

Meeting of the Essex Region Source Protection Committee (SPC) being held on **Wednesday, April 16, 2008**, in the **Essex Civic Centre, Committee Room C**, 360 Fairview Avenue West, Essex, Ontario, commencing at **3:00 PM**.

## **SUPPLEMENTARY AGENDA**

### **ITEM**

### **PAGE NO.**

#### **Other Business**

1. **Draft – Terms of Reference**

**2-43**

Further to the presentation & discussion at the March 19, 2008, SPC Meeting, the Preliminary Draft Terms of Reference is attached. It is anticipated that this document will be discussed in detail by the SPC Members at the meeting.

**The format of this draft document is a result of it being generated by a special program and template, as provided by and required by MOE (known as the ‘Terms of Reference Wizard’) to be used for submission to MOE by all SPCs throughout the province.**



Stan Taylor, P.Eng.,  
Director of Source Water Protection

# Terms of Reference for Essex Region Source Protection Area

Essex Region Source Protection Committee

Draft 2008-April

# Table of Contents

Map of Source Protection Area	3
Map of Source Protection Region	4
List of Municipalities Located in the Essex Region Source Protection Area	5
List of Municipal Residential Drinking Water System(s)	6
List of Drinking Water System(s) Included by Municipal Council Resolution	7
List of Drinking Water Systems Serving Reserve(s)	8
List of Fully or Partially Exempted Municipal Residential Drinking Water System(s)	9
List of Drinking Water System(s) Included by Minister of the Environment	10
List of Matter(s) that Affect Other Source Protection Committees	11
Work Plan to Complete the Assessment Report	12
Work Plan to Complete the Source Protection Plan	15
The Date the Source Protection Plan is to be Submitted to the Minister for Approval by the Essex Region Conservation Authority:	17
Council Resolution(s) to Include Drinking Water System(s)	18
Council Resolution(s) to Exempt Municipal Residential Drinking Water System(s)	19
Detailed Information on Municipal Residential Drinking Water System(s)	20
Detailed Information on Drinking Water System(s) Included by Municipal Council Resolution	23
Detailed Information on Drinking Water System(s) Included by Bands Serving Reserve(s)	24
Detailed Information on Fully or Partially Exempted Municipal Residential Drinking Water System(s)	25
Detailed Information on Drinking Water System(s) Included by the Minister of the Environment	26
Supplemental Work Plan Information - Assessment Report	27
Supplemental Work Plan Information - Source Protection Plan	36
Summary of Overall Costs	40
Estimated Costs for Tasks by Fiscal Year	41

## **Map of Source Protection Area**

<To be added>

## **Map of Source Protection Region**

<To be added>

## List of Municipalities Located in the Essex Region Source Protection Area

<b>Legal Name of Municipality</b>
Windsor, City of
Amherstburg, Town of
Essex, Town of
Kingsville, Town of
Lakeshore, Town of
LaSalle, Town of
Leamington, Municipality of
Pelee, Township of
Tecumseh, Town 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	210000149	Amherstburg Water Supply System	Town of Amherstburg	Town of Amherstburg	Surface Water
Existing	220003412	Belle River Water Supply System	Town of Lakeshore	Town of Lakeshore	Surface Water
Existing	210000130	Harrow-Colchester Water Supply System	Town of Essex	Town of Essex	Surface Water
Existing	220003396	Stoney Point Water Supply System	Town of Lakeshore	Town of Lakeshore	Surface Water
Existing	210000853	Union Water Supply System	UWSS Joint Management Board	UWSS Joint Management Board	Surface Water
Existing	220003421	Windsor Water Supply System	City of Windsor	Windsor Utilities Commission	Surface Water

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

<b>Type of System (existing or planned)</b>	<b>Drinking Water System Number</b>	<b>Drinking Water System Name</b>	<b>Owner</b>	<b>Operating Authority</b>	<b>Type of Source Water (surface, ground, both)</b>	<b>Title of Council Resolution</b>
Existing	260004969	Pelee Island West Shore Water Treatment System	Township of Pelee	Township of Pelee	Surface Water	Pending

