



**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, 2018 to December 31, 2018

<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;"> <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>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
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 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**

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 1,400 residents of 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**

Replacement of three (3) Sample Stations	\$9,600
Watermain Reconstruction	\$336,000
New motor for Jockey Pump (HLP #1)	\$5,000
High lift pump #2 Rebuild	\$26,100
Watermain Swabbing	\$7,300
Bypass Loop Installed on Distribution Header	\$26,000



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
Oct. 23, 2018	Sodium	93.7	mg/L	Resample	Oct. 24, 2018

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	53	0 – 0	0 – 0	N/A	-
Raw – Well #2	53	0 – 0	0 – 0	N/A	-
Raw – Well #3	53	0 – 0	0 – 0	N/A	-
Treated	53	0 – 0	0 – 0	51	0 – 13
Distribution	171	0 – 0	0 – 3	72	0 – 68

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	0.05 – 0.24 NTU
Turbidity – Well #2	12	0.10 – 0.90 NTU
Turbidity – Well #3	12	0.07 – 0.38 NTU
Turbidity	8760	0.18 – 0.58 NTU
Chlorine	8760	0.72 – 1.15
Chlorine Free Residual Distribution System	368	0.54 – 1.11
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 29, 2011	TSS	Annual Average	5.17	mg/L



**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	January 9, 2018	0.02	µg/L	No
Arsenic	January 9, 2018	<0.2	µg/L	No
Barium	January 9, 2018	304	µg/L	No
Boron	January 9, 2018	83	µg/L	No
Cadmium	January 9, 2018	<0.003	µg/L	No
Chromium	January 9, 2018	0.12	µg/L	No
*Lead	N/A			
Mercury	January 9, 2018	<0.01	µg/L	No
Selenium	January 9, 2018	<0.04	µg/L	No
Sodium	January 9, 2018	93.7	mg/L	Yes
Uranium	January 9, 2018	0.899	µg/L	No
Fluoride	April 16, 2018	0.14	mg/L	No
Nitrite	January 9, 2018	<0.003	mg/L	No
	April 16, 2018	0.005		
	July 16, 2018	<0.003		
	October 15, 2018	<0.003		
Nitrate	January 9, 2018	<0.006	mg/L	No
	April 16, 2018	<0.006		
	July 16, 2018	<0.006		
	October 15, 2018	<0.006		

\*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	4	0.12 – 0.92	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	January 9, 2018	<0.02	µg/L	No
Atrazine + N-dealkylated metabolites	January 9, 2018	<0.01	µg/L	No
Benzene	January 9, 2018	<0.32	µg/L	No
Benzo(a)pyrene	January 9, 2018	<0.004	µg/L	No
Carbaryl	January 9, 2018	<0.05	µg/L	No
Carbofuran	January 9, 2018	<0.01	µg/L	No



Carbon tetrachloride	January 9, 2018	<0.16	µg/L	No
Chlorpyrifos	January 9, 2018	<0.02	µg/L	No
Diazinon	January 9, 2018	<0.02	µg/L	No
Dicamba	January 9, 2018	<0.20	µg/L	No
1,2-Dichlorobenzene	January 9, 2018	<0.41	µg/L	No
1,4-Dichlorobenzene	January 9, 2018	<0.36	µg/L	No
1,2-Dichloroethane	January 9, 2018	<0.35	µg/L	No
1,1-Dichloroethylene (vinylidene chloride)	January 9, 2018	<0.33	µg/L	No
Dichloromethane	January 9, 2018	<0.35	µg/L	No
2-4 Dichlorophenol	January 9, 2018	<0.15	µg/L	No
2,4-Dichlorophenoxy acetic acid (2,4-D)	January 9, 2018	<0.19	µg/L	No
Diclofop-methyl	January 9, 2018	<0.40	µg/L	No
Dimethoate	January 9, 2018	<0.03	µg/L	No
Diquat	January 9, 2018	<1	µg/L	No
Glyphosate	January 9, 2018	<1	µg/L	No
Haloacetic Acids (HAA5) (NOTE: show latest annual average)	2018 Average	<5.3	µg/L	No
Malathion	January 9, 2018	<0.02	µg/L	No
Metolachlor	January 9, 2018	<0.01	µg/L	No
Metribuzin	January 9, 2018	<0.02	µg/L	No
Monochlorobenzene	January 9, 2018	<0.3	µg/L	No
Paraquat	January 9, 2018	<1	µg/L	No
Phorate	January 9, 2018	<0.01	µg/L	No
Picloram	January 9, 2018	<1	µg/L	No
Polychlorinated Biphenyls(PCB)	January 9, 2018	<0.04	µg/L	No
Prometryne	January 9, 2018	<0.03	µg/L	No
Simazine	January 9, 2018	<0.01	µg/L	No
THM (NOTE: show latest annual average)	2018 Average	6.02	µg/L	No
Terbufos	January 9, 2018	<0.01	µg/L	No
Tetrachloroethylene	January 9, 2018	<0.35	µg/L	No
2,3,4,6-Tetrachlorophenol	January 9, 2018	<0.20	µg/L	No
Triallate	January 9, 2018	<0.01	µg/L	No
Trichloroethylene	January 9, 2018	<0.44	µg/L	No
2,4,6-Trichlorophenol	January 9, 2018	<0.25	µg/L	No
Trifluralin	January 9, 2018	<0.02	µg/L	No
Vinyl Chloride	January 9, 2018	<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	93.7	mg/L	October 15, 2018