA for the planned well in Mount Elgin.	2009-2010	\$10,000
Update issue identification, threats inventory and assess hazards in WHPAs for all Oxford County Systems in the Thames Sydenham and Region.	2005/2006 2006/2007 2007/2008 2008-2009 Total	\$36,634 \$34,100 \$10,000 \$80,734
Assess risk in WHPAs for existing systems in Oxford County.	2006/2007 2007/2008 2008/2009 2009-2010 Total	\$37,500 \$30,000 \$67,500
Asses risk in WHPA for the planned well in Mount Elgin.	2009-2010	\$2,000
Assess risk in WHPA for the planned well in Woodstock.	2009-2010	\$1,000
Other assessment report preparation task: Threats inventories and risk assessment for Oxford County GUDI (Ground water Under the Direct Influence of surface water) wells in Thamesford and Woodstock.	2009-2010	\$15,000
Other assessment report preparation task: GUDI IPZ 2 delineation and vulnerability scoring: study of need for IPZ 3. Thamesford GUDI wells.	2008-2009	\$40,000
Other assessment report preparation task: GUDI IPZ 2 delineation and vulnerability scoring.	2008-2009	\$25,000
Policy development to address drinking water threats (where required and/or permissible in Act/Regs.). This task includes staff time to develop policies and consider how they can be incorporated into County of Oxford policies including the Official Plan. The cost shown for this task is approximately half of the cost associated with this task as work will also be required in the Lake Erie SPR.	2010-2011	\$50,000
	Total	\$315,234

In some cases proposed costs are estimates of the updates and further work required to ensure the technical studies meet the Director's Technical Rules posted on the Ministry of Environment

Bill of Rights Registry in June 2008. The scope of this task may change as a result of changes to the rules from those posted. The table above lists cost estimates by year, indicating which tasks will be updates of tasks that were previously initiated. Final Regulations and Rules which will define the requirements of the Assessment Report are not yet available and are not expected for some time. As such assumptions on the requirement have been made to allow estimates to be calculated. Estimates were developed by Oxford County staff and were provided to the SPA for inclusion in the TOR. The estimated costs associated with the completion of the tasks will be fully covered by funding provided through the Source Protection Region. Oxford County falls within two Source Protection Regions. The estimates for completion of technical work within the Thames-Sydenham and Region has been calculated with consideration for the associated work that must be completed in the Lake Erie Region

SUMMARY

Staff are of the opinion that the draft proposed Terms of Reference reasonably reflect the remaining tasks to be completed by Oxford County to meet the technical requirements of the Assessment Report and contribute to the Source Protection Plan.

Once the public comment period has ended the Source Protection Committee will review and reconsider the draft proposed Terms of Reference after considering all comments received. The Source Protection Committee will send the final Terms of Reference, along with the summary of comments and issues raised to the appropriate Source Protection Authority for their review. Another opportunity for the public to make written comments will be available at that time.

All concerns that have been raised and the comments received by the Source Protection Authority will be sent, along with the Terms of Reference as prepared by the Source Protection Authority, to the Minister of the Environment. The Minister may approve the Terms of Reference or direct the Source Protection Authority to amend to Terms of Reference.

"Paul Michiels" for

Margaret Misek-Evans, MCIP, RPP
Corporate Manager
Community and Strategic Planning

"Deborah Goudreau"

Deborah Goudreau, P. Eng
Manager of Water Services
Public Works

"M.R. Bragg"

Mike Bragg
Director of Public Health and
Emergency Services

"Ken Whiteford"

Ken Whiteford
CAO/Clerk

"Robert Walton"

Robert Walton, P.Eng.
Director of Public Works

MS/

Dated: September 2, 2008
OUR FILE: PL 29-3-2



PLANNING & DEVELOPMENT

1 Court House Square, Goderich, Ontario N7A 1M2 CANADA
Phone: 519.524.8394 Ext. 3 Fax: 519.524.5677 Toll Free: 1.888.524.8394
www.huroncounty.ca

RECEIVED

FAXED
9/16/08

SEP 22 2008

September 16, 2008

Chitra Gowda, SP Technical Coordinator
Lower Thames Valley Conservation Authority
100 Thames St., Chatham, ON, N7L 2Y8

**LOWER THAMES VALLEY
CONSERVATION AUTHORITY**

Re: Thames-Sydenham and Region Draft Proposed Terms of Reference

Dear Ms. Gowda,

Thank you for circulating the Thames Sydenham draft proposed terms of reference to the County of Huron for comment. The terms of reference have been reviewed by the Planning & Development Department on behalf of the County of Huron.

As you are aware, a very small portion of the County of Huron (a portion of the Municipality of South Huron and a portion of the Municipality of Huron East) falls into the Thames-Sydenham & Region Source Protection area.

As we have communicated to the Ausable Bayfield Maitland Valley Source Water Protection Committee, the County sees there is a roll for the Planning Department to play in assisting our partner conservation authorities with developing and implementing policy to address drinking water threats. Huron County would like to make the same offer to Thames-Sydenham & Region Source Protection Committee.

The Corporation of Huron County has an interest in ensuring there is consistency in the development and implementation of policies to address drinking water threats in the different source water protection areas within Huron.

Please contact the director of the Planning & Development Department, Mr. Scott Tousaw, if you would like assistance on policy development and implementation once you get to that stage of your work plan.

Sincerely,

Claire Dodds, Planner, MCIP, RPP

"Planning with the community for a healthy, viable and sustainable future."

