



<b>Drinking-Water System Number:</b>	210000791
<b>Drinking-Water System Name:</b>	<b>Lake Huron Primary Water Supply System</b>
<b>Drinking-Water System Owner:</b>	Lake Huron Primary Water Supply System Joint Board of Management c/o the City of London
<b>Drinking-Water System Category:</b>	Large Municipal Residential
<b>Period being reported:</b>	January 1, 2008 through December 31, 2008

<p><b><u>Complete if your Category is Large Municipal Residential or Small Municipal Residential</u></b></p> <p><b>Does your Drinking-Water System serve more than 10,000 people? Yes [X] No [ ]</b></p> <p><b>Is your annual report available to the public at no charge on a web site on the Internet? Yes [X] No [ ]</b></p> <p><b>Location where Summary Report required under O. Reg. 170/03 Schedule 22 will be available for inspection.</b></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 H<a href="http://www.watersupply.london.ca">http://www.watersupply.london.ca</a></p> <p>Lake Huron Water Treatment Plant 71155 Bluewater Hwy., Grand Bend, ON</p> </div>	<p><b><u>Complete for all other Categories.</u></b></p> <p><b>Number of Designated Facilities served:</b></p> <div style="border: 1px solid black; padding: 2px; width: 100px; margin: 5px auto;">N/A</div> <p><b>Did you provide a copy of your annual report to all Designated Facilities you serve? Yes [ ] No [ ]</b></p> <p><b>Number of Interested Authorities you report to:</b></p> <div style="border: 1px solid black; padding: 2px; width: 100px; margin: 5px auto;">N/A</div> <p><b>Did you provide a copy of your annual report to all Interested Authorities you report to for each Designated Facility? Yes [ ] No [ ]</b></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 from the LHPWSS:**

<b>Drinking Water System Name</b>	<b>Drinking Water System Number</b>
City of London	260004917
Municipality of Bluewater	260006542
Municipality of Lambton Shores (East Lambton Shores Water Distribution System)	260006568
Township of Lucan-Biddulph	260003071
Township of Middlesex Center	260004202
Municipality of North Middlesex	260006529
Municipality of Strathroy-Caradoc	260080106



Municipality of South Huron (Stephen Water System) (Huron Park Distribution System) (Exeter Water Supply System)	260006555 210003048 220001520
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**Systems that may receive their drinking water from the LHPWSS:**

Drinking Water System Name	Drinking Water System Number
Municipality of Lambton Shores (West Lambton Shores Distribution System) *Normally supplied by the Lambton Area Water Supply System (LAWSS) but a connection to the LHPWSS exists	260006581

**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, post-chlorination, and sodium hydroxide addition 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  
50% Sodium Hydroxide



**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**

Lake Huron Water Treatment Plant:

- Install tanks, pumps and feed lines for addition of sodium hydroxide for pH adjustment.
- Rebuilt Low Lift Pump No. 3 (motor replaced and pump repaired).
- Replaced treated water pH meter.
- Commissioned the Exeter-Hensall transmission main, storage reservoir and pumping station.
- Valve repair on High Lift Pump No. 1.
- Repaired filter #7 effluent valve.
- 20" ball valve replaced on High lift Pump No. 4.
- Replaced bearings and packing on High Lift Pump No. 3.
- Replaced pump and valve on Backwash Pump No. 7.
- Replaced dryer unit on Instrument Air Compressors.
- Installed pH meter on service water line.
- Upgraded generators.
- Replaced three universal joints on Grit Pump.
- Repaired site security cameras and installed new camera at Low Lift.
- Added cement base for Backwash Pump No. 11.
- Repaired circuit board and wiring for valve at East Header Chamber.
- Replaced output card for High Lift Pump No. 1 actuator.
- Repaired Low Lift Pump No. 2.
- Replaced screens on Travelling Screen No. 2.
- Repaired High Lift Pump No. 2 bearings.

McGillivray Booster Pumping Station:

- Replaced circuit board at MS2 Strathroy.
- Replaced aftercooler on air system.
- PLC card replaced on Strathroy line.
- Replaced analog cards for communication between Strathroy and LHPWSS.
- Replaced 100 amp breaker.

