



## **Source Protection Committee - MINUTES**

Minutes of Meeting of the Essex Region Source Protection Committee (SPC) held on **Wednesday, January 10, 2018**, in the Essex Civic Centre, Committee Room D, 360 Fairview Avenue West, Essex, Ontario.

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<b>Members</b>	John Barnett Ron	Tim Mousseau
<b>Present:</b>	Barrette	Cynthia Ouellet
	Paul Drca – holding proxy for Thom Hunt	Hans Peter Pfeifer
	Bill Dukes	Nelson Santos
	Tom Fuerth (Chair)	Justine Taylor
	Antonietta Giofu	Mike Tudor (Health Unit Liaison)
	Dave Monk	Larry Verbeke (SPA Liaison)
		Ian Wilson

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### **Absent:**

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**Regrets:** Jean-Marc Beneteau  
Thom Hunt  
Carly Lansens

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**Staff:** Katie Stammer, Project Manager, Source Water Protection/Water Quality Scientist  
Candice Kondratowicz, Administrative Associate: Corporate Services  
Ashley Gyori, Risk Management Official  
Brittany Hayward, Risk Management Assistant  
Laura Monforton, Risk Management Assistant

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**Delegates:** None

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**Guests:** None

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## **CALL TO ORDER**

The Chair of the SPC, Tom Fuerth, called the meeting to order

## **CHAIRS WELCOME**

Good Afternoon & Happy New Year.

Welcome to Cynthia Ouellet our newest committee member. Cynthia comes to us highly qualified and highly motivated having lived and worked in four different provinces. She was on City of Guelph water committee, worked on a source water protection project while at the City of Calgary.

I'd also like to welcome Brittany Hayward and Laura Monforton who have been working as Risk Management Assistants. Laura has accepted the position of Risk Management Official and will officially become the RMO once training has been completed.

Brian Wright is here replacing Beth Forrest our MOECC Liaison as she is on her maternity leave. We're not sure how long Brian will be with us, but we do welcome him here today.

In March 2017 Tim Mousseau attended the Chairs meeting which discussed the Provincial Implementation, Annual Reporting Framework (forms, etc.) for ministries and SPA's. MOECC has implemented a Chair 'buddy system'. My 'buddy' is Chair Bill Twaddle from SGSNBP.

Section 60 process to remove oneself from Threat status using 'section 60 risk assessment' rules being developed (stay tuned).

Funding updates... Funding 49 FTE's in 2017

Chair's Roles and Responsibilities complete with manual

SPIA site demo (mapping)

S.36 workplan content: Each workplan must be completed in a 'word' format and contain the following 10 sections:

1. Name of each plan that the workplan applies to
2. Brief description of area/region

3. Experiences to date on plan implementation
4. Highlight information from first annual progress report
5. Specific plan approval direction from Minister (if applicable)
6. Details and rationale on what requires review/updates
7. Detailed steps for review
8. Timeframes for the review
9. Roles and responsibilities for plan amendments
10. What consultation will be undertaken.

I attended the Oct 2017 Chairs meeting.

Engagement activities and empowering SPC's including a communication plan.

Annual Reporting processes... due May 2018 will be an all electronic process

by May 2019 Funding: Supports local implementation efforts including:

- Maintaining and providing access to local source protection data;
- Carry out annual reporting responsibilities;
- Maintain and supporting the operation of the 19 source protection committees, and; continue to raise awareness about source protection

SPMIF not yet fully expended even though was supposed to be in early December 2017. Raises questions about the need for this funding.

Mature SWPP vision includes a recommendation to "encourage protection of drinking water that are not currently included in source protection plans".

Phase 2 Threats review project is underway by 6 working groups consisting of 90 members. These have developed proposals on about half of the items under consideration. These will be posted on the EBR in due course.

Consultation is ongoing. Our rep is Katie.

