



— Township of —

**SEVERN**

Water Supply and Distribution System  
**Coldwater**  
**2023 Annual Report**



ANNUAL REPORT

<b>Drinking-Water System Number:</b>	220001110
<b>Drinking-Water System Name:</b>	Coldwater 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, 2023 to December 31, 2023

<p><b><u>Complete if your Category is Large Municipal Residential or Small Municipal Residential</u></b></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><b><u>Complete for all other Categories.</u></b></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
Riverwalk Estates Drinking Water System	260095277

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 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**

The Coldwater water supply system was built in 1994 to replace the spring water supply west of the village. Water now comes from three (3) drilled groundwater wells. Two are located on the pump house property and the third is across the street from the pump house, on private property. In 2008, an addition was completed to the WTP to house two GAC filters, a softener and a backwash settling tank. Raw water is partially softened before passing through the GAC filters (operated in series). Filtered water is then chlorinated using Sodium Hypochlorite. Treated water is stored in a 1,612 m<sup>3</sup> two-cell, concrete, underground reservoir below the pump house. The reservoir provides the required chlorine contact time to achieve primary disinfection before it is distributed to the residents. The treated water is then pumped from the reservoir to the distribution system via a jockey pump and two (2) vertical turbine pumps. A fire pump is also installed to provide adequate flow in the event of a fire. There are 86 fire hydrants, 10 sampling stations and 5 blow-offs connected to the system. The distribution system is comprised of PVC water mains. The system services approximately 593 properties in the Village of Coldwater.

**List all water treatment chemicals used over this reporting period.**

Sodium Hypochlorite  
Softener Salt

**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 GAC media-\$31,000.00  
New Turbidity Analyzer-\$10,000.00  
New metal roof-\$97,000.00

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
July 26, 2023	Micro.	47 Total Coliform & 27 Ecoli	mg/L	Flushed and resampled	July 28, 2023
October 27, 2023	Sodium	98.6	mg/L	Resampled	November 2, 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 – Well #1	52	0 – 0	0 – 0	N/A	-
Raw – Well #2	52	0 – 0	0 – 1	N/A	-
Raw – Well #3	53	0 – 0	0 – 1	N/A	-
Treated	52	0 – 0	0 – 0	52	0 – 10
Distribution	158	0 – 27	0 – 47	104	0 – 840

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 – Well #1	12	0.04 – 0.19 NTU
Turbidity – Well #2	12	0.13 – 0.45 NTU
Turbidity – Well #3	12	0.01 – 0.17 NTU
Turbidity	8760	0.10 – 0.68 NTU
Chlorine	8760	1.17– 1.51
Chlorine Free Residual Distribution System	364	0.94– 1.48
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
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N/A	TSS	Annual Average	4.58	mg/L
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**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	0.2	µg/L	No
Atrazine	October,23, 2023	0.01	µg/L	No
Barium	October,23, 2023	279	µg/L	No
Boron	October,23, 2023	46	µg/L	No
Cadmium	October,23, 2023	0.003	µg/L	No
Chromium	October,23, 2023	0.15	µg/L	No
*Lead	Jan 23- July 24, 2023	0.04-0.21	Cfu/100mL	No
Mercury	October,23, 2023	0.01	µg/L	No
Selenium	October,23, 2023	0.04	µg/L	No
Sodium	October,23, 2023	98.6	mg/L	Yes
Uranium	October,23, 2023	0.900	µg/L	No
Fluoride	April 24, 2023	0.12	mg/L	No
Nitrite	January 23, 2023 April 24, 2023 July 24, 2023 October 23, 2023	<0.003 <0.003 <0.003 <0.003	mg/L	No
Nitrate	January 23, 2023 April 24, 2023 July 24, 2023 October 23, 2023	<0.006 <0.006 <0.006 <0.006	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	10	0.01 – 0.70	0
Distribution	4	0.09 – 26.5	1

