



— Township of —

**SEVERN**

Water Supply and Distribution System  
**Washago**  
**2022 Annual Report**



**ANNUAL REPORT**

<b>Drinking-Water System Number:</b>	220005161
<b>Drinking-Water System Name:</b>	Washago Water Supply and Distribution
<b>Drinking-Water System Owner:</b>	The Corporation of the Township of Severn
<b>Drinking-Water System Category:</b>	Large Municipal Residential
<b>Period being reported:</b>	January 1, 2022, to December 31, 2022

<p><b><u>Complete if your Category is Large Municipal Residential or Small Municipal Residential</u></b></p> <p><b>Does your Drinking-Water System serve more than 10,000 people? Yes [ ] No [X]</b></p> <p><b>Is your annual report available to the public at no charge on a web site on the Internet? Yes [X] No [ ]</b></p> <p><b>Location where Summary Report required under O. Reg. 170/03 Schedule 22 will be available for inspection.</b></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><b><u>Complete for all other Categories.</u></b></p> <p><b>Number of Designated Facilities served:</b></p> <div style="border: 1px solid black; width: 100px; height: 20px; margin: 5px 0;"></div> <p><b>Did you provide a copy of your annual report to all Designated Facilities you serve? Yes [ ] No [ ]</b></p> <p><b>Number of Interested Authorities you report to:</b></p> <div style="border: 1px solid black; width: 100px; height: 20px; margin: 5px 0;"></div> <p><b>Did you provide a copy of your annual report to all Interested Authorities you report to for each Designated Facility? Yes [ ] No [ ]</b></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 their drinking water from your system:**

<b>Drinking Water System Name</b>	<b>Drinking Water System Number</b>
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 m<sup>3</sup>, 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 124 residential homes 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.**

Filter media and inspection-\$10,000.00  
New VFD for high lift 1 and 2-\$60,000.00  
Low lift pump inspection-\$35,000.00

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	54	0 – 60	0 – 1280	N/A	N/A
Treated	53	0 – 0	0 – 0	53	0 – 2
Distribution	107	0 – 0	0 – 0	99	0 – 7

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	0.03 – 0.19 NTU
Turbidity – Train 2	8760	0.03 – 0.16 NTU
Turbidity	8760	0.03 – 1.07 NTU
Chlorine	8760	1.28 – 2.19
Chlorine Free Residual Distribution Supply	363	0.89 – 2.03
Fluoride (If the DWS provides fluoridation)		

*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.**

<b>Date of legal instrument issued</b>	<b>Parameter</b>	<b>Date Sampled</b>	<b>Result</b>	<b>Unit of Measure</b>
July 16, 2012 Replaced June of 2021	Chlorite	Jan. 4, 2022	0.15	mg/L
		Feb. 7, 2022	0.16	
		March 7, 2022	0.11	
		April 4, 2022	0.09	
		May 2, 2022	0.05	
		June 7, 2022	0.02	
		July 11, 2022	0.05	
		July 25, 2022	0.06	
		Aug 8, 2022	0.01	
		Sept. 6, 2022	0.04	
		Oct. 3, 2022	0.10	
		Nov. 7, 2022	0.07	
		Dec. 5, 2022	0.01	
July 16, 2012 Replaced June of 2021	Chlorate	Jan. 4, 2022	0.35	mg/L
		Feb. 7, 2022	0.39	
		March 7, 2022	0.38	
		April 4, 2022	0.41	
		May 2, 2022	0.36	
		June 7, 2022	0.18	
		July 11, 2022	0.30	
		July 25, 2022	0.48	
		Aug 8, 2022	0.31	
		Sept. 6, 2022	0.40	
		Oct. 3, 2022	0.52	
		Nov. 7, 2022	0.60	
		Dec. 5, 2022	0.06	

