Drinking-Water Systems Regulation O. Reg. 170/03

Part III Form 2
Section 11. ANNUAL REPORT.

Drinking-Water System Number:	**220003378**
Drinking-Water System Name:	Chatham Water System
Drinking-Water System Owner:	Municipality of Chatham-Kent
Drinking-Water System Category:	Large Municipal Residential
Period being reported:	January 1 – December 31, 2007

Complete if your Category is Large Municipal Residential or Small Municipal Residential

Does your Drinking-Water System serve more than 10,000 people? Yes [X] No [ ]

Is your annual report available to the public at no charge on a web site on the Internet? Yes [X] No [ ]

Location where Summary Report required under O. Reg. 170/03 Schedule 22 will be available for inspection.

Chatham-Kent P.U.C.
325 Grand Ave. East
P.O. Box 1191
Chatham, ON
N7M 5L8

Complete for all other Categories.

Number of Designated Facilities served:

N/A

Did you provide a copy of your annual report to all Designated Facilities you serve?
Yes [ ] No [ ]

Number of Interested Authorities you report to: N/A

Did you provide a copy of your annual report to all Interested Authorities you report to for each Designated Facility?
Yes [ ] No [ ]

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

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.

[X] Public access/notice via the web
[X] Public access/notice via Government Office
[X] Public access/notice via a newspaper
[X] Public access/notice via Public Request
[X] Public access/notice via a Public Library
[ ] Public access/notice via other method _____

Describe your Drinking-Water System

The Chatham Water Treatment Plant receives its raw water from the Kent County Raw Pumping Station. It utilizes the same raw water pumping station as the South-Kent WTP. The Raw Pumping Station supplies the water from Lake Erie to the stand pipe in Cedar Springs, and then flows to Chatham.

The process after upgrades includes: intake, screening, low lift pumping (raw water) surge tower, Actiflo micro-sand ballasted clarifiers (coagulation, injection of micro-sand and clarification), low lift pumping (settled water pumping), and filtration, treated water storage and high lift pumping. The distribution system includes 6 elevated tanks (Chatham, Paincourt, Mitchell's Bay, Ebert's, Dresden and Thamesville). Fluoride is also added to the water to prevent tooth decay.

Residue management process includes: equalization, flocculation, clarification, thickening and dewatering. The supernant from the clarifiers is discharged into the Thames River after dechlorination. A plate press is used for biosolids removal.

List all water treatment chemicals used over this reporting period

Gas Chlorine, Fluoride, Poly-Aluminum Chloride, Sodium-metasulphate.

Were any significant expenses incurred to?

[X] Install required equipment
[X] Repair required equipment
[X] Replace required equipment

Please provide a brief description and a breakdown of monetary expenses incurred

In the year 2007, the Chatham WTP had various maintenance expenses:

1. SCADA Upgrades	**$35,500**
2. Elevated Tower Inspections & Upgrades	**$23,700**
3. Chlorinator Repairs	**$7,250**
4. Raw Water Line Repairs	**$25,000**
5. HVAC	**$75,000**

Chemicals purchased as follows: $11,500 of Polymer from CIBA, $151,000 of SternPac from Brenntag, $39,000 of Chlorine from Brenntag, $24,000 of Fluoride from Brenntag, and $15,000 of Sand from John Meunier.

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
Feb 16/07	Distribution System Main Break	Boil Water Advisory		2 Consecutive samples, results zero	Feb 19/07
Apr 16/07	Distribution System Main Break	Boil Water Advisory		2 Consecutive samples, results zero	Apr 20/07
Apr 16/07	Distribution System Main Break	Boil Water Advisory		2 Consecutive samples, results zero	Apr 20/07
Aug 09/07	3 Total Coliform	3 Total Coliform	MFU/100	2 Consecutive samples, results zero	Aug 12/07
Aug 13/07	Distribution System Main Break	Boil Water Advisory		2 Consecutive samples, results zero	Aug 16/07
Sept 11/07	Distribution System Main Break	Boil Water Advisory		2 Consecutive samples, results zero	Sept 13/07
Sept 18/07	Low CL2 Residual	0.01 mg/L	mg/L	Flushed Mains	Sept 18/07
Oct 23/07	Low CL2 Residual	0.02 mg/L	mg/L	Flushed Mains	Oct 23/07
Nov 13/07	Distribution System Main Break	Boil Water Advisory		2 Consecutive samples, results zero	Nov 16/07

