

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

Drinking-Water System Number:	210000791
Drinking-Water System Name:	Lake Huron Primary Water Supply System
Drinking-Water System Owner:	Lake Huron 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, 2006 through December 31, 2006

<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 Report required under O. Reg. 170/03 Schedule 22 will be available for inspection.</p> <div style="border: 1px solid black; padding: 5px;"> Lake Huron and Elgin Area Water Supply Systems c/o Regional Water Supply Division 29 Kilworth Park Dr., RR 5, Komoka, ON http://www.watersupply.london.ca </div> <div style="border: 1px solid black; padding: 5px; margin-top: 5px;"> Lake Huron Water Treatment Plant 71155A Bluewater Highway, Grand Bend, Ont. </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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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:

Systems that receive their drinking water directly from the LHPWSS:

<u>Drinking Water System Name</u>	<u>Drinking Water System Number</u>
City of London	260004917
Municipality of Bluewater	260006542
Municipality of Lambton Shores	260006568
Township of Lucan-Biddulph	260003071
Township of Middlesex Center	260004202

Municipality of North Middlesex	260006529
Township of Strathroy-Caradoc	220002173 (Note: DWS # 260080106 as of February 2007)
Municipality of South Huron	260006555

Systems that receive their drinking water indirectly from the LHPWSS:

<u>Drinking Water System Name</u>	<u>Drinking Water System Number</u>
Huron Park Distribution System	210003048
Exeter Water Supply System	220001520
Theford Water	210000425

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 Lake Huron Water Treatment Plant (WTP) employs pre-chlorination, screening, powder activated carbon addition (seasonally on an as-required basis), coagulation, flocculation, sedimentation, dual-media filtration, and post-chlorination to treat raw water obtained from Lake Huron. The WTP intake crib and raw water intake pipe have an estimated gross capacity of 454.6 Megalitres/day (MLD). The WTP rated capacity is 340.0 MLD. Water is pumped from the plant through 1200 mm diameter water main, sections of which are twinned, to various communities en route to a terminal reservoir located to the north of the City of London. 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

Filter aid polymer (on an as-required basis)
 Acidified alum
 Powder activated carbon
 Dewatering polymer
 Chlorine gas

Were any significant expenses incurred to?

- Install required equipment
- Repair required equipment
- Replace required equipment

Describe
Lake Huron Water Treatment Plant:

Control Module on HLP # 2
 New metering equipment installed
 Installation of new filter backwash rate actuators
 Rebuilt PAC pump
 Installed New caustic pump
 Installation of replacement instrumentation
 High Voltage maintenance
 IR Scan of transformer
 Installed 2 new A/C units for the Main electrical room
 New server installed
 New sewage ejection tank installed

McGillivray Booster Pumping Station:

Capacitor HLP # 1
 New metering equipment installed
 Repair motor control package for HLP # 1
 IR Scan of transformer
 New security system installed

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
September 19, 2006	Turbidity	6.23	NTU	Problem was result of a pump start-up. The pump was immediately turned off. Sample line was flushed, chlorine residual brought up to 1.2 mg/L and microbiological sample taken on treated water. Sample did not result in adverse water quality.	September 19, 2006

NOTE: At the time of the high turbidity reading in the lab (6.23 NTU), the turbidity on

the filter effluent lines and on the treated water discharge did not exceed the maximum criteria set out in O. Reg 170/03. The turbidity on the treated water leaving the plant was 0.04 NTU.

Microbiological testing done under section 8 (2) during this reporting period

	Number of Samples	Range of E.Coli or Fecal Results (#-#)	Range of Total Coliform Results (#-#)	Number of HPC Samples	Range of HPC Results (#-#)
Raw	101	(0) – (17)	(0) – (7,200)	102	(<10) – (>2,000)
Treated	258	(0) – (0)	(0) – (0)	258	(<10) – (100)
Distribution	292	(0) – (0)	(0) – (0)	193	(<10) – (260)

Operational testing done under Schedule 7, 8 or 9 during the period covered by this Annual Report.

	Number of Grab Samples	Range of Results (#-#)
Turbidity (NTU)	8760	(0.01) - (1.03)
Chlorine	8760	(0.81) - (1.37)
Fluoride (If the DWS provides fluoridation)		

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

NOTE: Momentary spikes were recorded up to 1.03 NTU on the treated water effluent. The spikes correspond with pump initiations and no spike lasted more than fifteen minutes. The annual average turbidity on the treated water effluents was 0.03 NTU.

Summary of additional testing and sampling carried out in accordance with the requirement of an approval or order.

