# Upper Thames River Conservation Authority Risk Management Services



## **2020 Progress Report**

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## **Progress Overview**

Source water is the water that we take from the ground, lakes or rivers to supply people with drinking water. Based on the recommendations of the Walkerton Inquiry, the Clean Water Act, 2006 is part of the Ontario government's commitment to protecting municipal drinking water from contamination and overuse. The Clean Water Act led to the implementation of Source Protection Plans (SPPs) across Ontario following an extensive process that included the development of science-based watershed assessments, broad public input, and collaboration with stakeholders. The Thames-Sydenham and Region SPP came into effect on December 31, 2015.

The SPP contains policies written under Part IV of the Clean Water Act, which municipalities are required to implement. These policies ensure that Significant Drinking Water Threat (SDWT) activities identified in vulnerable areas of groundwater wells or surface water intakes will not pose a risk to source water. Part IV policies must be implemented by a specially trained and certified Risk Management Official and/or Risk Management Inspector (RMO/I). Eleven municipalities in the Thames-Sydenham and Region have delegated their obligations under Part IV of the Clean Water Act to the Upper Thames River Conservation Authority (UTRCA). The terms of the current service agreement with these municipalities will expire at the end of this calendar year on December 31, 2020. In the near future we will provide a proposal to renew these agreements, and we hope to remain partners in the delivery of risk management services within your municipalities in the years to come.

This annual progress report was developed to detail the progress made by our Risk Management Officials and Inspectors towards the implementation of Part IV policies within your municipalities. The report includes actions taken since the SPP came into effect in 2015, highlights some of the specific actions taken in 2019, and provides information about some of our plans for 2020.

#### **Risk Management Plans and Inspections**

2019 was a productive year for our risk management staff. Negotiation of risk management plans with businesses, farmers and institutions to manage existing threats has continued, and we are close to completing all risk management plans for threats that were originally identified at the time the SPP was approved. Our risk management staff work with land and business owners to build on existing best management practices, and develop practical plans that minimize the impact to business and productivity.

Follow-up compliance monitoring is conducted each year following the establishment of a risk management plan, and more thorough compliance inspections are conducted every five years. The monitoring and inspections ensure Risk Management Plans are effectively implemented and all risk management measures have been executed. Failure to implement the plans can lead to

formal enforcement action. This can include, if necessary, the issuance of orders to complete work and to pay for any work completed by the Risk Management Official. The number of risk management plans established, and inspections undertaken by our Risk Management Officials is provided in table format for each municipality in the pages that follow.

#### **Managing Threats from New Development**

Some of the policies in the Thames-Sydenham and Region Source Protection Plan were included to ensure new development considers source protection vulnerable areas. Certain development applications within vulnerable areas are sent to our Risk Management Officials for review by municipal building and planning staff to ensure growth is compatible with drinking water protection. The Clean Water Act requires a section 59 notice for developments near municipal wells and intakes to determine if an application has the potential to introduce a new threat to drinking water. A notice is required before planning and building applications can be deemed complete. Information about the number of development applications reviewed, and the number of section 59 notices issued within each municipality is provided in this report.

#### **Education and Outreach**

It is hard to believe that this past May marked 20 years since the water supply in Walkerton, Ontario was contaminated with E. coli and Campylobacter jejuni bacteria, resulting in the death of 7 people and severe illness affecting over 2,000 people. As the world deals with the current COVID-19 pandemic we are reminded of the importance of our health care sector, and everyone working in the water industry, who continue to work diligently to ensure the safety and security of our drinking water, and the general health and well being of all residents of the Province of Ontario. Although planned events to commemorate the water tragedy in Walkerton were all cancelled due to the pandemic, significant efforts have been made to communicate the tremendous progress that has been made since 2000 to improve the quality of municipal drinking water by following the recommendations of the Walkerton Inquiry. We have included a recent blog post immediately following this overview which summarizes some of the information that has been circulating.

Locally, our Risk Management staff developed some great new communications products in 2019, to assist in communicating the role that source protection plays in water management, and to support the development of risk management plans. These include our new roll-up banners that are being displayed in municipal offices on a rotating basis, as well as spills response posters that were developed for business owners that require them as part of their risk management plans. See pictures of both of these products at the end of the report. Additionally, we have highlighted some of the events that risk management staff attended in 2019 as well as some that are/were planned for 2020.

#### Summary

Overall, there has been significant progress made in 2019. Many conversations have been had with landowners and tenants of properties that had originally been identified as having significant drinking water threats and properties identified by the Risk Management Officials. Staff have been working collaboratively with residents to verify the existence of these threats and, where required, negotiate and establish risk management plans. An inspection and compliance program has been established in order to monitor properties within vulnerable areas. The following pages provide a numerical breakdown of the risk management services provided by UTRCA for each municipality. Overall, the 2019 operating expenses were on track, we expect to fulfill our current agreement deliverables within budget.

# Remembering Walkerton: 20 Years since the Drinking Water Tragedy

05/12/2020 Watershed Source Water Protection



As we face the COVID-19 pandemic and its severe impacts, we realize just how important it is to safeguard our health. One of our primary needs is clean, safe drinking water. And, while we adapt to current pandemic conditions in 2020, we are reminded of another public health tragedy that struck one of our communities twenty years ago, and we reflect on the vast improvements made since then.

In May 2000, a municipal well in Walkerton became contaminated with a deadly bacteria. Seven people including a child died due to the contamination, and many residents were left with severe long-term illnesses.

The Government of Ontario established a public inquiry into the drinking water tragedy, led by Justice Dennis O'Conner. He developed 121 recommendations that became the building blocks of today's <u>multi-barrier framework</u> for drinking water protection in Ontario. It includes the *Safe Drinking Water Act (2002), Clean Water Act (2006),* and other measures.

Twenty years have passed since the Walkerton water tragedy. There is much we have learned and accomplished since then. And yet, there is much to do. We know that protecting our drinking water is a vital and shared ongoing responsibility – <u>and it starts right at the water</u> <u>source!</u>

In Ontario, the <u>*Clean Water Act (2006)*</u> protects sources of municipal residential drinking water systems; other types of systems may be included too. The legislation established 19 multi-stakeholder, decision-making source protection committees including municipalities, and 38 source protection authorities comprised of Ontario's conservation authorities, the Severn Sound Environmental Association, and the Municipality of Northern Bruce Peninsula.

Working together on a <u>watershed basis</u>, these groups developed local <u>source protection plans</u> containing more than 12,500 policies that protect municipal drinking water sources of:

- Over 900 groundwater wells
- Over 70 Great Lakes intakes
- Over 60 inland intakes
- And, 13 Lake St. Clair and St. Lawrence River intakes

Around two-thirds of the policies are implemented by municipalities, close to one-third by provincial ministries, and the rest by conservation authorities and others. Every year, policy implementers report on their progress to source protection authorities. Significant milestones include:

- Over 1000 risk management plans established
- Over 5000 septic systems inspected
- Over 900 <u>road signs</u> installed to identify drinking water protection zones

Through the *Safe Drinking Water Act (2002)*, municipalities provide safe, clean treated drinking water to 85% of Ontarians as part of the multi-barrier approach. The Government of Ontario conducts regular inspections of the water treatment plants. *Trust the Tap!* 

Our work continues, as we face both ongoing and new challenges. We are living in a changing climate that exacerbates environmental conditions. Frequent floods impact life and property, and compromise water quality. In some parts of Ontario, water supply is affected by droughts. Many First Nations communities suffer from drinking water advisories. Emerging contaminants like microplastics and certain chemicals used in firefighting foam are becoming a concern.

