

OPTIONAL ANNUAL REPORT TEMPLATE

Drinking-Water System Number:	260078897
Drinking-Water System Name:	St. Thomas Area Secondary Water Supply System
Drinking-Water System Owner:	Joint Board of Management of the St. Thomas Area Secondary Water Supply System
Drinking-Water System Category:	Large Municipal Residential
Period being reported:	January 1, 2013 through December 31, 2013

<p><u>Complete if your Category is Large Municipal Residential or Small Municipal Residential</u></p> <p>Does your Drinking-Water System serve more than 10,000 people? Yes [] No [X]</p> <p>Is your annual report available to the public at no charge on a web site on the Internet? Yes [X] No []</p> <p>Location where Summary Report required under O. Reg. 170/03 Schedule 22 will be available for inspection.</p> <div style="border: 1px solid black; padding: 5px;"> City of St. Thomas, City Hall Environmental Services 545 Talbot Street St Thomas, Ontario </div>	<p><u>Complete for all other Categories.</u></p> <p>Number of Designated Facilities served:</p> <div style="border: 1px solid black; width: 100px; height: 20px; margin: 5px 0;"></div> <p>Did you provide a copy of your annual report to all Designated Facilities you serve? Yes [] No []</p> <p>Number of Interested Authorities you report to:</p> <div style="border: 1px solid black; width: 100px; height: 20px; margin: 5px 0;"></div> <p>Did you provide a copy of your annual report to all Interested Authorities you report to for each Designated Facility? Yes [] No []</p>
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Note: For the following tables below, additional rows or columns may be added or an appendix may be attached to the report

List all Drinking-Water Systems (if any), which receive all of their drinking water from your system:

Drinking Water System Name	Drinking Water System Number
City of St. Thomas Water Distribution System	260002187
Municipality of Central Elgin	260004761
Township of Southwold	210001362
Dutton/Dunwich Distribution System	220002967

Did you provide a copy of your annual report to all Drinking-Water System owners that are connected to you and to whom you provide all of its drinking water?
Yes [X] No []

Indicate how you notified system users that your annual report is available, and is free of charge.

☒ **Public access/notice via the web**

City of St. Thomas Website – www.city.st-thomas.on.ca

☒ **Public access/notice via Government Office**

☐ **Public access/notice via a newspaper**

☒ **Public access/notice via Public Request**

☐ **Public access/notice via a Public Library**

☐ **Public access/notice via other method** _____

Describe your Drinking-Water System

The St. Thomas Area Secondary Supply System was constructed to supply treated water to the City of St. Thomas, the Ford Motor Company Assembly Plant near Talbotville, and the Municipality of Central Elgin and Township of Southwold. The system consists of an Elevated Water Tower storage tank and trunk water mains to the Ford Plant. A 750 mm diameter watermain is connected to the Primary System at the Old St. Thomas water works site on South Edgeware Road. The pipeline then connects to the Elevated Storage Tank, a 0.76 ML (200,000 gallon) steel teardrop elevated tank that is located just off Water Tower Line Road near Waterworks Park in the City of St. Thomas. The pipeline then extends west for approximately 2.6 km along Edgeware Road to County Road 26 and then along Ford Road/Wonderland Road before turning northwesterly for approximately 3.6 km. to the Ford Chamber located at the northwest corner of Clinton Line (Concession Road 11) and Wonderland Road. At the intersection of Ford Road and Talbotville Road, the diameter of the pipeline is reduced to 500 mm.

List all water treatment chemicals used over this reporting period

12% Sodium Hypochlorite	Chlorine Gas (EMPS)
Sodium Metabisulphite	

Were any significant expenses incurred to?