Sept 3 Ridgeway



Thames-Sydenham and Region Draft Proposed Terms of Reference Comment Form 2008

(Please fill in this sheet and return to staff)

Name	Ted Uffers tuffen@uffers.com	
Address	Po Box 170 23022 Thompson Line Rodney Ont N0L 2C0	
Page Number	Task Number	Comment
A-15	AR-14	BE CAUTIOUS OF STATISTICAL VALIDITY OF SECONDARY RISK ANALYSIS (UNCERTAINTY ANALYSIS - SCRA)
		Z-FACTOR ANALYSIS TENDS TO BE LESS ACCURATE - UNUSUAL THAT OTHER INS-FACTORS MAY APPLY
		PLEASE REVIEW FAILURE MODES EFFECT ANALYSIS METHODOLOGY USED BY AUTO PARTS INDUSTRY ->
A-4	IPE DEFINITION	ONCE THE CRITERIA FOR IPE 1, 2 + 3 ARE FINALIZED, THEY NEED TO BE CLEARLY STATED +
		PUBLICIZED TO THE GENERAL PUBLIC.

09-24-08 09:00 FROM-LOWER THAMES VALLEY 1-519-352-3435 T-020 P004/010 F-031



Thames-Sydenham and Region Draft Proposed Terms of Reference Comment Form 2008

(Please fill in this sheet and return to staff)

Name	Viewland Farms	
Address	RR #4 Thames Ford NOM 2/10 135586	
Page Number	Task Number	Comment
	#86	implementing policies.
	#87	reimbursement to the farmers in the Thames Valley

*Sept 9th
S. Marys*

03-24-08 03:08 FROM LOWER THAMES VALLEY 1-519-882-9405 T-020 1005/010 F-001



- comments on slide presentation
w/o looking @ the Terms of Reference.

T-020 P006/010 F-031

1-519-352-3435

FROM-LOWER THAMES VALLEY

09-24-'08 09:01

 		
Thames-Sydenham and Region Draft Proposed Terms of Reference Comment Form 2008		
Name		
Address		
Page Number	Task Number	Comment
9.	Clean Water Act Focus.	- many FN along the Great Lakes. - different regions have different issues (testing the same ^{same} proportionally ^{proportionally})
9.	Vulnerable Areas	- mining - industry - farms (Feces, urine, pesticides) - road salt (minerals & components)
	Vulnerable Area	- bottled drinking water. (How many estimated liters per year?) - plastic (recyclable)
18.	First Nations Representation	- who still uses wells, septic tanks. - " has water treatment plants. - are there still farms or F.N.'s
23.	FN. Working Group.	- consultation? - what would be the representation of 12 FN in SW Ontario
		- each FN may have different concerns. - the committee could be VERY LARGE.

Manjiv Singh
Sept 11, 2008

working group

Sept 9, 2008

Lambton and Middlesex Federations of Agriculture

Comments regarding the Thames Sydenham and Region Source Protection Region, Draft Proposed Terms of Reference

The three overriding Principles that the LFA and MFA have in regards to the Clean Water Act, 2006 and the subsequent development of Source Water Protection Plans:

- 1. Well water users must pay fully for limits placed on agricultural production practices if that is what is deemed necessary to protect Municipal drinking water sources – if the developed Plans support the Public Good, then the Public needs to pay**
- 2. The Clean Water Act, is about the protection of municipally operated drinking water systems, and not about the water throughout the environment, or other water systems**
- 3. The need for a common sense approach to the development of the Plans, based on sound science that looks at all potential contaminant sources.**

We thank the committee for the recognition of financial assistance for the agricultural committee in the terms of reference section 2 and the in the task section. We cannot emphasize enough that if the developed plans support the Public Good, then the Public needs to pay.

We appreciate this opportunity to comment.

Drainage Info

T-020 P008/010 F-031

Subject: Drainage Info
From: wmallae@aol.com
Date: Wed, 17 Sep 2008 21:53:57 -0400
CC: sylke@kent.net

Pg # 76

To The Source Water Protection Committee and Project Manager:

In Task 84 of the Draft Guide Book it is extremely important that compensation be provided for landowners affected.

The Projects are for the good of the public at large and the cost for projects should be shared by everyone. Safe Water protection is important for all people. Consultants should be communicating with commissioners of drains.

In the consultation meeting held September 3, 2008, it was difficult to gather information in the Draft Book in such a short time line.

Thankyou,
Wilf Allaer
Serka Farms
519-627-5387
-437-9247
29455 Arnold Road
R.R.#4
Wallaceburg, ON
N8A 4L1

Looking for spoilers and reviews on the new TV season? [Get AOL's ultimate guide to fall TV.](#)

1-519-352-3435

FROM-LOWER THAMES VALLEY

09-24-'08 09:01



Thames-Sydenham and Region Terms of Reference Comment Form 2008

Name: Scott Kilbride Home: 519-627-4615 Cell: 519-358-8529
 Address: 5080 Dufferin Ave Wallaceburg ONT N8A 4M8

(Please fill in this sheet and return to staff)

Page Number	Task Number	Comment
76	84	the wording of this task needs to be clearer on the need for compensation for affected landowners. When projects like this are done for the greater good than those costs should be borne by everyone. "Dumping" costs on the unfortunate few is not right or acceptable in a democratic society!
All pages	the whole document.	The way this has been presented for comment - both in the document size and the inability to get a copy of the document and the short timelines for public comment should be outlawed.

Pg 1

		The public mtgs. were a sham!
		To throw a 200+ page report in front of people and ask for comments is a joke.
		Interested people should have had access for at least 2wks prior to the mtg so we could have had real questions to be answered and provide comment on.
		If I didn't know better I would say they didn't really want any public comment on their work.
	intelligent	

Wayne Pelling
 10692 Country view line
 Dresden ON.
 N0P1M0

Scott Kilbride
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