The watershed must continue to be the basis by which we manage and protect our sources of drinking water in Ontario, to help avoid water tragedies. To effectively protect both existing and future water supplies, watershed management must be applied. This includes watershed-wide monitoring for the early detection of water quality and supply problems.

<u>Watershed management</u> helps us face climate change and other challenges, while effectively supporting growth and development. It is applied in many parts of Ontario, but is needed for all

of our communities. Watershed management is a preventative measure, just like physical distancing measures prevent the spread of COVID-19.

In Walkerton, a waterfall memorial stands dedicated to the victims of the water contamination tragedy. It is a stark reminder to all of us about the crucial need for proper water management. This year, in 2020, we commemorate Walkerton and renew our commitment to protecting drinking water sources for the generations to come.

Author: Conservation Ontario staff

# **Reports by Municipality**

Please note the Risk Management Stats provided within this report represent the cumulative count for each line item completed since the Source Protection Plan took effect; or since UTRCA began providing risk management services for the municipality.

Details regarding risk management services provided for each municipality are displayed in chart form. The chart below provides an explanation of those details to help you interpret the numbers reported.

Risk Management Stat	Details
Threats enumerated in the 2015 Assessment Report	Total # of individual significant drinking water threats enumerated in the original (2015) Assessment Report (2015).
Sites Identified by Risk Management Official	Additional sites with potential threats identified by a Risk Management Official, not captured in the (2015) Assessment Report.
Map Provided	Map generated for a specific site (via roll #); detailing zone scores and boundaries. In some instances, RMO will detail where the activity of concern is occurring on a site.
Threat Verification Survey	Surveys were mailed out to sites with significant threats enumerated in the original assessment report (2015). The number reported details the number of completed surveys returned to the RMO. Respondents indicated activities currently being undertaken or those that may occur in the future. RMO's followed up to determine if the activities met circumstances requiring a risk management plan (S.58) and/or prohibition (S.57) process.
Clearance Letter	<ul> <li>Verifies the parcel noted is within a vulnerable area however, the threat verification process has determined either: <ul> <li>a significant threat activity is not occurring under circumstances requiring a risk management plan, or;</li> <li>a septic system is the only significant drinking water threat on site and the municipality will implement an on-site sewage inspection program as regulated under the <i>Ontario Building Code Act</i>.</li> </ul> </li> </ul>
	No risk management plan was required at the time the letter was issued. However, if activities undertaken are modified or new activities are planned in the future, the proponent is

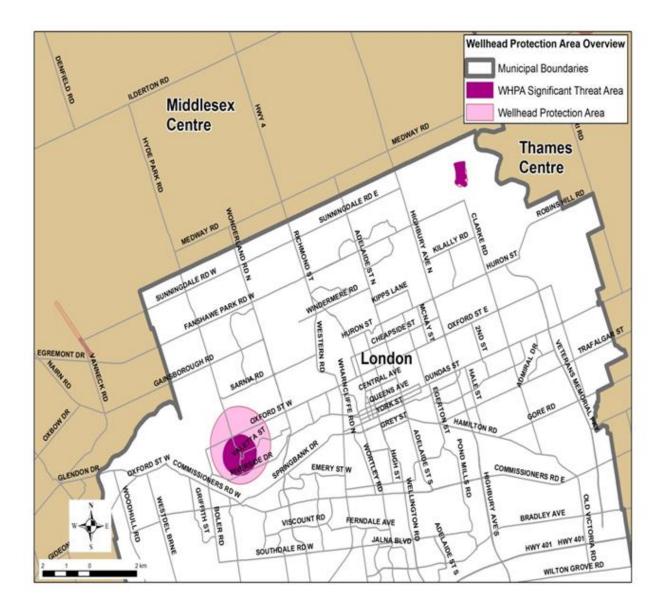
	directed to contact the Risk Management Official to determine if a risk management plan is required or prohibitions apply.
S.59 Screening & Inquires Notice S.59 - 2(a) & 2(b)	<b>Section 59</b> of the <i>Clean Water Act</i> requires that if a source protection plan designates a land use as a restricted land use in a vulnerable area, a person shall not make an application under the <i>Planning Act</i> , or construct or change the use of a building under the <i>Building Code Act</i> , unless the Risk Management Official issues a notice to that person. The <i>Thames-Syndenham and Region Source Protection Plan</i> identifies all land uses, with the exception of residential uses, as restricted land uses, within the Wellhead Protection Areas A, B and C. <b>Section 59.2(a)</b> notices are issued when neither a prohibition nor a risk management plan apply to the existing or proposed activity. Alternatively, if a prohibition or risk management plan is required, a <b>Section 59.2(b)</b> notice will be issued only after those requirements have been agreed to or established; at such time the notice will indicate the application process may proceed.
	If a <b>general inquiry</b> or <b>Section 59 screening form</b> is submitted and the Risk Management Official (RMO) reviews the information and confirms a residential exemption applies or the parcel is outside of a significant threat zone, the RMO will advise the municipality and applicant the application can proceed without further review by the RMO.
Risk Management Plan Notice S.58(4) S.58(6) & 58(7)	<b>Section 58(4)</b> - Notice indicates one or more activities engaged in, or proposed to be engaged in, at the noted address has been identified as a significant drinking water threat and requires a risk management plan. Proponent is informed they must contact the Risk Management official by a certain date to begin the risk management plan process and provide any requested information. <b>Section 58(6)</b> - Notice of agreement/negotiation of a risk
	management plan between the Risk Management Official and Person Engaged in the Activity. Section 58(7) - Notice states that a risk management plan is
	required. If a risk management plan cannot be agreed to by a certain date, it is the intent of the Risk Management Official to establish one for the identified activities by Order (S.59(1)). Risk Management Officials may use this tool to move the risk management process along if not being achieved in a timely manner.
Risk Management Plan	<b>Section 58(5)</b> - risk management plan has been negotiated
S.58(5) & S.58(10)	or agreed to between the Risk Management Official and