**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
---	------------------------------	----------------------------	-------	---------------------	---	----------------------

Not Applicable

## 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
---	------------------------------	----------------------------	-------	---------------------	---	-----------------------------

Not Applicable

**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)
---	------------------------------	----------------------------	-------	---------------------	---

Not Applicable

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

Source Protection Committees Affected	Source Protection Area	Description of Matter
Thames-Sydenham and Region Source Protection Committee	Thames-Sydenham and Region Source Protection Region	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.
Thames-Sydenham and Region Source Protection Committee	Thames-Sydenham and Region Source Protection Region	The Wheatley Water Treatment Plant is situated in the Thames-Sydenham and Region Source Protection Region and is owned by The Municipality of Chatham-Kent and the Public Utilities Commission. 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 Plan to Complete the Assessment Report

By Source Protection Area/ Drinking Water System Name	Task	Assigned Lead(s)	Estimated Completion Date	Estimated Cost
Essex Region Source Protection Area	Coordinating and supporting projects for the assessment report	Essex Region Conservation Authority	2009-Dec-31	\$1,960,000.00
Essex Region Source Protection Area	Undertaking communications initiatives for the assessment report	Essex Region Conservation Authority/Essex Region Source Protection Committee	2009-Dec-31	\$145,000.00
Essex Region Source Protection Area	Information management for the assessment report preparation	Essex Region Conservation Authority	2009-Dec-31	\$136,000.00
Essex Region Source Protection Area	Undertaking a watershed characterization	Essex Region Conservation Authority	2009-Mar-31	\$32,000.00
Essex Region Source Protection Area	Conducting a conceptual water budget	Essex Region Conservation Authority	2007-Aug-31	\$64,000.00
Essex Region Source Protection Area	Conducting a tier 1 water budget analysis and stress assessment	Essex Region Conservation Authority	2008-Nov-30	\$180,000.00
Essex Region Source Protection Area	Delineating and applying vulnerability scores to Highly Vulnerable Aqifers (HVAs)	Essex Region Conservation Authority	2009-Jul-30	\$40,000.00
Essex Region Source Protection Area	Identifying issues, inventorying threats and assessing hazards in HVAs	Essex Region Conservation Authority/Essex Region Source Protection Committee	2009-Jun-30	\$68,000.00

Terms of Reference

Essex Region Source Protection Area	Assessing risks in HVAs	Essex Region Conservation Authority/Essex Region Source Protection Committee	2009-Aug-31	\$30,000.00
Essex Region Source Protection Area	Applying vulnerability scores to Significant Groundwater Recharge Areas (SGRAs)	Essex Region Conservation Authority	2009-Jun-30	\$0.00
Essex Region Source Protection Area	Identifying issues, inventorying threats and assessing hazards in SGRAs	Essex Region Conservation Authority/Essex Region Source Protection Committee	2009-Jun-30	\$0.00
Essex Region Source Protection Area	Assessing risk in SGRAs	Essex Region Conservation Authority/Essex Region Source Protection Committee	2009-Aug-31	\$0.00
Essex Region Source Protection Area	Delineating and applying vulnerability scores to Intake Protection Zones (IPZs)	Essex Region Conservation Authority	2009-May-31	\$1,400,000.00
Essex Region Source Protection Area	Identifying issues, inventorying threats and assessing hazards in IPZs	Essex Region Conservation Authority/Essex Region Source Protection Committee	2009-Jun-30	\$761,000.00
Essex Region Source Protection Area	Assess risk in IPZs	Essex Region Conservation Authority/Essex Region Source Protection Committee	2009-Aug-31	\$252,000.00
Essex Region Source Protection Area	Consultation on the overall proposed assessment report	Essex Region Source Protection Committee/Essex Region Conservation Authority	2009-Dec-31	\$0.00
Essex Region Source Protection Area	Other Assessment Report Preparation Task: Collaboration on Great Lakes and International Issues	Essex Region Source Protection Committee/Essex Region Conservation Authority	2009-Dec-31	\$150,000.00
Municipal Residential Drinking Water Systems	No tasks identified at this time as being unique/specific to a particular system.			
Drinking Water Systems By Municipal Resolution	No tasks identified at this time as being unique/specific to a particular system.			

