

# O. Reg. 170 Section 11 Annual Report

<b>Drinking-Water System Number:</b>	<b>220005599</b>
<b>Drinking-Water System Name:</b>	Rockwood Water Supply System
<b>Drinking-Water System Owner:</b>	The Corporation of the Township of Guelph Eramosa
<b>Drinking-Water System Category:</b>	Large Municipal Residential
<b>Period being reported:</b>	January 1, 2008 – December 31, 2008

<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; margin-top: 5px;">             Office of Township of Guelph Eramosa              PO Box 3000              8348 Wellington Road, 124              Rockwood ON              NOB 2K0         </div>	<p><b><u>Complete for all other Categories.</u></b></p> <p>Number of Designated Facilities served:  <div style="border: 1px solid black; padding: 2px; width: fit-content; margin: 5px auto;">N/A</div> </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:  <div style="border: 1px solid black; padding: 2px; width: fit-content; margin: 5px auto;">N/A</div> </p> <p>Did you provide your annual report to all Interested Authorities you report to for each Designated Facility? Yes [ ] No [ ]</p>
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**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
N/A	

**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 [ ] No [ ] Not Applicable [X]

**Indicate how you notified system users that your annual report is available, and is free of charge.**

- [X] Public access/notice via the web
- [X] Public access/notice via Government Office
- [ ] Public access/notice via a newspaper
- [X] Public access/notice via Public Request
- [ ] Public access/notice via a Public Library
- [X] Public access/notice via other method Notice via Water or Tax Bills

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## Describe your Drinking-Water System

The Rockwood Water Supply System is located in the Township of Guelph-Eramosa. The water system consists of three municipal groundwater wells, a water tower and distribution system. Two of the wells are located at the Station Street pumphouse and the other at the Bernardi Pumphouse. The water level in the water tower starts and stops the well pumps. The raw water from the wells is chlorinated prior to discharge into the distribution system. Once the low level in the water tower has been reached, the pump station is called upon to operate and supply the distribution system with the excess water filling the tower. This water system is known as a demand/storage system. Once the water tower is full, the well pumps shut down until the water level drops in the water tower and the pumps are required to run again.

The two wells located within the Station Street pumphouse are approved to supply water at a maximum combined flow rate of 1,360 L/min and a maximum daily flow of 1,964 m<sup>3</sup>/day. The well located within the Bernardi pumphouse is approved to supply water at a maximum flow rate of 910 L/min and a maximum daily flow of 1,310 m<sup>3</sup>/day. Before entering the distribution system from these wells, the raw water is treated (UV- Station St.) by adding a disinfectant to protect against microbial contaminants. The water is disinfected with sodium hypochlorite solution (chlorine) and iron sequestering (sodium silicate), which is injected during the pump cycle.

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

Sodium Hypochlorite (12% solution) – disinfection      UV Swift – Station St.  
Sodium silicate (34.8 % solution) – iron sequestering

## 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 incur

## Notices submitted in accordance with O.Reg 170/03; Schedule 16 during this reporting period.

Incident Date	Parameter	Result	Unit of Measure	Corrective Action	Corrective Action Date
Apr 27/08	Loss of Pressure	Boil Water Advisory		Pressure restored, flushed system & bacti samples collected	May 01/08

## Microbiological testing done under Schedule 10 of Regulation 170/03, during this reporting period.

	# of Samples	E.Coli (min – max)	Total Coliform (min – max)	# of HPC Samples	HPC (min – max)	# of Bkgrd Samples	Bkgrnd (min - max)
<b>Raw</b>	152	0-0	0-11.0	N/A	N/A		
<b>Treated</b>	106	0-0	0-0	106	0-7.0		
<b>Distribution</b>	187	0-0	0-0	187	0-4.0		

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Operational testing done under Schedule 8 of Regulation 170/03 during the period covered by this Annual Report.

Parameter	Number of Grab Samples	Range of Results (min #)-(max #)
<b>Raw Water</b>		
Turbidity (Station Street; Well 1-67)	12	0.07-0.32 NTU's
Turbidity (Station Street; Well 1-76)	11	0.11-0.31 NTU's
Turbidity (Bernardi)	12	0.16-0.33 NTU's
<b>Treated Water</b>		
Chlorine Residual (Station St) (free)	8760	0.0-3.30 mg/L
Chlorine Residual (Bernardi) (free)	8760	0.28-3.54 mg/L
<b>Distribution System</b>		
Chlorine Residual (free)	366	0.57-3.82 mg/L

Summary of additional testing and sampling carried out in accordance with the requirement of an approval, order or other legal instrument.