☒ **Install required equipment**

☒ **Repair required equipment**

☒ **Replace required equipment**

Please provide a brief description and a breakdown of monetary expenses incurred

Emergency Ford Tower Repair - \$12,000
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Provide details on the notices submitted in accordance with subsection 18(1) of the Safe Drinking-Water Act or section 16-4 of Schedule 16 of O.Reg.170/03 and reported to Spills Action Centre

Incident	Parameter	Result	Unit of	Corrective Action	Corrective
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Date			Measure		Action Date
Nov 04 2013	Sodium	20.4	Mg/l	Re-Sample	Nov 13 2013
Sept 21 2013	Water Pressure	< 20	psi	Flush hydrants and take chlorine residuals	Sept 21 2013
Dec 16 2013	TC and EC	1 and 1	cfu/100ml	Re-Sample and flush	Dec 17 2013

Microbiological testing done under the Schedule 10, 11 or 12 of Regulation 170/03, during this reporting period.

	Number of Samples	Range of E.Coli Or Fecal Results (min #)-(max #)	Range of Total Coliform Results (min #)-(max #)	Number of HPC Samples	Range of HPC Results (min #)-(max #)
Raw					
Treated					
Distribution	224	0-1	0-1	210	<10->2000

Operational testing done under Schedule 7, 8 or 9 of Regulation 170/03 during the period covered by this Annual Report.

	Number of Grab Samples	Range of Results (min #)-(max #)
Turbidity		
Chlorine	8760	(0.0)-(5.0)
Sample Collection Cl2	285	(0.14) –(2.10)
Fluoride (If the DWS provides fluoridation)		

NOTE: For continuous monitors use 8760 as the number of samples.

NOTE: Record the unit of measure if it is **not** milligrams per litre.
The value of 0.0 and 5.0 was recorded in the continuous chlorine sampler as a result of equipment abnormality/SCADA issue/maintenance work or calibration.

Summary of additional testing and sampling carried out in accordance with the requirement of an approval, order or other legal instrument.

Date of legal instrument issued	Parameter	Date Sampled	Result	Unit of Measure

Summary of Inorganic parameters tested during this reporting period or the most recent sample results

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Antimony	Nov 04/13	0.05	ug/l	No
Arsenic	Nov 04/13	0.2	ug/l	No
Barium	Nov 04/13	21.8	ug/l	No
Boron	Nov 04/13	17	ug/l	No
Cadmium	Nov 04/13	0.003	ug/l	No
Chromium	Nov 04/13	1.4	ug/l	No
*Lead	Nov 04/13	0.64	ug/l	No
Mercury	Nov 04/13	0.01	ug/l	No
Selenium	Nov 04/13	<1	ug/l	No
Sodium	Nov 04/13	20.4	mg/l	Yes
	Nov 13/13	20.4	mg/l	Yes
	Nov 14/13	20.2	mg/l	Yes
Uranium	Nov 04/13	0.056	ug/l	No
Fluoride				
Nitrite				
Nitrate				

*only for drinking water systems testing under Schedule 15.2; this includes large municipal non-residential systems, small municipal non-residential systems, non-municipal seasonal residential systems, large non-municipal non-residential systems, and small non-municipal non-residential systems

Summary of lead testing under Schedule 15.1 during this reporting period

(applicable to the following drinking water systems; large municipal residential systems, small municipal residential systems, and non-municipal year-round residential systems)

Location Type	Number of Samples	Range of Lead Results (min#) – (max #)	Number of Exceedances
Plumbing			
Distribution			

Lead Testing is not required for this system.

Summary of Organic parameters sampled during this reporting period or the most recent sample results

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Alachlor	Nov 04/13	<0.02 MDL	ug/L	No