**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 24, 2022	0.6	µg/L	No
Arsenic	October 24, 2022	0.3	µg/L	No
Barium	October 24, 2022	27.8	µg/L	No
Boron	October 24, 2022	27	µg/L	No
Cadmium	October 24, 2022	0.003	µg/L	No
Chromium	October 24, 2022	0.08	µg/L	No
*Lead	Jan. 24-July 25, 2022	0.14 -0.30		
Mercury	October 24, 2022	0.01	µg/L	No
Selenium	October 24, 2022	0.05	µg/L	No
Sodium	October 24, 2022	33.0	mg/L	Yes
Uranium	October 24, 2022	0.080	µg/L	No
Nitrite	Jan. 24, 2022 April 25, 2022 July 25, 2022 October 24, 2022	0.003 0.003 0.003 0.003	mg/L	No
Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Nitrate	Jan. 24, 2022 April 25, 2022 July 25, 2022 October 24, 2022	0.006 0.034 0.086 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	2	0.14-0.30	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 24, 2022	0.02	µg/L	No
Atrazine + N-dealkylated metabolites	October 24, 2022	0.01	µg/L	No
Azinphos-methyl	October 24, 2022	0.05	µg/L	No
Benzene	October 24, 2022	0.32	µg/L	No
Benzo(a)pyrene	October 24, 2022	0.004	µg/L	No
Bromoxynil	October 24, 2022	0.33	µg/L	No
Carbaryl	October 24, 2022	0.05	µg/L	No
Carbofuran	October 24, 2022	0.01	µg/L	No
Carbon Tetrachloride	October 24, 2022	0.17	µg/L	No
Chlorpyrifos	October 24, 2022	0.02	µg/L	No
Diazinon	October 24, 2022	0.02	µg/L	No
Dicamba	October 24, 2022	0.20	µg/L	No
1,2-Dichlorobenzene	October 24, 2022	0.41	µg/L	No
1,4-Dichlorobenzene	October 24, 2022	0.36	µg/L	No
1,2-Dichloroethane	October 24, 2022	0.35	µg/L	No
1,1-Dichloroethylene (vinylidene chloride)	October 24, 2022	0.33	µg/L	No
Dichloromethane	October 24, 2022	0.35	µg/L	No
2-4 Dichlorophenol	October 24, 2022	0.15	µg/L	No
2,4-Dichlorophenoxy acetic acid (2,4-D)	October 24, 2022	0.19	µg/L	No
Diclofop-methyl	October 24, 2022	0.40	µg/L	No
Dimethoate	October 24, 2022	0.06	µg/L	No
Diquat	October 24, 2022	<1	µg/L	No
Diuron	October 24, 2022	0.03	µg/L	No
Glyphosate	October 24, 2022	<1	µg/L	No
Haloacetic Acids (HAA5) (NOTE: show latest annual average)	2022 Average	30.43	µg/L	No
Malathion	October 24, 2022	0.02	µg/L	No
MCPA	October 24, 2022	0.00012	mg/L	No
Metolachlor	October 24, 2022	0.01	µg/L	No
Metribuzin	October 24, 2022	0.02	µg/L	No
Monochlorobenzene	October 24, 2022	0.3	µg/L	No
Paraquat	October 24, 2022	<1	µg/L	No
Pentachlorophenol	October 24, 2022	0.15	µg/L	No
Phorate	October 24, 2022	0.01	µg/L	No
Picloram	October 24, 2022	<1	µg/L	No
Polychlorinated Biphenyls(PCB)	October 24, 2022	0.04	µg/L	No
Prometryne	October 24, 2022	0.03	µg/L	No
Simazine	October 24, 2022	0.01	µg/L	No



<b>THM</b> (NOTE: show latest annual average)	2022 Average	52.6	µg/L	No
<b>Terbufos</b>	October 24, 2022	0.01	µg/L	No
<b>Tetrachloroethylene</b>	October 24, 2022	0.35	µg/L	No
<b>2,3,4,6-Tetrachlorophenol</b>	October 24, 2022	0.20	µg/L	No
<b>Triallate</b>	October 24, 2022	0.01	µg/L	No
<b>Trichloroethylene</b>	October 24, 2022	0.44	µg/L	No
<b>2,4,6-Trichlorophenol</b>	October 24, 2022	0.25	µg/L	No
<b>Trifluralin</b>	October 24, 2022	0.02	µg/L	No
<b>Vinyl Chloride</b>	<b>October 24, 2022</b>	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.**

<b>Parameter</b>	<b>Result Value</b>	<b>Unit of Measure</b>	<b>Date of Sample</b>
Sodium	33.0	mg/L	October 24, 2022