Terms of Reference

Drinking Water Systems By Band Resolution	Not Applicable.
Fully or Partially Exempt Drinking Water Systems	Not Applicable.
Drinking Water Systems Included By Minister	Not Applicable.

## 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
Essex Region Source Protection Area	Coordinating and supporting projects for the source protection plan (SPP)	Essex Region Conservation Authority	2013-Jan-31	\$1,620,000.00
Essex Region Source Protection Area	Undertaking communications initiatives for the source protection plan	Essex Region Conservation Authority/Essex Region Source Protection Committee	2013-Jan-31	\$220,000.00
Essex Region Source Protection Area	Information management for source protection plan preparation	Essex Region Conservation Authority	2013-Jan-31	\$80,000.00
Essex Region Source Protection Area	Policy development to address drinking water threats (where required and/or permissible in Act/Regs)	Essex Region Source Protection Committee (TBC)	2012-Jun-30	TBD
Essex Region Source Protection Area	Policy development for monitoring (where required, advisable and/or permissible in Act & Regs)	Essex Region Source Protection Committee (TBC)	2012-Sep-30	TBD
Essex Region Source Protection Area	Policy development for Great Lakes elements (where required/permissible in Act & Regs)	Essex Region Source Protection Committee (TBC)	2012-Jun-30	TBD
Essex Region Source Protection Area	Establishing timelines for policy implementation	Essex Region Source Protection Committee (TBC)	2012-Sep-30	TBD
Essex Region Source Protection Area	Consultation on the overall proposed source protection plan	Essex Region Source Protection Committee/Essex Region Conservation Authority (TBC)	2012-Dec-31	TBD

Terms of Reference

Municipal Residential Drinking Water Systems	No tasks identified at this time as being unique/specific to a particular system.
Drinking Water Systems By Municipal Resolution	No tasks identified at this time as being unique/specific to a particular system.
Drinking Water Systems By Band Resolution	Not Applicable.
Fully or Partially Exempt Drinking Water Systems	Not Applicable.
Drinking Water Systems Included By Minister	Not Applicable.

**The Date the Source Protection Plan is to be Submitted to the Minister for Approval by the Essex Region Conservation Authority:**

2012-Aug-30

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

Pelee Island West Shore Water Treatment Plant

Council Resolution Pending

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

Not Applicable

# 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	210000149	Amherstburg Water Supply System	Town of Amherstburg	Town of Amherstburg	Surface Water	0
<b>Number of Surface Water Intakes</b>	<b>Comments</b>					
1	A conventional treatment plant which treats water from the Detroit River. This plant has a rated capacity of 9.0 x 1000 m <sup>3</sup> /day and serves a population of approximately 21,000.					

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	220003412	Belle River Water Supply System	Town of Lakeshore	Town of Lakeshore	Surface Water	0
<b>Number of Surface Water Intakes</b>	<b>Comments</b>					
1	A conventional treatment plant which treats water from Lake St. Clair. This plant has a design capacity of 18.0 x 1000 m <sup>3</sup> /day and serves a population of approximately 18,000.					

Terms of Reference

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	210000130	Harrow-Colchester Water Supply System	Town of Essex	Town of Essex	Surface Water	0
Number of Surface Water Intakes	Comments					
1	A conventional treatment plant which treats water from Lake Erie. This plant has a rated capacity of 10.2 x 1000 m <sup>3</sup> /day and serves a population of approximately 9,000.					

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	220003396	Stoney Point Water Supply System	Town of Lakeshore	Town of Lakeshore	Surface Water	0
Number of Surface Water Intakes	Comments					
1	A conventional treatment plant which treats water from Lake St. Clair. The plant has a rated capacity of 4.545x1000 m <sup>3</sup> /day and serves a population of approximately 3,500.					

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	210000853	Union Water Supply System	UWSS Joint Management Board	UWSS Joint Management Board	Surface Water	0
Number of Surface Water Intakes	Comments					
2	A conventional treatment plant which treats water from Lake Erie. This plant has a rated capacity of 90.8 x 1000 m <sup>3</sup> /day and serves a population of approximately 57,000.					

