



Drinking-Water System Number:	210000871
Drinking-Water System Name:	Elgin Area Primary Water Supply System
Drinking-Water System Owner:	Elgin Area Primary Water Supply System Joint Board of Management c/o the City of London
Drinking-Water System Category:	Large Municipal Residential
Period being reported:	January 1, 2008 through December 31, 2008

<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 [X] No []</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>Lake Huron and Elgin Area Water Supply Systems c/o Regional Water Supply Division 29 Kilworth Park Dr., RR 5, Komoka, ON Hhttp://www.watersupply.london.ca</p> <p>Elgin Area Water Treatment Plant 43665 Dexter Line, Union, ON</p> </div>	<p><u>Complete for all other Categories.</u></p> <p>Number of Designated Facilities served: <div style="border: 1px solid black; padding: 2px; width: 100px; text-align: center;">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; padding: 2px; width: 100px; text-align: center;">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>
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List all Drinking-Water Systems (if any), which receive all of their drinking water from your system:

Systems that receive their drinking water directly from the EAPWSS:

Drinking Water System Name	Drinking Water System Number
City of London Distribution System	260004917
St. Thomas Secondary Water Supply System	260078897
Aylmer Secondary Water Supply System	260004722
Port Burwell Secondary Water Supply System	260004735
Municipality of Central Elgin	260004761
St. Thomas Distribution System	260002187



Systems that receive their drinking water indirectly from the EAPWSS:

Drinking Water System Name	Drinking Water System Number
Aylmer Distribution System	260002136
Malahide Distribution System	260004774
Dutton/Dunwich Distribution System	220002967
Municipality of Bayham	260004748
Southwold Distribution System	210001362
Ontario Police College Distribution System	260002161
St. Thomas Psychiatric Hospital Distribution Supply	260005255

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 News Release

Describe your Drinking-Water System

The Elgin Area Water Treatment Plant (WTP) employs pre-chlorination, screening, powder activated carbon addition (seasonally on an as-required basis), coagulation, flocculation, sedimentation, dual-media filtration, UV disinfection (as required), post-chlorination, and fluoridation to treat raw water obtained from Lake Erie. The WTP has a rated capacity of 91 ML/day (MLD). Water is pumped from the plant through a 750 mm diameter water main to various communities en route to a terminal reservoir located northeast of St. Thomas in Central Elgin. The drinking water system is monitored at various locations throughout the system via a Supervisory Control and Data Acquisition (SCADA) system.

List all water treatment chemicals used over this reporting period

12% Sodium Hypochlorite
 Acidified Alum
 Cationic Polymer
 Powder Activated Carbon
 Chlorine Gas
 Hydrofluosilicic Acid



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

-Control valve repaired on Low Lift Pump No. 3
 -PLC card replaced
 -replaced raw water sample pump
 -repairs done on Low Lift Pump No. 4 check valve
 -repairs done on poly lines feeding flash mixing chambers 2a & 2b
 -modem replaced for communications between plant and EMPS
 -repaired air release valve in chamber 34.
 -SCADA upgrade installed
 -repairs done on Low Lift No. 4 Pump
 -repairs done on fluoride pump No. 2
 -repairs done on Filter No. 4 backwash valve
 -repaired Milltronics unit on Alum day tank.
 -Solenoid for sodium hypochlorite injection at Low Lift repaired.
 -Altitude valve at Fruitridge Surge Facility repaired.
 -EMPS Reservoir Cell #2 level sensor repaired.
 -repaired highlift air compressor
 -repaired Carbon system.
 -Repaired low speed problem with High Lift #1
 -Installed fall retrieval system to ensure operator safety during filter maintenance on filters 1,2,3&4
 -replaced check valves on PAC pump #2
 -repaired polymer pump #2
 -air release valve on east air compressor of surge tank repaired.
 -repaired filter #1 surface wash valve.
 -Installed Rosemount temperature meter for Station #6

