

O. Reg. 170 Section 11 Annual Report

Drinking-Water System Number:	220005599
Drinking-Water System Name:	Rockwood Water Supply System
Drinking-Water System Owner:	The Corporation of the Township of Guelph Eramosa
Drinking-Water System Category:	Large Municipal Residential
Period being reported:	January 1, 2006 – December 31, 2006

<p><u><i>Complete if your Category is Large Municipal Residential or Small Municipal Residential</i></u></p> <p>Does your Drinking-Water System serve more than 10,000 people? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> <p>Is your annual report available to the public at no charge on a web site on the Internet? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></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;"> Township of Guelph Eramosa PO Box 3000 8348 Wellington Road, 124 Rockwood ON N0B 2K0 </div>	<p><u><i>Complete for all other Categories.</i></u></p> <p>Number of Designated Facilities served: <div style="border: 1px solid black; width: 100px; height: 20px; text-align: center; margin: 5px 0;">N/A</div> </p> <p>Did you provide a copy of your annual report to all Designated Facilities you serve? Yes <input type="checkbox"/> No <input type="checkbox"/></p> <p>Number of Interested Authorities you report to: <div style="border: 1px solid black; width: 100px; height: 20px; text-align: center; margin: 5px 0;">N/A</div> </p> <p>Did you provide your annual report to all Interested Authorities you report to for each Designated Facility? Yes <input type="checkbox"/> No <input type="checkbox"/></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

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 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 m³/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 m³/day. Before entering the distribution system from these wells, the raw water is treated 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
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

- Control Microsystems (computer software) repair/troubleshooting (SCADA)
- Replaced membrane cap and electrolyte
- Repaired Station Street Pump: installed new HP 575 V Ph Motor

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
May 17/06	TC	1.0	mg/l	resample	May 17/06
June 02/06	Fluoride	1.59	mg/L	resample	June 02/06

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	Bkgrd (min - max)
Raw	158	0 - 0	0 - 18	N/A	N/A	N/A	N/A
Treated	107	0 - 0	0 - 0	58	0 - 4	47	0 - 1
Distribution	168	0 - 0	0 - 1	87	0 - 9	70	0 - 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 #)
Raw Water		
Turbidity (Station Street; Well 1-67)	12	0.07 – 0.22
Turbidity (Station Street; Well 1-76)	12	0.07 – 0.34
Turbidity (Bernardi)	12	0.09 - 0.17
Treated Water		
Chlorine Residual (Station St)	8760	0.2 – 2.37
Chlorine Residual (Bernardi)		0.2 – 2.51
Distribution System		
Chlorine Residual	8760	0.06 – 2.13

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
BERNARDI				
Antimony	Feb. 07/05	<0.6	ug/l	No
Arsenic	Feb. 07/05	<2	ug/l	No
Barium	Feb. 07/05	35	ug/l	No
Boron	Feb. 07/05	9.0	ug/l	No
Cadmium	Feb. 07/05	<0.1	ug/l	No
Chromium	Feb. 07/05	4.0	ug/l	No
Lead (Distribution)	July 07/05	0.2	ug/l	No
Mercury	Feb. 07/05	<0.02	ug/l	No
Selenium	Feb. 07/05	<3	ug/l	No
Sodium	Feb. 07/05	3.19	mg/l	No
Uranium	Feb. 07/05	<0.05	ug/l	No
Fluoride	Feb. 11/05	1.54	mg/l	Yes

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Nitrite	Jan 03/06	<0.005	mg/l	No
	Apr 10/06	<0.005		
	Jul 10/06	<0.005		
	Oct 04/06	<0.005		
Nitrate	Jan 03/06	<0.013	mg/l	No
	Apr 10/06	<0.013		
	Jul 10/06	<0.013		
	Oct 04/06	<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
STATION STREET				
Antimony	July 07/05	<0.6	ug/l	No
Arsenic	July 07/05	2.0	ug/l	No
Barium	July 07/05	94.0	ug/l	No
Boron	July 07/05	22.0	ug/l	No
Cadmium	July 07/05	<0.1	ug/l	No
Chromium	July 07/05	6.0	ug/l	No
Lead (Distribution)	July 07/05	0.2	ug/l	No
Mercury	July 07/05	<0.02	ug/l	No
Selenium	July 07/05	<3.0	ug/l	No
Sodium	Feb. 07/05	3.19	mg/l	Yes
Uranium	July 07/05	1.13	ug/l	No
Fluoride	Feb. 11/05	1.54	mg/l	No
Nitrite	Jan 03/06	<0 .005	mg/l	No
	Apr 10/06	<0 .005		
	Jul 10/06	<0 .005		
	Oct 04/06	<0 .005		
Nitrate	Jan 03/06	<0.013	mg/l	No
	Apr 10/06	<0.013		
	Jul 10/06	<0.013		
	Oct 04/06	<0.013		