Finally I would like to ask the SPC for a moment of silence for David Watsa who was a past SPC member who passed away on October 26, 2017.

### **DISCLOSURE OF CONFLICT OF INTEREST**

None

## **AGENDA**

1. The Agenda for the Meeting of the Essex Region Source Protection Committee (SPC) held on Wednesday, January 10, 2018.

Resolution SPC01/18

Moved by John Barnett

Seconded by Ron Barrette

*THAT the Agenda for the Wednesday, January 10, 2018, Meeting of the Essex Region Source Protection Committee (SPC) be approved as amended to include an item under New Business.*

- CARRIED

## **MINUTES**

1. Minutes of the Meeting of the Source Protection Committee (SPC) held on Wednesday, February 15, 2017.

Resolution SPC02/18

Moved by Tim Mousseau

Seconded by John Barnett

*THAT the Minutes for the Wednesday, February 15, 2017, Meeting of the Essex Region Source Protection Committee (SPC) be approved as amended to include Justine Taylor as present at this meeting.*

- CARRIED



## **CORRESPONDENCE**

None

## **SOURCE PROTECTION AUTHORITY (SPA) INFORMATION**

None

## **MOE LIAISON'S UPDATE**

Brian Wright, Liaison Officer provided a brief update to the SPC.

He took over for Beth Forrest in October 2017. His contract with MOE is currently until mid February, so currently unsure what will happen between now and then. Brian was a previous Project Manager starting in 2005 and is now in the role of Liaison.

On December 22<sup>nd</sup>, we received information on two recent EBR Postings:

- Amendments to Ontario Regulation 287/07 "General" under the Clean Water Act, 2006
- Establishment of a regulation under the Safe Drinking Water Act, 2002

Source Protection Programs Branch will be hosting two consultation sessions on these; January 19<sup>th</sup> there will be a WebEx and on January 26<sup>th</sup> in London, ON. Katie can send out further details regarding these sessions for any members interested in taking part. Comments are due by February 20<sup>th</sup> so any comments can be forwarded directly to your project manager, Katie.

RMO Training is currently scheduled for February 26<sup>th</sup> and will be 3-4 days in length. Annual reporting for the RMO has a February deadline.

## **PRESENTATION**

Project Manager, Katie Stammler provided a brief powerpoint presentation to the SPC  
*(attached)*

## **REPORTS**

1. **Report SPC 01/18** – Phase 1 changes to Technical Rules and a preliminary assessment of their effect on Source Vulnerability Factors for Type A and B intakes in the Essex Region

Resolution SPC03/18

Moved by Nelson Santos

Seconded by Hans Peter Pfeifer

*THAT updates to the Source Vulnerability Factors and associated updated or new policies be included in the Essex Region Source Protection Area Section 36 Workplan due November 30, 2018, and further;*

*THAT the recommendation be circulated to municipalities for information.*

- CA

2. **Report SPC 02/18** – Event Based Area Delineation

Resolution SPC04/18

Moved by Dave Monk

Seconded by Bill Dukes

*THAT Report SPC02/18 be received for information.*

- CA

3. **Report SPC 03/18** – Update on Risk Management Services in Essex County

Resolution SPC05/18

Moved by Ian Wilson

Seconded by Tim Mousseau

*THAT Report SPC03/18 be received for information.*

- CARRIED

4. **Report SPC 04/18** – Annual Reporting

Resolution SPC06/18

Moved by Justine Taylor

Seconded by Nelson Santos

*THAT Report SPC04/18 be received for information.*

- CARRIED

### **OTHER BUSINESS**

None

### **NEW BUSINESS**

1. Source Protection Committee Membership Size

Chair Fuerth questioned whether the SPC should remain at 15 members or if it should be reduced to 12 members. It was noted that Administration has received Carly Lansens resignation from the SPC due to conflicting schedules with employment and meeting schedules. Thom Hunt has mentioned that he may be stepping aside and assigning another City of Windsor staff member in his place. It takes approximately 3 months for a new member to be assigned to the SPC. Discussions concluded with the desire of the SPC membership size to remain at 15 members. Chair Fuerth and Project Manager Katie Stammeler indicated that this matter will be raised from time to time as member replacement is required. The SPC was also asked to circulate the advertisement for new members when it is released.