	<ul> <li>Person Engaged in the Activity.</li> <li>Section 58(10) - risk management plan established by Order of the Risk Management Official.</li> <li>Note: Risk management plans manage one or more significant threats on a particular parcel or parcels. For example, a business which operates on two parcels (adjacent or not) may have a single risk management plan that manages all significant threat activities associated with both parcels.</li> </ul>
Prohibition Letters	Details activities that are prohibited on a parcel; both existing and future.
Order	Confirms agreement on a risk management plan has not been reached by the deadline outlined in the S. 58(7) notice and therefore a risk management plan will be established; including any prohibitions that may apply.
Certificate of Service	Issued under ss. 100(1) of the <i>Clean Water Act</i> , 2006 which states the Risk Management Official has served a true copy of the Order to the Person Engaged in the Activity or person named.
Compliance Review & Inspection	Risk Management Inspectors execute interim reviews of risk management plans with the Person Engaged in the Activity; this process ensures information within the agreement stays accurate and risk management measures are implemented and working effectively. This may or may not include an on-site inspection to ensure all significant threat activities are identified and managed so that it ceases to be, or never becomes, a significant drinking water threat. Additionally, any prohibited activities are also monitored to ensure ongoing compliance.
Site Visits Completed	Risk Management Official / Inspector visited individual sites or completed driving tours with/or without municipal representatives for the purposes of identifying new threats and/or verifying compliance of risk management plan and/or prohibitions.
Sites in Progress	Sites identified in the original Assessment Report (2015) or identified by the Risk Management Official that are in the process of threat verification, risk management plan, policy review/amendment, negotiations and/or prohibition process.
Education & Outreach – Industrial, Commercial & Residential (DNAPL policy)	Policy 2.45 Handling and Storage of DNAPL - Education and Outreach To reduce the risk to municipal drinking water sources from the handling and storage of dense non-aqueous phase liquids

	in concentrations typical of household use, where this activity is, or would be, a significant drinking water threat, municipalities, in collaboration with the Conservation Authority, the Ministry of Environment, and/or wherever possible other bodies, shall develop and implement an education and outreach program directed at the owners and/or occupants of such properties. The program may include, but not necessarily be limited to, the provision of education material and information about the nature of the threat, how DNAPLs can be identified and handled and disposed of in a manner so that the activity would cease to be or never become a significant drinking water threat. This policy shall be initiated within one (1) year of the effective date of the Source Protection Plan.	
	In response to this policy, a website ( <u>www.protectingourwater.ca</u> ) was developed and door hangers with magnets were delivered to all residential properties in the wellhead protection area zones A, B & C. These products direct residents to their local hazardous waste depot, detail how to identify, handle and store hazardous products as well as provide some interesting information about their local drinking water.	
	Additionally, some municipalities identified the need for customized source water protection communication products (i.e. factsheets, letters, etc.) to address a local concern. These products could include distribution to industrial, commercial and/or residential properties.	
Source Water Protection Training Package	Every risk management plan requires general source water protection training to be implemented for all applicable staff. Risk Management Officials recognized the benefit of developing and offering accessible training tools that would provide consistent messaging and support the proponent in meeting those requirements. Training package (made available digitally by email or via USB	
	drive) includes: SWP training video, RMO/RMI factsheet and SWP FAQ	

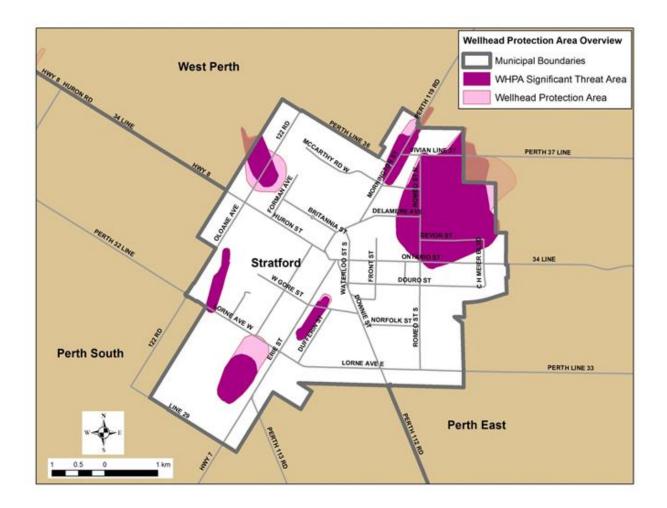
## **City of London**

Risk Management Stat	Accumulative Total (Since 2015)
Threats enumerated in the 2015 Assessment Report	17
Sites Identified by Risk Management Official	0
Map Provided	10
Threat Verification Survey	3
Clearance - Septic Only (No other significant threats)	8
Restricted Land Use S.59 Screening & Inquires	0
Restricted Land Use Notice S.59 - 2(a) & 2(b)	0
Risk Management Plan Notice S.58.(6) & 58.(7)	3
Risk Management Plan S.58(5) & S.58(10)	3
Prohibition Letters	0
Orders Issued	0
Certificate of Service	0
Compliance Review & Inspection	2
Site Visits Completed	16
Sites in Progress	0
Education & Outreach – Industrial, Commercial & Residential (DNAPL policy) *City of London did not participate in this campaign	0
Source Water Protection Training Package	2



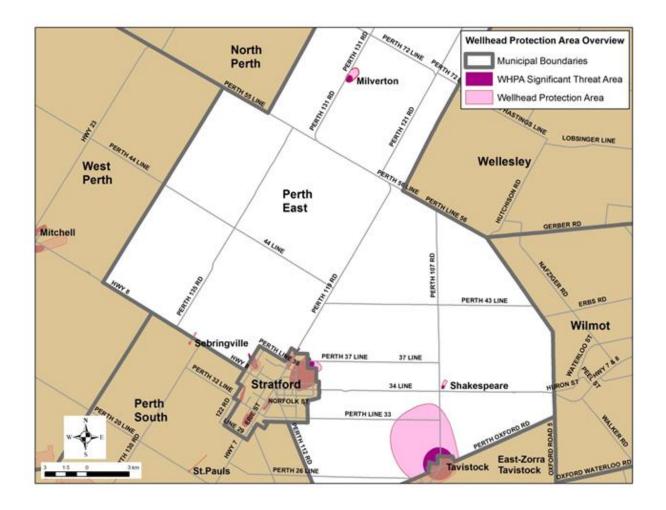
## **City of Stratford**

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Risk Management Stat	Accumulative Total (Since 2015)
Threats enumerated in the 2015 Assessment Report	56
Sites Identified by Risk Management Official	35
Map Provided	42
Threat Verification Survey	15
Clearance - Septic Only (No other significant threats)	39
Restricted Land Use S.59 Screening & Inquires	4
Restricted Land Use Notice S.59 - 2(a) & 2(b)	3
Risk Management Plan Notice S.58.(4), S.58(6) & 58.(7)	14
Risk Management Plan S.58(5) & S.58(10)	10
Prohibition Letters	1
Orders Issued	0
Certificate of Service	0
<b>Compliance Review &amp; Inspection</b>	8
Site Visits Completed	127
Sites in Progress	2
Education & Outreach - Industrial, Commercial & Residential (DNAPL policy)	2121
Source Water Protection Training Package	10



