

# O. Reg. 170 Section 11 Annual Report

<b>Drinking-Water System Number:</b>	220009194
<b>Drinking-Water System Name:</b>	Hamilton Drive Water Supply System
<b>Drinking-Water System Owner:</b>	The Corporation of the Township of Geulph Eramosa
<b>Drinking-Water System Category:</b>	Large Municipal Residential
<b>Period being reported:</b>	January 1, 2009 – December 31, 2009

<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              8348 Wellington Road, 124              PO Box 700              Rockwood ON              N0B 2K0         </div>	<p><b><u>Complete for all other Categories.</u></b></p> <p>Number of Designated Facilities served: <span style="border: 1px solid black; padding: 2px 10px;">N/A</span></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: <span style="border: 1px solid black; padding: 2px 10px;">N/A</span></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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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 given via water or tax bills

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## Describe your Drinking-Water System

The Hamilton Drive Water Supply System is located in the Township of Guelph-Eramosa. This water system consists of two municipal groundwater wells, two pumphouses, one standpipe and distribution system.

There is one well and in ground reservoir in each of the pumphouses and the water level in the reservoir starts and stops the well pumps. The raw water from each well is chlorinated to protect against microbial contaminants prior to discharge into the reservoir. The raw water is disinfected with a sodium hypochlorite solution (chlorine) for primary and secondary disinfection requirements.

The treated water is pumped with high-lift pumps at each station through the distribution system which consists of approximately 21 kilometers of watermain. The high lift pumps operate based on the water level in the standpipe. Once the low water level in the standpipe is reached, the pump stations are called upon to operate in sequence and supply the distribution system and any excess water fills the standpipe to the high water level. This system is a demand/storage system; once the standpipe is full, the high lift pumps shut down until the water level drops in the tower and the pumps are required again.

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

Sodium Hypochlorite (12% solution) - disinfection

## 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

**Upgrade to SCADA System**

**Total incurred: \$25,913.97**

## 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
Jan 12/09	Lead (Dist.)	(Sodium) 24	Mg/l	Reported to SAC and Health Unit received AWQI # 86141	Notified local doctors Jan 21/09

## 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)
<b>Raw</b>	104	0-0	0-0	N/A	N/A		
<b>Treated</b>	104	0-0	0-0	104	0-31.0		
<b>Distribution</b>	158	0-0	0-0	159	0-74.0		

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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 (Huntington)	12	0.08-0.29 NTU's
Turbidity (Crosscreek)	12	0.12-0.24 NTU's
<b>Treated Water</b>		
Chlorine Residual (Huntington) (free)	8760	0.07-2.08 mg/L
Chlorine Residual (Crosscreek) (free)		0.31-2.08 mg/L
<b>Distribution System</b>		
Chlorine Residual (free)	1032	0.54-1.7 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
<b>HUNTINGTON</b>				
Antimony	Jan 25/07	<0.2	ug/l	No
Arsenic	Jan 25/07	0.6	ug/l	No
Barium	Jan 25/07	43.9	ug/l	No
Boron	Jan 25/07	31.0	ug/l	No
Cadmium	Jan 25/07	<0.06	ug/l	No
Chromium	Jan 25/07	1.7	ug/l	No
Lead Distribution	Jan 12/09	<0.50	ug/l	No
Mercury	Jan 25/07	<0.02	ug/l	No
Selenium	Jan 25/07	<1.0	ug/l	No
Sodium	Sept 04/08	21.5	mg/l	Yes
Uranium	Jan 25/07	0.03	ug/l	No
Fluoride	Sept 04/08	0.18	mg/l	No
Nitrite	Jan 12/09	<0.01	mg/l	No
	Apr 14/09	<0.01		
	Jul 06/09	<0.01		
	Oct 5/09	<0.01		
Nitrate	Jan 12/09	<0.1	mg/l	No
	Apr 14/09	<0.1		
	Jul 06/09	<0.1		
	Oct 5/09	<0.1		