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

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
BERNARDI				
Alachlor	Feb. 07/05	<0.11	ug/l	No
Aldicarb	Feb. 07/05	<0.30	ug/l	No
Aldrin + Dieldrin	Feb. 07/05	<0.067	ug/l	No
Atrazine + N-dealkylated metabolites	Feb. 07/05	<0.12	ug/l	No
Azinphos-methyl	Feb. 07/05	<0.21	ug/l	No
Bendiocarb	Feb. 07/05	<0.13	ug/l	No

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BERNARDI CON'T				
Benzene	Feb. 07/05	<0.36	ug/l	No
Benzo(a)pyrene	Feb. 07/05	<0.004	ug/l	No
Bromoxynil	Feb. 07/05	<0.094	ug/l	No
Carbaryl	Feb. 07/05	<0.16	ug/l	No
Carbofuran	Feb. 07/05	<0.37	ug/l	No
Carbon Tetrachloride	Feb. 07/05	<0.34	ug/l	No
Chlordane (Total)	Feb. 07/05	<0.11	ug/l	No
Chlorpyrifos	Feb. 07/05	<0.18	ug/l	No
Cyanazine	Feb. 07/05	<0.18	ug/l	No
Diazinon	Feb. 07/05	<0.081	ug/l	No
Dicamba	Feb. 07/05	<0.17	ug/l	No
1,2-Dichlorobenzene	Feb. 07/05	<0.56	ug/l	No
1,4-Dichlorobenzene	Feb. 07/05	<0.25	ug/l	No
Dichlorodiphenyltrichloroethane (DDT) + metabolites	Feb. 07/05	<0.14	ug/l	No
1,2-Dichloroethane	Feb. 07/05	<0.32	ug/l	No
1,1-Dichloroethylene (vinylidene chloride)	Feb. 07/05	<0.52	ug/l	No
Dichloromethane	Feb. 07/05	<1.17	ug/l	No
2-4 Dichlorophenol	Feb. 07/05	<0.15	ug/l	No
2,4-Dichlorophenoxy acetic acid (2,4-D)	Feb. 07/05	<0.11	ug/l	No
Diclofop-methyl	Feb. 07/05	<0.13	ug/l	No
Dimethoate	Feb. 07/05	<0.12	ug/l	No
Dinoseb	Feb. 07/05	<0.084	ug/l	No
Diquat	Feb. 07/05	<1	ug/l	No
Diuron	Feb. 07/05	<0.087	ug/l	No
Glyphosate	Feb. 07/05	<6	ug/l	No
Heptachlor + Heptachlor Epoxide	Feb. 07/05	<0.11	ug/l	No
Lindane (Total)	Feb. 07/05	<0.056	ug/l	No
Malathion	Feb. 07/05	<0.091	ug/l	No
Methoxychlor	Feb. 07/05	<0.14	ug/l	No
Metolachlor	Feb. 07/05	<0.092	ug/l	No
Metribuzin	Feb. 07/05	<0.12	ug/l	No
Monochlorobenzene	Feb. 07/05	<0.46	ug/l	No
Paraquat	Feb. 07/05	<1	ug/l	No
Parathion	Feb. 07/05	<0.18	ug/l	No
Pentachlorophenol	Feb. 07/05	<0.15	ug/l	No
Phorate	Feb. 07/05	<0.11	ug/l	No
Picloram	Feb. 07/05	<0.20	ug/l	No
Polychlorinated Biphenyls(PCB)	Feb. 07/05	<0.04	ug/l	No
Prometryne	Feb. 07/05	<0.23	ug/l	No
Simazine	Feb. 07/05	<0.15	ug/l	No
THM (Distribution) (NOTE: show latest annual average) average – 12.5 ug/l	Jan 03/06 Apr 10/06 Jul 10/06 Oct 04/06	9.7 9.4 17 14	ug/l	No
Temephos	Feb. 07/05	<0.31	ug/l	No
Terbufos	Feb. 07/05	<0.12	ug/l	No