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 #)
Raw	52	0 - 40	0 - 900	0	0
Treated	52	0	0	26	0 - 10
Distribution	937	0	0	469	1 - 480

Operational testing done under Schedule 7, 8 or 9 of Regulation 170/03 during the period covered by this Annual Report.

8760	Number of Grab Samples	Range of Results (min #)-(max #)
Turbidity	**8760**	**0.015 – 1.0**
Chlorine	**8760**	**0.72 - 2.98**
Fluoride (If the DWS provides fluoridation)	**8760**	**0.41 - 1.00**

__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	Result Average	Unit of Measure
C of A requirement	S.S.	January	5	mg/L
On Residual	CL2	January	0.07	mg/L
Management Water	Total Alm. Res.	January	0.309	mg/L
****Result listed as a**	Total P. Res.	January	0.06	mg/L
monthly average from	**S.S.**	**February**	**1.6**	**mg/L**
3 samples.	**CL2**	**February**	**0.12**	**mg/L**
	Total Alm. Res.	**February**	**0.217**	**mg/L**
	Total P. Res.	**February**	**0.185**	**mg/L**
	S.S.	March	1.3	mg/L
	CL2	March	0.07	mg/L
	Total Alm. Res.	March	0.185	mg/L
	Total P. Res.	March	0.04	mg/L
	S.S.	**April**	**6.3**	**mg/L**
	CL2	**April**	**0.07**	**mg/L**
	Total Alm. Res.	**April**	**0.250**	**mg/L**
	Total P. Res.	**April**	**0.07**	**mg/L**
	S.S.	May	0	mg/L
	CL2	May	0.05	mg/L
	Total Alm. Res.	May	0.213	mg/L
	Total P. Res.	May	0.01	mg/L
	S.S.	**June**	**1**	**mg/L**
	CL2	**June**	**0.07**	**mg/L**
	Total Alm. Res.	**June**	**0.239**	**mg/L**
	Total P. Res.	**June**	**0.11**	**mg/L**
	S.S.	July	3.6	mg/L
	CL2	July	0.07	mg/L
	Total Alm. Res.	July	0.250	mg/L
	Total P. Res.	July	0.06	mg/L
	S.S.	**August**	**2.6**	**mg/L**
	CL2	**August**	**0.04**	**mg/L**
	Total Alm. Res.	**August**	**0.250**	**mg/L**
	Total P. Res.	**August**	**0.02**	**mg/L**
	S.S.	September	1	mg/L
	CL2	September	0.06	mg/L
	Total Alm. Res.	September	0.250	mg/L
	Total P. Res.	September	0.25	mg/L
	S.S.	**October**	**19.3**	**mg/L**
	CL2	**October**	**0.09**	**mg/L**
	Total Alm. Res.	**October**	**0.250**	**mg/L**
	Total P. Res.	**October**	**0.03**	**mg/L**

	S.S.	November	8.3	mg/L
	CL2	November	0.11	mg/L
	Total Alm. Res.	November	0.213	mg/L
	Total P. Res.	November	0.01	mg/L
	S.S.	**December**	**13.6**	**mg/L**
	CL2	**December**	**0.13**	**mg/L**
	Total Alm. Res.	**December**	**0.250**	**mg/L**
	Total P. Res.	**December**	**0.16**	**mg/L**