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
12/19/08	Fluoride	1.50 -1.92	mg/L	None required. Elevated levels were only released for 34 minutes.	12/19/08



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 Results (counts/100 mL) (min #)-(max #)	Range of Total Coliform Results (counts/100 mL) (min #)-(max #)	Number of Heterotrophic Plate Count (HPC) Samples	Range of HPC Results (counts/1 mL) (min #)-(max #)
Raw	104	(0)-(100)	(0) – (44000)	104	(<10) – (>2000)
Treated	260	0 - 0	0 - 0	259	(<10) – (1760)
Distribution	154	0 - 0	0 - 0	154	(<10) – (60)

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

Treated Water (Plant Effluent)

	Number of Grab Samples	Range of Results (min #)-(max #)
Turbidity (NTU)	8760	0.03 – 1.41
Free Chlorine (mg/L)	8760	0.20 – 1.94
Fluoride (mg/L)	8760	0.00 - 1.92

NOTE: For continuous monitors use 8760 as the number of samples.

NOTE: Treated water Turbidity spiked above 1.00 NTU on several occasions throughout 2008. Each of these spikes lasted less than 5 minutes and could be directly linked with a pump startup.

Filter #1 Effluent

	Number of Grab Samples	Range of Results (min #)-(max #)
Turbidity (NTU)	8760	0.02 – 1.16

Filter #2 Effluent

	Number of Grab Samples	Range of Results (min #)-(max #)
Turbidity (NTU)	8760	0.01 – 1.89

Filter #3 Effluent

	Number of Grab Samples	Range of Results (min #)-(max #)
Turbidity (NTU)	8760	0.02 – 0.77

Filter #4 Effluent

	Number of Grab Samples	Range of Results (min #)-(max #)
Turbidity (NTU)	8760	0.02 – 1.99

NOTE: Filters 1, 2, and 4 had effluent turbidity spikes greater than 1.00 NTU on a few occasions throughout 2008. Each of these spikes lasted less than 5 minutes and could be directly linked with water flow change.

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	January 3, 2008	Not Detected	µg/L	NO
Arsenic	January 3, 2008	Not Detected	µg/L	NO
Barium	January 3, 2008	22	µg/L	NO
Boron	January 3, 2008	20	µg/L	NO
Cadmium	January 3, 2008	Not Detected	µg/L	NO
Chromium	January 3, 2008	Not Detected	µg/L	NO
Lead	January 3, 2008 July 22, 2008	1.3 Not Detected	µg/L	NO
Mercury	January 3, 2008	Not Detected	mg/L	NO
Selenium	January 3, 2008	Not Detected	mg/L	NO
Sodium	July 4, 2007	11	mg/L	NO
Uranium	January 3, 2008	Not Detected	µg/L	NO
Nitrite	January 3, 2008 April 1, 2008 July 22, 2008 October 1, 2008	Not Detected Not Detected Not Detected Not Detected	mg/L	NO
Nitrate	January 3, 2008 April 1, 2008 July 22, 2008 October 1, 2008	0.1 0.3 0.1 Not Detected	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	January 3, 2008	Not Detected	µg/L	NO
Aldicarb	January 3, 2008	Not Detected	µg/L	NO
Aldrin + Dieldrin	January 3, 2008	Not Detected	µg/L	NO
Atrazine + N-dealkylated metabolites	January 3, 2008	Not Detected	µg/L	NO
Azinphos-methyl	January 3, 2008	Not Detected	µg/L	NO
Bendiocarb	January 3, 2008	Not Detected	µg/L	NO
Benzene	January 3, 2008	Not Detected	µg/L	NO