2. The RMO Package was handed out to the SPC. This package is the folder that landowners are provided when the RMO/A's go on site visits.

It was noted that the contact information sheet should be updated to include local service providers in addition to the out of town providers listed for Spill Kits, Spill Clean ups, etc. RMO Laura Monforton is to work

with City of Windsor representative Paul Drca to update the contact sheet.

**MEETING ADJOURNMENT**

Resolution SPC07/18

Moved by Tim Mousseau

Seconded by Hans Peter Pfeifer

*THAT the meeting be adjourned.*

- CARRIED

**DATE – NEXT MEETING**

The next meeting of the SPC will be held on Wednesday, February 14, 2017 at 4:00PM at the Essex County Civic Centre.



**CONCLUSION OF MEETING**

A handwritten signature in black ink, appearing to be "KAS", written over a horizontal line.

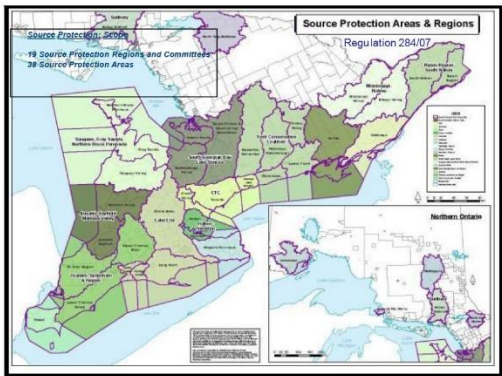
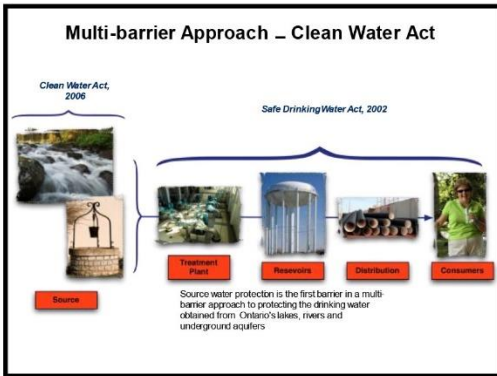
Katie Stammler,  
Project Manager, Source Water Protection/  
Water Quality Scientist



### I. Source Protection Program Context

- After the Walkerton tragedy in May 2000, Justice Dennis O'Connor was commissioned to lead an inquiry into the contamination of the Walkerton water supply and more broadly, the safety of Ontario's drinking water.
  - Walkerton Inquiry Report made 121 recommendations.
- Clean Water Act, 2006 (CWA) came into force July 3rd, 2007.
  - Fulfills **12 of the Justice O'Connor's recommendations.**

First Principle - concept of prevention in the safeguarding of our drinking water for our communities and our health.





## Key Players

### Source Protection Committee (SPC)

- Multi-stakeholder committee, 1/3 municipal representation.
- Were responsible for (1) terms of reference, (2) assessment report, and (3) source protection plan.
- Ongoing role in any revisions of these documents and in review of annual progress on implementation.



### Source Protection Authority (Conservation Authority)

- Appoints the SPC and provides administrative and technical support to the Committee.
- Supports implementation and tracks and reports on progress.
- Responsible for plan revisions (s.34, 35, 36) and engaging the SPC, municipalities and others in these revisions.

