



— Township of —

SEVERN

Water Supply and Distribution System

Washago

2023 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, 2023, to December 31, 2023

<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 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.

New Security Gate-\$10,000.00
 Chlorine Chemical Feed System-\$23,000.00
 Low lift pump inspection-\$33,000.00

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
October 27, 2023	Sodium	34.4	mg/L	Resample and public notification.	November 2, 2023
July 26, 2023	TC/EC exceedance	TC-67 EC-24	mg/L	Resample	July 28, 2023

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 – 1300	N/A	N/A
Treated	52	0 – 0	0 – 0	52	0 – 10
Distribution	106	0 – 24	0 – 67	103	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	0.03 – 0.16 NTU
Turbidity – Train 2	8760	0.04 – 0.15 NTU
Turbidity	8760	0.05 – 0.13 NTU
Chlorine	8760	1.11 – 2.07
Chlorine Free Residual Distribution Supply	364	0.95 – 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 Replaced June of 2021	Chlorite	Jan. 3, 2023	0.03	mg/L
		Jan 23, 2023	0.06	
		Feb. 6, 2023	0.01	
		March 6, 2023	0.01	
		March 20, 2023	0.02	
		April 3, 2023	0.01	
		May 1, 2023	0.04	
		June 5, 2023	0.01	
		July 4, 2023	0.06	
		Aug 8, 2023	0.01	
		Sept. 6, 2023	0.01	
		Oct 11, 2023	0.01	
		Oct. 30, 2023	0.01	
		Nov. 6, 2023	0.01	
Dec. 4, 2023	0.01			
July 16, 2012 Replaced June of 2021	Chlorate	Jan 3, 2023	0.26	mg/L
		Jan. 23, 2023	0.49	
		Feb. 6, 2023	0.26	
		March 6, 2023	0.26	
		March 20, 2023	0.39	
		April 3, 2023	0.20	
		May 1, 2023	0.36	
		June 5, 2023	0.45	
		July 4, 2023	0.54	
		Aug 8, 2023	0.52	
		Sept. 6, 2023	0.52	
		Oct 11, 2023	0.62	
		Oct. 30, 2023	0.31	
		Nov. 6, 2023	0.51	
Dec. 4, 2023	0.35			

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 23, 2023	0.6	µg/L	No
Arsenic	October 23, 2023	0.3	µg/L	No
Barium	October 23, 2023	26.4	µg/L	No
Boron	October 23, 2023	15	µg/L	No
Cadmium	October 23, 2023	0.005	µg/L	No
Chromium	October 23, 2023	0.16	µg/L	No
*Lead	Jan. 23-July 24, 2023	0.39 -0.40	µg/L	No
Mercury	October 23, 2023	0.01	µg/L	No
Selenium	October 23, 2023	0.06	µg/L	No
Sodium	October 23, 2023	35.5	mg/L	Yes
Uranium	October 23, 2023	0.096	µg/L	No
Nitrite	Jan. 23, 2023	0.003	mg/L	No
	April 24, 2023	0.003		
	July 24, 2023	0.003		
	October 23, 2023	0.003		
Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Nitrate	Jan. 23, 2023	0.007	mg/L	No
	April 24, 2023	0.059		
	July 24, 2023	0.075		
	October 23, 2023	0.043		

*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	0.39-0.40	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 23, 2023	0.02	µg/L	No
Atrazine + N-dealkylated metabolites	October 23, 2023	0.01	µg/L	No
Azinphos-methyl	October 23, 2023	0.05	µg/L	No
Atrazine	October 23, 2023	0.01	µg/L	No
Benzene	October 23, 2023	0.32	µg/L	No
Bromodichloromethane	October 23, 2023	14	µg/L	No
Bromoform	October 23, 2023	0.34	µg/L	No
Bromoacetic Acid	October 23, 2023	2.9	µg/L	No
Benzo(a)pyrene	October 23, 2023	0.04	µg/L	No
Carbaryl	October 23, 2023	0.05	µg/L	No
Carbofuran	October 23, 2023	0.01	µg/L	No
Carbon Tetrachloride	October 23, 2023	0.17	µg/L	No
Chlorpyrifos	October 23, 2023	0.02	µg/L	No
Chloroacetic Acid	October 23, 2023	4.7	µg/L	No
Chloroform	October 23, 2023	44	µg/L	No
Diazinon	October 23, 2023	0.02	µg/L	No
Dicamba	October 23, 2023	0.20	µg/L	No
1,2-Dichlorobenzene	October 23, 2023	0.41	µg/L	No
1,4-Dichlorobenzene	October 23, 2023	0.36	µg/L	No
1,2-Dichloroethane	October 23, 2023	0.35	µg/L	No
1,1-Dichloroethylene (vinylidene chloride)	October 23, 2023	0.33	µg/L	No
Dichloromethane	October 23, 2023	0.35	µg/L	No
2-4 Dichlorophenol	October 23, 2023	0.15	µg/L	No
2,4-Dichlorophenoxy acetic acid (2,4-D)	October 23, 2023	0.19	µg/L	No
Diclofop-methyl	October 23, 2023	0.40	µg/L	No
Dimethoate	October 23, 2023	0.06	µg/L	No
Desethyl atrazine	October 23, 2023	0.01	µg/L	No
Diuron	October 23, 2023	0.03	µg/L	No
Dibromoacetic Acid	October 23, 2023	2	µg/L	No
Dichloroacetic Acid	October 23, 2023	18.2	µg/L	No
Diquat	October 23, 2023	<1	µg/L	No
Dibromochloromethane	October 23, 2023	2.9	µg/L	No
Glyphosate	October 23, 2023	<1	µg/L	No
Haloacetic Acids (HAA5) (NOTE: show latest annual average)	2023 Average	32.06	µg/L	No
Malathion	October 23, 2023	0.02	µg/L	No
MCPA	October 23, 2023	0.00012	mg/L	No
Metolachlor	October 23, 2023	0.01	µg/L	No
Metribuzin	October 23, 2023	0.02	µg/L	No



Monochlorobenzene	October 23, 2023	0.3	µg/L	No
Paraquat	October 23, 2023	<1	µg/L	No
Pentachlorophenol	October 23, 2023	0.15	µg/L	No
Phorate	October 23, 2023	0.01	µg/L	No
Picloram	October 23, 2023	<1	µg/L	No
Polychlorinated Biphenyls(PCB)	October 23, 2023	0.04	µg/L	No
Prometryne	October 23, 2023	0.03	µg/L	No
Simazine	October 23, 2023	0.01	µg/L	No
THM (NOTE: show latest annual average)	2023 Average	53.0	µg/L	No
Terbufos	October 23, 2023	0.01	µg/L	No
Tetrachloroethylene	October 23, 2023	0.35	µg/L	No
2,3,4,6-Tetrachlorophenol	October 23, 2023	0.20	µg/L	No
Triallate	October 23, 2023	0.01	µg/L	No
Trichloroethylene	October 23, 2023	0.44	µg/L	No
2,4,6-Trichlorophenol	October 23, 2023	0.25	µg/L	No
Trifluralin	October 23, 2023	0.02	µg/L	No
Trichloroacetic Acid	October 23, 2023	14.8	µg/L	No
Vinyl Chloride	October 23, 2023	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	34.4	mg/L	October 27, 2023
Sodium	35.5	Mg/L	October 23, 2023