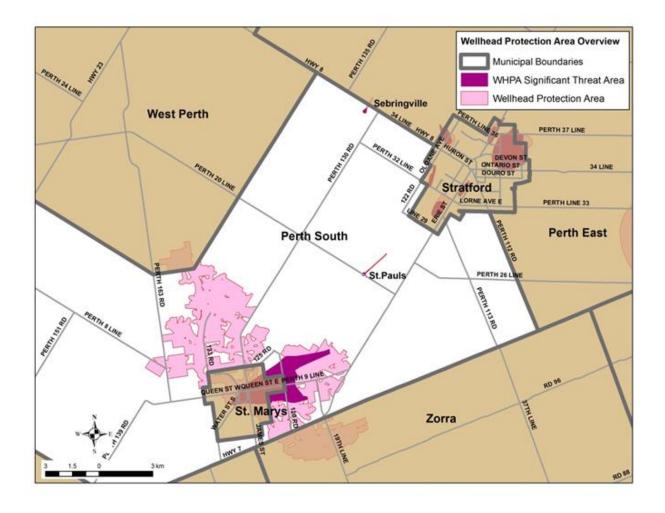
## **Township of Perth East**

Risk Management Stat	Accumulative Total (Since 2015)
Threats enumerated in the 2015 Assessment Report	8
Sites Identified by Risk Management Official	3
Map Provided	14
Threat Verification Survey	4
Clearance - Septic Only (No other significant threats)	6
Restricted Land Use S.59 Screening & Inquiries	6
Restricted Land Use Notice S.59 - 2(a) & 2(b)	0
Risk Management Plan Notice S.58.(4), S.58(6) & 58.(7)	6
Risk Management Plan S.58(5) & S.58(10)	5
Prohibition Letter	2
Orders Issued	0
Certificate of Service	0
<b>Compliance Review &amp; Inspection</b>	2
Site Visits Completed	27
Sites in Progress	0
Education & Outreach - Industrial, Residential & Commercial (DNAPL policy)	110
Source Water Protection Training Package	3



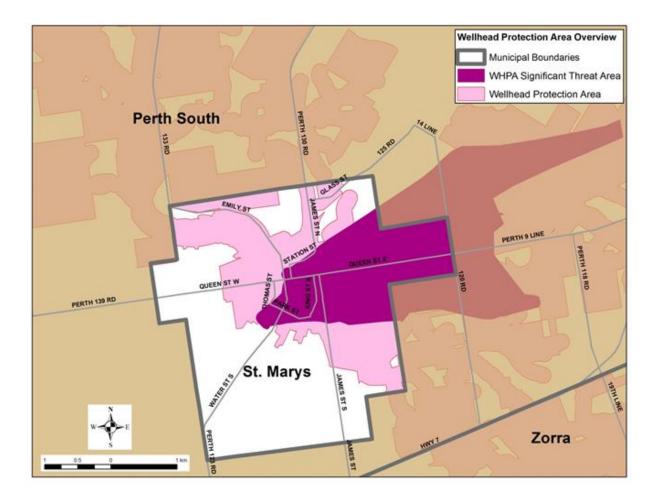
## **Township of Perth South**

Risk Management Stat	Accumulative Total (Since 2015)
Threats enumerated in the 2015 Assessment Report	91
Sites Identified by Risk Management Official	1
Map Provided	45
Threat Verification Survey	13
Clearance - Septic Only (No other significant threats)	36
Restricted Land Use S.59 Screening & Inquires	5
Restricted Land Use Notice S.59 - 2(a) & 2(b)	3
Risk Management Plan Notice S.58.(4), S.58(6) & 58.(7)	4
Risk Management Plan S.58(5) & S.58(10)	4
Prohibition Letter	0
Orders Issued	1
Certificate of Service	1
<b>Compliance Review &amp; Inspection</b>	2
Site Visits Completed	132
Sites in Progress	0
Education & Outreach – Industrial, Commercial & Residential (DNAPL policy)	78
Source Water Protection Training Package	1



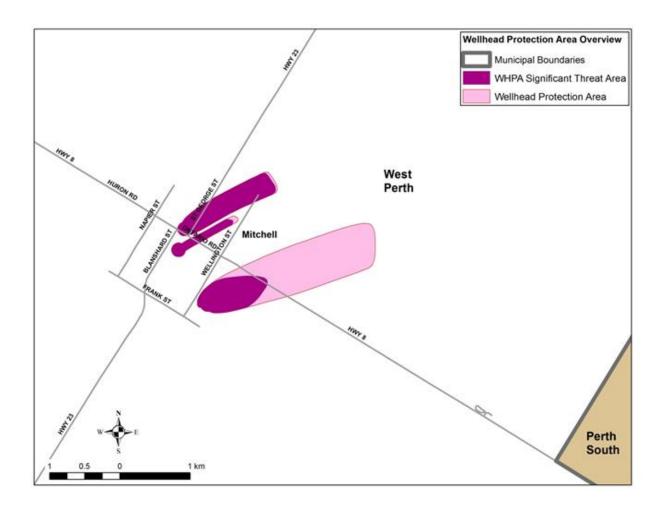
#### Town of St. Marys

Risk Management Stat	Accumulative Total (Since 2015)	
Threats enumerated in the 2015 Assessment Report	134	
Sites Identified by Risk Management Official	22	
Map Provided	109	
Threat Verification Survey	41	
Clearance - Septic Only (No other significant threats)	66	
Restricted Land Use S.59 Screening & Inquires	10	
Restricted Land Use Notice S.59 - 2(a) & 2(b)	7	
Risk Management Plan Notice S.58.(4), S.58(6) & 58.(7)	23	
Risk Management Plan S.58(5) & S.58(10)	22	
Orders Issued	0	
Prohibition Letters	0	
Certificate of Service	0	
Compliance Review & Inspection	7	
Site Visits Completed	248	
Sites in Progress	0	
Education & Outreach – Commercial, Industrial & Residential (DNAPL policy)	1247	
Source Water Protection Training Package	9	



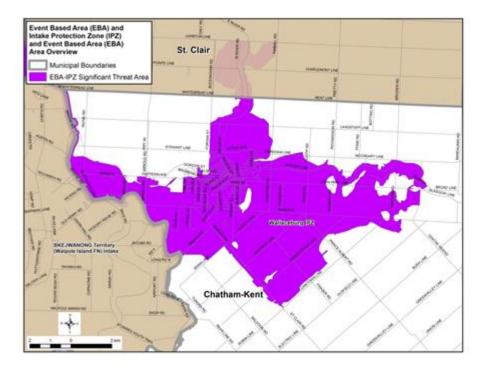
## **Municipality of West Perth**

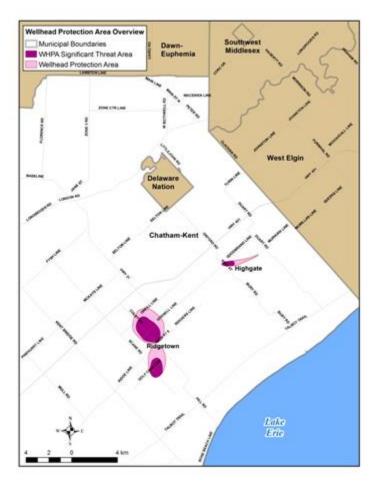
Risk Management Stat	Accumulative Total (Since 2015)	
Threats enumerated in the 2015 Assessment Report	60	
Sites Identified by Risk Management Official	3	
Map Provided	24	
Threat Verification Survey	11	
Clearance - Septic Only (no other significant threats)	9	
Restricted Land Use S.59 Screening & Inquires	8	
Restricted Land Use Notice S.59 - 2(a) & 2(b)	7	
Risk Management Plan Notice S.58.(4), S.58(6) & 58.(7)	11	
Risk Management Plan S.58(5) & S.58(10)	11	
Prohibition Letter	0	
Orders Issued	0	
Certificate of Service	0	
Compliance Review & Inspection	9	
Site Visits Completed	83	
Sites in Progress	1	
Education & Outreach – Commercial, Industrial & Residential (DNAPL policy)	486	
Source Water Protection Training Package	8	



