



OPTIONAL ANNUAL REPORT TEMPLATE

Drinking-Water System Number:	260039208
Drinking-Water System Name:	Hamilton Township Water Agreement Distribution System
Drinking-Water System Owner:	Corporation of the Township of Hamilton
Drinking-Water System Category:	Large Municipal Residential
Period being reported:	January 1, 2017 to December 31, 2017

<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: 10px; margin-top: 20px;"> <p>- Lakefront Utility Services Inc. Office 207 Division Street, Cobourg Ontario</p> <p>- www.lusi.on.ca</p> </div>	<p><u>Complete for all other Categories.</u></p> <p>Number of Designated Facilities served: <input type="text"/></p> <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: <input type="text" value="1"/></p> <p>Did you provide a copy of your annual report to all Interested Authorities you report to for each Designated Facility? Yes [X] 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
n/a	n/a

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 [X]

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

- Public access/notice via the web
- 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 Hamilton Township Stand Alone Distribution System is supplied with potable water produced by the Cobourg Water Treatment Plant. The Cobourg WTP obtains raw water through a 1050 mm steel intake pipe that extends 850 m into Lake Ontario. The Stand-Alone Distribution System extends north of Hwy. 401 from Ontario Street to Oliver's Lane. Treated water is supplied to approximately 119 homes in the area bounded by Ontario Street, Oliver's Lane, and June Avenue. The service area consists of 150 mm, 200 mm, and 300 mm watermains, 23 valves, and 13 hydrants.

The Hamilton Township Stand Alone Distribution System includes a total of 19 fire hydrants and 36 distribution valves. There are no storage, pressure boosting, rechlorination facilities, or other external structures provided in the Hamilton Township Stand-Alone Distribution System.

List all water treatment chemicals used over this reporting period

Aluminum Sulphate
Chlorine
Sodium Hypochlorite

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

Filter Refurbishment/ Upgrade Phase 2: \$1,075,000.00- replacement of under drains/filter material
 Low lift Pumps 1 & 2- 40 HP AB VFDs- 25,000
 James Street Watermain Replacement: \$ 375,000
 Residential Water Meter Replacement Project: \$ 375,000- RF meter program
 Commercial Water Meter Replacement Project: \$ 75, 000- RF meter up-grades
 HACH Turbidity Meters- \$ 45,000
 Underground electrical replacement at WTP- \$30,000
 Filter Effluent Mag Meters- \$ 78,000
 LED Lighting WTP- \$ 20,000
 Replace Clarifier Drive Motor- \$ 11,600.00

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
June 14, 2017	Observation- Improperly Disinfected Water Directed to Water Users, etc: Tie in to new constructed watermain. Length of watermain to be installed greater than 6.0m.	n/a	n/a	Reported to MOECC and MOH. BWA issued. Notified affected residents. Completed tie in. Flushed affected area. Final chlorine residual at 3 sample points 1.18F, 1.25F, and 1.18F 19:54 and 20:10. Collected and analyzed 2 sets of bacteriological samples. Bleeder line was run until advisory lifted.	June 16, 2017



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

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	52	0 – 4	0 – 132	N/A	N/A
Treated	52	0 – 0	0 – 0	52	0 – 82
Distribution	371	0 – 0	0 – 0	213	0 – 91

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 #)
Filter Turbidity (NTU)	8760	0.00 – 1.00
Chlorine (mg/l)	8760	0.99 – 1.89
Fluoride (If the DWS provides fluoridation)	N/A	

NOTE: For continuous

Note: System is programmed to shut down when chlorine residual reaches 0.60 mg/l or when turbidity reaches 0.30 NTU. The numbers shown in the range represent instantaneous events in the system caused by power flickers, calibrations, and other operational anomalies. These numbers are not representative of normal operating conditions.

NOTE: Record the unit of measure if it is **not** milligrams per litre.

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	# of samples	Result	Unit of Measure
June 23, 2016 MDWL	Suspended Solids	Yearly Avg.	11	3.0 (no monthly exceedances)	mg/L

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

Parameter	Result Value	Standard	Unit of Measure	Exceedance	Sample Date
Antimony	0.14	6	ug/l	no	18-Jan-2017
Arsenic	0.2	25	ug/l	no	18-Jan-2017
Barium	21.5	1000	ug/l	no	18-Jan-2017
Boron	23	5000	ug/l	no	18-Jan-2017
Cadmium	0.005	5	ug/l	no	18-Jan-2017
Chromium	0.56	50	ug/l	no	18-Jan-2017
Mercury	0.01 <MDL	1	ug/l	no	18-Jan-2017
Selenium	0.16	10	ug/l	no	18-Jan-2017
Uranium	0.046	20	ug/l	no	18-Jan-2017
Nitrite	0.003 <MDL	1	mg/l	no	Nov. 13/17
Nitrate	0.370	10	mg/l	no	Nov. 13/17
Fluoride	0.09	1.5	mg/L	no	Jan. 12/15
Sodium	17.7	20	mg/l	no	Jan. 12/15
Antimony	0.14	6	ug/l	no	18-Jan-2017