Aldicarb	Nov 04/13	<0.01 MDL	ug/L	No
Aldrin + Dieldrin	Nov 04/13	<0.01 MDL	ug/L	No
Atrazine + N-dealkylated metabolites	Nov 04/13	0.06	ug/L	No
Azinphos-methyl	Nov 04/13	<0.02 MDL	ug/L	No
Bendiocarb	Nov 04/13	<.01 MDL	ug/L	No
Benzene	Nov 04/13	<0.32 MDL	ug/L	No
Benzo(a)pyrene	Nov 04/13	<0.004 MDL	ug/L	No
Bromoxynil	Nov 04/13	<0.33 MDL	ug/L	No
Carbaryl	Nov 04/13	<0.01 MDL	ug/L	No
Carbofuran	Nov 04/13	<0.01 MDL	ug/L	No
Carbon Tetrachloride	Nov 04/13	<0.16 MDL	ug/L	No
Chlordane (Total)	Nov 04/13	<0.01 MDL	ug/L	No
Chlorpyrifos	Nov 04/13	<0.02 MDL	ug/L	No
Cyanazine	Nov 04/13	<0.03 MDL	ug/L	No
Diazinon	Nov 04/13	<0.02 MDL	ug/L	No
Dicamba	Nov 04/13	<0.20 MDL	ug/L	No
1,2-Dichlorobenzene	Nov 04/13	<0.41 MDL	ug/L	No
1,4-Dichlorobenzene	Nov 04/13	<0.36 MDL	ug/L	No
Dichlorodiphenyltrichloroethane (DDT) + metabolites	Nov 04/13	<0.01 MDL	ug/L	No
1,2-Dichloroethane	Nov 04/13	<0.35 MDL	ug/L	No
1,1-Dichloroethylene (vinylidene chloride)	Nov 04/13	<0.33 MDL	ug/L	No

Dichloromethane	Nov 04/13	<0.35 MDL	ug/L	No
2-4 Dichlorophenol	Nov 04/13	<0.15 MDL	ug/L	No
2,4-Dichlorophenoxy acetic acid (2,4-D)	Nov 04/13	<0.19 MDL	ug/L	No
Diclofop-methyl	Nov 04/13	<0.40 MDL	ug/L	No
Dimethoate	Nov 04/13	<0.03 MDL	ug/L	No
Dinoseb	Nov 04/13	<0.36 MDL	ug/L	No
Diquat	Nov 04/13	<1 MDL	ug/L	No
Diuron	Nov 04/13	<0.03 MDL	ug/L	No
Glyphosate	Nov 04/13	<1 MDL	ug/L	No
Heptachlor + Heptachlor Epoxide	Nov 04/13	<0.01 MDL	ug/L	No
Lindane (Total)	Nov 04/13	<0.01 MDL	ug/L	No
Malathion	Nov 04/13	<0.02 MDL	ug/L	No
Methoxychlor	Nov 04/13	<0.01 MDL	ug/L	No
Metolachlor	Nov 04/13	<0.01 MDL	ug/L	No
Metribuzin	Nov 04/13	<0.02 MDL	ug/L	No
Monochlorobenzene	Nov 04/13	<0.30 MDL	ug/L	No
Paraquat	Nov 04/13	<1 MDL	ug/L	No
Parathion	Nov 04/13	<0.02 MDL	ug/L	No
Pentachlorophenol	Nov 04/13	<0.15 MDL	ug/L	No
Phorate	Nov 04/13	<0.01 MDL	ug/L	No
Picloram	Nov 04/13	<1 MDL	ug/L	No

Polychlorinated Biphenyls(PCB)	Nov 04/13	<0.04 MDL	ug/L	No
Prometryne	Nov 04/13	<0.03 MDL	ug/L	No
Simazine	Nov 04/13	<0.01 MDL	ug/L	No
THM (NOTE: show latest annual average)	Avg	32.75	ug/L	No
Temephos	Nov 04/13	<0.01 MDL	ug/L	No
Terbufos	Nov 04/13	<0.01 MDL	ug/L	No
Tetrachloroethylene	Nov 04/13	<0.35 MDL	ug/L	No
2,3,4,6-Tetrachlorophenol	Nov 04/13	<0.14 MDL	ug/L	No
Triallate	Nov 04/13	<0.01 MDL	ug/L	No
Trichloroethylene	Nov 04/13	<0.44 MDL	ug/L	No
2,4,6-Trichlorophenol	Nov 04/13	<.25 MDL	ug/L	No
2,4,5-Trichlorophenoxy acetic acid (2,4,5-T)	Nov 04/13	<0.22 MDL	ug/L	No
Trifluralin	Nov 04/13	<0.02 MDL	ug/L	No
Vinyl Chloride	Nov 04/13	<0.17 MDL	ug/L	No

List any Inorganic or Organic parameter(s) that exceeded half the standard prescribed in Schedule 2 of Ontario Drinking Water Quality Standards.

Parameter	Result Value	Unit of Measure	Date of Sample