

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, 2010 – December 31, 2010

<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; margin-top: 5px;"> Office of Township of Guelph Eramosa PO Box 700 8348 Wellington Road, 124 Rockwood ON N0B 2K0 </div>	<p><u>Complete for all other Categories.</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 [] No []</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 a copy of your annual report to all Interested Authorities you report to for each Designated Facility? Yes [] No []</p>
--	---

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.

- 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

O. Reg. 170 Section 11 Annual Report

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 1,364 L/min and a maximum daily flow of 1,965 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 (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 incurred

UV Sensor replacement	
Water main break	
Cla-valve repairs	Total incurred: \$10,920.64

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
N/A	N/A	N/A	N/A	N/A	N/A

O. Reg. 170 Section 11 Annual Report

Microbiological testing done under the Schedule 10, 11 or 12 of Regulation 170/03, during this reporting period.

	# of Samples	E.Coli (min –max)	Total Coliform (min – max)	# of HPC Samples	HPC (min – max)
Raw	156	0-0	0-0	N/A	N/A
Treated	104	0-0	0-0	104	0-2
Distribution	208	0-0	0-0	208	0-9

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	0.11-0.26 NTU's
Turbidity (Station Street; Well 1-76)	12	0.09-0.32 NTU's
Turbidity (Bernardi)	12	0.09-0.31 NTU's
Treated Water		
Chlorine Residual (Station St) (free)	8760	0.16-2.25 mg/L
Chlorine Residual (Bernardi) (free)	8760	0.77-1.92 mg/L
Distribution System		
Chlorine Residual (free)	3320	0.19-3.34 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
BERNARDI				
Antimony	Jan.06/10	< 0.5	ug/l	No
Arsenic	Jan.06/10	< 1	ug/l	No
Barium	Jan.06/10	40	ug/l	No
Boron	Jan.06/10	< 10	ug/l	No
Cadmium	Jan.06/10	< 0.1	ug/l	No
Chromium	Jan.06/10	< 5	ug/l	No
Lead (Distribution)	Jan.06/10	< 0.5	ug/l	No
Mercury	Jan.06/10	< 0.1	ug/l	No
Selenium	Jan.06/10	< 2	ug/l	No
Uranium	Jan.06/10	0.3	ug/l	No
Sodium	Mar. 09/09	5.3	mg/l	No
Fluoride	Mar. 09/09	1.4	mg/l	No

O. Reg. 170 Section 11 Annual Report

BERNARDI continued.....

Nitrite	Jan. 04/10	< 0.01	mg/l	No
	April 6/10	< 0.01		
	July 5/10	< 0.01		
	Oct. 4/10	< 0.01		
Nitrate	Jan. 04/10	< 0.1	mg/l	No
	April 6/10	< 0.1		
	July 5/10	< 0.1		
	Oct. 4/10	< 0.1		

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	Jan.06/10	< 0.5	ug/L	No
Arsenic	Jan.06/10	< 1	ug/L	No
Barium	Jan.06/10	79	ug/L	No
Boron	Jan.06/10	22	ug/L	No
Cadmium	Jan.06/10	< 0.1	ug/L	No
Chromium	Jan.06/10	< 5	ug/L	No
Lead (Distribution)	Jan.06/10	< 0.5	ug/L	No
Mercury	Jan.06/10	< 0.1	ug/L	No
Selenium	Jan.06/10	< 2	ug/L	No
Uranium	Jan.06/10	0.9	ug/L	No
Sodium	Mar. 02/09	97	mg/L	Yes
Fluoride	Mar. 2/09	0.8	mg/L	No
Nitrite	Jan. 04/10	< 0.01	mg/l	No
	April 6/10	< 0.01		
	July 5/10	< 0.01		
	Oct. 4/10	< 0.01		
Nitrate	Jan. 04/10	< 0.1	mg/l	No
	April 6/10	< 0.1		
	July 5/10	< 0.1		
	Oct. 4/10	< 0.1		

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 #) ug/L	Number of Exceedances
Plumbing	Exempt until the third 12 month period – No samples exceeded standard		
Distribution	Ref: O.Reg 170: Community Lead Testing: Reduced Sampling & Frequency		