Terms of Reference

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	220003421	Windsor Water Supply System	City of Windsor	Windsor Utilities Commission	Surface Water	0
Number of Surface Water Intakes	Comments					
2	A conventional treatment plant which treats water from the Detroit River. This plant has a rated capacity of 295 x 1000 m <sup>3</sup> /day and serves a population of approximately 267,000.					

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

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	260004969	Pelee Island West Shore Water Treatment System	Township of Pelee	Township of Pelee	Surface Water	0
Number of Surface Water Intakes	Comments				Council Resolution Reference	
1	Supplies water to number of businesses and residences on west shore of Pelee Island.				Pending	

**Detailed Information on Drinking Water System(s) Included by Bands Serving Reserve(s)  
(Not Municipal Residential Drinking Water Systems)**

Not Applicable

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

Not Applicable

**Detailed Information on Drinking Water System(s) Included by the Minister of the Environment  
(Not Municipal Residential Drinking Water Systems)**

Not Applicable

## Supplemental Work Plan Information - Assessment Report

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Essex Region Source Protection Area	Coordinating and supporting projects for the assessment report	Essex Region Conservation Authority	2005-Jun-01	2009-Dec-31
<b>Task Description/Comments</b>		<b>Defined Geographic Area</b>		<b>Estimated Cost</b>
<p><u>Description:</u> 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.</p>				\$1,960,000.00

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Essex Region Source Protection Area	Undertaking communications initiatives for the assessment report	Essex Region Conservation Authority/Essex Region Source Protection Committee	2006-Jan-01	2009-Dec-31
<b>Task Description/Comments</b>		<b>Defined Geographic Area</b>		<b>Estimated Cost</b>
<p><u>Description:</u> Local area engagement, outreach and creation of communications products that support the assessment report process.</p> <p><u>Comments:</u> These costs also include associated costs for "Consultation on the overall proposed assessment report"</p>				\$145,000.00

Terms of Reference

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Essex Region Source Protection Area	Information management for the assessment report preparation	Essex Region Conservation Authority	2005-Jun-01	2009-Dec-31
<b>Task Description/Comments</b>		<b>Defined Geographic Area</b>		<b>Estimated Cost</b>
<p><u>Description:</u> Conducting overall data management, data sharing agreements, standards, mapping, software and maintenance.</p>				\$136,000.00

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Essex Region Source Protection Area	Undertaking a watershed characterization	Essex Region Conservation Authority	2006-Jan-01	2009-Mar-31
<b>Task Description/Comments</b>		<b>Defined Geographic Area</b>		<b>Estimated Cost</b>
<p><u>Description:</u> 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.</p> <p><u>Comments:</u> Costs for 2008/2009 are included in "Coordinating and supporting projects for the assessment report"</p>				\$32,000.00

Terms of Reference

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Essex Region Source Protection Area	Conducting a conceptual water budget	Essex Region Conservation Authority	2005-Oct-01	2007-Aug-31
<b>Task Description/Comments</b>		<b>Defined Geographic Area</b>		<b>Estimated Cost</b>
<p><u>Description:</u> 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.</p> <p><u>Comments:</u> Work completed by Dr. Tirupati Bolisetti of University of Windsor.</p>				\$64,000.00

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Essex Region Source Protection Area	Conducting a tier 1 water budget analysis and stress assessment	Essex Region Conservation Authority	2007-Nov-01	2008-Nov-30
<b>Task Description/Comments</b>		<b>Defined Geographic Area</b>		<b>Estimated Cost</b>
<p><u>Description:</u> 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.</p> <p><u>Comments:</u> Work being conducted by Dr. Tirupati Bolisetti of the University of Windsor.</p>				\$180,000.00

Terms of Reference

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Essex Region Source Protection Area	Delineating and applying vulnerability scores to Highly Vulnerable Aquifers (HVAs)	Essex Region Conservation Authority	2007-Jun-01	2009-Jul-30
Task Description/Comments		Defined Geographic Area		Estimated Cost
<p><u>Description:</u> 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.</p> <p><u>Comments:</u> 2007/2008 costs were included in "Coordinating and supporting projects for the assessment report."</p>		Highly Vulnerable Aquifers in Essex Region Source Protection Area.		\$40,000.00

