



— Township of —

SEVERN

Water Supply and Distribution System

Washago

2021 Annual Report



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, 2021 to December 31, 2021

<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;"> Township of Severn Administrative Office 1024 Hurlwood Lane Severn, Ontario L3V 0Y6 </div>	<p><u>Complete for all other Categories.</u></p> <p>Number of Designated Facilities served: <input style="width: 100px; height: 20px;" 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 style="width: 100px; height: 20px;" 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 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.

New Chlorine Dioxide chemical feed system-\$60000.00
New Alum chemical feed system-\$18000.00
New Air Conditioning system-\$9800.00
Fire flow testing-\$1500.00

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
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 – 20	0 – 980	N/A	N/A
Treated	52	0 – 0	0 – 0	52	0 – 10
Distribution	104	0 – 0	0 – 0	53	0 – 10

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 – 0.13 NTU
Turbidity	8760	0.03 – 0.70 NTU
Chlorine	8760	1.36 – 2.50
Chlorine Free Residual Distribution Supply	364	0.89 – 1.89
Fluoride (If the DWS provides fluoridation)	1	0.06

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 Replaced June of 2021	Chlorite	Jan. 4, 2021	0.15	mg/L
		Feb. 1, 2021	0.16	
		March 1, 2021	0.11	
		April 6, 2021	0.09	
		May 3, 2021	0.05	
		June 7, 2021	0.02	
		July 5, 2021	0.05	
		July 26, 2021	0.06	
		Aug 3, 2021	0.08	
		Aug 9, 2021	0.05	
		Aug 23, 2021	0.11	
		Sept. 7, 2021	0.10	
		Sept 20, 2021	0.13	
		Oct. 4, 2021	0.10	
Nov. 1, 2021	0.11			
Dec. 6, 2021	0.13			
July 16, 2012 Replaced June of 2021	Chlorate	Jan. 4, 2021	0.26	mg/L
		Feb. 1, 2021	0.23	
		March 1, 2021	0.20	
		April 6, 2021	0.20	
		May 3, 2021	0.17	
		June 7, 2021	0.28	
		July 5, 2021	0.38	
		July 26, 2021	0.40	
		Aug 3, 2021	0.41	
		Aug 9, 2021	0.41	
		Aug 23, 2021	0.43	
		Sept. 7, 2021	0.51	
		Sept 20, 2021	0.50	
		Oct. 4, 2021	0.40	
Nov. 1, 2021	0.42			
Dec. 6, 2021	0.36			

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 28, 2021	0.6	µg/L	No
Arsenic	October 28, 2021	0.3	µg/L	No
Barium	October 28, 2021	24.3	µg/L	No
Boron	October 28, 2021	17	µg/L	No
Cadmium	October 28, 2021	0.003	µg/L	No
Chromium	October 28, 2021	0.16	µg/L	No
*Lead	Jan. 25-Feb 8-July 26, 2021	0.10 -0.20		
Mercury	October 27, 2021	0.01	µg/L	No
Selenium	October 28, 2021	0.04	µg/L	No
Sodium	October 25, 2021	37.4	mg/L	Yes
Uranium	October 28, 2021	0.067	µg/L	No
Nitrite	Jan. 25, 2021 April 26, 2021 July 26, 2021 October 25, 2021	0.003 0.003 0.003 0.003	mg/L	No
Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Nitrate	Jan. 25, 2021 April 26, 2021 July 26, 2021 October 25, 2021	0.064 0.025 0.070 0.041	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	3	0.10-0.20	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 28, 2021	0.02	µg/L	No
Atrazine + N-dealkylated metabolites	October 28, 2021	0.01	µg/L	No
Azinphos-methyl	October 28, 2021	0.05	µg/L	No
Benzene	October 26, 2021	0.32	µg/L	No
Benzo(a)pyrene	October 28, 2021	0.004	µg/L	No
Bromoxynil	Nov 2, 2021	0.33	µg/L	No
Carbaryl	October 28, 2021	0.05	µg/L	No
Carbofuran	October 28, 2021	0.01	µg/L	No
Carbon Tetrachloride	October 26, 2021	0.17	µg/L	No
Chlorpyrifos	October 28, 2021	0.02	µg/L	No
Diazinon	October 28, 2021	0.02	µg/L	No
Dicamba	Nov 2, 2021	0.20	µg/L	No
1,2-Dichlorobenzene	October 26, 2021	0.41	µg/L	No
1,4-Dichlorobenzene	October 26, 2021	0.36	µg/L	No
1,2-Dichloroethane	October 26, 2021	0.35	µg/L	No
1,1-Dichloroethylene (vinylidene chloride)	October 26, 2021	0.33	µg/L	No
Dichloromethane	October 26, 2021	0.35	µg/L	No
2-4 Dichlorophenol	Nov 2, 2021	0.15	µg/L	No
2,4-Dichlorophenoxy acetic acid (2,4-D)	Nov 2, 2021	0.19	µg/L	No
Diclofop-methyl	Nov 2, 2021	0.40	µg/L	No
Dimethoate	October 28, 2021	0.06	µg/L	No
Diquat	Nov 2, 2021	<1	µg/L	No
Diuron	October 28, 2021	0.03	µg/L	No
Glyphosate	Nov 1, 2021	<1	µg/L	No
Haloacetic Acids (HAA5) (NOTE: show latest annual average)	2021 Average	26.20	µg/L	No
Malathion	October 28, 2021	0.02	µg/L	No
MCPA	Nov 2, 2021	0.00012	mg/L	No
Metolachlor	October 28, 2021	0.01	µg/L	No
Metribuzin	October 28, 2021	0.02	µg/L	No
Monochlorobenzene	October 26, 2021	0.3	µg/L	No
Paraquat	Nov, 2021	<1	µg/L	No
Pentachlorophenol	Nov 2, 2021	0.15	µg/L	No
Phorate	October 28, 2021	0.01	µg/L	No
Picloram	Nov 2, 2021	<1	µg/L	No
Polychlorinated Biphenyls(PCB)	October 29, 2021	0.04	µg/L	No
Prometryne	October 28, 2021	0.03	µg/L	No
Simazine	October 28, 2021	0.01	µg/L	No



THM (NOTE: show latest annual average)	2021 Average	53	µg/L	No
Terbufos	October 28, 2021	0.01	µg/L	No
Tetrachloroethylene	October 26, 2021	0.35	µg/L	No
2,3,4,6-Tetrachlorophenol	Nov 2, 2021	0.20	µg/L	No
Triallate	October 28, 2021	0.01	µg/L	No
Trichloroethylene	October 26, 2021	0.44	µg/L	No
2,4,6-Trichlorophenol	Nov 2, 2021	0.25	µg/L	No
Trifluralin	October 28, 2021	0.02	µg/L	No
Vinyl Chloride	October 26, 2021	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	37.4	mg/L	October 25, 2021