Date Legal instrument issued	Parameter	Date Sampled	Result	Unit of Measure
N/A				

Summary of Inorganic parameters tested during this reporting period or the most recent sample results

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
<i><b>BERNARDI</b></i>				
Antimony	Jul. 15/08	<0.86	ug/l	No
Arsenic	Jul. 15/08	2.1	ug/l	No
Barium	Jul. 15/08	39.7	ug/l	No
Boron	Jul. 15/08	7.6	ug/l	No
Cadmium	Jul. 15/08	0.009	ug/l	No
Chromium	Jul. 15/08	<0.5	ug/l	No
Lead (Distribution)	Jan. 16/08	0.05	ug/l	No
Mercury	Jul. 15/08	<0.02	ug/l	No
Selenium	Jul. 15/08	<1	ug/l	No
Sodium	Feb. 07/05	3.19	mg/l	No
Uranium	Jul. 15/08	0.320	ug/l	No
Fluoride	Feb. 11/05	1.54	mg/l	Yes

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<b>Nitrite</b>	Jan. 16/08	0.005	mg/l	No
	Apr. 14/08	0.005		
	July 15/08	0.005		
	Nov 05/08	0.005		
<b>Nitrate</b>	Jan 16.08	0.013	mg/l	No
	Apr. 14/08	0.013		
	July 15/08	0.013		
	Nov 05/08	0.013		

**Summary of Inorganic parameters tested during this reporting period or the most recent sample results**

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
<b>STATION STREET</b>				
<b>Antimony</b>	Jan. 16/08	<0.03	ug/l	No
<b>Arsenic</b>	Jan. 16/08	0.6	ug/l	No
<b>Barium</b>	Jan. 16/08	79.6	ug/l	No
<b>Boron</b>	Jan. 16/08	20	ug/l	No
<b>Cadmium</b>	Jan. 16/08	<0.003	ug/l	No
<b>Chromium</b>	Jan. 16/08	1.0	ug/l	No
<b>Lead (Distribution)</b>	Jan. 16/08	0.05	ug/	No
<b>Mercury</b>	Jan. 16/08	<0.02	ug/l	No
<b>Selenium</b>	Jan. 16/08	<1.0	ug/l	No
<b>Sodium</b>	Feb. 07/05	3.19	mg/l	Yes
<b>Uranium</b>	Jan. 16/08	0.778	ug/l	No
<b>Fluoride</b>	Feb. 11/05	1.54	mg/l	No
<b>Nitrite</b>	Jan 16/08	0.005	mg/l	No
	Apr. 14/08	0.005		
	July 15/08	0.005		
	Nov 05/08	0.005		
<b>Nitrate</b>	Jan 16/08	0.013	mg/l	No
	Apr. 14/08	0.013		
	July 15/08	0.013		
	Nov 05/08	0.013		

**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
<b>Plumbing</b>	176	0.08-2.90	None
<b>Distribution</b>	16	0.07-8.15	None

- 44 sampling points with 2 samples at each point (plumbing per session)

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Summary of Organic parameters sampled during this reporting period or the most recent sample results

