

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, 2015 through December 31, 2015

<u>Complete if your Category is Large Municipal Residential or Small Municipal Residential</u> Does your Drinking-Water System serve more than 10,000 people? Yes [] No [X] Is your annual report available to the public at no charge on a web site on the Internet? Yes [X] No [] Location where Summary Report required under O. Reg. 170/03 Schedule 22 will be available for inspection. City of St. Thomas, City Hall Environmental Services 545 Talbot Street St Thomas, Ontario	<u>Complete for all other Categories.</u> Number of Designated Facilities served: Did you provide a copy of your annual report to all Designated Facilities you serve? Yes [] No [] Number of Interested Authorities you report to: Did you provide a copy of your annual report to all Interested Authorities you report to for each Designated Facility? Yes [] No []
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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

Generator Fuel System \$92,000
Surge Control Valve and Sump Pump \$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
July 30 2015	Total Coliform	1	cfu/100ml	Flush and resample	August 04 2015

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	212	(0)-(0)	(0)-(1)	212	(<10)-(>670)

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	216	(0.84)-(1.80)
Grab Cl2	890	(0.22)-(1.97)
Fluoride (If the DWS provides fluoridation)	1	0.58

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	October 20 2015	0.13	ug/l	No
Arsenic	October 20 2015	0.5	ug/l	No
Barium	October 20 2015	18.9	ug/l	No
Boron	October 20 2015	18.1	ug/l	No
Cadmium	October 20 2015	0.006	ug/l	No
Chromium	October 20 2015	0.06	ug/l	No
*Lead	October 20 2015	0.21	ug/l	No
Mercury	October 20 2015	<0.01 MDL	ug/l	No
Selenium	October 20 2015	0.14	ug/l	No
Sodium	October 20 2015	18.1	mg/l	No
Uranium	October 20 2015	0.037	ug/l	No
Fluoride	October 20 2015	0.58	mg/l	No
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			

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	Oct. 20 2015	<0.02 MDL	ug/l	No
Aldicarb	Oct. 20 2015	<0.01 MDL	ug/l	No
Aldrin + Dieldrin	Oct. 20 2015	<0.01 MDL	ug/l	No
Atrazine + N-dealkylated metabolites	Oct. 20 2015	0.09	ug/l	No
Azinphos-methyl	Oct. 20 2015	<0.05 MDL	ug/l	No
Bendiocarb	Oct. 20 2015	<0.01 MDL	ug/l	No
Benzene	Oct. 20 2015	<0.32 MDL	ug/l	No
Benzo(a)pyrene	Oct. 20 2015	<0.004 MDL	ug/l	No
Bromoxynil	Oct. 20 2015	<0.33 MDL	ug/l	No
Carbaryl	Oct. 20 2015	<0.05 MDL	ug/l	No
Carbofuran	Oct. 20 2015	<0.01 MDL	ug/l	No
Carbon Tetrachloride	Oct. 20 2015	<0.16 MDL	ug/l	No
Chlordane (Total)	Oct. 20 2015	<0.01 MDL	ug/l	No
Chlorpyrifos	Oct. 20 2015	<0.02 MDL	ug/l	No
Cyanazine	Oct. 20 2015	<0.03 MDL	ug/l	No
Diazinon	Oct. 20 2015	<0.02 MDL	ug/l	No
Dicamba	Oct. 20 2015	<0.20 MDL	ug/l	No
1,2-Dichlorobenzene	Oct. 20 2015	<0.41 MDL	ug/l	No
1,4-Dichlorobenzene	Oct. 20 2015	<0.36 MDL	ug/l	No



Dichlorodiphenyltrichloroethane (DDT) + metabolites	Oct. 20 2015	<0.01 MDL	ug/l	No
1,2-Dichloroethane	Oct. 20 2015	<0.35 MDL	ug/l	No
1,1-Dichloroethylene (vinylidene chloride)	Oct. 20 2015	<0.33 MDL	ug/l	No
Dichloromethane	Oct. 20 2015	<0.35 MDL	ug/l	No
2-4 Dichlorophenol	Oct. 20 2015	<0.15 MDL	ug/l	No
2,4-Dichlorophenoxy acetic acid (2,4-D)	Oct. 20 2015	<0.19 MDL	ug/l	No
Diclofop-methyl	Oct. 20 2015	<0.40 MDL	ug/l	No
Dimethoate	Oct. 20 2015	<0.03 MDL	ug/l	No
Dinoseb	Oct. 20 2015	<0.36 MDL	ug/l	No
Diquat	Oct. 20 2015	<1 MDL	ug/l	No
Diuron	Oct. 20 2015	<0.03 MDL	ug/l	No
Glyphosate	Oct. 20 2015	<1 MDL	ug/l	No
Heptachlor + Heptachlor Epoxide	Oct. 20 2015	<0.01 MDL	ug/l	No
Lindane (Total)	Oct. 20 2015	<0.01 MDL	ug/l	No
Malathion	Oct. 20 2015	<0.02 MDL	ug/l	No
Methoxychlor	Oct. 20 2015	<0.01 MDL	ug/l	No
Metolachlor	Oct. 20 2015	0.02	ug/l	No
Metribuzin	Oct. 20 2015	<0.02 MDL	ug/l	No
Monochlorobenzene	Oct. 20 2015	<0.30 MDL	ug/l	No
Paraquat	Oct. 20 2015	<1 MDL	ug/l	No
Parathion	Oct. 20 2015	<0.02 MDL	ug/l	No



Pentachlorophenol	Oct. 20 2015	<0.15 MDL	ug/l	No
Phorate	Oct. 20 2015	<0.01 MDL	ug/l	No
Picloram	Oct. 20 2015	<1 MDL	ug/l	No
Polychlorinated Biphenyls(PCB)	Oct. 20 2015	<0.04 MDL	ug/l	No
Prometryne	Oct. 20 2015	<0.03 MDL	ug/l	No
Simazine	Oct. 20 2015	<0.01 MDL	ug/l	No
THM (NOTE: show latest annual average)	Oct. 20 2015	30.3	ug/l	No
Temephos	Oct. 20 2015	<0.01 MDL	ug/l	No
Terbufos	Oct. 20 2015	<0.01 MDL	ug/l	No
Tetrachloroethylene	Oct. 20 2015	<0.35 MDL	ug/l	No
2,3,4,6-Tetrachlorophenol	Oct. 20 2015	<0.20 MDL	ug/l	No
Triallate	Oct. 20 2015	<0.01 MDL	ug/l	No
Trichloroethylene	Oct. 20 2015	<0.44 MDL	ug/l	No
2,4,6-Trichlorophenol	Oct. 20 2015	<0.25 MDL	ug/l	No
2,4,5-Trichlorophenoxy acetic acid (2,4,5-T)	Oct. 20 2015	<0.22 MDL	ug/l	No
Trifluralin	Oct. 20 2015	<0.02 MDL	ug/l	No
Vinyl Chloride	Oct. 20 2015	<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