



OPTIONAL ANNUAL REPORT TEMPLATE

Drinking-Water System Number:	260005307
Drinking-Water System Name:	Fanshawe Cottage Complex
Drinking-Water System Owner:	Upper Thames River Conservation Authority
Drinking-Water System Category:	Non-Municipal Year Round Residential
Period being reported:	January 1, 2019 – December 31, 2019

<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; height: 100px; width: 100%;"></div>	<p><u>Complete for all other Categories.</u></p> <p>Number of Designated Facilities served: <div style="border: 1px solid black; padding: 2px; display: inline-block;">none</div></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: <div style="border: 1px solid black; padding: 2px; display: inline-block;">none</div></p> <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
none	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

Water for the drinking water system is supplied by two drilled wells located west of the pump house. These wells are collectively referred to by staff as wells F5. Submersible well pumps draw water from the wells which enter the pump house via separate discharge pipes. Primary disinfection for each well source is achieved through the use of separate ultraviolet (UV) disinfection units, one on each discharge line. Each UV unit is located downstream of separate disinfection units (5 micron), which are used to provide necessary inactivation of viruses. Downstream of the UV treatment, flow from each well enters a common header where the water is injected with sodium hypochlorite to provide necessary secondary disinfection. Water then enters an in-ground storage reservoir where it is subsequently drawn via two distribution pumps that supply water to the Fanshawe Cottage Complex. All critical functions of the disinfection treatment system are monitored for faults. The pump house is equipped with an on-line chlorine analyzer to monitor the free chlorine residual leaving the pump house. In the event that the residual should drop below the low alarm level, a control relay will stop the distribution pumps to prevent the water from entering the distribution system. In addition, the UV disinfection systems include fail-safe solenoid valves mounted immediately upstream of each unit which are set to close in the event of a UV alarm or loss of power.

List all water treatment chemicals used over this reporting period

Sodium Hypochlorite and Ultraviolet Light

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

Normal operation, maintenance and sampling requirement expenses.

Replacement of 10 control relays and two solenoids in the main control panel. Cost 575.50 +hst. Date July 22, 2019.

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 *Not applicable during this reporting period*

Incident Date	Parameter	Result	Unit of Measure	Corrective Action	Corrective Action Date

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	54	Min 0. – Max 1	Min 0 – Max 9	0	0
Treated	27	Min 0. – Max 0	Min 0 – Max 0	0	0
Distribution	54	Min 0. – Max 0	Min 0 – Max 0	54	Min <10 – Max 570

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 #)	Unit of Measure
Turbidity	230	Min 0.09 – Max 0.98	ntu
Chlorine	328	Min 0.75 – Max 3.18	ppm
Fluoride (If the DWS provides fluoridation)	n/a	n/a	n/a

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

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
C of A	Alkalinity	March 6, 2019	280	mg/L
		Dec 11, 2019	280	mg/L
C of A	ph	March 6, 2019	7.83	pH
		Dec 11, 2019	7.89	pH

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	Oct 31 -19	ND	ug/L	No
Arsenic	Oct 31 -19	ND	ug/L	No
Barium	Oct 31 -19	67	ug/L	No
Boron	Oct 31 -19	17	ug/L	No

Cadmium	Oct 31 -19	ND	ug/L	No
Chromium	Oct 31 -19	ND	ug/L	No
*Lead	n/a	ND	ug/L	No
Mercury	Oct 31 -19	ND	ug/L	No
Selenium	Oct 31 -19	ND	ug/L	No
Sodium	Oct 31 -19	13000	ug/L	No
Uranium	Oct 31 -19	0.75	ug/L	No
Fluoride	Oct 31 -19	0.21	ug/L	No
Nitrite	March 6, 2019 June 13, 2019 Sept 23, 2019 Dec 11, 2019	ND ND ND ND	mg/L	No
Nitrate	March 6, 2019 June 13, 2019 Sept 23, 2019 Dec 11, 2019	1.94 2.16 2.10 1.58	mg/L	No

*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)

Not applicable during this reporting period.

