



<b>Drinking-Water System Number:</b>	<b>220001110</b>
<b>Drinking-Water System Name:</b>	Coldwater Water Treatment 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, 2011 to December 31, 2011

<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 Orillia, Ontario L3V 6J3</p> </div>	<p><b><u>Complete for all other Categories.</u></b></p> <p><b>Number of Designated Facilities served:</b>  <div style="border: 1px solid black; width: 100px; height: 20px; margin: 5px 0;"></div> </p> <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> <div style="border: 1px solid black; width: 100px; height: 20px; margin: 5px 0;"></div></p> <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>
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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:**

<b>Drinking Water System Name</b>	<b>Drinking Water System Number</b>

**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 drilled ground water wells. Two are located on the pump house property and the third is across the street from the pumping station and reservoir on Sheridan Drive. In 2008, an addition was completed to the WTP to house two raw water GAC filters, a water softener and a backwash water settling tank. The raw water is partially softened before passing through the GAC filters, in series, it is then chlorinated and treated to sequester the naturally occurring iron and manganese. It is stored in a 1612 m<sup>3</sup> two cell, concrete, underground reservoir below the pump house. This tank gives sufficient time for the chlorine to adequately disinfect the groundwater before it is distributed to the residents. The treated water is pumped from the reservoir through five pressure tanks prior to being discharged to the distribution system. This system services the approximately 1400 residents of the Village of Coldwater.

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

**Sodium Hypochlorite**  
**Sodium Silicate**  
**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**

**Replaced SM 2000 - \$6500**  
**Heater repair / replacement - \$700**  
**Hydrant repairs - \$2500**  
**Hydrant replacement (3) - \$10000**  
**Exhaust fan repairs - \$700**  
**Standby generator ventilation system repairs - \$1500**  
**Standby generator fuel system repairs - \$1000**  
**GAC #1 carbon replacement - \$28000**  
**Water softener head replacement - \$900**  
**pH probe replaced - \$200**



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

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 – PW 93-4	52	0	0	0	
Raw – Swaile Well	52	0	0 – 20	0	
Raw – PW 93-2	52	0	0	0	
Treated	52	0	0	52	<10
Distribution	158	0	0	53	<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 – PW93-4	12	0.13 – 0.32 NTU
Turbidity – Swaile Well	12	0.51 – 1.98 NTU
Turbidity – PW93-2	12	0.21 – 1.13 NTU
Turbidity	8760	0.00 – 5.11 NTU
Chlorine	8760	0.00 – 5.00 mg/L
Chlorine Free Residual Distribution System	364	0.22 – 0.90 mg/L
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.

Date of legal instrument issued	Parameter	Date Sampled	Result	Unit of Measure
July 29, 2011	TSS	Annual Average	5.5	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	Nov. 2, 2009	< 0.02	µg/L	No
Arsenic	Nov. 2, 2009	0.3	µg/L	No
Barium	Nov. 2, 2009	248	µg/L	No
Boron	Nov. 2, 2009	67.4	µg/L	No
Cadmium	Nov. 2, 2009	<0.003	µg/L	No
Chromium	Nov. 2, 2009	1.2	µg/L	No
*Lead	N/A			
Mercury	Nov. 2, 2009	< 0.02	µg/L	No
Selenium	Nov. 2, 2009	3	µg/L	No
Sodium	Oct. 24, 2011	76.7	mg/L	Yes
Uranium	Nov. 2, 2009	0.832	µg/L	No
Fluoride	Nov. 4, 2008	0.10	mg/L	No
Nitrite	Jan. 31, 2011 Apr. 26, 2011 Jul. 25, 2011 Oct. 24, 2011	<0.005 <0.005 <0.005 <0.005	mg/L	No
Nitrate	Jan. 31, 2011 Apr. 26, 2011 Jul. 25, 2011 Oct. 24, 2011	<0.013 <0.013 <0.013 <0.013	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	23	0.04 – 12.4 ug/L	1
Distribution	4	0.15 – 1.89 ug/L	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	11-02-09	<0.11	µg/L	No
Aldicarb	11-02-09	<0.30	µg/L	No