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Essex Region Source Protection Area	Identifying issues, inventorying threats and assessing hazards in HVAs	Essex Region Conservation Authority/Essex Region Source Protection Committee	2007-May-01	2009-Jun-30
Task Description/Comments		Defined Geographic Area		Estimated Cost
<p><u>Description:</u> 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>		Highly Vulnerable Aquifers in Essex Region Source Protection Area.		\$68,000.00

Terms of Reference

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Essex Region Source Protection Area	Assessing risks in HVAs	Essex Region Conservation Authority/Essex Region Source Protection Committee	2009-Apr-01	2009-Aug-31
<b>Task Description/Comments</b>		<b>Defined Geographic Area</b>		<b>Estimated Cost</b>
<p><u>Description:</u> 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.</p>		Highly Vulnerable Aquifers in Essex Region Source Protection Area.		\$30,000.00

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Essex Region Source Protection Area	Applying vulnerability scores to Significant Groundwater Recharge Areas (SGRAs)	Essex Region Conservation Authority	2009-Jan-01	2009-Jun-30
<b>Task Description/Comments</b>		<b>Defined Geographic Area</b>		<b>Estimated Cost</b>
<p><u>Description:</u> 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.</p> <p><u>Comments:</u> Costs have been included in "Delineating and applying vulnerability scores to HVAs" for both 2008/2009 and 2009/2010 fiscal years.</p>		Significant Groundwater Recharge Areas/Highly Vulnerable Aquifers in Essex Region Source Protection Area.		\$0.00

Terms of Reference

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Essex Region Source Protection Area	Identifying issues, inventorying threats and assessing hazards in SGRAs	Essex Region Conservation Authority/Essex Region Source Protection Committee	2009-Jan-01	2009-Jun-30
<b>Task Description/Comments</b>		<b>Defined Geographic Area</b>		<b>Estimated Cost</b>
<p><u>Description:</u> 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> <p><u>Comments:</u> Costs have been included in "Identifying issues, inventorying threats and assessing hazards in HVAs" for both 2008/2009 and 2009/2010 fiscal years.</p>		Significant Groundwater Recharge Areas/Highly Vulnerable Aquifers in Essex Region Source Protection Area.		\$0.00

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Essex Region Source Protection Area	Assessing risk in SGRAs	Essex Region Conservation Authority/Essex Region Source Protection Committee	2009-Apr-01	2009-Aug-31
<b>Task Description/Comments</b>		<b>Defined Geographic Area</b>		<b>Estimated Cost</b>
<p><u>Description:</u> 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.</p> <p><u>Comments:</u> Costs have been included in "Assessing risks in HVAs" for 2009/2010 fiscal year.</p>		Significant Groundwater Recharge Areas/Highly Vulnerable Aquifers in Essex Region Source Protection Area.		\$0.00

Terms of Reference

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Essex Region Source Protection Area	Delineating and applying vulnerability scores to Intake Protection Zones (IPZs)	Essex Region Conservation Authority	2007-Jan-01	2009-May-31
Task Description/Comments		Defined Geographic Area		Estimated Cost
<p><u>Description:</u> Delineating the location and extent of the vulnerable area around a drinking water system (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><u>Comments:</u> Module 4 (Surface Water Vulnerability Analysis) work being done by Stantec Consulting and includes in house water quality studies by ERCA.</p>		Intake Protection Zones in Essex Region Source Protection Area.		\$1,400,000.00

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Essex Region Source Protection Area	Identifying issues, inventorying threats and assessing hazards in IPZs	Essex Region Conservation Authority/Essex Region Source Protection Committee	2007-Nov-01	2009-Jun-30
Task Description/Comments		Defined Geographic Area		Estimated Cost
<p><u>Description:</u> Listing and describing drinking water quality issues, inventorying threats and assessing hazards (including uncertainty analysis) in 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.</p> <p><u>Comments:</u> Module 5 (Issues Evaluation and Threats Inventory) work being done by Stantec Consulting and includes in house water quality studies by ERCA.</p>		Intake Protection Zones in Essex Region Source Protection Area.		\$761,000.00