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
<b>BERNARDI</b>				
Alachlor	Jul. 15/08	<0.11	ug/l	No
Aldicarb	Jul. 15/08	<0.30	ug/l	No
Aldrin + Dieldrin	Jul. 15/08	<0.067	ug/l	No
Atrazine + N-dealkylated metabolites	Jul. 15/08	<0.12	ug/l	No
Azinphos-methyl	Jul. 15/08	<0.21	ug/l	No
Bendiocarb	Jul. 15/08	<0.13	ug/l	No
Benzene	Jul. 15/08	<0.37	ug/l	No
Benzo(a)pyrene	Jul. 15/08	<0.004	ug/l	No
Bromoxynil	Jul. 15/08	<0.33	ug/l	No
Carbaryl	Jul. 15/08	<0.16	ug/l	No
Carbofuran	Jul. 15/08	<0.37	ug/l	No
Carbon Tetrachloride	Jul. 15/08	<0.41	ug/l	No
Chlordane (Total)	Jul. 15/08	<0.11	ug/l	No
Chlorpyrifos	Jul. 15/08	<0.18	ug/l	No
Cyanazine	Jul. 15/08	<0.18	ug/l	No
Diazinon	Jul. 15/08	<0.081	ug/l	No
Dicamba	Jul. 15/08	<0.20	ug/l	No
1,2-Dichlorobenzene	Jul. 15/08	<0.50	ug/l	No
1,4-Dichlorobenzene	Jul. 15/08	<0.21	ug/l	No
Dichlorodiphenyltrichloroethane (DDT) + metabolites	Jul. 15/08	<0.14	ug/l	No
1,2-Dichloroethane	Jul. 15/08	<0.43	ug/l	No
1,1-Dichloroethylene (vinylidene chloride)	Jul. 15/08	<0.41	ug/l	No
Dichloromethane	Jul. 15/08	<0.34	ug/l	No
2,4 Dichlorophenol	Jul. 15/08	<0.15	ug/l	No
2,4-Dichlorophenoxy acetic acid (2,4-D)	Jul. 15/08	<0.19	ug/l	No
Diclofop-methyl	Jul. 15/08	<0.40	ug/l	No
Dimethoate	Jul. 15/08	<0.12	ug/l	No
Dinoseb	Jul. 15/08	<0.36	ug/l	No
Diquat	Jul. 15/08	<1	ug/l	No
Diuron	Jul. 15/08	<0.087	ug/l	No
Glyphosate	Jul. 15/08	<6	ug/l	No
Heptachlor + Heptachlor Epoxide	Jul. 15/08	<0.11	ug/l	No
Lindane (Total)	Jul. 15/08	<0.056	ug/l	No
Malathion	Jul. 15/08	<0.091	ug/l	No
Methoxychlor	Jul. 15/08	<0.14	ug/l	No
Metolachlor	Jul. 15/08	<0.092	ug/l	No
Metribuzin	Jul. 15/08	<0.12	ug/l	No
Monochlorobenzene	Jul. 15/08	<0.58	ug/l	No
Paraquat	Jul. 15/08	<1	ug/l	No
Parathion	Jul. 15/08	<0.18	ug/l	No

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<b>Pentachlorophenol</b>	Jul. 15/08	<0.15	ug/l	No
<b>Phorate</b>	Jul. 15/08	<0.11	ug/l	No
<b>Picloram</b>	Jul. 15/08	<0.25	ug/l	No
<b>Polychlorinated Biphenyls(PCB)</b>	Jul. 15/08	<0.04	ug/l	No
<b>Prometryne</b>	Jul. 15/08	<0.23	ug/l	No
<b>Simazine</b>	Jul. 15/08	<0.15	ug/l	No
<b>THM (Distribution)</b> (NOTE: show latest annual average) <b>average – 17.2 ug/l</b>	Jan 16/08 Apr 14/08 Jul 15/08 Nov 05/08			
<b>Temephos</b>	Jul. 15/08	<0.31	ug/l	No
<b>Terbufos</b>	Jul. 15/08	<0.12	ug/l	No
<b>Tetrachloroethylene</b>	Jul. 15/08	<0.45	ug/l	No
<b>2,3,4,6-Tetrachlorophenol</b>	Jul. 15/08	<0.14	ug/l	No
<b>Triallate</b>	Jul. 15/08	<0.10	ug/l	No
<b>Trichloroethylene</b>	Jul. 15/08	<0.38	ug/l	No
<b>2,4,6-Trichlorophenol</b>	Jul. 15/08	<0.25	ug/l	No
<b>2,4,5-Trichlorophenoxy acetic acid (2,4,5-T)</b>	Jul. 15/08	<0.22	ug/l	No
<b>Trifluralin</b>	Jul. 15/08	<0.12	ug/l	No
<b>Vinyl Chloride</b>	Jul. 15/08	<0.17	ug/l	No

Summary of Organic parameters sampled during this reporting period or the most recent sample results