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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
<b>CROSS CREEK</b>				
Antimony	Jan 25/07	<0.2	ug/l	No
Arsenic	Jan 25/07	0.5	ug/l	No
Barium	Jan 25/07	36.7	ug/l	No
Boron	Jan 25/07	30	ug/l	No
Cadmium	Jan 25/07	<0.06	ug/l	No
Chromium	Jan 25/07	0.8	ug/l	No
Lead Distribution	Jan 12/09	<0.50	ug/l	No
Mercury	Jan 25/07	<0.0.02	ug/l	No
Selenium	Jan 25/07	<1	ug/l	No
Sodium	Sept 04/08	9.8	mg/l	No
Uranium	Jan 25/07	<0.02	ug/l	No
Fluoride	Sept 04/08	0.17	mg/l	No
Nitrite	Jan 12/09	<0.01	mg/l	No
	Apr 14/09	<0.01		
	Jul 06/09	<0.01		
	Oct 5/09	<0.01		
Nitrate	Jan 12/09	<0.1	mg/l	No
	Apr 14/09	<0.1		
	Jul 06/09	<0.1		
	Oct 5/09	<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	40	<0.5-9.5	None
Distribution	8	<0.5-1.4	None

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

### 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>HUNTINGTON</b>				
Alachlor	Jan 25/07	<0.11	ug/l	No
Aldicarb	Jan 25/07	<0.30	ug/l	No
Aldrin + Dieldrin	Jan 25/07	<0.067	ug/l	No
Atrazine + N-dealkylated metabolites	Jan 25/07	<0.12	ug/l	No
Azinphos-methyl	Jan 25/07	<0.21	ug/l	No
Bendiocarb	Jan 25/07	<0.13	ug/l	No
Benzene	Jan 25/07	<0.37	ug/l	No
Benzo(a)pyrene	Jan 25/07	<0.004	ug/l	No
Bromoxynil	Jan 25/07	<0.33	ug/l	No
Carbaryl	Jan 25/07	<0.16	ug/l	No
Carbofuran	Jan 25/07	<0.37	ug/l	No
Carbon Tetrachloride	Jan 25/07	<0.41	ug/l	No

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Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
<b>HUNTINGTON Continued...</b>				
Chlordane (Total)	Jan 25/07	<0.11	ug/l	No
Chlorpyrifos	Jan 25/07	<0.18	ug/l	No
Cyanazine	Jan 25/07	<0.18	ug/l	No
Diazinon	Jan 25/07	<0.081	ug/l	No
Dicamba	Jan 25/07	<0.2	ug/l	No
1,2-Dichlorobenzene	Jan 25/07	<0.50	ug/l	No
1,4-Dichlorobenzene	Jan 25/07	<0.21	ug/l	No
Dichlorodiphenyltrichloroethane (DDT) + metabolites	Jan 25/07	<0.14	ug/l	No
1,2-Dichloroethane	Jan 25/07	<0.43	ug/l	No
1,1-Dichloroethylene (vinylidene chloride)	Jan 25/07	<0.41	ug/l	No
Dichloromethane	Jan 25/07	<0.34	ug/l	No
2-4 Dichlorophenol	Jan 25/07	<0.15	ug/l	No
2,4-Dichlorophenoxy acetic acid (2,4-D)	Jan 25/07	<0.19	ug/l	No
Diclofop-methyl	Jan 25/07	<0.4	ug/l	No
Dimethoate	Jan 25/07	<0.12	ug/l	No
Dinoseb	Jan 25/07	<0.36	ug/l	No
Diquat	Jan 25/07	<1	ug/l	No
Diuron	Jan 25/07	<0.087	ug/l	No
Glyphosate	Jan 25/07	<6	ug/l	No
Heptachlor + Heptachlor Epoxide	Jan 25/07	<0.11	ug/l	No
Lindane (Total)	Jan 25/07	<0.056	ug/l	No
Malathion	Jan 25/07	<0.091	ug/l	No
Methoxychlor	Jan 25/07	<0.14	ug/l	No
Metolachlor	Jan 25/07	<0.092	ug/l	No
Metribuzin	Jan 25/07	<0.12	ug/l	No
Monochlorobenzene	Jan 25/07	<0.58	ug/l	No
Paraquat	Jan 25/07	<1	ug/l	No
Parathion	Jan 25/07	<0.18	ug/l	No
Pentachlorophenol	Jan 25/07	<0.15	ug/l	No
Phorate	Jan 25/07	<0.11	ug/l	No
Picloram	Jan 25/07	<0.25	ug/l	No
Polychlorinated Biphenyls(PCB)	Jan 25/07	<0.04	ug/l	No
Prometryne	Jan 25/07	<0.23	ug/l	No
Simazine	Jan 25/07	<0.15	ug/l	No
THM Distribution Guelph Tower  (NOTE: show latest annual average) Average – 13.3 ug/L	Jan 12/09 Apr 14/09 Jul 06/09 Oct 5/09		ug/L	No
Temphos	Jan 25/07	<0.31	ug/l	No
Terbufos	Jan 25/07	<0.12	ug/l	No
Tetrachloroethylene	Jan 25/07	<0.45	ug/l	No
2,3,4,6-Tetrachlorophenol	Jan 25/07	<0.14	ug/l	No
Triallate	Jan 25/07	<0.10	ug/l	No
Trichloroethylene	Jan 25/07	<0.38	ug/l	No
2,4,6-Trichlorophenol	Jan 25/07	<0.25	ug/l	No
2,4,5-Trichlorophenoxy acetic acid (2,4,5-T)	Jan 25/07	<0.22	ug/l	No
Trifluralin	Jan 25/07	<0.12	ug/l	No
Vinyl Chloride	Jan 25/07	<0.17	ug/l	No