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BERNARDI CON'T				
Tetrachloroethylene	Feb. 07/05	<0.48	ug/l	No
2,3,4,6-Tetrachlorophenol	Feb. 07/05	<0.14	ug/l	No
Triallate	Feb. 07/05	<0.10	ug/l	No
Trichloroethylene	Feb. 07/05	<0.54	ug/l	No
2,4,6-Trichlorophenol	Feb. 07/05	<0.25	ug/l	No
2,4,5-Trichlorophenoxy acetic acid (2,4,5-T)	Feb. 07/05	<0.14	ug/l	No
Trifluralin	Feb. 07/05	<0.12	ug/l	No
Vinyl Chloride	Feb. 07/05	<0.08	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
STATION STREET				
Alachlor	July 07/05	<0.11	ug/l	No
Aldicarb	July 07/05	<0.30	ug/l	No
Aldrin + Dieldrin	July 07/05	<0.067	ug/l	No
Atrazine + N-dealkylated metabolites	July 07/05	<0.12	ug/l	No
Azinphos-methyl	July 07/05	<0.21	ug/l	No
Bendiocarb	July 07/05	<0.13	ug/l	No
Benzene	July 07/05	<0.36	ug/l	No
Benzo(a)pyrene	July 07/05	<0.004	ug/l	No
Bromoxynil	July 07/05	<0.094	ug/l	No
Carbaryl	July 07/05	<0.16	ug/l	No
Carbofuran	July 07/05	<0.37	ug/l	No
Carbon Tetrachloride	July 07/05	<0.34	ug/l	No
Chlordane (Total)	July 07/05	<0.11	ug/l	No
Chlorpyrifos	July 07/05	<0.18	ug/l	No
Cyanazine	July 07/05	<0.18	ug/l	No
Diazinon	July 07/05	<0.081	ug/l	No
Dicamba	July 07/05	<0.17	ug/l	No
1,2-Dichlorobenzene	July 07/05	<0.56	ug/l	No
1,4-Dichlorobenzene	July 07/05	<0.25	ug/l	No
Dichlorodiphenyltrichloroethane (DDT) + metabolites	July 07/05	<0.14	ug/l	No
1,2-Dichloroethane	July 07/05	<0.32	ug/l	No
1,1-Dichloroethylene (vinylidene chloride)	July 07/05	<0.52	ug/l	No
Dichloromethane	July 07/05	<1.17	ug/l	No
2-4 Dichlorophenol	July 07/05	<0.15	ug/l	No
2,4-Dichlorophenoxy acetic acid (2,4-D)	July 07/05	<0.11	ug/l	No
Diclofop-methyl	July 07/05	<0.13	ug/l	No
Dimethoate	July 07/05	<0.12	ug/l	No
Dinoseb	July 07/05	<0.084	ug/l	No
Diquat	July 07/05	<1	ug/l	No

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STATION STREET CON'T				
Diuron	July 07/05	<0.087	ug/l	No
Glyphosate	July 07/05	<6	ug/l	No
Heptachlor + Heptachlor Epoxide	July 07/05	<0.11	ug/l	No
Lindane (Total)	July 07/05	<0.056	ug/l	No
Malathion	July 07/05	<0.091	ug/l	No
Methoxychlor	July 07/05	<0.14	ug/l	No
Metolachlor	July 07/05	<0.092	ug/l	No
Metribuzin	July 07/05	<0.12	ug/l	No
Monochlorobenzene	July 07/05	<0.46	ug/l	No
Paraquat	July 07/05	<1	ug/l	No
Parathion	July 07/05	<0.18	ug/l	No
Pentachlorophenol	July 07/05	<0.15	ug/l	No
Phorate	July 07/05	<0.11	ug/l	No
Picloram	July 07/05	<0.20	ug/l	No
Polychlorinated Biphenyls(PCB)	July 07/05	<0.04	ug/l	No
Prometryne	July 07/05	<0.23	ug/l	No
Simazine	July 07/05	<0.15	ug/l	No
THM (Distribution) (NOTE: show latest annual average) average – 12.5 ug/l	Jan 03/06	9.7	ug/l	No
	Apr 10/06	9.4		
	Jul 10/06	17		
	Oct 04/06	14		
Temephos	July 07/05	<0.31	ug/l	No
Terbufos	July 07/05	<0.12	ug/l	No
Tetrachloroethylene	July 07/05	<0.48	ug/l	No
2,3,4,6-Tetrachlorophenol	July 07/05	<0.14	ug/l	No
Triallate	July 07/05	<0.10	ug/l	No
Trichloroethylene	July 07/05	<0.54	ug/l	No
2,4,6-Trichlorophenol	July 07/05	<0.25	ug/l	No
2,4,5-Trichlorophenoxy acetic acid (2,4,5-T)	July 07/05	<0.14	ug/l	No
Trifluralin	July 07/05	<0.12	ug/l	No
Vinyl Chloride	July 07/05	<0.08	ug/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
Bernardi			
Fluoride	1.59	mg/L	June 02/06
Station Street			
Sodium	3.19	mg/L	Feb. 07/05