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
<b>STATION STREET</b>				
<b>Alachlor</b>	Jan.16/08	<0.11	ug/l	No
<b>Aldicarb</b>	Jan.16/08	<0.30	ug/l	No
<b>Aldrin + Dieldrin</b>	Jan.16/08	<0.067	ug/l	No
<b>Atrazine + N-dealkylated metabolites</b>	Jan.16/08	<0.12	ug/l	No
<b>Azinphos-methyl</b>	Jan.16/08	<0.21	ug/l	No
<b>Bendiocarb</b>	Jan.16/08	<0.13	ug/l	No
<b>Benzene</b>	Jan.16/08	<0.37	ug/l	No
<b>Benzo(a)pyrene</b>	Jan.16/08	<0.004	ug/l	No
<b>Bromoxynil</b>	Jan.16/08	<0.33	ug/l	No
<b>Carbaryl</b>	Jan.16/08	<0.16	ug/l	No
<b>Carbofuran</b>	Jan.16/08	<0.37	ug/l	No
<b>Carbon Tetrachloride</b>	Jan.16/08	<0.41	ug/l	No
<b>Chlordane (Total)</b>	Jan.16/08	<0.11	ug/l	No
<b>Chlorpyrifos</b>	Jan.16/08	<0.18	ug/l	No
<b>Cyanazine</b>	Jan.16/08	<0.18	ug/l	No
<b>Diazinon</b>	Jan.16/08	<0.081	ug/l	No
<b>Dicamba</b>	Jan.16/08	<0.2	ug/l	No
<b>1,2-Dichlorobenzene</b>	Jan.16/08	<0.50	ug/l	No
<b>1,4-Dichlorobenzene</b>	Jan.16/08	<0.21	ug/l	No
<b>Dichlorodiphenyltrichloroethane (DDT) + metabolites</b>	Jan.16/08	<0.14	ug/l	No

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<b>1,2-Dichloroethane</b>	Jan.16/08	<0.43	ug/l	No
<b>1,1-Dichloroethylene (vinylidene chloride)</b>	Jan.16/08	<0.41	ug/l	No
<b>Dichloromethane</b>	Jan.16/08	<0.34	ug/l	No
<b>2-4 Dichlorophenol</b>	Jan.16/08	<0.15	ug/l	No
<b>2,4-Dichlorophenoxy acetic acid (2,4-D)</b>	Jan.16/08	<0.19	ug/l	No
<b>Diclofop-methyl</b>	Jan.16/08	<0.4	ug/l	No
<b>Dimethoate</b>	Jan.16/08	<0.12	ug/l	No
<b>Dinoseb</b>	Jan.16/08	<0.36	ug/l	No
<b>Diquat</b>	Jan.16/08	<1.0	ug/l	No
<b>Diuron</b>	Jan.16/08	<0.087	ug/l	No
<b>Glyphosate</b>	Jan.16/08	<6	ug/l	No
<b>Heptachlor + Heptachlor Epoxide</b>	Jan.16/08	<0.11	ug/l	No
<b>Lindane (Total)</b>	Jan.16/08	<0.056	ug/l	No
<b>Malathion</b>	Jan.16/08	<0.091	ug/l	No
<b>Methoxychlor</b>	Jan.16/08	<0.14	ug/l	No
<b>Metolachlor</b>	Jan.16/08	<0.092	ug/l	No
<b>Metribuzin</b>	Jan.16/08	<0.12	ug/l	No
<b>Monochlorobenzene</b>	Jan.16/08	<0.58	ug/l	No
<b>Paraquat</b>	Jan.16/08	<1	ug/l	No
<b>Parathion</b>	Jan.16/08	<0.18	ug/l	No
<b>Pentachlorophenol</b>	Jan.16/08	<0.15	ug/l	No
<b>Phorate</b>	Jan.16/08	<0.11	ug/l	No
<b>Picloram</b>	Jan.16/08	<0.25	ug/l	No
<b>Polychlorinated Biphenyls(PCB)</b>	Jan.16/08	<0.04	ug/l	No
<b>Prometryne</b>	Jan.16/08	<0.23	ug/l	No
<b>Simazine</b>	Jan.16/08	<0.15	ug/l	No
<b>THM (Distribution)</b> (NOTE: show latest annual average) <b>average – 17.2 ug/l</b>	Jan 16/08 Apr 14/08 Jul 15/08 Nov 05/08			
<b>Temephos</b>	Jan.16/08	<0.31	ug/l	No
<b>Terbufos</b>	Jan.16/08	<0.12	ug/l	No
<b>Tetrachloroethylene</b>	Jan.16/08	<0.45	ug/l	No
<b>2,3,4,6-Tetrachlorophenol</b>	Jan.16/08	<0.14	ug/l	No
<b>Triallate</b>	Jan.16/08	<0.10	ug/l	No
<b>Trichloroethylene</b>	Jan.16/08	<0.38	ug/l	No
<b>2,4,6-Trichlorophenol</b>	Jan.16/08	<0.25	ug/l	No
<b>2,4,5-Trichlorophenoxy acetic acid (2,4,5-T)</b>	Jan.16/08	<0.22	ug/l	No
<b>Trifluralin</b>	Jan.16/08	<0.12	ug/l	No
<b>Vinyl Chloride</b>	Jan.16/08	<0.17	ug/l	No

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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
N/A			