Terms of Reference

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Essex Region Source Protection Area	Assess risk in IPZs	Essex Region Conservation Authority/Essex Region Source Protection Committee	2009-Jan-01	2009-Aug-31
Task Description/Comments		Defined Geographic Area		Estimated Cost
<p><u>Description:</u> Identifying any significant, moderate, low, and negligible drinking water threats, undertaking an issues evaluation, and analysing uncertainty in 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.</p> <p><u>Comments:</u> Module 6 (Water Quality Risk Assessment) work being done by Stantec Consulting and includes in house water quality studies by ERCA.</p>		Intake Protection Zones in Essex Region Source Protection Area.		\$252,000.00

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Essex Region Source Protection Area	Consultation on the overall proposed assessment report	Essex Region Source Protection Committee/Essex Region Conservation Authority	2008-Feb-01	2009-Dec-31
Task Description/Comments		Defined Geographic Area		Estimated Cost
<p><u>Description:</u> 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.</p> <p><u>Comments:</u> Costs included in "Undertaking communications initiatives for the assessment report" task.</p>				\$0.00

Terms of Reference

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Essex Region Source Protection Area	Other Assessment Report Preparation Task: Collaboration on Great Lakes Issues and International Issues	Essex Region Source Protection Committee/Essex Region Conservation Authority	2008-Oct-01	2009-Dec-31
<b>Task Description/Comments</b>		<b>Defined Geographic Area</b>		<b>Estimated Cost</b>
<p>Comments: Very preliminary estimate for collaboration on Great Lakes Issues and International Issues, as well as Issues affecting other Source Protection Region.</p>				\$150,000.00

## Supplemental Work Plan Information - Source Protection Plan

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Essex Region Source Protection Area	Coordinating and supporting projects for the source protection plan (SPP)	Essex Region Conservation Authority	2010-Jan-01	2013-Jan-31
<b>Task Description/Comments</b>		<b>Defined Geographic Area</b>		<b>Estimated Cost</b>
<p><u>Description:</u> 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.</p> <p><u>Comments:</u> All cost estimates and timelines are very preliminary.</p>				\$1,620,000.00

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Essex Region Source Protection Area	Undertaking communications initiatives for the source protection plan	Essex Region Conservation Authority/Essex Region Source Protection Committee	2010-Jan-01	2013-Jan-31
<b>Task Description/Comments</b>		<b>Defined Geographic Area</b>		<b>Estimated Cost</b>
<p><u>Description:</u> Local area engagement, outreach and creation of communications products that support the source protection plan process.</p> <p><u>Comments:</u> Costs include consultation for SPP Plan. All cost estimates and timelines are very preliminary.</p>				\$220,000.00

Terms of Reference

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Essex Region Source Protection Area	Information management for source protection plan preparation	Essex Region Conservation Authority	2010-Jan-01	2013-Jan-31
<b>Task Description/Comments</b>		<b>Defined Geographic Area</b>		<b>Estimated Cost</b>
<p><u>Description:</u> Conducting overall data management, data sharing agreements, standards, mapping, software and maintenance.</p> <p><u>Comments:</u> All cost estimates and timelines are very preliminary.</p>				\$80,000.00

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Essex Region Source Protection Area	Policy development to address drinking water threats (where required and/or permissible in Act/Regs)	Essex Region Source Protection Committee (TBC)	2010-Sep-01	2012-Jun-30
<b>Task Description/Comments</b>		<b>Defined Geographic Area</b>		<b>Estimated Cost</b>
<p><u>Description:</u> 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.</p> <p><u>Comments:</u> All cost estimates and timelines are very preliminary. Propose Source Protection Committee/Working Group(s) as lead at this time (TBC after Assessment Report) - scope and costs will be clearer at that time.</p>				TBD