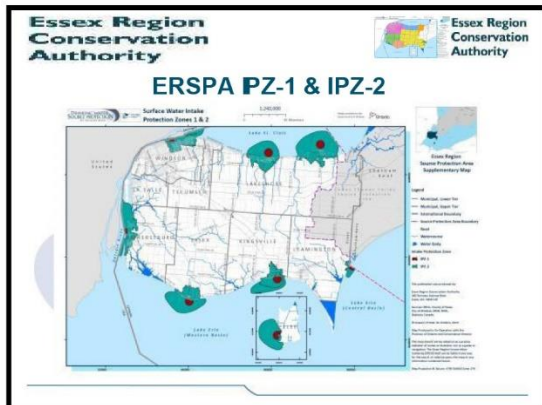
## Overview of the Essex Region Source Protection Area/Plan

- The Essex Region source protection area (ERSPA) watershed is approximately 1,681 km<sup>2</sup> and has a population of about 393,000 residents in 11 municipalities.
- The ERSPA consists of seven drinking water systems drawing from surface water, including - Lake Erie, Lake St. Clair and the Detroit River. There are no municipal drinking water systems that are supplied by groundwater
- The transportation and storage of large volumes of liquid fuel have been identified as a significant drinking water threat throughout the region
- Microcystin-LR (toxin produced by blue green algae) has been identified as a drinking water issue at all Lake Erie intakes
- SPP and AR were submitted January 30, 2015.
- Minister MOECC, approved SPP April 15, 2015
- Implementation date October 1, 2015



## Vulnerable Areas – Surface Water (IPZ)

- The vulnerable areas around a surface water intake are known as Intake Protection Zones (IPZs) and there are 3 subareas within the IPZ for water quality:
  - **IPZ-1:** zone closest to intake, most vulnerable, direct and immediate impacts to drinking water source possible; no spill response time.
  - **IPZ-2:** zone further upstream from intake, direct impacts to drinking water source possible; limited spill response time.
  - **IPZ-3:** zone covers larger portion of watershed; time available to manage spills.
- **EBA:** Event Based Area combination of IPZ-1 + IPZ-2 + IPZ-3 for modelled threats



## Vulnerability scoring and Threat identification

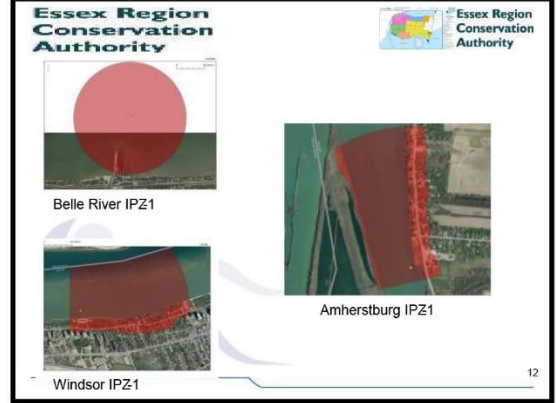
$$\text{Vulnerability Score} = \text{Area vulnerability factor} \times \text{Source Vulnerability Factor}$$

- Area vulnerability factor is based on characteristics of the local environment
- Source Vulnerability Factor is based on characteristics of the intake

$$\text{Risk Score} = \text{Vulnerability Score} \times \text{Hazard Score}$$

- Hazard Score is assigned to each type of threat and is based on a number of factors
- Risk Score is used to determine whether an activity is a threat for an intake

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<b>21 Prescribed Drinking Water Threat Activities</b>	
* 1 – waste disposal	12 – application of road salt
* 2 – sewage	13 – handling and storage of road salt
<b>Agriculture</b>	* *
* 3 – application of Agricultural Source Materials	14 – storage of snow
* 4 – storage of Agricultural Source Materials	<b>Industrial</b>
* 5 – management of Agricultural Source Materials	15 – handling and storage of fuel
* 6 – application of Non Agricultural Source Materials	16 – handling and storage of dense nonaqueous phase liquid (DNAPL)
* 7 – handling and storage of Non Agricultural Source Materials	17 – handling and storage of an organic solvent
* *	* 18 – chemicals used in the de-icing of aircraft
* *	<b>Water Quantity</b>
8 – application of commercial fertilizer	19 – consumptive water taking
9 – handling and storage of commercial fertilizer	20 – activity that reduces the recharge of an aquifer
10 – application of pesticide	
11 – handling and storage of pesticide	
21 – livestock grazing and pasturing	
<i>Clean Water Act (General Reg. 287/07)</i>	