Location Type	Number of Samples	Range of Lead Results (min#) – (max #)	Unit of Measure	Number of Exceedances
Plumbing	n/a	n/a	ug/L	n/a
Distribution	n/a	n/a	ug/L	n/a

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 31 -19	ND	ug/L	No
Atrazine + N-dealkylated metabolites	Oct 31 -19	ND	ug/L	No
Azinphos-methyl	Oct 31 -19	ND	ug/L	No
Benzene	Oct 31 -19	ND	ug/L	No
Benzo(a)pyrene	Oct 31 -19	ND	ug/L	No
Bromoxynil	Oct 31 -19	ND	ug/L	No
Carbaryl	Oct 31 -19	ND	ug/L	No
Carbofuran	Oct 31 -19	ND	ug/L	No
Carbon Tetrachloride	Oct 31 -19	ND	ug/L	No
Chlorpyrifos	Oct 31 -19	ND	ug/L	No
Diazinon	Oct 31 -19	ND	ug/L	No
Dicamba	Oct 31 -19	ND	ug/L	No
1,2-Dichlorobenzene	Oct 31 -19	ND	ug/L	No
1,4-Dichlorobenzene	Oct 31 -19	ND	ug/L	No
1,2-Dichloroethane	Oct 31 -19	ND	ug/L	No

1,1-Dichloroethylene (vinylidene chloride)	Oct 31 -19	ND	ug/L	No
Dichloromethane	Oct 31 -19	ND	ug/L	No
2-4 Dichlorophenol	Oct 31 -19	ND	ug/L	No
2,4-Dichlorophenoxy acetic acid (2,4-D)	Oct 31 -19	ND	ug/L	No
Diclofop-methyl	Oct 31 -19	ND	ug/L	No
Dimethoate	Oct 31 -19	ND	ug/L	No
Diquat	Oct 31 -19	ND	ug/L	No
Diuron	Oct 31 -19	ND	ug/L	No
Glyphosate	Oct 31 -19	ND	ug/L	No
Malathion	Oct 31 -19	ND	ug/L	No
Methoxychlor	Oct 31 -19	ND	ug/L	No
Metolachlor	Oct 31 -19	ND	ug/L	No
Metribuzin	Oct 31 -19	ND	ug/L	No
Monochlorobenzene	Oct 31 -19	ND	ug/L	No
Paraquat	Oct 31 -19	ND	ug/L	No
Pentachlorophenol	Oct 31 -19	ND	ug/L	No
Phorate	Oct 31 -19	ND	ug/L	No
Picloram	Oct 31 -19	ND	ug/L	No
Polychlorinated Biphenyls(PCB)	Oct 31 -19	ND	ug/L	No
Prometryne	Oct 31 -19	ND	ug/L	No
Simazine	Oct 31 -19	ND	ug/L	No
THM (NOTE: show latest annual average)	Mar 6, 2019 June 13, 2019 Sept 23, 2019 Dec 11, 2019	4.86	ug/L	No
Terbufos	Oct 31 -19	ND	ug/L	No
Tetrachloroethylene	Oct 31 -19	ND	ug/L	No
2,3,4,6-Tetrachlorophenol	Oct 31 -19	ND	ug/L	No
Triallate	Oct 31 -19	ND	ug/L	No
Trichloroethylene	Oct 31 -19	ND	ug/L	No
2,4,6-Trichlorophenol	Oct 31 -19	ND	ug/L	No
2,4,5-Trichlorophenoxy acetic acid (2,4,5-T) MCPA	Oct 31 -19	ND	ug/L	No
Trifluralin	Oct 31 -19	ND	ug/L	No
Vinyl Chloride	Oct 31 -19	ND	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
	n/a	n/a	n/a
	n/a	n/a	n/a