



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, 2018 – December 31, 2018

<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 [] 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>
---	---

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 and maintenance expenses.
 Replacement of two solenoid actuator valves for treatment system of well #1 and well#2 with Stantons Eco Flow. Total Cost \$771.00
 Replaced fuse in electrical panel for well #2, all floats (low water, timer, operating float, high water) in system distribution tank. Total cost \$1359.96

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	55	Min 0. – Max 0	Min 0 – Max 1	0	0
Treated	28	Min 0. – Max 0	Min 0 – Max 0	0	0
Distribution	56	Min 0. – Max 0	Min 0 – Max 0	56	Min <10 – Max 20

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	218	Min 0.06 – Max 0.98	ntu
Chlorine	290	Min 0.13 – Max 2.77	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 26, 2018	310	mg/L
		October 3, 2018	300	mg/L
		December 11, 2018	280	mg/L
C of A	ph	March 26, 2018	7.93	pH
		October 3, 2018	7.83	pH
		December 11, 2018	7.97	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	June 26 -14	ND	ug/L	No
Arsenic	June 26 -14	ND	ug/L	No
Barium	June 26 -14	ND	ug/L	No
Boron	June 26 -14	ND	ug/L	No
Cadmium	June 26 -14	ND	ug/L	No
Chromium	June 26 -14	ND	ug/L	No
*Lead	n/a	ND	ug/L	No
Mercury	June 26 -14	ND	ug/L	No



Selenium	June 26 -14	ND	ug/L	No
Sodium	June 26 -14	ND	ug/L	No
Uranium	June 26 -14	ND	ug/L	No
Fluoride	June 26 -14	ND	ug/L	No
Nitrite	March 19, 2018 June 19, 2018 Sept 26, 2018 Dec 11, 2018	ND ND ND ND	mg/L	No
Nitrate	March 19, 2018 June 19, 2018 Sept 26, 2018 Dec 11, 2018	1.06 2.06 2.28 1.81	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)

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	June 26 -14	ND	ug/L	No
Aldicarb	June 26 -14	ND	ug/L	No
Aldrin + Dieldrin	June 26 -14	ND	ug/L	No
Atrazine + N-dealkylated metabolites	June 26 -14	ND	ug/L	No
Azinphos-methyl	June 26 -14	ND	ug/L	No
Bendiocarb	June 26 -14	ND	ug/L	No
Benzene	June 26 -14	ND	ug/L	No
Benzo(a)pyrene	June 26 -14	ND	ug/L	No
Bromoxynil	June 26 -14	ND	ug/L	No
Carbaryl	June 26 -14	ND	ug/L	No
Carbofuran	June 26 -14	ND	ug/L	No
Carbon Tetrachloride	June 26 -14	ND	ug/L	No
Chlordane (Total)	June 26 -14	ND	ug/L	No
Chlorpyrifos	June 26 -14	ND	ug/L	No
Cyanazine	June 26 -14	ND	ug/L	No
Diazinon	June 26 -14	ND	ug/L	No
Dicamba	June 26 -14	ND	ug/L	No
1,2-Dichlorobenzene	June 26 -14	ND	ug/L	No
1,4-Dichlorobenzene	June 26 -14	ND	ug/L	No
Dichlorodiphenyltrichloroethane (DDT) + metabolites	June 26 -14	ND	ug/L	No
1,2-Dichloroethane	June 26 -14	ND	ug/L	No



1,1-Dichloroethylene (vinylidene chloride)	June 26 -14	ND	ug/L	No
Dichloromethane	June 26 -14	ND	ug/L	No
2-4 Dichlorophenol	June 26 -14	ND	ug/L	No
2,4-Dichlorophenoxy acetic acid (2,4-D)	June 26 -14	ND	ug/L	No
Diclofop-methyl	June 26 -14	ND	ug/L	No
Dimethoate	June 26 -14	ND	ug/L	No
Dinoseb	June 26 -14	ND	ug/L	No
Diquat	June 26 -14	ND	ug/L	No
Diuron	June 26 -14	ND	ug/L	No
Glyphosate	June 26 -14	ND	ug/L	No
Heptachlor + Heptachlor Epoxide	June 26 -14	ND	ug/L	No
Lindane (Total)	June 26 -14	ND	ug/L	No
Malathion	June 26 -14	ND	ug/L	No
Methoxychlor	June 26 -14	ND	ug/L	No
Metolachlor	June 26 -14	ND	ug/L	No
Metribuzin	June 26 -14	ND	ug/L	No
Monochlorobenzene	June 26 -14	ND	ug/L	No
Paraquat	June 26 -14	ND	ug/L	No
Parathion	June 26 -14	ND	ug/L	No
Pentachlorophenol	June 26 -14	ND	ug/L	No
Phorate	June 26 -14	ND	ug/L	No
Picloram	June 26 -14	ND	ug/L	No
Polychlorinated Biphenyls(PCB)	June 26 -14	ND	ug/L	No
Prometryne	June 26 -14	ND	ug/L	No
Simazine	June 26 -14	ND	ug/L	No
THM (NOTE: show latest annual average)	Mar 26-18 June 26-18 Oct 3-18 Dec 11- 18	4.35	ug/L	No
Temephos	June 26 -14	ND	ug/L	No
Terbufos	June 26 -14	ND	ug/L	No
Tetrachloroethylene	June 26 -14	ND	ug/L	No
2,3,4,6-Tetrachlorophenol	June 26 -14	ND	ug/L	No
Triallate	June 26 -14	ND	ug/L	No
Trichloroethylene	June 26 -14	ND	ug/L	No
2,4,6-Trichlorophenol	June 26 -14	ND	ug/L	No
2,4,5-Trichlorophenoxy acetic acid (2,4,5-T)	June 26 -14	ND	ug/L	No
Trifluralin	June 26 -14	ND	ug/L	No
Vinyl Chloride	June 26 -14	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