Benzo(a)pyrene	January 3, 2008	Not Detected	µg/L	NO
Bromoxynil	January 3, 2008	Not Detected	µg/L	NO
Carbaryl	January 3, 2008	Not Detected	µg/L	NO
Carbofuran	January 3, 2008	Not Detected	µg/L	NO
Carbon Tetrachloride	January 3, 2008	Not Detected	µg/L	NO
Chlordane (Total)	January 3, 2008	Not Detected	µg/L	NO
Chlorpyrifos	January 3, 2008	Not Detected	µg/L	NO
Cyanazine	January 3, 2008	Not Detected	µg/L	NO
Diazinon	January 3, 2008	Not Detected	µg/L	NO
Dicamba	January 3, 2008	Not Detected	µg/L	NO
1,2-Dichlorobenzene	January 3, 2008	Not Detected	µg/L	NO
1,4-Dichlorobenzene	January 3, 2008	Not Detected	µg/L	NO
Dichlorodiphenyltrichloroethane (DDT) + metabolites	January 3, 2008	Not Detected	µg/L	NO
1,2-Dichloroethane	January 3, 2008	Not Detected	µg/L	NO
1,1-Dichloroethylene (vinylidene chloride)	January 3, 2008	Not Detected	µg/L	NO
Dichloromethane	January 3, 2008	Not Detected	µg/L	NO
2-4 Dichlorophenol	January 3, 2008	Not Detected	µg/L	NO
2,4-Dichlorophenoxy acetic acid (2,4-D)	January 3, 2008	Not Detected	µg/L	NO
Diclofop-methyl	January 3, 2008	Not Detected	µg/L	NO
Dimethoate	January 3, 2008	Not Detected	µg/L	NO
Dinoseb	January 3, 2008	Not Detected	µg/L	NO
Diquat	January 3, 2008	Not Detected	µg/L	NO
Diuron	January 3, 2008	Not Detected	µg/L	NO
Glyphosate	January 3, 2008	Not Detected	µg/L	NO
Heptachlor + Heptachlor Epoxide	January 3, 2008	Not Detected	µg/L	NO
Lindane (Total)	January 3, 2008	Not Detected	µg/L	NO
Malathion	January 3, 2008	Not Detected	µg/L	NO
Methoxychlor	January 3, 2008	Not Detected	µg/L	NO
Metolachlor	January 3, 2008	Not Detected	µg/L	NO
Metribuzin	January 3, 2008	Not Detected	µg/L	NO
Monochlorobenzene	January 3, 2008	Not Detected	µg/L	NO
Paraquat	January 3, 2008	Not Detected	µg/L	NO
Parathion	January 3, 2008	Not Detected	µg/L	NO



Pentachlorophenol	January 3, 2008	Not Detected	µg/L	NO
Phorate	January 3, 2008	Not Detected	µg/L	NO
Picloram	January 3, 2008	Not Detected	µg/L	NO
Polychlorinated Biphenyls(PCB)	January 17, 2008	Not Detected	µg/L	NO
Prometryne	January 3, 2008	Not Detected	µg/L	NO
Simazine	January 3, 2008	Not Detected	µg/L	NO
THM (NOTE: show latest annual average)	October 1, 2008	Not Detected	mg/L	NO
Temephos	January 3, 2008	Not Detected	µg/L	NO
Terbufos	January 3, 2008	Not Detected	µg/L	NO
Tetrachloroethylene	January 3, 2008	Not Detected	µg/L	NO
2,3,4,6-Tetrachlorophenol	January 3, 2008	Not Detected	µg/L	NO
Triallate	January 3, 2008	Not Detected	µg/L	NO
Trichloroethylene	January 3, 2008	Not Detected	µg/L	NO
2,4,6-Trichlorophenol	January 3, 2008	Not Detected	µg/L	NO
2,4,5-Trichlorophenoxy acetic acid (2,4,5-T)	January 3, 2008	Not Detected	µg/L	NO
Trifluralin	January 3, 2008	Not Detected	µg/L	NO
Vinyl Chloride	January 3, 2008	Not Detected	µg/L	NO

NOTE: During 2008, no Inorganic or Organic parameter(s) exceeded half the standard prescribed in Schedule 2 of Ontario Drinking Water Quality Standards.