



OPTIONAL ANNUAL REPORT TEMPLATE

<b>Drinking-Water System Number:</b>	260015587
<b>Drinking-Water System Name:</b>	Highgate Water Supply System
<b>Drinking-Water System Owner:</b>	Municipality of Chatham-Kent
<b>Drinking-Water System Category:</b>	Large Municipal Residential
<b>Period being reported:</b>	January - December 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;"> <p>Chatham-Kent PUC Office 325 Grand Ave E Box 1191 Chatham, ON N7M 5L8</p> </div>	<p><b><u>Complete for all other Categories.</u></b></p> <p>Number of Designated Facilities served: <input type="text"/></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: <input type="text"/></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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**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:

Drinking Water System Name	Drinking Water System Number
None	

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 [ ]



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 Highgate Water Supply System became operational on October 1, 2003 and is located at the same site as the former Highgate Pure Water System. This system consists of 2 raw water wells which pump the water through 5 micron and 1 micron pleated filters. The water then enters into 10 pressure tanks. Along with disinfecting the water with Sodium Hypochlorite, the water is also disinfected with an ultraviolet system. The water then flows into the distribution system.

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

Sodium Hypochlorite

**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**

Hypochlorination panel & two metering pumps replaced: \$7,500  
Quartz sleeves & UV bulbs replaced in UV disinfection units: \$6,000  
Pre and post filters replaced: \$2,000



**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
Jan 3	Loss of chlorine residual			Resample Disinfectant restored Flushing mains	Jan 3
Jan 21	Loss of Chlorine residual			Resample Disinfectant restored Flushing mains	Jan 21
May 2	Loss of U.V. Disinfection			Disinfectant restored	May 2
May 11	Loss of Chlorine Residual			Resample Disinfectant restored Flushing mains	May 11
July 7	Loss of Chlorine Residual			Resample Disinfectant restored Flushing mains	July 11
Aug 11	Loss of Chlorine Residual			Resample Disinfectant restored Flushing mains	Aug 11
Aug 13	Loss of Chlorine Residual			Resample Disinfectant restored Flushing mains	Aug 13
Oct 25	Loss of U.V. Disinfection			Disinfectant restored	Oct 25

**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 #)
<b>Raw</b>	106	0 - 0	0 - 0		
<b>Treated</b>	55	0 - 0	0 - 0	53	<10 - 420
<b>Distribution</b>	130	0 - 0	0 - 0	53	<10 - 40

**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 #)
<b>Turbidity</b>	24	0.139 - 0.687 NTU
<b>Chlorine</b>	8760	0.91 - 2.60 mg/l
<b>Fluoride</b> (If the DWS provides fluoridation)	Fluoride Not Provided	

*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 2008	Result Well 1	Result Well 2	Unit of Measure
C of A 6826-5XNQ9K May 04, 2004	Raw - Organic Nitrogen	Jan 7	0.2	0.2	mg/L
		Apr 14	0.2	0.5	
		July 7	0.2	0.1	
		Oct 6	0.2	0.3	
as above	Raw - Methane	Jan 7	38	42	L/m3
		Apr 7	47	45	
		July 7	44	50	
		Oct 6	50	48	
as above	Point of Entry Fluoride	Jan 7	1.6		mg/L
		Apr 7	1.8		
		July 7	1.8		
		Oct 6	2.0		
as above	Point of Entry Sodium	Jan 7	110,000		ug/L
		Apr 7	110,000		
		July 7	94,000		
		Oct 6	100,000		

