

**Part III Form 2
Section 11. ANNUAL REPORT.**

Drinking-Water System Number:	220003332
Drinking-Water System Name:	Wheatley 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

<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;"> Chatham-Kent P.U.C. 325 Grand Ave.East P.O. Box 1191 Chatham, ON N7M 5L8 </div>	<p><u>Complete for all other Categories.</u></p> <p>Number of Designated Facilities served:</p> <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 0 auto;">N/A</div> <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:</p> <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 0 auto;">N/A</div> <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
A portion of Mersea Township	220004992
A portion of Lakeshore Township	260004995
3 rd &4 th Concession Waterline Assoc.	260086203
Richardson Sideroad Waterline Assoc.	260086190
Cedar Inn Waterline Assoc.	260086177
Tecumseh Road Waterline Assoc.	260086151
Tilbury Townline Waterline Assoc.	260086164
3 rd Concession Waterline Assoc.	260086125
KOA Waterline Assoc.	260086138
Tilbury Golf & Curling Waterline Assoc.	260086333

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 Wheatley Water Treatment Plant draws its water from Lake Erie, which is a surface water source. Large debris is screened out of the raw water as it is drawn into the treatment plant from the lake. Chlorine is added to the raw intake to control the growth of zebra mussels within the intake pipe. The raw water then passes through a 35-micron micro-strainer to remove algae and other fine particles. Aluminum Sulphate and Polymer are added to achieve more effective settling in the clarifier. Activated carbon is added in the clarifier and is primarily used to remove dissolved organic matter that cause taste, odor and color in drinking water. The water then passes through the gravity filters into the clearwell, where is it disinfected with Chlorine before being pumped into the distribution system. The Distribution System pressure is regulated by an elevated storage tower in Wheatley, with a capacity of 1525 m3. A new elevated storage tower in the community of Tilbury, with a capacity of 5909 m3 has been constructed.

The Wheatley Water Treatment Plant has completed a major construction project which included a Transmission Main to supply the community of Tilbury and surrounding area.

List all water treatment chemicals used over this reporting period

Gas Chlorine, Aluminum Sulphate (liquid), Activated Carbon, and Betz Dearborn Klar-Aid IC1179 (Polymer).

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

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

- | | |
|-------------------------------|----------|
| 1. Chlorine Equipment/Repairs | \$11,000 |
| 2. Intake Maintenance | \$14,100 |
| 3. Hach Meter Calibrations | \$4,500 |
| 4. Turbidity Analyzers | \$6,400 |
| 5. Micro strainer Repair | \$20,000 |
| 6. SCADA upgrades | \$10,000 |

Chemicals purchased as follows: \$35,710 of Alum from General Chemical, \$35,000 of KLARAID from GE BETZ, \$5050 of Carbon from Brenntag and \$15,000 of Chlorine/Hypo from Brenntag.

Incident Date	Parameter	Result	Unit of Measure	Corrective Action	Corrective Action Date
Feb 14/07	13 Total Coliform	13 Total Coliform	MFU/100	2 consecutive samples, results zero	Feb 16/07
Aug 4/07	Filter # 2 NTU analyzer malfunction	Zero reading	NTU	Repaired unit	Aug 4/07
Oct 2/07	Distribution System Main Break	Boil Water Advisory		2 consecutive samples, results zero	Oct 4/07

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	0-22	0->2000	0	0
Treated	52	0	0	52	0
Distribution	862	0	0-13	739	0-680

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 #)
Turbidity	8760	0.03-2.0
Chlorine	8760	1.22-2.00
Fluoride (If the DWS provides fluoridation)	0	0

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 Avg.	Unit of Measure
Backwash Suspended Solids	S.S.	January	5.0	mg/L
Backwash Suspended Solids	S.S.	February	19.3	mg/L
Backwash Suspended Solids	S.S.	March	3.6	mg/L
Backwash Suspended Solids	S.S.	April	8.6	mg/L
Backwash Suspended Solids	S.S.	May	7.3	mg/L
Backwash Suspended Solids	S.S.	June	4.3	mg/L
Backwash Suspended Solids	S.S.	July	5.0	mg/L
Backwash Suspended Solids	S.S.	August	12.6	mg/L
Backwash Suspended Solids	S.S.	September	5.6	mg/L
Backwash Suspended Solids	S.S.	October	2.3	mg/L
Backwash Suspended Solids	S.S.	November	5.3	mg/L
Backwash Suspended Solids	S.S.	December	4.3	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	Exceedence
Antimony	November 26	<0.5	ug/L	No
Arsenic	November 26	<1	ug/L	No
Barium	November 26	18	ug/L	No
Boron	November 26	21	ug/L	No
Cadmium	November 26	<0.1	ug/L	No
Chromium	November 26	<0.5	ug/L	No
Lead	November 26	<0.5	ug/L	No
Mercury	November 26	<0.0001	mg/L	No
Selenium	November 26	<2	ug/L	No
Sodium	November 26	8.5	ug/L	No
Uranium	November 26	<0.1	ug/L	No
Fluoride	November 26	<0.1	mg/L	No
Nitrite	November 26	<0.01	mg/L	No
Nitrate	November 26	<0.1	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	Exceedence
Alachlor	March 12	<0.5	ug/L	No
Aldicarb	March 12	<5.0	ug/L	No

