



ANNUAL REPORT

Drinking-Water System Number:	220005161
Drinking-Water System Name:	Washago Water Supply and Distribution
Drinking-Water System Owner:	The Corporation of the Township of Severn
Drinking-Water System Category:	Large Municipal Residential
Period being reported:	January 1, 2019 to 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; padding: 5px;"> <p>Township of Severn Administrative Office 1024 Hurlwood Lane Severn, Ontario L3V 0Y6</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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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
Ramara Knob Hill / Somerset	260046137

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
- 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 Washago water treatment plant is pumped from Lake Couchiching to a package water treatment plant located on Quetton Street. Chlorine dioxide and SternPAC are added prior to direct filtration. Filtration is provided by two (2) trains of pressure type depth filters and clarifiers, followed by GAC filtration. Filtered water is chlorinated and then sent to a 257 m³, three-cell, baffled concrete underground reservoir for storage. Backwash water from the clarifiers and filters is sent directly to the sanitary sewage system. The distribution system was constructed in the 1980's and consists of PVC piping with a recirculation line connecting all dead ends. There are 11 fire hydrants and four sample stations connected to the distribution system. The Washago water system serves approximately 300 residents in the village of Washago in the Township of Severn and 17 houses in the Township of Ramara.

List all water treatment chemicals used over this reporting period

Sodium Hypochlorite
 Stern PAC
 Sodium Chlorite
 Hydrochloric Acid

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

N/A

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
N/A					

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 – 32	0 – 600	N/A	N/A
Treated	52	0 – 0	0 – 0	50	0 – 7
Distribution	106	0 – 0	0 – 0	52	0 – 1

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 – Train 1	8760	0.02 – 0.20 NTU
Turbidity – Train 2	8760	0.02 – 0.65 NTU
Turbidity	8760	0.04 – 0.15 NTU
Chlorine	8760	1.29 – 1.86
Chlorine Free Residual Distribution Supply	364	0.85 – 1.81
Fluoride (If the DWS provides fluoridation)	N/A	

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

*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	Result	Unit of Measure
July 16, 2012	Chlorite	Jan. 9, 2019	0.17	mg/L
		Feb. 6, 2019	0.09	
		March 4, 2019	0.16	
		April 15, 2019	0.18	
		May 6, 2019	0.2	
		June 3, 2019	0.16	
		July 8, 2019	0.14	
		August 6, 2019	0.13	
		Sept. 3, 2019	0.19	
		Oct. 7, 2019	0.29	
		Nov. 5, 2019	0.28	
		Dec. 4, 2019	0.17	
		July 16, 2012	Chlorate	
Feb. 6, 2019	0.41			
March 4, 2019	0.47			
April 15, 2019	0.43			
May 6, 2019	0.42			
June 3, 2019	0.48			
July 8, 2019	0.71			
August 6, 2019	0.83			
Sept. 3, 2019	0.7			
Oct. 7, 2019	0.53			
Nov. 5, 2019	0.33			
Dec. 4, 2019	0.4			

0.16

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 29, 2019	0.13	µg/L	No
Arsenic	October 29, 2019	0.4	µg/L	No
Barium	October 29, 2019	22.8	µg/L	No
Boron	October 29, 2019	22	µg/L	No
Cadmium	October 29, 2019	0.003	µg/L	No
Chromium	October 29, 2019	0.19	µg/L	No
*Lead	Jan 23-July 31, 2019	0.06-0.14		
Mercury	October 29, 2019	0.01	µg/L	No
Selenium	October 29, 2019	0.09	µg/L	No
Sodium	October 29, 2019	31.1	mg/L	Yes
Uranium	October 29, 2019	0.122	µg/L	No
Nitrite	Jan. 23, 2019 April 30, 2019 July 31, 2019 October 29, 2019	0.003 0.003 0.003 0.003	mg/L	No
Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Nitrate	Jan. 23, 2019 April 30, 2019 July 31, 2019 October 29, 2019	0.058 0.046 0.065 0.022	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 #)	Number of Exceedances
Plumbing			
Distribution	2	0.06-0.14	0



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	October 29, 2019	0.02	µg/L	No
Atrazine + N-dealkylated metabolites	October 29, 2019	0.01	µg/L	No
Azinphos-methyl	October 29, 2019	0.05	µg/L	No
Benzene	October 29, 2019	0.32	µg/L	No
Benzo(a)pyrene	October 29, 2019	0.004	µg/L	No
Bromoxynil	October 29, 2019	0.33	µg/L	No
Carbaryl	October 29, 2019	0.05	µg/L	No
Carbofuran	October 29, 2019	0.01	µg/L	No
Carbon Tetrachloride	October 29, 2019	0.17	µg/L	No
Chlorpyrifos	October 29, 2019	0.02	µg/L	No
Diazinon	October 29, 2019	0.02	µg/L	No
Dicamba	October 29, 2019	0.20	µg/L	No
1,2-Dichlorobenzene	October 29, 2019	0.41	µg/L	No
1,4-Dichlorobenzene	October 29, 2019	0.36	µg/L	No
1,2-Dichloroethane	October 29, 2019	0.35	µg/L	No
1,1-Dichloroethylene (vinylidene chloride)	October 29, 2019	0.33	µg/L	No
Dichloromethane	October 29, 2019	0.35	µg/L	No
2-4 Dichlorophenol	October 29, 2019	0.15	µg/L	No
2,4-Dichlorophenoxy acetic acid (2,4-D)	October 29, 2019	0.19	µg/L	No
Diclofop-methyl	October 29, 2019	0.40	µg/L	No
Dimethoate	October 29, 2019	0.06	µg/L	No
Diquat	October 29, 2019	<1	µg/L	No
Diuron	October 29, 2019	0.03	µg/L	No
Glyphosate	October 29, 2019	<1	µg/L	No
Haloacetic Acids (HAA5) (NOTE: show latest annual average)	2019 Average	25.85	µg/L	No
Malathion	October 29, 2019	0.02	µg/L	No
MCPA	October 29, 2019	0.00012	mg/L	No
Metolachlor	October 29, 2019	0.01	µg/L	No
Metribuzin	October 29, 2019	0.02	µg/L	No
Monochlorobenzene	October 29, 2019	0.3	µg/L	No
Paraquat	October 29, 2019	<1	µg/L	No
Pentachlorophenol	October 29, 2019	0.15	µg/L	No
Phorate	October 29, 2019	0.01	µg/L	No
Picloram	October 29, 2019	<1	µg/L	No
Polychlorinated Biphenyls(PCB)	October 29, 2019	0.04	µg/L	No
Prometryne	October 29, 2019	0.03	µg/L	No
Simazine	October 29, 2019	0.01	µg/L	No
THM (NOTE: show latest annual average)	2019 Average	44.5	µg/L	No

Terbufos	October 29, 2019	0.01	µg/L	No
Tetrachloroethylene	October 29, 2019	0.35	µg/L	No
2,3,4,6-Tetrachlorophenol	October 29, 2019	0.20	µg/L	No
Triallate	October 29, 2019	0.01	µg/L	No
Trichloroethylene	October 29, 2019	0.44	µg/L	No
2,4,6-Trichlorophenol	October 29, 2019	0.25	µg/L	No
Trifluralin	October 29, 2019	0.02	µg/L	No
Vinyl Chloride	October 29, 2019	0.17	µg/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	31.1	mg/L	October 29, 2019