



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, 2016 through December 31, 2016

<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;"> <p>City of St. Thomas, City Hall Environmental Services 545 Talbot Street St Thomas, Ontario</p> </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



Ontario Drinking-Water Systems Regulation O. Reg. 170/03

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 ☒ 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

SCADA System Upgrades \$15,000

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 Date	Parameter	Result	Unit of Measure	Corrective Action	Corrective Action Date
October 12 2016	Total Coliform and E. Coli	NDOGN	cfu/100ml	Flush and resample	October 18 2016

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	210	(0)-(NDOGN)	(0)-(NDOGN)	208	(<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	(0.00)-(2.00)
Sample Collection Cl2	215	(0.76)-(1.96)
Grab Cl2	900	(0.22)-(2.06)
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 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	December 08 2016	0.18	ug/l	No
Arsenic	December 08 2016	0.3	ug/l	No
Barium	December 08 2016	22.3	ug/l	No
Boron	December 08 2016	16	ug/l	No
Cadmium	December 08 2016	<0.003 MDL	ug/l	No
Chromium	December 08 2016	0.40	ug/l	No
*Lead	December 08 2016	0.21	ug/l	No
Mercury	December 08 2016	<0.01 MDL	ug/l	No
Selenium	December 08 2016	0.19	ug/l	No
Sodium	December 08 2016	17.3	mg/l	No
Uranium	December 08 2016	0.043	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	1	0.21	0

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	Dec. 08 2016	<0.02 MDL	ug/l	No
Atrazine + N-dealkylated metobolites	Dec. 08 2016	0.05	ug/l	No
Azinphos-methyl	Dec. 08 2016	<0.05 MDL	ug/l	No
Benzene	Dec. 08 2016	<0.32 MDL	ug/l	No
Benzo(a)pyrene	Dec. 08 2016	<0.004 MDL	ug/l	No
Bromoxynil	Dec. 08 2016	<0.33 MDL	ug/l	No
Carbaryl	Dec. 08 2016	<0.05 MDL	ug/l	No
Carbofuran	Dec. 08 2016	<0.01 MDL	ug/l	No
Carbon Tetrachloride	Dec. 08 2016	<0.16 MDL	ug/l	No
Chlorpyrifos	Dec. 08 2016	<0.02 MDL	ug/l	No
Diazinon	Dec. 08 2016	<0.02 MDL	ug/l	No
Dicamba	Dec. 08 2016	<0.20 MDL	ug/l	No
1,2-Dichlorobenzene	Dec. 08 2016	<0.41 MDL	ug/l	No
1,4-Dichlorobenzene	Dec. 08 2016	<0.36 MDL	ug/l	No
1,2-Dichloroethane	Dec. 08 2016	<0.35 MDL	ug/l	No
1,1-Dichloroethylene (vinylidene chloride)	Dec. 08 2016	<0.33 MDL	ug/l	No
Dichloromethane	Dec. 08 2016	<0.35 MDL	ug/l	No
2-4 Dichlorophenol	Dec. 08 2016	<0.15 MDL	ug/l	No

2,4-Dichlorophenoxy acetic acid (2,4-D)	Dec. 08 2016	<0.19 MDL	ug/l	No
Diclofop-methyl	Dec. 08 2016	<0.40 MDL	ug/l	No
Dimethoate	Dec. 08 2016	<0.03 MDL	ug/l	No
Diquat	Dec. 08 2016	<1 MDL	ug/l	No
Diuron	Dec. 08 2016	<0.03 MDL	ug/l	No
Glyphosate	Dec. 08 2016	<1 MDL	ug/l	No
Malathion	Dec. 08 2016	<0.02 MDL	ug/l	No
MCPA	Dec. 08 2016	<0.00012 MDL	mg/l	No
Metolachlor	Dec. 08 2016	<0.01 MDL	ug/l	No
Metribuzin	Dec. 08 2016	<0.02 MDL	ug/l	No
Monochlorobenzene	Dec. 08 2016	<0.30 MDL	ug/l	No
Paraquat	Dec. 08 2016	<1 MDL	ug/l	No
Pentachlorophenol	Dec. 08 2016	<0.15 MDL	ug/l	No
Phorate	Dec. 08 2016	<0.01 MDL	ug/l	No
Picloram	Dec. 08 2016	<1 MDL	ug/l	No
Polychlorinated Biphenyls(PCB)	Dec. 08 2016	<0.04 MDL	ug/l	No
Prometryne	Dec. 08 2016	<0.03 MDL	ug/l	No
Simazine	Dec. 08 2016	<0.01 MDL	ug/l	No
THM (NOTE: show latest annual average)	2016	30.75	ug/l	No
Terbufos	Dec. 08 2016	<0.01 MDL	ug/l	No
Tetrachloroethylene	Dec. 08 2016	<0.35 MDL	ug/l	No



2,3,4,6-Tetrachlorophenol	Dec. 08 2016	<0.20 MDL	ug/l	No
Triallate	Dec. 08 2016	<0.01 MDL	ug/l	No
Trichloroethylene	Dec. 08 2016	<0.44 MDL	ug/l	No
2,4,6-Trichlorophenol	Dec. 08 2016	<0.25 MDL	ug/l	No
Trifluralin	Dec. 08 2016	<0.02 MDL	ug/l	No
Vinyl Chloride	Dec. 08 2016	<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