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**Local Threats**

Fuel – local threat modelling

- Transportation of organic solvents, DNAPLs, fuels, pesticides, and fertilizers approved as local threats by Director in August 2011
- Spill events of transportation of fuels containing 2% benzene modelled and deemed to be significant drinking water threat in all EBAs
- Simulated tanker truck spill contaminant modelling of a 34,000 L gasoline (with 2% benzene) were conducted at various sites throughout the region and were also considered representative of potential fixed fuel locations in the area
- Modelling incorporated both reverse particle tracking and contaminant transport modelling, along with joint probability analysis used to define 100 year return period event
- If contaminant reached intake at concentration above ODWQS a vulnerable area was delineated

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13

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**Event Based Areas**

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14

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**MOECC tools**

- Provincial interactive mapping tool: <https://www.gisapplication.lrc.gov.on.ca/SourceWaterProtection/Index.html?site=SourceWaterProtection&viewer=SWPViewer&locale=etdS>
- Threat database: <http://swpip.ca/Threats>

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15

**DRINKING WATER SOURCE PROTECTION**  
ACT FOR CLEAN WATER

AMENDMENTS TO SOURCE PROTECTION PLANS

s.34 Amendment (CWA) (SPA Proposes)	i.e. New/expanded systems Completion of technical work Implementation challenges
s.35 Order (CWA) (Minister's Order)	i.e. Minister's discretion (SPA unable to obtain municipal Support for amendments)
s.36 Update (CWA) (Mandatory Review)	i.e. Most SPP revisions e.g. new policies, new technical work
s.51 (O. Reg. 267/07) (SPA's Discretion)	i.e. Minor administrative errors e.g. correction of typographic errors

<p><b>s.34 Amendments (SPA proposes)</b></p> <ul style="list-style-type: none"> <li>Extend area where existing council resolution</li> <li>Add a new system</li> </ul>	<p><b>s.35 Amendments (Minister's order)</b></p> <ul style="list-style-type: none"> <li>Issues obtaining municipal policies apply</li> <li>Add a First Nations drinking water system</li> </ul>
<p><b>s.36 Update (Mandatory review – Nov 2018)</b></p> <ul style="list-style-type: none"> <li>Change to existing policies</li> <li>Extend vulnerable areas where existing policies apply</li> <li>Addition of new policies</li> </ul>	<p><b>s.51 Amendments (SPA's Discretion)</b></p> <ul style="list-style-type: none"> <li>Patent errors</li> <li>Remove vulnerable areas where policies no longer apply</li> <li>Formatting changes</li> </ul>

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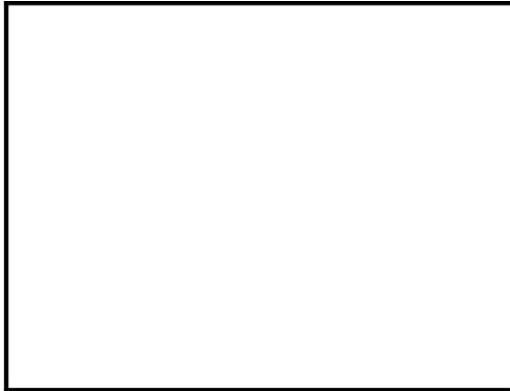
**Report 01/18**

Original scoring matrix

Category	Nearshore Shallow water	Nearshore Deep water	Offshore Shallow water	Offshore Deep water
Depth	<6m	>6m	<6m	>6m
Distance	<300m	>300m	>300m	>300m
Vulnerability	High	High to Moderate	High to Moderate	Moderate
Proposed SVF	0.7	0.6	0.6	0.5