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

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Alachlor	Jan 25/07	<0.11	ug/l	No
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Aldrin + Dieldrin	Jan 25/07	<0.067	ug/l	No
Atrazine + N-dealkylated metabolites	Jan 25/07	<0.12	ug/l	No
Azinphos-methyl	Jan 25/07	<0.21	ug/l	No
Bendiocarb	Jan 25/07	<0.13	ug/l	No
Benzene	Jan 25/07	<0.37	ug/l	No
Benzo(a)pyrene	Jan 25/07	<0.004	ug/l	No
Bromoxynil	Jan 25/07	<0.33	ug/l	No
Carbaryl	Jan 25/07	<0.16	ug/l	No
Carbofuran	Jan 25/07	<0.37	ug/l	No
Carbon Tetrachloride	Jan 25/07	<0.41	ug/l	No
Chlordane (Total)	Jan 25/07	<0.11	ug/l	No
Chlorpyrifos	Jan 25/07	<0.18	ug/l	No
Cyanazine	Jan 25/07	<0.18	ug/l	No
Diazinon	Jan 25/07	<0.081	ug/l	No
Dicamba	Jan 25/07	<0.2	ug/l	No
1,2-Dichlorobenzene	Jan 25/07	<0.5	ug/l	No
1,4-Dichlorobenzene	Jan 25/07	<0.21	ug/l	No
Dichlorodiphenyltrichloroethane (DDT) + metabolites	Jan 25/07	<0.14	ug/l	No
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Monochlorobenzene	Jan 25/07	<0.58	ug/l	No
Paraquat	Jan 25/07	<1	ug/l	No
Parathion	Jan 25/07	<0.18	ug/l	No
Pentachlorophenol	Jan 25/07	<0.15	ug/l	No
Phorate	Jan 25/07	<0.11	ug/l	No
Picloram	Jan 25/07	<0.25	ug/l	No
Polychlorinated Biphenyls(PCB)	Jan 25/07	<0.04	ug/l	No

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Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
<b>CROSS CREEK Continued...</b>				
Prometryne	Jan 25/07	<0.23	ug/l	No
Simazine	Jan 25/07	<0.15	ug/l	No
THM Distribution Guelph Tower (NOTE: show latest annual average) average – 13.3 ug/L	Jan 12/09 Apr 14/09 Jul 06/09 Oct 5/09			No
Temephos	Jan 25/07	<0.31	ug/l	No
Terbufos	Jan 25/07	<0.12	ug/l	No
Tetrachloroethylene	Jan 25/07	<0.45	ug/l	No
2,3,4,6-Tetrachlorophenol	Jan 25/07	<0.14	ug/l	No
Triallate	Jan 25/07	<0.10	ug/l	No
Trichloroethylene	Jan 25/07	<0.38	ug/l	No
2,4,6-Trichlorophenol	Jan 25/07	<0.25	ug/l	No
2,4,5-Trichlorophenoxy acetic acid (2,4,5-T)	Jan 25/07	<0.22	ug/l	No
Trifluralin	Jan 25/07	<0.12	ug/l	No
Vinyl Chloride	Jan 25/07	<0.17	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
N/A			