Terms of Reference

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Essex Region Source Protection Area	Policy development for monitoring (where required, advisable and/or permissible in Act & Regs)	Essex Region Source Protection Committee (TBC)	2011-Jun-01	2012-Sep-30
<b>Task Description/Comments</b>		<b>Defined Geographic Area</b>		<b>Estimated Cost</b>
<p><u>Description:</u> 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.</p> <p><u>Comments:</u> All cost estimates and timelines are very preliminary. Propose Source Protection Committee/Working Group(s) as lead at this time (TBC after Assessment Report) - scope and costs will be clearer at that time.</p>				TBD

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Essex Region Source Protection Area	Policy development for Great Lakes elements (where required/permissible in Act & Regs)	Essex Region Source Protection Committee (TBC)	2010-Sep-01	2012-Jun-30
<b>Task Description/Comments</b>		<b>Defined Geographic Area</b>		<b>Estimated Cost</b>
<p><u>Description:</u> 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.</p> <p><u>Comments:</u> All cost estimates and timelines are very preliminary. Propose Source Protection Committee/Working Group(s) as lead at this time (TBC after Assessment Report) - scope and costs will be clearer at that time.</p>				TBD

Terms of Reference

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Essex Region Source Protection Area	Establishing timelines for policy implementation	Essex Region Source Protection Committee (TBC)	2011-Jun-01	2012-Sep-30
<b>Task Description/Comments</b>		<b>Defined Geographic Area</b>		<b>Estimated Cost</b>
<p><u>Description:</u> 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.</p> <p><u>Comments:</u> All cost estimates and timelines are very preliminary. Propose Source Protection Committee/Working Group(s) as lead at this time (TBC after Assessment Report) - scope and costs will be clearer at that time.</p>				TBD

By Source Protection Area	Task	Assigned Lead(s)	Estimated Start Date	Estimated Completion Date
Essex Region Source Protection Area	Consultation on the overall proposed source protection plan	Essex Region Source Protection Committee/Essex Region Conservation Authority (TBC)	2010-Jan-01	2012-Dec-31
<b>Task Description/Comments</b>		<b>Defined Geographic Area</b>		<b>Estimated Cost</b>
<p><u>Description:</u> 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.</p> <p><u>Comments:</u> All cost estimates and timelines are very preliminary. Propose Source Protection Committee/Working Group(s) as lead at this time (TBC after Assessment Report) - scope and costs will be clearer at that time.</p>				TBD

## Summary of Overall Costs

	<b>Tasks Done by Source Protection Area or Drinking Water System</b>	<b>Estimated Costs for Tasks Under the Assessment Report</b>	<b>Estimated Costs for Tasks Under the Source Protection Plan</b>	<b>Subtotal</b>
	Essex Region Source Protection Area	\$5,218,000.00	\$1,920,000.00 (plus many tasks costs TBD)	\$7,138,000.00 (plus TBD)
<b>Municipal Residential Drinking Water Systems</b>	Amherstburg Water Supply System	Included in above costs	TBD	TBD
	Belle River Water Supply System	Included in above costs	TBD	TBD
	Harrow-Colchester Water Supply System	Included in above costs	TBD	TBD
	Stoney Point Water Supply System	Included in above costs	TBD	TBD
	Union Water Supply System	Included in above costs	TBD	TBD
	Windsor Water Supply System	Included in above costs	TBD	TBD
<b>Drinking Water Systems By Municipal Resolution</b>	Pelee Island West Shore Water Treatment System	N/A	TBD	TBD
Drinking Water Systems By Band Resolutions		N/A	N/A	N/A
Drinking Water Systems Included By Minister		N/A	N/A	N/A
<b>Total Estimated Costs</b>		\$5,218,000.00	\$1,920,000.00 (plus many tasks costs TBD)	\$7,138,000.00 (plus TBD)