Date of order or C of A	Parameter	Date Sampled	Result	Unit of Measure

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

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Antimony	January 30, 2006	Not Detected	µg/L	
Arsenic	January 30, 2006	Not Detected	µg/L	
Barium	January 30, 2006	15	µg/L	
Boron	January 30, 2006	12	µg/L	
Cadmium	January 30, 2006	Not Detected	µg/L	

Chromium	January 30, 2006	Not Detected	µg/L	
Lead	January 30, 2006	Not Detected	µg/L	
Mercury	January 30, 2006	Not Detected	mg/L	
Selenium	January 30, 2006	Not Detected	µg/L	
Sodium	January 30, 2006	4.1	mg/L	
Uranium	January 30, 2006	Not Detected	µg/L	
Fluoride	25 March 04	<0.1	mg/L	
Nitrite	January 30, 2006 April 10, 2006 July 12, 2006 October 3, 2006	Not Detected Not Detected Not Detected Not Detected	mg/L	
Nitrate	January 30, 2006 April 10, 2006 July 12, 2006 October 3, 2006	0.6 ND 0.4 0.2	mg/L	

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

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Alachlor	January 30, 2006	Not Detected	µg/L	
Aldicarb	January 30, 2006	Not Detected	µg/L	
Aldrin + Dieldrin	January 30, 2006	Not Detected	µg/L	
Atrazine + N-dealkylated metabolites	January 30, 2006	Not Detected	µg/L	
Azinphos-methyl	January 30, 2006	Not Detected	µg/L	
Bendiocarb	January 30, 2006	Not Detected	µg/L	
Benzene	January 30, 2006	Not Detected	µg/L	
Benzo(a)pyrene	January 30, 2006	Not Detected	µg/L	
Bromoxynil	January 30, 2006	Not Detected	µg/L	
Carbaryl	January 30, 2006	Not Detected	µg/L	
Carbofuran	January 30, 2006	Not Detected	µg/L	
Carbon Tetrachloride	January 30, 2006	Not Detected	µg/L	
Chlordane (Total)	January 30, 2006	Not Detected	µg/L	
Chlorpyrifos	January 30, 2006	Not Detected	µg/L	
Cyanazine	January 30, 2006	Not Detected	µg/L	
Diazinon	January 30, 2006	Not Detected	µg/L	
Dicamba	January 30, 2006	Not Detected	µg/L	
1,2-Dichlorobenzene	January 30, 2006	Not Detected	µg/L	
1,4-Dichlorobenzene	January 30, 2006	Not Detected	µg/L	
Dichlorodiphenyltrichloroethane (DDT) + metabolites	January 30, 2006	Not Detected	µg/L	
1,2-Dichloroethane	January 30, 2006	Not Detected	µg/L	
1,1-Dichloroethylene (vinylidene chloride)	January 30, 2006	Not Detected	µg/L	
Dichloromethane	January 30, 2006	Not Detected	µg/L	
2-4 Dichlorophenol	January 30, 2006	Not Detected	µg/L	
2,4-Dichlorophenoxy acetic acid (2,4-D)	January 30, 2006	Not Detected	µg/L	
Diclofop-methyl	January 30, 2006	Not Detected	µg/L	

Dimethoate	January 30, 2006	Not Detected	µg/L	
Dinoseb	January 30, 2006	Not Detected	µg/L	
Diquat	January 30, 2006	Not Detected	µg/L	
Diuron	January 30, 2006	Not Detected	µg/L	
Glyphosate	January 30, 2006	Not Detected	µg/L	
Heptachlor + Heptachlor Epoxide	January 30, 2006	Not Detected	µg/L	
Lindane (Total)	January 30, 2006	Not Detected	µg/L	
Malathion	January 30, 2006	Not Detected	µg/L	
Methoxychlor	January 30, 2006	Not Detected	µg/L	
Metolachlor	January 30, 2006	Not Detected	µg/L	
Metribuzin	January 30, 2006	Not Detected	µg/L	
Monochlorobenzene	January 30, 2006	Not Detected	µg/L	
Paraquat	January 30, 2006	Not Detected	µg/L	
Parathion	January 30, 2006	Not Detected	µg/L	
Pentachlorophenol	January 30, 2006	Not Detected	µg/L	
Phorate	January 30, 2006	Not Detected	µg/L	
Picloram	January 30, 2006	Not Detected	µg/L	
Polychlorinated Biphenyls(PCB)	January 30, 2006	Not Detected	µg/L	
Prometryne	January 30, 2006	Not Detected	µg/L	
Simazine	January 30, 2006	Not Detected	µg/L	
THM (NOTE: show latest annual average)	Annual Average for 2006	0.0118	mg/L	
Temephos	January 30, 2006	Not Detected	µg/L	
Terbufos	January 30, 2006	Not Detected	µg/L	
Tetrachloroethylene	January 30, 2006	Not Detected	µg/L	
2,3,4,6-Tetrachlorophenol	January 30, 2006	Not Detected	µg/L	
Triallate	January 30, 2006	Not Detected	µg/L	
Trichloroethylene	January 30, 2006	Not Detected	µg/L	
2,4,6-Trichlorophenol	January 30, 2006	Not Detected	µg/L	
2,4,5-Trichlorophenoxy acetic acid (2,4,5-T)	January 30, 2006	Not Detected	µg/L	
Trifluralin	January 30, 2006	Not Detected	µg/L	
Vinyl Chloride	January 30, 2006	Not Detected	µg/L	

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 category is large municipal residential, small municipal residential, large municipal non residential, small municipal non residential, large non municipal non residential)