



ANNUAL REPORT

Drinking-Water System Number:	220001110
Drinking-Water System Name:	Coldwater 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, 2019 to December 31, 2019

<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;"> <p>Township of Severn Administrative Office 1024 Hurlwood Lane Severn, Ontario L3V 0Y6</p> </div>	<p><u>Complete for all other Categories.</u></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 m³ 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

Installed three variable speed drives for high lift pumps	\$21,000
Replaced three well flow meters and distribution flow meter	\$14,000
Watermain Swabbing	\$7500

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
March 26, 2019	Pressure Loss for water service connection 7 homes on boil water	<20 psi	mg/L	Sampled 24hrs apart	March 29,2019
May 29,2019	Pressure loss from valve isolation 105 houses on boil water	<20 psi	mg/L	Sampled 24hrs apart	May 31, 2019
July 31, 2019	Total Coliform	15	mg/L	Resample	Aug. 6, 2019

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 – 0	N/A	-
Raw – Well #3	52	0 – 0	0 – 0	N/A	-
Treated	52	0 – 0	0 – 0	50	0 – 27
Distribution	167	0 – 0	0 – 15	79	0 – 30

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	0.07 – 0.22 NTU
Turbidity – Well #2	12	0.39 – 0.96 NTU
Turbidity – Well #3	12	0.09 – 0.27 NTU
Turbidity	8760	0.20 – 0.50 NTU
Chlorine	8760	0.77– 1.22
Chlorine Free Residual Distribution System	363	0.62– 1.20
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
Dec 3, 2019	TSS	Annual Average	5.75	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	October,29, 2019	0.10	µg/L	No
Arsenic	October,29, 2019	0.2	µg/L	No
Barium	October,29, 2019	259	µg/L	No
Boron	October,29, 2019	75	µg/L	No
Cadmium	October,29, 2019	0.003	µg/L	No
Chromium	October,29, 2019	0.14	µg/L	No
*Lead	Jan 23,2019-July 31, 2019	0.01-.021		
Mercury	October,29, 2019	0.01	µg/L	No
Selenium	October,29, 2019	0.04	µg/L	No
Sodium	October,29, 2019	96.6	mg/L	Yes
Uranium	October,29, 2019	0.854	µg/L	No
Fluoride	October,29, 2019	0.14	mg/L	No
Nitrite	January 23, 2019 April 30, 2019 August 2, 2019 October 29, 2019	<0.003 <0.003 <0.003 <0.003	mg/L	No
Nitrate	January 23, 2019 April 30, 2019 August 2, 2019 October 29, 2019	<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			
Distribution	4	0.01 – 0.21	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 29,2019	0.02	µg/L	No
Atrazine + N-dealkylated metabolites	October 29,2019	0.01	µg/L	No
Benzene	October 29,2019	0.32	µg/L	No
Benzo(a)pyrene	October 29,2019	0.004	µg/L	No
Carbaryl	October 29,2019	0.05	µg/L	No
Carbofuran	October 29,2019	0.01	µg/L	No
Chlorpyrifos	October 29,2019	0.02	µg/L	No
Diazinon	October 29,2019	0.02	µg/L	No
Dicamba	October 29,2019	0.20	µg/L	No
1,2-Dichlorobenzene	October 29,2019	0.41	µg/L	No
1,4-Dichlorobenzene	October 29,2019	0.36	µg/L	No
1,2-Dichloroethane	October 29,2019	0.35	µg/L	No
1,1-Dichloroethylene (vinylidene chloride)	October 29,2019	0.33	µg/L	No
Dichloromethane	October 29,2019	0.35	µg/L	No
2-4 Dichlorophenol	October 29,2019	0.15	µg/L	No
2,4-Dichlorophenoxy acetic acid (2,4-D)	October 29,2019	0.19	µg/L	No
Diclofop-methyl	October 29,2019	0.40	µg/L	No
Dimethoate	October 29,2019	0.06	µg/L	No
Diquat	October 29,2019	<1	µg/L	No
Glyphosate	October 29,2019	<1	µg/L	No
Haloacetic Acids (HAA5) (NOTE: show latest annual average)	2019 Average	5.3	µg/L	No
Malathion	October 29,2019	0.02	µg/L	No
Metolachlor	October 29,2019	0.01	µg/L	No
Metribuzin	October 29,2019	0.02	µg/L	No
Monochlorobenzene	October 29,2019	0.3	µg/L	No
Paraquat	October 29,2019	<1	µg/L	No
Phorate	October 29,2019	0.01	µg/L	No
Picloram	October 29,2019	<1	µg/L	No
Polychlorinated Biphenyls(PCB)	October 29,2019	0.04	µg/L	No
Prometryne	October 29,2019	0.03	µg/L	No
Simazine	October 29,2019	0.01	µg/L	No
THM (NOTE: show latest annual average)	2019 Average	14.22	µg/L	No

Terbufos	October 29,2019	0.01	µg/L	No
Tetrachloroethylene	October 29,2019	0.44	µg/L	No
2,3,4,6-Tetrachlorophenol	October 29,2019	0.20	µg/L	No
Triallate	October 29,2019	0.01	µg/L	No
Trichloroethylene	October 29,2019	0.44	µg/L	No
2,4,6-Trichlorophenol	October 29,2019	0.25	µg/L	No
Trifluralin	October 29,2019	0.02	µg/L	No
Vinyl Chloride	October 29,2019	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	96.6	mg/L	October 29, 2019