<b>Aldrin + Dieldrin</b>	11-02-09	<0.067	µg/L	No
<b>Atrazine + N-dealkylated metabolites</b>	11-02-09	<0.12	µg/L	No
<b>Azinphos-methyl</b>	11-02-09	<0.21	µg/L	No
<b>Bendiocarb</b>	11-02-09	<0.13	µg/L	No
<b>Benzene</b>	11-02-09	<0.32	µg/L	No
<b>Benzo(a)pyrene</b>	11-02-09	<0.004	µg/L	No
<b>Bromoxynil</b>	11-02-09	<0.33	µg/L	No
<b>Carbaryl</b>	11-02-09	<0.16	µg/L	No
<b>Carbofuran</b>	11-02-09	<0.37	µg/L	No
<b>Carbon Tetrachloride</b>	11-02-09	<0.16	µg/L	No
<b>Chlordane (Total)</b>	11-02-09	<0.11	µg/L	No
<b>Chlorpyrifos</b>	11-02-09	<0.18	µg/L	No
<b>Cyanazine</b>	11-02-09	<0.18	µg/L	No
<b>Diazinon</b>	11-02-09	<0.081	µg/L	No
<b>Dicamba</b>	11-02-09	<0.20	µg/L	No
<b>1,2-Dichlorobenzene</b>	11-02-09	<0.41	µg/L	No
<b>1,4-Dichlorobenzene</b>	11-02-09	<0.36	µg/L	No
<b>Dichlorodiphenyltrichloroethane (DDT) + metabolites</b>	11-02-09	<0.14	µg/L	No
<b>1,2-Dichloroethane</b>	11-02-09	<0.35	µg/L	No
<b>1,1-Dichloroethylene (vinylidene chloride)</b>	11-02-09	<0.33	µg/L	No
<b>Dichloromethane</b>	11-02-09	<0.35	µg/L	No
<b>2-4 Dichlorophenol</b>	11-02-09	<0.15	µg/L	No
<b>2,4-Dichlorophenoxy acetic acid (2,4-D)</b>	11-02-09	<0.19	µg/L	No
<b>Diclofop-methyl</b>	11-02-09	<0.40	µg/L	No
<b>Dimethoate</b>	11-02-09	<0.12	µg/L	No
<b>Dinoseb</b>	11-02-09	<0.36	µg/L	No
<b>Diquat</b>	11-02-09	<1	µg/L	No
<b>Diuron</b>	11-02-09	<0.087	µg/L	No
<b>Glyphosate</b>	11-02-09	<6	µg/L	No
<b>Heptachlor + Heptachlor Epoxide</b>	11-02-09	<0.11	µg/L	No
<b>Lindane (Total)</b>	11-02-09	<0.056	µg/L	No
<b>Malathion</b>	11-02-09	<0.091	µg/L	No
<b>Methoxychlor</b>	11-02-09	<0.14	µg/L	No
<b>Metolachlor</b>	11-02-09	<0.092	µg/L	No
<b>Metribuzin</b>	11-02-09	<0.12	µg/L	No
<b>Monochlorobenzene</b>	11-02-09	<0.30	µg/L	No
<b>Paraquat</b>	11-02-09	<1	µg/L	No
<b>Parathion</b>	11-02-09	<0.18	µg/L	No
<b>Pentachlorophenol</b>	11-02-09	<0.15	µg/L	No
<b>Phorate</b>	11-02-09	<0.11	µg/L	No
<b>Picloram</b>	11-02-09	<0.25	µg/L	No
<b>Polychlorinated Biphenyls(PCB)</b>	11-02-09	<0.04	µg/L	No
<b>Prometryne</b>	11-02-09	<0.23	µg/L	No



Simazine	11-02-09	<0.15	µg/L	No
THM (NOTE: show latest annual average)		21.4	µg/L	No
Temephos	11-02-09	<0.31	µg/L	No
Terbufos	11-02-09	<0.12	µg/L	No
Tetrachloroethylene	11-02-09	<0.35	µg/L	No
2,3,4,6-Tetrachlorophenol	11-02-09	<0.14	µg/L	No
Triallate	11-02-09	<0.10	µg/L	No
Trichloroethylene	07-27-10 08-10-10	0.49 0.66	µg/L	No
2,4,6-Trichlorophenol	11-02-09	<0.25	µg/L	No
2,4,5-Trichlorophenoxy acetic acid (2,4,5-T)	11-02-09	<0.22	µg/L	No
Trifluralin	11-02-09	<0.12	µg/L	No
Vinyl Chloride	11-02-09	<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	76.7	mg/L	Oct. 24, 2011