**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
N/A	N/A	N/A	N/A	N/A	N/A



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 (CFU/100mL) (min #)-(max #)	Range of Total Coliform Results (CFU/100mL) (min #)-(max #)	Number Of Heterotrophic Plate Count (HPC) Samples	Range of HPC Results (CFU/1mL) (min #)-(max #)
Raw	103	(0)-(340)	(0) – (14700)	102	(<10) – (>2000)
Treated	249	0 – 0	0 – 0	249	(<10) – (210)
Distribution	352	0 – 0	0 – 0	352	(<10) – (>2000)

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 #)
Treated Water Turbidity (NTU)	8760	0.01 – 2.07
Treated Water Free Chlorine (mg/L)	8760	0.06 – 1.92

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

*NOTE: There were a few instances in 2008 when the treated water turbidity exceeded 1.00 NTU. Each of these events coincided with a pump start-up. The elevated readings subsided to levels <1.00 NTU in less than 10 minutes after the pump start-up.*

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 2, 2008	NOT DETECTED	mg/L	NO
Arsenic	January 2, 2008	NOT DETECTED	mg/L	NO
Barium	January 2, 2008	0.014	mg/L	NO
Boron	January 2, 2008	0.01	mg/L	NO
Cadmium	January 2, 2008	NOT DETECTED	mg/L	NO
Chromium	January 2, 2008	NOT DETECTED	mg/L	NO
*Lead	March 31, 2008 July 2, 2008	NOT DETECTED NOT DETECTED	mg/L	NO
Mercury	January 2, 2008	NOT DETECTED	mg/L	NO
Selenium	January 2, 2008	NOT DETECTED	mg/L	NO
Sodium	April 14, 2008	10	mg/L	NO
Uranium	January 2, 2008	NOT DETECTED	mg/L	NO
Fluoride	March 25, 2004	<0.1	mg/L	NO
Nitrite	January 2, 2008 April 1, 2008 July 2, 2008 October 7, 2008	NOT DETECTED NOT DETECTED NOT DETECTED NOT DETECTED	mg/L	NO
Nitrate	January 2, 2008 April 1, 2008 July 2, 2008 October 7, 2008	0.3 0.7 0.3 0.3	mg/L	NO

**Summary of Organic parameters sampled during this reporting period or the most recent sample results**

<b>Parameter</b>	<b>Sample Date</b>	<b>Result Value</b>	<b>Unit of Measure</b>	<b>Exceedance</b>
<b>Alachlor</b>	January 2, 2008	NOT DETECTED	µg/L	NO
<b>Aldicarb</b>	January 2, 2008	NOT DETECTED	µg/L	NO
<b>Aldrin + Dieldrin</b>	January 2, 2008	NOT DETECTED	µg/L	NO
<b>Atrazine + N-dealkylated metabolites</b>	January 2, 2008	NOT DETECTED	µg/L	NO
<b>Azinphos-methyl</b>	January 2, 2008	NOT DETECTED	µg/L	NO
<b>Bendiocarb</b>	January 2, 2008	NOT DETECTED	µg/L	NO
<b>Benzene</b>	January 2, 2008	NOT DETECTED	µg/L	NO
<b>Benzo(a)pyrene</b>	January 2, 2008	NOT DETECTED	µg/L	NO
<b>Bromoxynil</b>	January 2, 2008	NOT DETECTED	µg/L	NO
<b>Carbaryl</b>	January 2, 2008	NOT DETECTED	µg/L	NO
<b>Carbofuran</b>	January 2, 2008	NOT DETECTED	µg/L	NO
<b>Carbon Tetrachloride</b>	January 2, 2008	NOT DETECTED	µg/L	NO
<b>Chlordane (Total)</b>	January 2, 2008	NOT DETECTED	µg/L	NO
<b>Chlorpyrifos</b>	January 2, 2008	NOT DETECTED	µg/L	NO
<b>Cyanazine</b>	January 2, 2008	NOT DETECTED	µg/L	NO
<b>Diazinon</b>	January 2, 2008	NOT DETECTED	µg/L	NO
<b>Dicamba</b>	January 2, 2008	NOT DETECTED	µg/L	NO
<b>1,2-Dichlorobenzene</b>	January 2, 2008	NOT DETECTED	µg/L	NO
<b>1,4-Dichlorobenzene</b>	January 2, 2008	NOT DETECTED	µg/L	NO
<b>Dichlorodiphenyltrichloroethane (DDT) + metabolites</b>	January 2, 2008	NOT DETECTED	µg/L	NO
<b>1,2-Dichloroethane</b>	January 2, 2008	NOT DETECTED	µg/L	NO
<b>1,1-Dichloroethylene (vinylidene chloride)</b>	January 2, 2008	NOT DETECTED	µg/L	NO
<b>Dichloromethane</b>	January 2, 2008	NOT DETECTED	µg/L	NO
<b>2,4 Dichlorophenol</b>	January 2, 2008	NOT DETECTED	µg/L	NO
<b>2,4-Dichlorophenoxy acetic acid (2,4-D)</b>	January 2, 2008	NOT DETECTED	µg/L	NO
<b>Diclofop-methyl</b>	January 2, 2008	NOT DETECTED	µg/L	NO
<b>Dimethoate</b>	January 2, 2008	NOT DETECTED	µg/L	NO
<b>Dinoseb</b>	January 2, 2008	NOT DETECTED	µg/L	NO
<b>Diquat</b>	January 2, 2008	NOT DETECTED	µg/L	NO