## **Municipality of Chatham-Kent**

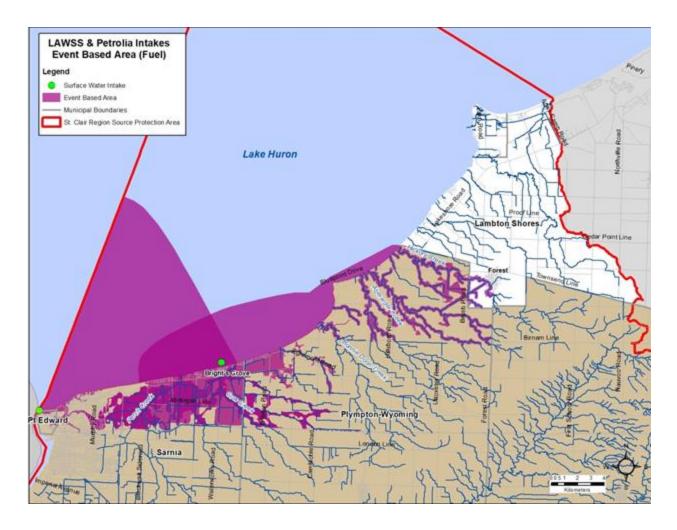
Risk Management Stat	Accumulative Total (Since 2015)
Threats enumerated in the 2015 Assessment Report	102
Sites Identified by Risk Management Official	5
Map Provided	41
Threat Verification Survey	46
Clearance - Septic Only (no other significant threats)	34
S.59 Screening & Inquires	8
Notice S.59 - 2(a) & 2(b)	7
Risk Management Plan Notice S.58.(4), S.58(6) & 58.(7)	6
Risk Management Plan S.58(5) & S.58(10)	7
Orders Issued	0
Certificate of Service	0
Compliance Review & Inspection	7
Site Visits Completed	61
Sites in Progress	4
Education & Outreach – Commercial, Industrial & Residential (DNAPL policy)	390
Source Water Protection Training Package	3





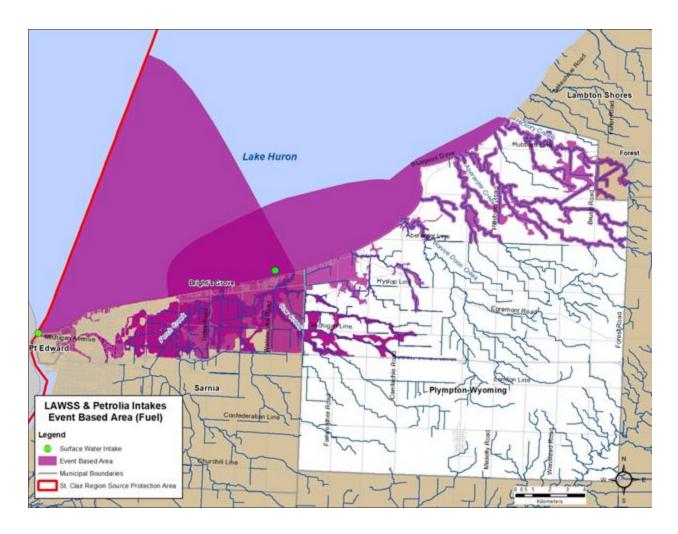
## **Municipality of Lambton Shores**

Risk Management Stat	Accumulative Total
	(Since 2015)
Threats enumerated in the 2015 Assessment Report	1
Sites Identified by Risk Management Official	0
Map Provided	0
Threat Verification Survey	1
Clearance - Septic Only (no other significant threats)	0
<b>Restricted Land Use S.59 Screening &amp; Inquires</b>	0
Restricted Land Use Notice S.59 - 2(a) & 2(b)	0
Risk Management Plan Notice S.58.(4), S.58(6) & 58.(7)	0
Risk Management Plan S.58(5) & S.58(10)	1
Prohibition Letters	0
Orders Issued	0
Certificate of Service	0
<b>Compliance Review &amp; Inspection</b>	1
Site Visits Completed	3
Sites in Progress	0
Education & Outreach - Commercial, Industrial & Residential (DNAPL policy)	0
Source Water Protection Training Package	1



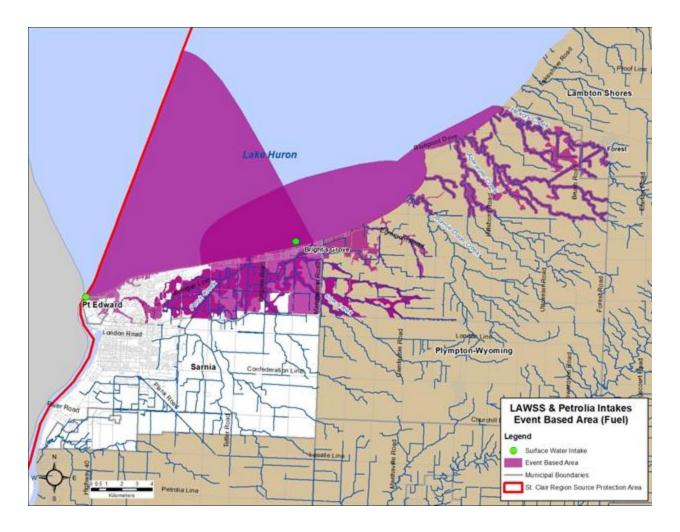
## **Municipality of Plympton-Wyoming**

Risk Management Stat	Accumulative Total (Since 2015)
Threats enumerated in the 2015 Assessment Report	1
Sites Identified by Risk Management Official	0
Map Provided	1
Threat Verification Survey	1
Clearance - Septic Only (no other significant threats)	0
Restricted Land Use S.59 Screening & Inquires	3
Restricted Land Use Notice S.59 - 2(a) & 2(b)	1
Risk Management Plan Notice S.58.(4), S.58(6) & 58.(7)	0
Risk Management Plan S.58(5) & S.58(10)	0
Prohibition Letters	0
Orders Issued	0
Certificate of Service	0
Compliance Review & Inspection	1
Site Visits Completed	1
Sites in Progress	0
Education & Outreach – Commercial, Industrial & Residential (DNAPL policy)	0
Source Water Protection Training Package	0



