

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

**Part III Form 2
Section 11. ANNUAL REPORT.**

Drinking-Water System Number:	210000078
Drinking-Water System Name:	Southampton Water Treatment Plant & Distribution System
Drinking-Water System Owner:	Town of Saugeen Shores
Drinking-Water System Category:	Large Municipal Residential
Period being reported:	January 1 to December 31, 2003

<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 [X]</p> <p>Location where Report required under O. Reg. 170/03 Schedule 22 will be available for inspection.</p> <div style="border: 1px solid black; padding: 5px;"> <p>Town of Saugeen Shores 600 Tomlinson Drive Port Elgin, Ontario N0H 2C0 519-832-2008</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"/></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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List Drinking-Water Systems, which receive all of their drinking water from your system:

Saugeen First Nations

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 [] N/A [X]

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

- [X] Public access/notice via the web
- [X] 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

Class 2 Water Distribution, Class 3 Water Treatment

Operational Description: There is 1200'(365.8m) of 24" (600mm concrete intake pipe into Lake Huron that enters the low lift pump station. Zebra mussel control by chlorine at intake crib. Pre-chlorination at low lift station. Manual screening of raw water at intake well. 3 low lift pumps at low lift pump station (66 l/s each) discharge to a 16" (400mm) dia. raw water transmission line approximately 2400' (732m) in length to the water treatment plant located on Island Street. Polyaluminum chloride is added to the raw water as it enters the plant, passes through a static mixer and empties into 2 reactor-clarifier pretreatment units. Clarified water is then transmitted to 3 dual media pre-engineered, prefabricated steel filters. Filtered water is then chlorinated and stored in a 2 compartment underground reservoir with a capacity of 1336m³. Clarifier sludge and filter backwash water is directed to a 307m³, 2 compartment surge-settling tank. Decanted water is discharged to a drainage ditch which discharges eventually to Lake Huron. Waste sludge is discharged to the municipal sanitary sewer system. Treated water is discharged to the water system by 3 vertical turbine pumps. 2 pumps have a capacity of 60 l/s and 1 @ 45 l/s. A water storage tower with a capacity of 750000 imp. gals. (3409m³) is connected to the system to provide pressure within the system and to provide storage for fire fighting and domestic supply for the town, a small number of users in Saugeen Township and the residents of Chippawa Hill, a section of the Saugeen First Nations Indian Reserve.

List all water treatment chemicals used over this reporting period

Poyaluminum chloride
Anthracite
Chlorine (gas)
Sodium Metabisulphate

Were any significant expenses incurred to?

- Install required equipment
- Repair required equipment
- Replace required equipment

Describe

*Recoat Clarifier
*Turbidity meter repairs
*PLC/Outpost system repairs

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
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Jan 28/03	Total Coliforms	1	cfu/100ml	Total Coliform	Jan 31/03
June 3/03	Total Coliforms TC-Background	11 >2400	cfu/100ml cfu/100ml	Resample initiated	June 6/03
Aug 12/03	Total Coliforms	1	cfu/100ml	Resample initiated	Aug 15/03
Nov 10/03	Total Coliforms	1	cfu/100ml	Resample initiated	Nov 12/03

Microbiological testing done under section Schedule 10 during this reporting period

	Number of Samples	Range of E.Coli or Fecal Results (#-#)	Range of Total Coliform Results (#-#)	Number of HPC Samples	Range of HPC Results (#-#)
Raw	52	0-62	0-1240	50	0-1960
Treated	52	0-0	0-0	1	0-0
Distribution	393	0-0	0-11	18	0-2

Operational testing done under Schedule 7 during the period covered by this Annual Report.

Treated Water	Number of Grab Samples	Range of Results (#-#)
Turbidity	8760	0.05 to 0.35
Chlorine (total) Chlorine (free)	8760 8760	.83 - 2 .72 - 2.28
Fluoride (If the DWS provides fluoridation)	n/a	
Distribution System		
Chlorine Residual	425	0.18 to 2.20

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 or order.

Date of order or C of A	Parameter	Date Sampled	Result	Unit of Measure
C of A 9472-5PPNLG Backwash Supernatant	Suspended Solids	monthly	Annual avg. <6.9	mg/L

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

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Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Antimony	Oct 21/03	<.6	ug/L	0
Arsenic	Oct 21/03	<2.0	ug/L	0
Barium	Oct 21/03	13	ug/L	0
Boron	Oct 21/03	10.0	ug/L	0
Cadmium	Oct 21/03	<.1	ug/L	0
Chromium	Oct 21/03	<3.0	ug/L	0
Copper	Aug 11/03	<64	ug/L	0
Iron	Aug 11/03	<90.0	ug/L	0
Lead (Treated)	Aug 11/03	<.6	ug/L	0
Lead (Distribution)	Oct 21/03	<.6	ug/L	0
Manganese	Aug 11/03	<2.0	ug/L	0
Mercury	Oct 21/03	<.2	ug/L	0
Selenium	Oct 21/03	<3.0	ug/L	0
Sodium	Aug 11/03	<4.5	mg/L	0
Uranium	Oct 21/03	.05	ug/L	0
Fluoride	Jan 14/03	.18	mg/L	0
Nitrite	01/14/03 04/01/03 07/15/03 Oct 21/03	<0.011 <0.011 <0.011 <0.011	mg/L	0
Nitrate	01/14/03 04/01/03 07/15/03 Oct 21/03	.434 .574 .393 .373	mg/L	0