<b>Diuron</b>	January 2, 2008	NOT DETECTED	µg/L	NO
<b>Glyphosate</b>	January 2, 2008	NOT DETECTED	µg/L	NO
<b>Heptachlor + Heptachlor Epoxide</b>	January 2, 2008	NOT DETECTED	µg/L	NO
<b>Lindane (Total)</b>	January 2, 2008	NOT DETECTED	µg/L	NO
<b>Malathion</b>	January 2, 2008	NOT DETECTED	µg/L	NO
<b>Methoxychlor</b>	January 2, 2008	NOT DETECTED	µg/L	NO
<b>Metolachlor</b>	January 2, 2008	NOT DETECTED	µg/L	NO
<b>Metribuzin</b>	January 2, 2008	NOT DETECTED	µg/L	NO
<b>Monochlorobenzene</b>	January 2, 2008	NOT DETECTED	µg/L	NO
<b>Paraquat</b>	January 2, 2008	NOT DETECTED	µg/L	NO
<b>Parathion</b>	January 2, 2008	NOT DETECTED	µg/L	NO
<b>Pentachlorophenol</b>	January 2, 2008	NOT DETECTED	µg/L	NO
<b>Phorate</b>	January 2, 2008	NOT DETECTED	µg/L	NO
<b>Picloram</b>	January 2, 2008	NOT DETECTED	µg/L	NO
<b>Polychlorinated Biphenyls(PCB)</b>	January 2, 2008	NOT DETECTED	µg/L	NO
<b>Prometryne</b>	January 2, 2008	NOT DETECTED	µg/L	NO
<b>Simazine</b>	January 2, 2008	NOT DETECTED	µg/L	NO
<b>THM</b> (NOTE: show latest annual average)	January 2, 2008 April 1, 2008 July 7, 2008 October 7, 2008	0.0200	mg/L	NO
<b>Temephos</b>	January 2, 2008	NOT DETECTED	µg/L	NO
<b>Terbufos</b>	January 2, 2008	NOT DETECTED	µg/L	NO
<b>Tetrachloroethylene</b>	January 2, 2008	NOT DETECTED	µg/L	NO
<b>2,3,4,6-Tetrachlorophenol</b>	January 2, 2008	NOT DETECTED	µg/L	NO
<b>Triallate</b>	January 2, 2008	NOT DETECTED	µg/L	NO
<b>Trichloroethylene</b>	January 2, 2008	NOT DETECTED	µg/L	NO
<b>2,4,6-Trichlorophenol</b>	January 2, 2008	NOT DETECTED	µg/L	NO
<b>2,4,5-Trichlorophenoxy acetic acid (2,4,5-T)</b>	January 2, 2008	NOT DETECTED	µg/L	NO
<b>Trifluralin</b>	January 2, 2008	NOT DETECTED	µg/L	NO
<b>Vinyl Chloride</b>	January 2, 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.**