Aldrin + Dieldrin	March 12	0.012	ug/L	No
Atrazine + N-dealkylated metabolites	March 12	<1.0	ug/L	No
Azinphos-methyl	March 12	ND	ug/L	No
Bendiocarb	March 12	2	ug/L	No
Benzene	March 12	<0.1	ug/L	No
Benzo(a)pyrene	March 12	<0.0090	ug/L	No
Bromoxynil	March 12	<0.50	ug/L	No
Carbaryl	March 12	<5.0	ug/L	No
Carbofuran	March 12	<5.0	ug/L	No
Carbon Tetrachloride	March 12	<0.1	ug/L	No
Chlordane (Total)	March 12	<0.012	ug/L	No
Chlorpyrifos	March 12	<1.0	ug/L	No
Cyanazine	March 12	<1.0	ug/L	No
Diazinon	March 12	<1.0	ug/L	No
Dicamba	March 12	<1.0	ug/L	No
1,2-Dichlorobenzene	March 12	<0.2	ug/L	No
1,4-Dichlorobenzene	March 12	<0.10	ug/L	No
Dichlorodiphenyltrichloroethane (DDT) + metabolites	March 12	<0.024	ug/L	No
1,2-Dichloroethane	March 12	<0.2	ug/L	No
1,1-Dichloroethylene (vinylidene chloride)	March 12	<0.10	ug/L	No
Dichloromethane	March 12	<0.50	ug/L	No
2-4 Dichlorophenol	March 12	<0.50	ug/L	No
2,4-Dichlorophenoxy acetic acid (2,4-D)	March 12	<1.0	ug/L	No
Diclofop-methyl	March 12	<0.90	ug/L	No
Dimethoate	March 12	<2.5	ug/L	No
Dinoseb	March 12	<1.0	ug/L	No
Diquat	March 12	<7	ug/L	No
Diuron	March 12	<10	ug/L	No
Glyphosate	March 12	<10	ug/L	No
Heptachlor + Heptachlor Epoxide	March 12	<0.012	ug/L	No
Lindane (Total)	March 12	<0.006	ug/L	No
Malathion	March 12	<5.0	ug/L	No
Methoxychlor	March 12	<0.024	ug/L	No
Metolachlor	March 12	<0.5	ug/L	No
Metribuzin	March 12	<5.0	ug/L	No
Monochlorobenzene	March 12	<0.1	ug/L	No
Paraquat	March 12	<1.0	ug/L	No
Parathion	March 12	ND	ug/L	No
Pentachlorophenol	March 12	<5.0	ug/L	No
Phorate	March 12	<0.50	ug/L	No
Picloram	March 12	<5.0	ug/L	No
Polychlorinated Biphenyls(PCB)	March 12	<0.05	ug/L	No
Prometryne	March 12	<0.25	ug/L	No
Simazine	March 12	<1.0	ug/L	No
THM (show latest annual average)	Year 2007	34.2	ug/L	No
Temephos	March 12	<10	ug/L	No
Terbufos	March 12	<0.70	ug/L	No
Tetrachloroethylene	March 12	<0.1	ug/L	No
2,3,4,6-Tetrachlorophenol	March 12	<0.50	ug/L	No
Triallate	March 12	<1.0	ug/L	No

Trichloroethylene	March 12	<0.1	ug/L	No
2,4,6-Trichlorophenol	March 12	<0.50	ug/L	No
2,4,5-Trichlorophenoxy acetic acid (2,4,5-T)	March 12	<1.0	ug/L	No
Trifluralin	March 12	<1.0	ug/L	No
Vinyl Chloride	March 12	<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.

Parameter	Result Value	Unit of Measure	Date of Sample
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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)