\*Note: Lead sample results are from the Riverwalk Estates Drinking Water System. DWS# 260095277\*

**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
Benzene	October 23,2023	0.32	µg/L	No
Benzo(a)pyrene	October 23,2023	0.004	µg/L	No
Bromoform	October 23,2023	1.6	µg/L	No
Bromodichloromethane	October 23,2023	0.80	µg/L	No
Bromoacetic Acid	October 23,2023	2.9	µg/L	No
Bromoxynil	October 23,2023	0.33	µg/L	No
Carbaryl	October 23,2023	0.05	µg/L	No
Carbofuran	October 23,2023	0.01	µg/L	No
Chlorpyrifos	October 23,2023	0.02	µg/L	No
Carbon Tetrachloride	October 23,2023	0.17	µg/L	No
Chloroform	October 23,2023	.29	µg/L	No
Chloroacetic Acid	October 23,2023	4.7	µg/L	No
Desethyl Atrazine	October 23,2023	0.01	µg/L	No
Diazinon	October 23,2023	0.02	µg/L	No
Dibromochloromethane	October 23,2023	2.0	µg/L	No
Dibromoacetic Acid	October 23,2023	2.0	µg/L	No
Dicamba	October 23,2023	0.20	µg/L	No
Diclofop-methyl	October 23,2023	0.40	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-Dichlorophenoxy acetic acid (2,4-D)	October 23,2023	0.19	µg/L	No
Diclofop-methyl	October 23,2023	0.40	µg/L	No
Dichloroacetic Acid	October 23,2023	2.6	µg/L	No
Dimethoate	October 23,2023	0.06	µg/L	No
Diquat	October 23,2023	<1	µg/L	No
2,4 Dichlorophenol	October 23,2023	0.15	µg/L	No
Glyphosate	October 23,2023	<1	µg/L	No
Haloacetic Acids (HAA5) (NOTE: show latest annual average)	2023 Average	5.3	µg/L	No
Malathion	October 23,2023	0.02	µg/L	No
Metolachlor	October 23,2023	0.01	µg/L	No
Metribuzin	October 23,2023	0.02	µg/L	No
Monochlorobenzene	October 23,2023	0.30	µg/L	No
Paraquat	October 23,2023	<1	µg/L	No
Phorate	October 23,2023	0.01	µg/L	No
Picloram	October 23,2023	<1	µg/L	No



<b>Polychlorinated Biphenyls(PCB)</b>	October 23,2023	0.04	µg/L	No
<b>Prometryne</b>	October 23,2023	0.03	µg/L	No
<b>Pentachlorophenol</b>	October 23,2023	0.15	µg/L	No
<b>Simazine</b>	October 23,2023	0.01	µg/L	No
<b>THM</b> (NOTE: show latest annual average)	2023 Average	9.19	µg/L	No
<b>Terbufos</b>	October 23,2023	0.01	µg/L	No
<b>Tetrachloroethylene</b>	October 23,2023	0.35	µg/L	No
<b>2,3,4,6-Tetrachlorophenol</b>	October 23,2023	0.20	µg/L	No
<b>Triallate</b>	October 23,2023	0.01	µg/L	No
<b>Trichloroacetic Acid</b>	October 23,2023	5.3	µg/L	No
<b>Trichloroethylene</b>	October 23,2023	0.44	µg/L	No
<b>2,4,6-Trichlorophenol</b>	October 23,2023	0.25	µg/L	No
<b>Trifluralin</b>	October 23,2023	0.02	µg/L	No
<b>Vinyl Chloride</b>	October 23,2023	0.17	µg/L	No
<b>Carbon tetrachloride</b>	October 23,2023	0.17	µg/L	No
<b>MCPA</b>	October 23,2023	0.00012	µg/L	No
<b>Diuron</b>	October 23,2023	0.03	µg/L	No
<b>Chloriform</b>	October 23,2023	.30	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	98.6	mg/L	October 23, 2023