Proposed new draft scoring matrix

Category	Nearshore Shallow water	Nearshore Deep water	Midshore Shallow water	Midshore Deep water	Offshore Shallow water	Offshore Deep water
Depth	<3m	<3m	<3m	<3m	<3m	<3m
Distance	<300m	300-500m	300-500m	300-500m	>500m	>500m



Vulnerability	High	High	High to Moderate	High to Moderate	Moderate	Moderate
Proposed	1.0	0.9	0.8	0.7	0.6	0.5
SVF						

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Vulnerability Score = Area vulnerability factor x Source Vulnerability Factor

WTP	Intake Type	Depth	Distance	Original SVF	New SVF	Original IPZ-1	New IPZ-1	Original IPZ-2	New IPZ-2
A H Weeks (Woodco) East Intake	B	7	95	0.9	0.9	9.0	9.0	8.1	8.1
A H Weeks (Woodco) West Intake	B	7.4	70	0.9	0.9	9.0	9.0	8.1	8.1
Albany Island	B	4.6	61	0.9	0.9	9.0	9.0	7.2	7.2
Tarrow Colchester South	A	3	381	0.6	0.7	6.0	7.0	4.8	5.6
Union Primary Intake	A	5.1	1054	0.5	0.5	5.0	5.0	4.0	4.0
		2.4	460	0.6	0.8	6.0	8.0	4.8	6.4
Polen Island West Shore	A	3	17	0.6	0.9	6.0	9.0	4.2	6.3
Wheatley Primary Intake	A	4.5	747	0.6	0.5	6.0	5.0	4.8	4.0
		0.9	291	0.7	1.0	6.0	13.6	8.0	8.0
Wheatley Emergency Intake	A					7.0		6.6	

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New SDWTs for IPZ-1  
Wheatley Emergency Intake

Agricultural Source Material (ASM)
Commercial Fertilizer
Non-Agricultural Source Material (NASM)
Pesticide
Road Salt
Chemicals Used In The De-Icing Of Aircrafts
Sewage System Or Sewage Works
Snow
Tailings From Mines
Waste Disposal Site
*Dense Non Aqueous Phase Liquid (DNAPL)
*Fuel
*Organic Solvent

\*Indicates need for new policy in SPP

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New SDWTs for IPZ1 Pelee West Shore Intake

- Agricultural Source Material (ASM)
- Commercial Fertilizer
- Non-Agricultural Source Material (NASM)
- Pesticide
- Road Salt
- Chemicals Used In The De-Icing Of Aircrafts
- Sewage System Or Sewage Works
- Snow
- Tailings From Mines
- Waste Disposal Site

\*Note \_ fuel not identified as threat, is considered a threat by operator

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New SDWTs for IPZ-2 Wheatley Emergency Intake

Sewage System Or Sewage Works

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New SDWTs for IPZ-1 Union Intake

Sewage System Or Sewage Works

**Essex Region Conservation Authority** Report 02/18

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24

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Report 02/18

Type I error \_ S.51

Type II error \_ s.36

Type III error \_ s.36

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Task	Responsibility	Expected Start date	Expected Completion Date
Reporting for Monitoring Policies	Implementing bodies	Dec 15 annually beginning 2016	February 1 annually beginning 2017
Review Monitoring policy reports	SPA staff	February 1, 2018	March 1, 2018 (written for SPC review and discussion)
Preliminary discussion of annual reporting with SPC	SPA staff/SPC	February 14, 2018	
Annual report provided to SPC for review and written comment	SPA staff/SPC	March 9, 2018 (via email)	April 11, 2018 (via email and/or in person SPC meeting)
SPA approval	SPA staff/SPA	April 4, 2018	April 12, 2018
First annual progress report	SPA staff	March 1, 2018	May 1, 2018 (submitted)