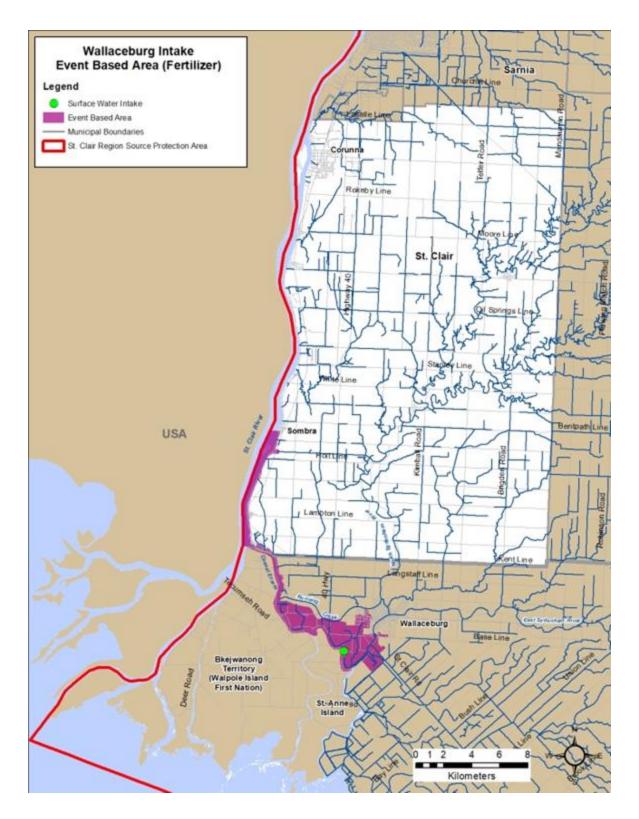
## **Municipality of Point Edward**

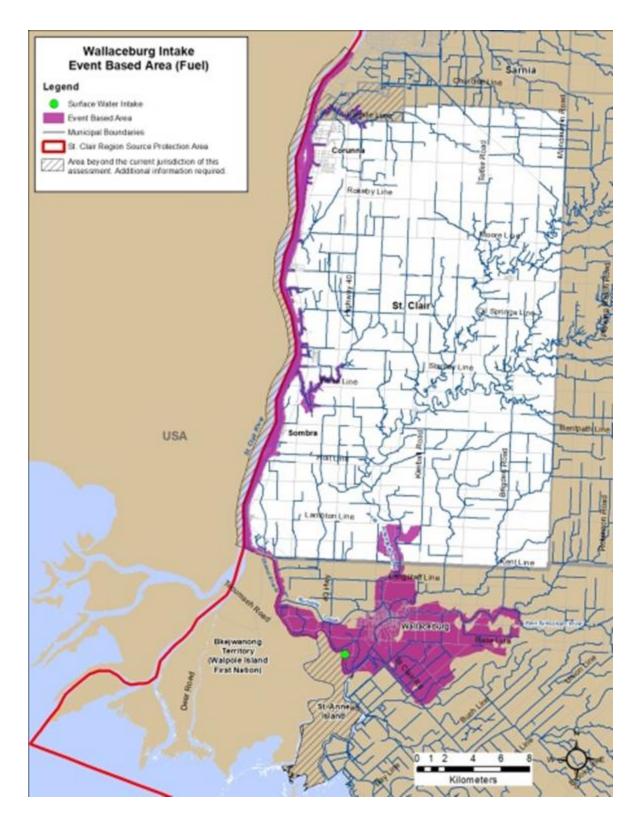
Risk Management Stat	Accumulative Total (Since 2015)
Threats enumerated in the 2015 Assessment Report	0
Sites Identified by Risk Management Official	0
Map Provided	0
Threat Verification Survey	0
Clearance - Septic Only (no other significant threats	0
Restricted Land Use S.59 Screening & Inquires	0
Restricted Land Use Notice S.59 - 2(a) & 2(b)	0
Risk Management Plan Notice S.58.(4), S.58(6) & 58.(7)	0
Risk Management Plan S.58(5) & S.58(10)	0
Orders Issued	0
Certificate of Service	0
<b>Compliance Review &amp; Inspection</b>	0
Site Visits Completed	0
Sites in Progress	0
Education & Outreach – Commercial, Industrial & Residential (DNAPL policy)	0
Source Water Protection Training Package	0



## **Municipality of St. Clair**

Risk Management Stat	Accumulative Total (Since 2015)
Threats enumerated in the 2015 Assessment Report	4
Sites Identified by Risk Management Official	0
Map Provided	2
Threat Verification Survey	5
Clearance - Septic Only (no other significant threats)	0
Restricted Land Use S.59 Screening & Inquires	3
Restricted Land Use Notice S.59 - 2(a) & 2(b)	2
Risk Management Plan Notice S.58.(4), S.58(6) & 58.(7)	0
Risk Management Plan S.58(5) & S.58(10)	2
Prohibition Letters	0
Orders Issued	0
Certificate of Service	0
<b>Compliance Review &amp; Inspection</b>	2
Site Visits Completed	5
Sites in Progress	0
Education & Outreach – Commercial, Industrial & Residential (DNAPL policy)	0
Source Water Protection Training Package	0





# **Appendices**

## Appendix A: Glossary of Terms

TERM	DEFINITION
Assessment Report	<ul> <li>A science-based document that forms the basis of the Source Protection Plan, by identifying vulnerable areas, assessing vulnerability identifying source water quality issues, identifying threats to the drinking water, and assessing the risk due to threats</li> <li>A requirement of the Clean Water Act, 2006 whose contents are set out in the Act, its regulations and technical rules.</li> </ul>
Clearance Letters	• Letter verifies that at the time of issuance, none of the prescribed threat activities were occurring on the property under circumstances that required a risk management plan.
Dense Non- Aqueous Phase Liquids (DNAPL)	• Chemicals that are heavier than water, including petroleum products and chlorinated solvents (such as dichloromethane, trichloromethane), which when released into the ground, cause severe adverse effects in groundwater.
Drinking Water Threat	• Means 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 (Clean Water Act, 2006)
Event Based Area	<ul> <li>In the Thames-Sydenham and Region, Event Based Areas are the areas within the Intake Protection Zones where event-based modelling has demonstrated that a spill can reach the intake at a concentration which would deteriorate the water for the purposes of drinking.</li> <li>Event-based modelling involved the use of specific event which was not to exceed an extreme event as defined by the Technical Rules</li> <li>Each EBA is associated with a specific contaminant, and quantity</li> <li>The spills modelled may be the result of the local threat activity (transportation) or it may be the result of a similar prescribed drinking water threat (storage or handling). Within the EBA these activities are identified as Significant Drinking Water Threat under the circumstance (volumes) modelled.</li> </ul>
Intake Protection Zone	<ul> <li>Refers to a surface water intake protection zone</li> <li>Surface water intake protection zone means an area that is related to a surface water intake and within which it is desirable to regulate or monitor drinking water threats (General Regulation 287/07)</li> </ul>
Prescribed Instrument	• Prescribed Instruments (PI) are issued by the Province through various ministries to set out terms and conditions that are designed to protect the environment and human health.