*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	22	0.11 – 0.90	0
Distribution	6	0.19 – 0.40	0

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

Parameter	Sample Date	Result Value	Standard	Unit of Measure	Exceedance
Benzene	18-Jan-2017	0.32	1	ug/L	NO
Carbon tetrachloride	18-Jan-2017	0.16	2	ug/L	NO
1,2-Dichlorobenzene	18-Jan-2017	0.41	200	ug/L	NO
1,4-Dichlorobenzene	18-Jan-2017	0.36	5	ug/L	NO
1,1-Dichloroethylene (vinylidene chloride)	18-Jan-2017	0.33	14	ug/L	NO
1,2-Dichloroethane	18-Jan-2017	0.35	5	ug/L	NO
Dichloromethane	18-Jan-2017	0.35	50	ug/L	NO
Monochlorobenzene	18-Jan-2017	0.30	80	ug/L	NO
Tetrachloroethylene (perchloroethylene)	18-Jan-2017	0.35	30	ug/L	NO
Trichloroethylene	18-Jan-2017	0.44	5	ug/L	NO
Vinyl Chloride	18-Jan-2017	0.17	1	ug/L	NO
Diquat	18-Jan-2017	1	70	ug/L	NO
Paraquat	18-Jan-2017	1	10	ug/L	NO
Glyphosate	18-Jan-2017	1	280	ug/L	NO
Polychlorinated Biphenyls (PCBs) - Total	18-Jan-2017	0.04	3	ug/L	NO
Benzo(a)pyrene	18-Jan-2017	0.004	0.01	ug/L	NO
Alachlor	18-Jan-2017	0.02	1	ug/L	NO
Atrazine + N-dealkylated metabolites	18-Jan-2017	0.02	5	ug/L	NO
Atrazine	18-Jan-2017	0.02	--	ug/L	NO
Desethyl atrazine	18-Jan-2017	0.01 <MDL	--	ug/L	NO
Azinphos-methyl	18-Jan-2017	0.05 <MDL	20	ug/L	NO
Carbaryl	18-Jan-2017	0.05 <MDL	90	ug/L	NO
Carbofuran	18-Jan-2017	0.01 <MDL	90	ug/L	NO
Chlorpyrifos	18-Jan-2017	0.02 <MDL	90	ug/L	NO
Diazinon	18-Jan-2017	0.02 <MDL	20	ug/L	NO
Dimethoate	18-Jan-2017	0.03 <MDL	20	ug/L	NO
Diuron	18-Jan-2017	0.03 <MDL	150	ug/L	NO
Malathion	18-Jan-2017	0.02 <MDL	190	ug/L	NO
Metolachlor	18-Jan-2017	0.01 <MDL	50	ug/L	NO
Metribuzin	18-Jan-2017	0.02 <MDL	80	ug/L	NO
Phorate	18-Jan-2017	0.01 <MDL	2	ug/L	NO
Prometryne	18-Jan-2017	0.03 <MDL	1	ug/L	NO
Simazine	18-Jan-2017	0.01 <MDL	10	ug/L	NO
Terbufos	18-Jan-2017	0.01 <MDL	1	ug/L	NO
Triallate	18-Jan-2017	0.01 <MDL	230	ug/L	NO
Trifluralin	18-Jan-2017	0.02 <MDL	45	ug/L	NO
2,4-dichlorophenoxyacetic acid (2,4-D)	18-Jan-2017	0.19 <MDL	100	ug/L	NO
Bromoxynil	18-Jan-2017	0.33 <MDL	5	ug/L	NO
Dicamba	18-Jan-2017	0.20 <MDL	120	ug/L	NO
Diclofop-methyl	18-Jan-2017	0.40 <MDL	9	ug/L	NO
MCPA	18-Jan-2017	0.00012 <MDL	0.1	mg/L	NO
Picloram	18-Jan-2017	1 <MDL	190	ug/L	NO
2,4-dichlorophenol	18-Jan-2017	0.15 <MDL	900	ug/L	NO
2,4,6-trichlorophenol	18-Jan-2017	0.25 <MDL	5	ug/L	NO
2,3,4,6-tetrachlorophenol	18-Jan-2017	0.20 <MDL	100	ug/L	NO
Pentachlorophenol	18-Jan-2017	0.15 <MDL	60	ug/L	NO
THM: Annual Average	13-Nov-2017	21.50	100	ug/l	NO
HAA: Annual Average	13-Nov-2017	1.65	80	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
Sodium	17.7	mg/L	January 12, 2015