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

O. Reg. 170 Section 11 Annual Report

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	Jan. 06/10	< 0.1	ug/l	No
Aldicarb	Jan. 06/10	< 0.2	ug/l	No
Aldrin + dieldrin	Jan. 06/10	< 0.5	ug/l	No
Atrazine + N-dealkylated metabolites	Jan. 06/10	< 1	ug/l	No
Azinophos-methyl	Jan. 06/10	< 0.5	ug/l	No
Bendiocarb	Jan. 06/10	< 1	ug/l	No
Benzene	Jan. 06/10	< 0.5	ug/l	No
Benzo[a]pyrene	Jan. 06/10	< 0.5	ug/l	No
Bromoxynil	Jan. 06/10	< 5	ug/l	No
Carbaryl	Jan. 06/10	< 0.01	ug/l	No
Carbofuran	Jan. 06/10	< 1	ug/l	No
Carbon tetrachloride	Jan. 06/10	< 2	ug/l	No
Chlordane	Jan. 06/10	< 2	ug/l	No
Chlorpyrifos	Jan. 06/10	< 0.1	ug/l	No
Cyanazine	Jan. 06/10	< 0.009	ug/l	No
1,1-Dichloroethylene	Jan. 06/10	< 0.5	ug/l	No
1,2-Dichloroethane	Jan. 06/10	< 5	ug/l	No
2,4-D	Jan. 06/10	< 5	ug/l	No
2,4-Dichlorophenol	Jan. 06/10	< 0.1	ug/l	No
DDT + metabolites	Jan. 06/10	< 0.01	ug/l	No
Diazinon	Jan. 06/10	< 1	ug/l	No
Dicamba	Jan. 06/10	< 1	ug/l	No
Dichloromethane	Jan. 06/10	< 0.02	ug/l	No
Diclofop-methyl	Jan. 06/10	< 1	ug/l	No
Dimethoate	Jan. 06/10	< 1	ug/l	No
Dinoseb	Jan. 06/10	< 0.5	ug/l	No
Diquat	Jan. 06/10	< 0.9	ug/l	No
Diuron	Jan. 06/10	< 3	ug/l	No
Heptachlor & heptachlor epoxide	Jan. 06/10	< 1	ug/l	No
Lindane	Jan. 06/10	< 7	ug/l	No
Malathion	Jan. 06/10	< 10	ug/l	No
Methoxychlor	Jan. 06/10	< 0.01	ug/l	No
Metolachlor	Jan. 06/10	< 0.006	ug/l	No
Metribuzin	Jan. 06/10	< 5	ug/l	No
Monochlorobenzene	Jan. 06/10	< 0.02	ug/l	No
o-Dichlorobenzene	Jan. 06/10	< 0.5	ug/l	No
Paraquat	Jan. 06/10	< 5	ug/l	No
Parathion	Jan. 06/10	< 0.1	ug/l	No
p-Dichlorobenzene	Jan. 06/10	< 0.2	ug/l	No
Pentachlorophenol / PCP	Jan. 06/10	< 1	ug/l	No
Phorate	Jan. 06/10	< 1	ug/l	No
Picloram	Jan. 06/10	< 0.2	ug/l	No
Polychlorinated Biphenyls / PCBs	Jan. 06/10	< 0.5	ug/l	No
Prometryn	Jan. 06/10	< 0.5	ug/l	No
Simazine	Jan. 06/10	< 5	ug/l	No
2,3,4,6-Tetrachlorophenol	Jan. 06/10	< 0.05	ug/l	No

O. Reg. 170 Section 11 Annual Report

BERNARDI Continued....