**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>Antimony</b>	June 5	<0.5	ug/L	No
<b>Arsenic</b>	June 5	<1.0	ug/L	No
<b>Barium</b>	June 5	350	ug/L	No
<b>Boron</b>	June 5	750	ug/L	No
<b>Cadmium</b>	June 5	<0.1	ug/L	No
<b>Chromium</b>	June 5	<5.0	ug/L	No
<b>Lead</b>	See Schedule 15.1 Summary			
<b>Mercury</b>	June 5	<0.0001	mg/L	No
<b>Selenium</b>	June 5	<2.0	ug/L	No
<b>Sodium</b>	Oct 6	100,000	ug/L	Reported Sept 01, 2004 AWQI32335
<b>Uranium</b>	June 5	<0.1	ug/L	No
<b>Fluoride</b>	Oct 6	2.0	mg/L	Reported May 03, 2005 AWQI54224
<b>Nitrite</b>	Oct 6	<0.01	mg/L	No
<b>Nitrate</b>	Oct 6	<0.1	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 ug/L (min#) – (max #)	Number of Exceedances / Adverses
Residential	40	<0.50 - 5.10	0
Non-Residential	4	<0.50 - <0.5	0
Distribution	4	<0.50 - 1.00	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	June 19	<0.5	ug/L	No
Aldicarb	June 19	<5.0	ug/L	No
Aldrin + Dieldrin	June 05	<0.01	ug/L	No
Atrazine + N-dealkylated metabolites	June 05	<1.0	ug/L	No
Azinphos-methyl	June 05	<2.0	ug/L	No
Bendiocarb	June 19	<2.0	ug/L	No
Benzene	June 05	<0.1	ug/L	No
Benzo(a)pyrene	June 19	<0.009	ug/L	No
Bromoxynil	June 19	<0.5	ug/L	No
Carbaryl	June 19	<5.0	ug/L	No
Carbofuran	June 19	<5.0	ug/L	No
Carbon Tetrachloride	June 05	<0.1	ug/L	No
Chlordane (Total)	June 05	<0.01	ug/L	No
Chlorpyrifos	June 19	<1.0	ug/L	No
Cyanazine	June 19	<1.0	ug/L	No
Diazinon	June 19	<1.0	ug/L	No
Dicamba	June 19	<1.0	ug/L	No
1,2-Dichlorobenzene	June 05	<0.2	ug/L	No
1,4-Dichlorobenzene	June 05	<0.2	ug/L	No
Dichlorodiphenyltrichloroethane (DDT) + metabolites	June 05	<0.02	ug/L	No
1,2-Dichloroethane	June 05	<0.2	ug/L	No
1,1-Dichloroethylene (vinylidene chloride)	June 05	<0.1	ug/L	No
Dichloromethane	June 05	<0.5	ug/L	No
2-4 Dichlorophenol	June 19	<0.5	ug/L	No
2,4-Dichlorophenoxy acetic acid (2,4-D)	June 19	<1.0	ug/L	No
Diclofop-methyl	June 19	<0.9	ug/L	No
Dimethoate	June 19	<3.0	ug/L	No
Dinoseb	June 19	<1.0	ug/L	No
Diquat	June 05	<7.0	ug/L	No
Diuron	June 05	<10.0	ug/L	No
Glyphosate	June 05	<10.0	ug/L	No
Heptachlor + Heptachlor Epoxide	June 05	<0.01	ug/L	No
Lindane (Total)	June 05	<0.006	ug/L	No
Malathion	June 19	<5.0	ug/L	No
Methoxychlor	June 05	<0.02	ug/L	No

<b>Metolachlor</b>	June 19	<0.5	ug/L	No
<b>Metribuzin</b>	June 19	<5.0	ug/L	No
<b>Monochlorobenzene</b>	June 05	<0.1	ug/L	No
<b>Paraquat</b>	June 05	<1.0	ug/L	No
<b>Parathion</b>	June 19	<1.0	ug/L	No
<b>Pentachlorophenol</b>	June 19	<0.5	ug/L	No
<b>Phorate</b>	June 19	<0.5	ug/L	No
<b>Picloram</b>	June 19	<5.0	ug/L	No
<b>Polychlorinated Biphenyls(PCB)</b>	June 05	<0.05	ug/L	No
<b>Prometryne</b>	June 19	<0.3	ug/L	No
<b>Simazine</b>	June 19	<1.0	ug/L	No
<b>THM</b> (NOTE: show latest annual average)  2008 POE: JUNE 5 - 9.5 ug/L	Jan 7 Apr 7 July 7 Oct 6 Avg '08	72.6 70.7 92.2 97.7 83.3	ug/L	No
<b>Temephos</b>	June 05	<10.0	ug/L	No
<b>Terbufos</b>	June 19	<0.5	ug/L	No
<b>Tetrachloroethylene</b>	June 05	<0.1	ug/L	No
<b>2,3,4,6-Tetrachlorophenol</b>	June 19	<0.5	ug/L	No
<b>Triallate</b>	June 19	<1.0	ug/L	No
<b>Trichloroethylene</b>	June 05	<0.1	ug/L	No
<b>2,4,6-Trichlorophenol</b>	June 19	<0.5	ug/L	No
<b>2,4,5-Trichlorophenoxy acetic acid (2,4,5-T)</b>	June 19	<1.0	ug/L	No
<b>Trifluralin</b>	June 19	<1.0	ug/L	No
<b>Vinyl Chloride</b>	June 05	<0.2	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.**

<b>Parameter</b>	<b>Result Value</b>	<b>Unit of Measure</b>	<b>Date of Sample</b>
<b>Fluoride</b>	Jan 7	1.6	mg/L
<b>Fluoride</b>	Apr 7	1.8	mg/L
<b>Fluoride</b>	July 7	1.8	mg/L
<b>Fluoride</b>	Oct 6	2.0	mg/L
<b>Sodium</b>	Jan 7	110,000	ug/L
<b>Sodium</b>	Apr 7	110,000	ug/L
<b>Sodium</b>	July 7	94,000	ug/L
<b>Sodium</b>	Oct 6	100,000	ug/L
<b>THM</b>	Avg '08	83.3	ug/L