	• PI policies are intended to reduce risks to reduce risks to municipal drinking water sources by managing or prohibiting those risks associated with an activity that has been identified as a drinking water threat in the Assessment Report.
Prohibition Section 57	• This provision enables policies in the Source Protection Plans to prevent activities identified as existing or future significant drinking water threats from occurring within designated portions of intake protection zones and/or wellhead protection areas (Clean Water Act, 2006)
Restricted Land-Use Section 59	• This tool is used to flag specific land uses in a given area that are or may be associated with the activities that are prohibited under section 57 of the Clean Water Act or that require a risk management plan under section 58 of the Clean Water Act (Clean Water Act, 2006)
Risk Management Official	• Means the risk management official appointed under Part IV of the Clean Water Act, 2006 (Clean Water Act, 2006)
Risk Management Plan Section 58	• Means a plan for reducing a risk prepared in accordance with the regulations and the rules of the Clean Water Act, 2006 (Clean Water Act, 2006)
Significant Drinking Water Threat	• Significant drinking water threat means a drinking water threat that, according to a risk assessment, poses or has the potential to pose a significant risk (Clean Water Act, 2006)
Source Protection Plan	<ul> <li>Means a drinking water source protection plan prepared under the Clean Water Act (Clean Water Act, 2006)</li> <li>Contains policies to reduce the threats (identified in the Assessment Report) to drinking water sources</li> </ul>
Vulnerability area	• Intake Protection Zone, Wellhead Protection Area, Highly Vulnerable Aquifer and Significant Groundwater Recharge Areas (Clean Water Act, 2006)
Wellhead Prtection Area	<ul> <li>Means an area that is related to a wellhead and within which it is desirable to regulate or monitor drinking water threats (General Regulation 287/07)</li> <li>One of the four vulnerable areas to be delineated under the Clean Water Act, comprised of WHPA-A, WHPA-B, WHPA-C, WHPA-D, and in certain cases, may also be comprised of WHPA-E and WHPA-F</li> </ul>

### **Appendix B: Education & Outreach**

#### Events - New & Upcoming

### **Doors Open - St. Marys**

#### Showcasing Drinking Water Source Protection at Doors Open St. Marys

On September 28, St. Marys residents and visitors had a unique opportunity during Doors Open to explore the town's many historic buildings. Some of these buildings are rarely open to the public, including the Waterworks Building, erected in 1899 next to Trout Creek.



The St. Marys Waterworks Building was built in 1899. The reservoir and booster station were added to the site in 2018 (below)



When a property is in an area where certain activities could affect municipal drinking water sources, UTRCA Risk Management Officials work with the landowners/ renters to ensure compliance with policies in the CWA. These policies may require the development of a legally binding risk management plan with measures to protect sources of drinking water, and/or the prohibition of certain activities. Risk Management Inspectors ensure ongoing compliance.

Events like Doors Open are a great opportunity to showcase local hidden treasures as well as discover more about programs and services that support a thriving community. We look forward to partnering with the Town of St. Marys in future events. *Contact: <u>Katie Ebel</u>, Source Protection Policy & Risk Management Advisor* 



The UTRCA is pleased to partner with the Town of St. Marys and the Ontario Clean Water Agency to highlight work that keeps the community's drinking water safe.

St. Marys is well known for its interesting limestone architecture, and the Waterworks Building is no exception. The Town has preserved much of the building's original interior features, including a stained glass window, wainscoting, wood plank ceiling, and lighting fixtures. In 2018, a new reservoir pumping station was added to the site, replicating the architecture of the original Waterworks Building and preserving the site's historic integrity.

During Doors Open, nearly 250 people toured the Waterworks Building to learn about the site's historic significance as well as the Town's efforts to provide clean, safe drinking water. The event was a great opportunity to showcase the multi-barrier approach to protecting the community's drinking water. It all starts with protecting water at its source. In this case, that means protecting the landscape that feeds the town's three groundwater wells, which are directly influenced by surface water due to the area's fractured bedrock. That's where the UTRCA comes in. The July 2000 Walkerton water crisis was the worst public health disaster involving municipal water in Canada, and led to the passing of the provincial Clean Water Act (CWA). In 2015, the Town of St. Marys delegated to the UTRCA the authority to provide drinking water risk management services on their behalf.



### Newcomers' Coffee Meet & Greet - St. Marys

The *Friends of the Library* is a charitable organization whose purpose is to support the vision of the St. Marys Public Library by raising funds to support special library projects, assisting with library programs and promoting public recognition of the resources available through the library. One of the services they offer is the Newcomers' Coffee Meet & Greet which gathers once a month.

Speakers are often invited to share local information with new residents of the Town. Recently, Katie Ebel, one of the Risk Management Officials / Inspectors delegated by the Town of St. Marys was invited to speak to the group about local drinking water systems, what role risk management plays and what residents can do to protect their drinking water sources. Members and guests were very engaged and empowered to be good stewards of their local drinking water supply. Source water protection communication products were distributed and the organization will be including source water protection information in future newcomer welcome packages.

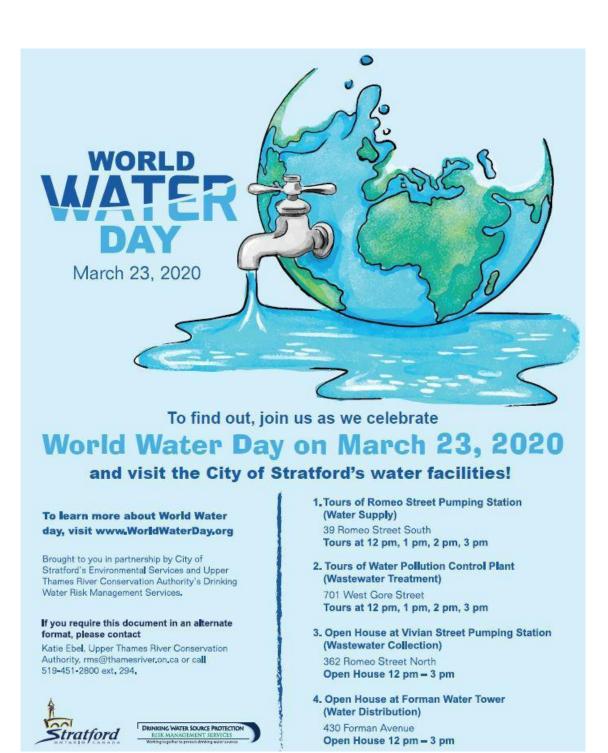


### Friends of the Library

Friends of St. Marys Public Library - Home

#### World Water Day – Stratford

\*DUE TO COVID-19, WORLD WATER DAY HAS BEEN POSTPONED INDEFINITELY



### **Children's Water Festival - Perth**

\*DUE TO COVID-19, WORLD WATER DAY HAS BEEN POSTPONED INDEFINITELY



Children's Water Festival to be hosted at Wildwood Conservation Area



This will be the first ever Children's Water Festival to be hosted in Perth County. The Children's Water Festival is a fun and educational event for students in grades 4 & 5 to learn about the importance of water in their daily lives.

Risk management staff recognized a great opportunity to expand on the current dense nonaqueous phase liquid education and outreach program and reached out to the festival's Coordinator to develop a station dedicated to source water protection. With the full support of the organizing committee and the generosity of TD Friends of the Environment Foundation (TD FEF), funding was secured to move forward.

Students will learn about sources of drinking water (ground & surface) and Ontario's multibarrier approach to protect them. They will also have the opportunity to discuss and learn how their day-to-day actions play a vital role. Through experimentation, students will discover why proper handling, storing and disposal of common household hazardous wastes is a critical part of source water protection.

Maintaining the quality and quantity of our groundwater and surface water is vital for the future development of our communities and for the health and enjoyment of the residents. Educating youth about water and the environment is the perfect way to start doing this.

Previous festivals have been held in London (2007, 2010, 2013, 2016, 2019), St. Thomas (2008, 2011, 2014, 2017) and Woodstock (2001, 2009, 2012, 2015, 2018).