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

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Antimony	February 6	N/D	mg/L	No
Arsenic	February 6	N/D	mg/L	No
Barium	February 6	0.019	mg/L	No
Boron	February 6	0.023	mg/L	No
Cadmium	February 6	N/D	mg/L	No
Chromium	February 6	N/D	mg/L	No
Lead	February 6	N/D	mg/L	No
Mercury	February 6	N/D	mg/L	No
Selenium	February 6	N/D	mg/L	No
Sodium	February 6	9.6	mg/L	No
Uranium	February 6	N/D	mg/L	No
Fluoride	November 20	0.6	mg/L	No
Nitrite	November 20	N/D	mg/L	No
Nitrate	November 20	N/D	mg/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
Alachlor	February 6	N/D	ug/L	No
Aldicarb	February 6	N/D	ug/L	No
Aldrin + Dieldrin	February 6	N/D	ug/L	No
Atrazine + N-dealkylated metobolites	February 6	N/D	ug/L	No
Azinphos-methyl	February 6	N/D	ug/L	No
Bendiocarb	February 6	N/D	ug/L	No
Benzene	February 6	N/D	ug/L	No
Benzo(a)pyrene	February 6	N/D	ug/L	No
Bromoxynil	February 6	N/D	ug/L	No
Carbaryl	February 6	N/D	ug/L	No
Carbofuran	February 6	N/D	ug/L	No
Carbon Tetrachloride	February 6	N/D	ug/L	No

Chlordane (Total)	February 6	N/D	ug/L	No
Chlorpyrifos	February 6	N/D	ug/L	No
Cyanazine	February 6	N/D	ug/L	No
Diazinon	February 6	N/D	ug/L	No
Dicamba	February 6	N/D	ug/L	No
1,2-Dichlorobenzene	February 6	N/D	ug/L	No
1,4-Dichlorobenzene	February 6	N/D	ug/L	No
Dichlorodiphenyltrichloroethane (DDT) + metabolites	February 6	N/D	ug/L	No
1,2-Dichloroethane	February 6	N/D	ug/L	No
1,1-Dichloroethylene (vinylidene chloride)	February 6	N/D	ug/L	No
Dichloromethane	February 6	N/D	ug/L	No
2-4 Dichlorophenol	February 6	N/D	ug/L	No
2,4-Dichlorophenoxy acetic acid (2,4-D)	February 6	N/D	ug/L	No
Diclofop-methyl	February 6	N/D	ug/L	No
Dimethoate	February 6	N/D	ug/L	No
Dinoseb	February 6	N/D	ug/L	No
Diquat	February 6	N/D	ug/L	No
Diuron	February 6	N/D	ug/L	No
Glyphosate	February 6	N/D	ug/L	No
Heptachlor + Heptachlor Epoxide	February 6	N/D	ug/L	No
Lindane (Total)	February 6	N/D	ug/L	No
Malathion	February 6	N/D	ug/L	No
Methoxychlor	February 6	N/D	ug/L	No
Metolachlor	February 6	N/D	ug/L	No
Metribuzin	February 6	N/D	ug/L	No
Monochlorobenzene	February 6	N/D	ug/L	No
Paraquat	February 6	N/D	ug/L	No
Parathion	February 6	N/D	ug/L	No
Pentachlorophenol	February 6	N/D	ug/L	No
Phorate	February 6	N/D	ug/L	No
Picloram	February 6	N/D	ug/L	No
Polychlorinated Biphenyls(PCB)	February 6	N/D	ug/L	No
Prometryne	February 6	N/D	ug/L	No
Simazine	February 6	N/D	ug/L	No
THM (show latest annual average)	February 6	46.7	ug/L	No
Temephos	February 6	N/D	ug/L	No
Terbufos	February 6	N/D	ug/L	No
Tetrachloroethylene	February 6	N/D	ug/L	No
2,3,4,6-Tetrachlorophenol	February 6	N/D	ug/L	No
Triallate	February 6	N/D	ug/L	No
Trichloroethylene	February 6	N/D	ug/L	No
2,4,6-Trichlorophenol	February 6	N/D	ug/L	No
2,4,5-Trichlorophenoxy acetic acid (2,4,5-T)	February 6	N/D	ug/L	No

Trifluralin	February 6	N/D	ug/L	No
Vinyl Chloride	February 6	N/D	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

(Only if DWS category is large municipal residential, small municipal residential, large municipal non residential, non municipal year round residential, large non municipal non residential)