2,4,5-T	Jan. 06/10	< 0.3	ug/l	No
2,4,6-Trichlorophenol	Jan. 06/10	< 1	ug/l	No
Temephos	Jan. 06/10	< 10	ug/l	No
Terbufos	Jan. 06/10	< 0.5	ug/l	No
Tetrachloroethylene	Jan. 06/10	< 0.1	ug/l	No
Triallate	Jan. 06/10	< 1	ug/l	No
Trichloroethylene	Jan. 06/10	< 0.1	ug/l	No
Trifluralin	Jan. 06/10	< 1	ug/l	No
Vinyl chloride	Jan. 06/10	< 0.2	ug/l	No
THMS (Distribution) (NOTE: show latest annual average) Average – 4.5 ug/L	Jan. 04/10 April 6/10 July 5/10 Oct. 4/10			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	Jan. 06/10	< 0.5	ug/l	No
Aldicarb	Jan. 06/10	< 5	ug/l	No
Aldrin + dieldrin	Jan. 06/10	< 0.01	ug/l	No
Atrazine + N-dealkylated metabolites	Jan. 06/10	< 1	ug/l	No
Azinophos-methyl	Jan. 06/10	< 2	ug/l	No
Bendiocarb	Jan. 06/10	< 2	ug/l	No
Benzene	Jan. 06/10	< 0.1	ug/l	No
Benzo[a]pyrene	Jan. 06/10	< 0.009	ug/l	No
Bromoxynil	Jan. 06/10	< 0.5	ug/l	No
Carbaryl	Jan. 06/10	< 5	ug/l	No
Carbofuran	Jan. 06/10	< 5	ug/l	No
Carbon tetrachloride	Jan. 06/10	< 0.1	ug/l	No
Chlordane	Jan. 06/10	< 0.01	ug/l	No
Chlorpyrifos	Jan. 06/10	< 1	ug/l	No
Cyanazine	Jan. 06/10	< 1	ug/l	No
1,1-Dichloroethylene	Jan. 06/10	< 0.1	ug/l	No
1,2-Dichloroethane	Jan. 06/10	< 0.2	ug/l	No
2,4-D	Jan. 06/10	< 1	ug/l	No
2,4-Dichlorophenol	Jan. 06/10	< 0.5	ug/l	No
DDT + metabolites	Jan. 06/10	< 0.02	ug/l	No
Diazinon	Jan. 06/10	< 1	ug/l	No

O. Reg. 170 Section 11 Annual Report

STATION STREET Continued....

Dicamba	Jan. 06/10	< 1	ug/l	No
Dichloromethane	Jan. 06/10	< 0.5	ug/l	No
Diclofop-methyl	Jan. 06/10	< 0.9	ug/l	No
Dimethoate	Jan. 06/10	< 3	ug/l	No
Dinoseb	Jan. 06/10	< 1	ug/l	No
Diquat	Jan. 06/10	< 7	ug/l	No
Diuron	Jan. 06/10	< 10	ug/l	No
Heptachlor & heptachlor epoxide	Jan. 06/10	< 0.01	ug/l	No
Lindane	Jan. 06/10	< 0.006	ug/l	No
Malathion	Jan. 06/10	< 5	ug/l	No
Methoxychlor	Jan. 06/10	< 0.02	ug/l	No
Metolachlor	Jan. 06/10	< 0.5	ug/l	No
Metribuzin	Jan. 06/10	< 5	ug/l	No
Monochlorobenzene	Jan. 06/10	< 0.1	ug/l	No
o-Dichlorobenzene	Jan. 06/10	< 0.2	ug/l	No
Paraquat	Jan. 06/10	< 1	ug/l	No
Parathion	Jan. 06/10	< 1	ug/l	No
p-Dichlorobenzene	Jan. 06/10	< 0.2	ug/l	No
Pentachlorophenol / PCP	Jan. 06/10	< 0.5	ug/l	No
Phorate	Jan. 06/10	< 0.5	ug/l	No
Picloram	Jan. 06/10	< 5	ug/l	No
Polychlorinated Biphenyls / PCBs	Jan. 06/10	< 0.05	ug/l	No
Prometryn	Jan. 06/10	< 0.3	ug/l	No
Simazine	Jan. 06/10	< 1	ug/l	No
2,3,4,6-Tetrachlorophenol	Jan. 06/10	< 0.5	ug/l	No
2,4,5-T	Jan. 06/10	< 1	ug/l	No
2,4,6-Trichlorophenol	Jan. 06/10	< 0.5	ug/l	No
Temphos	Jan. 06/10	< 10	ug/l	No
Terbufos	Jan. 06/10	< 0.5	ug/l	No
Tetrachloroethylene	Jan. 06/10	< 0.1	ug/l	No
Triallate	Jan. 06/10	< 1	ug/l	No
Trichloroethylene	Jan. 06/10	< 0.1	ug/l	No
Trifluralin	Jan. 06/10	< 1	ug/l	No
Vinyl chloride	Jan. 06/10	< 0.2	ug/l	No
THMS (Distribution) (NOTE: show latest annual average) Average – 4.5 ug/L	Jan. 04/10 April 6/10 July 5/10 Oct. 4/10			No

O. Reg. 170 Section 11 Annual Report

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			