The Children's Water Festivals are fully fundraised each year and have relied both on generous volunteer and financial support from the community.

To find out more, visit: <u>www.childrenswaterfestival.ca</u>

### Water is Life Forum - Hosted in Stratford

\*DUE TO COVID-19, WORLD WATER DAY HAS BEEN POSTPONED INDEFINITELY



WATER FORUM Wednesday April 22, 2020 @ 4 PM-9 PM Rotary Complex- 353 McCarthy Road Stratford, Ontario

### Agenda

4:00 - 9:00 PM EXHIBITS, EDUCATION STATIONS & CONVERSATION ZONES

7:00 PM Keynote Speaker: Kim Wheatley

\*PLEASE NOTE THAT <u>THIS IS A NO SALES</u> <u>EVENT</u> AND INSTEAD FOCUSES ON THE FREE SHARING OF IDEAS INFORMATION AND EDUCATION.

### FREE ADMISSION!

Bring your own reusable water bottle to take advantage of the fill stations on-site!

### For More Information:

Facebook: Water is Life- Stratford Water Forum

Email: WaterIsLifeForum@gmail.com

Phone: 519-271-1142

### Keynote: KIM WHEATLEY

"Shkoden Neegaan Waawaaskonen" Anishinaabe Cultural Consultant



Kim is an Anishinaabe (Ojibway) band member of Shawanaga First Nation Reserve located in the Georgian Bay region of Ontario. She is Turtle Clan and carries the spirit name "Shkoden Neegaan Waawaaskonen" which translates to "Head or Leader of the Fireflower."

Kim has been a Water Walker & water protector for over a decade. Today she continues to champion water awareness from a cultural perspective through water talks in schools, with special interest groups and as an Indigenous cultural advisor.

Our mission is to demonstrate the importance of water in the natural environment for people of Stratford and the surrounding area. Our emphasis is on education and non-partisan action.



Soup Surreal will be on site and food will be available from 4 PM- 7PM for those who would like Soup and bread!

\*CASH ONLY

### **Communication Products**

### **Source Water Protection Roll-up Banners**

These banners were created to support source water protection education and outreach initiatives in our participating municipalities and associated events. Each month they are rotated to a new municipality with flyers and magnets promoting the importance of drinking water source protection and how residents can do their part to ensure safe, plentiful drinking water in their community.



#### **Minor Spills Response Guide**

This product was developed to support risk management measure compliance for those risk management plans that require a spills action plan; this poster offers a quick reference guide in the event of a spill. Additionally, posters will be available for distribution to businesses operating in low-moderate threat areas as an opportunity for education and outreach.

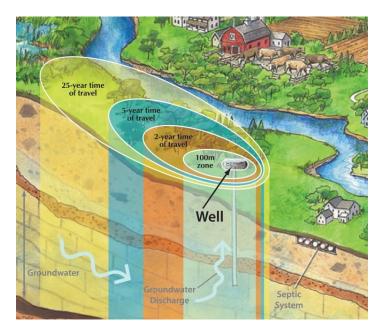


### Social Media Campaigns

Communication Product	2019 Stats	
Thames - Sydenham & Region Drinking Water Source Protection (UTRCA YouTube) <u>https://youtu.be/YH0tWNHnY-A</u>	182 views	
Drinking Water Risk Management Training Video (UTRCA YouTube) https://youtu.be/koo0880FJCE	244 views	
#WaterWednesday Campaign Posts (UTRCA Facebook & Instagram)	4,358 people reached	
#WaterWednesday Campaign Posts (SCRCA Facebook & Instagram)	552 people reached	
Drinking Water Source Protection (1:14)(English) (Conservation Ontario YouTube) https://youtu.be/nVrXvD5Eupw	39,000 views	
Drinking Water Source Protection (0:30)(English) (Conservation Ontario YouTube) <u>https://youtu.be/5kvjkpig3T4</u>	534 views	

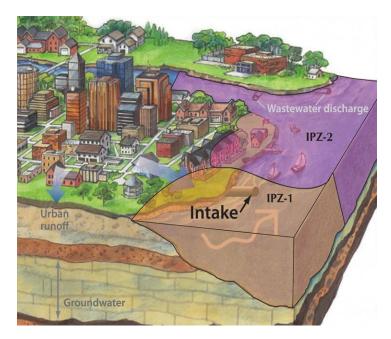
### **Appendix C: Wellhead Protection Area**

**Wellhead Protection Areas (WHPAs):** areas where water travels through the ground to a municipal well.



### **Appendix D: Intake Protection Zones**

Intake Protection Zones (IPZs): areas around municipal surface water intakes.



# Appendix E: Helpful Links

Content	Link			
Thames - Sydenham & Region Drinking Water Source Protection (Official Website)	https://www.sourcewaterprotection.on.ca			
<b>Protecting Our Water</b> (website tool connecting residents with their local hazardous waste depot)	https://www.protectingourwater.ca/			
Thames - Sydenham & Region Drinking Water Source Protection (YouTube)	https://youtu.be/YH0tWNHnY-A			
Drinking Water Risk Management Training Video (YouTube)	https://youtu.be/koo0880FJCE			
Interactive Source Water Protection Mapping Tool	https://maps.thamesriver.on.ca/gvh/?viewer= tsrassessmentreport			
Table of Drinking Water Threats & Circumstances	https://www.ontario.ca/page/tables-drinking- water-threats			

### **Appendix F: Risk Management Service Financial Statement**

#### Upper Thames River Conservation Authority Program Status For The Period Ending December 31, 2019 Risk Management Services Annual Report

	Budget	Q1	Q2	Q3	Q4	Total Year
Revenues	•					
All Participants	197,927	85,381	56,274	-	79,696	221,351
Operating Expenditures						
Staff Support Costs						
Internal Staffing	131,287	42,003	28,627	30,991	21,798	123,419
Purchased Services						
RMO Staff - SCRA	10,000	6,494	-	12,988	6,494	25,976
Printing	-	-	-	-	-	-
Office Supplies	-	-	-	-	-	-
Meeting Costs	-	-	(1,058)	1,319	-	261
Allocated Costs						
Occupany	10,089	2,596	2,400	2,194	3,034	10,224
IS/IT	10,905	2,579	2,719	2,959	2,804	11,061
Fleet Services	6,909	1,538	1,493	1,837	1,403	6,271
Administration	11,071	3,435	3,614	2,463	2,357	11,869
Finance	9,494	2,732	2,356	1,902	(1,255)	5,735
Marketing	10,095	2,749	2,327	2,405	2,060	9,541
Travel & Expenses						
Staff Expenses - Travel	500	1,557	-	3,019	1,519	6,095
Staff Expenses - Training	1,000	-	-	-	-	-
Staff Expenses - General	1,500	363	232	278	987	1,860
Data Acquisition/Management						
IM Software (LSWIMS)	-	-	242	3,110	5,476	8,828
Insurance	1,500	-	-	-	-	-
Total Operating Expenditures	204,350	66,046	42,952	65,464	46,677	221,139
Net Program Balance	(6,423)	19,335	13,322	(65,464)	33,019	212