## Terms of Reference

**Estimated Costs for Tasks by Fiscal Year**

Fiscal Year defined as April 1 to March 31

<b>Drinking Water System Category / Source Protection Area</b>	<b>Tasks</b>	<b>Fiscal Year 05/06</b>	<b>Fiscal Year 06/07</b>	<b>Fiscal Year 07/08</b>	<b>Fiscal Year 08/09</b>	<b>Fiscal Year 09/10</b>	<b>Fiscal Year 10/11</b>	<b>Fiscal Year 11/12</b>
<b>Essex Region Source Protection Area</b>	Coordinating and supporting projects for the assessment report	\$324,000.00	\$455,000.00	\$375,000.00	\$446,000.00	\$360,000.00	\$0.00	\$0.00
	Undertaking communications initiatives for the assessment report	\$500.00	\$20,000.00	\$35,500.00	\$39,000.00	\$50,000.00	\$0.00	\$0.00
	Information management for the assessment report preparation	\$28,000.00	\$59,000.00	\$15,000.00	\$14,000.00	\$20,000.00	\$0.00	\$0.00
	Undertaking a watershed characterization	\$0.00	\$16,000.00	\$16,000.00	\$0.00	\$0.00	\$0.00	\$0.00
	Conducting a conceptual water budget	\$4,000.00	\$43,000.00	\$17,000.00	\$0.00	\$0.00	\$0.00	\$0.00
	Conducting a tier 1 water budget analysis and stress assessment	\$0.00	\$0.00	\$30,000.00	\$150,000.00	\$0.00	\$0.00	\$0.00
	Delineating and applying vulnerability scores to Highly Vulnerable Aquifers (HVAs)	\$0.00	\$0.00	\$0.00	\$20,000.00	\$20,000.00	\$0.00	\$0.00
	Identifying issues, inventorying threats and assessing hazards in HVAs	\$0.00	\$0.00	\$8,000.00	\$30,000.00	\$30,000.00	\$0.00	\$0.00
	Assessing risks in HVAs	\$0.00	\$0.00	\$0.00	\$0.00	\$30,000.00	\$0.00	\$0.00
	Applying vulnerability scores to Significant Groundwater Recharge Areas (SGRAs)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	Identifying issues, inventorying threats and assessing hazards in SGRAs	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	Assessing risk in SGRAs	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	Delineating and applying vulnerability scores to IPZs	\$0.00	\$0.00	\$520,000.00	\$830,000.00	\$50,000.00	\$0.00	\$0.00

Terms of Reference

	Identifying issues, inventorying threats and assessing hazards in IPZs	\$0.00	\$0.00	\$10,000.00	\$591,000.00	\$160,000.00	\$0.00	\$0.00
	Assess risk in IPZs	\$0.00	\$0.00	\$0.00	\$152,000.00	\$100,000.00	\$0.00	\$0.00
	Consultation on the overall proposed assessment report	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	Other Assessment Report Preparation Task:	\$0.00	\$0.00	\$0.00	\$50,000.00	\$100,000.00	\$0.00	\$0.00
	Coordinating and supporting projects for the source protection plan (SPP)	\$0.00	\$0.00	\$0.00	\$0.00	\$120,000.00	\$500,000.00	\$520,000.00
	Undertaking communications initiatives for the source protection plan	\$0.00	\$0.00	\$0.00	\$0.00	\$10,000.00	\$60,000.00	\$70,000.00
	Information management for source protection plan preparation	\$0.00	\$0.00	\$0.00	\$0.00	\$5,000.00	\$20,000.00	\$25,000.00
	Policy development to address drinking water threats (where required and/or permissible in Act/Regs)	\$0.00	\$0.00	\$0.00	\$0.00	TBD	TBD	TBD
	Policy development for monitoring (where required, advisable and/or permissible in Act & Regs)	\$0.00	\$0.00	\$0.00	\$0.00	TBD	TBD	TBD
	Policy development for Great Lakes elements (where required/permissible in Act & Regs)	\$0.00	\$0.00	\$0.00	\$0.00	TBD	TBD	TBD
	Establishing timelines for policy implementation	\$0.00	\$0.00	\$0.00	\$0.00	TBD	TBD	TBD
	Consultation on the overall proposed source protection plan	\$0.00	\$0.00	\$0.00	\$0.00	TBD	TBD	TBD
Fiscal Year Total		\$356,500.00	\$593,000.00	\$1,026,500.00	\$2,322,000.00	\$1,055,000.00	\$580,000.00	\$615,000.00