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

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Alachlor	Oct 21/03	<.11	ug/L	0
Aldicarb	Oct 21/03	<.3	ug/L	0
Aldrin + Dieldrin	Oct 21/03	<.067	ug/L	0
Atrazine + N-dealkylated metabolites	Oct 21/03	<.012	ug/L	0
Azinphos-methyl	Oct 21/03	<.21	ug/L	0
Bendiocarb	Oct 21/03	<.13	ug/L	0
Benzene	Oct 21/03	<.36	ug/L	0
Benzo(a)pyrene	Oct 21/03	<.004	ug/L	0
Bromoxynil	Oct 21/03	<.094	ug/L	0
Carbaryl	Oct 21/03	<.16	ug/L	0
Carbofuran	Oct 21/03	<.37	ug/L	0
Carbon Tetrachloride	Oct 21/03	<.34	ug/L	0
Chlordane (Total)	Oct 21/03	<.11	ug/L	0
Chlorpyrifos	Oct 21/03	<.18	ug/L	0
Cyanazine	Oct 21/03	<.18	ug/L	0

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Diazinon	Oct 21/03	<.081	ug/L	0
Dicamba	Oct 21/03	<.17	ug/L	0
1,2-Dichlorobenzene	Oct 21/03	<.56	ug/L	0
1,4-Dichlorobenzene	Oct 21/03	<.25	ug/L	0
Dichlorodiphenyltrichloroethane (DDT) + metabolites	Oct 21/03	<.14	ug/L	0
1,2-Dichloroethane	Oct 21/03	<.32	ug/L	0
1,1-Dichloroethylene (vinylidene chloride)	Oct 21/03	<.52	ug/L	0
Dichloromethane	Oct 21/03	<1.17	ug/L	0
2-4 Dichlorophenol	Oct 21/03	<.15	ug/L	0
2,4-Dichlorophenoxy acetic acid (2,4-D)	Oct 21/03	<.11	ug/L	0
Diclofop-methyl	Oct 21/03	<.13	ug/L	0
Dimethoate	Oct 21/03	<.12	ug/L	0
Dinoseb	Oct 21/03	<.084	ug/L	0
Diquat	Oct 21/03	<1.0	ug/L	0
Diuron	Oct 21/03	<.087	ug/L	0
Ethylbenzene	April 1/03	<.47	ug/L	0
Glyphosate	Oct 21/03	<6.0	ug/L	0
Heptachlor + Heptachlor Epoxide	Oct 21/03	<.11	ug/L	0
Linadane (Total)	Oct 21/03	<.056	ug/L	0
Malathion	Oct 21/03	<.091	ug/L	0
Methoxychlor	Oct 21/03	<.14	ug/L	0
Metolachlor	Oct 21/03	<.092	ug/L	0
Metribuzin	Oct 21/03	<.12	ug/L	0
Monochlorobenzene	Oct 21/03	<.46	ug/L	0
Paraquat	Oct 21/03	<1.0	ug/L	0
Parathion	Oct 21/03	<.018	ug/L	0
Pentachlorophenol	Oct 21/03	<.15	ug/L	0
Phorate	Oct 21/03	<.11	ug/L	0
Picloram	Oct 21/03	<.2	ug/L	0
Polychlorinated Biphenyls(PCB)	Oct 21/03	<.04	ug/L	0
Promethyne	Oct 21/03	<.23	ug/L	0
Simazine	Oct 21/03	<.15	ug/L	0
THM- Distribution (NOTE: show latest quarterly average) Annual Average: 26.7 ug/L	01/14/03 04/01/03 07/15/03 10/21/03	18 20 29 40	ug/L	
Temephos	Oct 21/03	<.31	ug/L	0
Terbufos	Oct 21/03	<.12	ug/L	0
Tetrachloroethylene	Oct 21/03	<.48	ug/L	0
2,3,4,6-Tetrachlorophenol	Oct 21/03	<.14	ug/L	0
Toluene	April 1/03	<.58	ug/L	0
Triallate	Oct 21/03	<.1	ug/L	0

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Trichloroethylene	Oct 21/03	<.54	ug/L	0
2,4,6-Trichlorophenol	Oct 21/03	<.25	ug/L	0
2,4,5-Trichlorophenoxy acetic acid (2,4,5-T)	Oct 21/03	<.14	ug/L	0
Trifluralin	Oct 21/03	<.12	ug/L	0
Vinyl Chloride	Oct 21/03	<.08	ug/L	0
Xylene	April 1/03	<.58	ug/L	0

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

(Only if category is large municipal residential, small municipal residential, large municipal non residential, small municipal non residential, large non municipal non residential)

Revised March 9/04