



ANNUAL REPORT

Drinking-Water System Number:	260091507
Drinking-Water System Name:	Lakeshore Water Treatment Plant/Water Service Area
Drinking-Water System Owner:	The Corporation of the Town of Lakeshore
Drinking-Water System Category:	Large Municipal Residential
Period being reported:	January 01, 2019 to December 31, 2019

<p>Does this Drinking-Water System serve more than 10,000 people? Yes [X] No []</p> <p>Is this annual report available to the public at no charge on a web site on the Internet? Yes [X] No []</p> <p>Location where this system's Summary Report required under O. Reg. 170/03 Schedule 22 will be available for inspection.</p> <p>Town of Lakeshore Municipal Building (Town Hall) 419 Notre Dame Street Belle River, Ont. N0R 1A0</p>	<p>Number of Designated Facilities served: None</p> <p>Number of Interested Authorities reported to: None</p>
--	---

Drinking-Water Systems which receive all of their drinking water from this system:

Drinking Water System Name	Drinking Water System Number
None	

How system users are told that this 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**



Description of the Drinking-Water System during this reporting period

The Lakeshore WTP is a 36,360,000L/day facility, located at 492 Lakeview Dr. in Belle River, Ont. and serves approximately 28, 997 residents within the Lakeshore Water Service Area. Treatment processes within the facility include: coagulation, flocculation, sedimentation, zebra mussel control, powdered activated carbon, granular activated carbon, filtration, UV disinfection and chlorination. The Lakeshore Water Service Area (LWSA) extends south from Lake St.Clair to Highway 401 and extends east from County Rd.19 to Rochester Townline Road. The LWSA includes approximately 234 kilometers of water distribution piping ranging in size from 25 to 600 millimeters in diameter. The distribution system disinfection is by free chlorine residual. The LWSA also includes the Belle River and Maidstone elevated water storage tanks.

List of all water treatment chemicals used over this reporting period

Aluminum sulphate (DelPAC product), polyelectrolytes, chlorine gas, activated carbon

Significant expenses incurred during this reporting period to:

- ☒ Install required equipment
- ☐ Repair required equipment
- ☒ Replace required equipment

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

Turbidity Meter Replacements	- \$ 86,000
SCADA Upgrade	- \$ 15,000
Notre Dame Ph4 Watermain Replacement	- \$ 500,000
Lalonde Watermain Replacement	- \$ 300,000
Rourke Line Watermain Replacement	- \$ 500,000
Belle River Water Tower Generator	- \$ 24,000

Details of 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 during this reporting period

****None to report this period.**

Incident Date	Parameter	Result	Unit of Measure	Corrective Action	Corrective Action Date

Microbiological testing done under the Schedule 10 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	0-18	0 – 2000	N/A	N/A
Treated	104	0-0	0-0	104	0-70
Distribution	520	0-0	0-0	208	0 - 40

Operational testing done under Schedule 7 of Regulation 170/03 during this reporting period.

	Number of Grab Samples	Range of Results (min #)-(max #)	Unit of Measure
Turbidity	8760	0.02-0.07 (avg of 4 filters)	NTU
Chlorine	8760	1.28 – 1.98	Mg/L
All Distribution Free Chlorine Residuals	878	0.28 – 1.56	Mg/L

NOTE: 8760 indicates that continuous monitors were used for sampling.

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	Unit of Measure
June 6, 2016 DWWL 031-101 (issue 02)	Suspended Solids	Running Annual Average	10.55	Mg/L

Summary of Inorganic parameters tested during this reporting period

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Antimony	November 13, 2019	N/D	Mg/L	NO
Arsenic	November 13, 2019	N/D	Mg/L	NO
Barium	November 13, 2019	0.015	Mg/L	NO
Boron	November 13, 2019	0.05	Mg/L	NO
Cadmium	November 13, 2019	N/D	Mg/L	NO
Chromium	November 13, 2019	N/D	Mg/L	NO
Mercury	November 13, 2019	N/D	Mg/L	NO
Selenium	November 13, 2019	N/D	Mg/L	NO
Uranium	November 13, 2019	N/D	Mg/L	NO
Fluoride	November 13, 2019	0.069	Mg/L	NO
Nitrite	November 13, 2019	N/D	Mg/L	NO
Nitrate (annual average)	Annual Average	1.00	Mg/L	NO

Summary of Alkalinity and pH testing done under Schedule 15.1 during this reporting period

Location Type Distribution	Number of Samples	Alkalinity Result (range 30 – 500)	Unit of Measure	Field pH Result	Number of Exceedances
Winter Session					

s/stn LSW-027	1	96	Mg/l	7.63	N/A
s/stn LSW-046	1	101	Mg/l	7.55	N/A
s/stn LSW-039	1	99	Mg/l	7.50	N/A
s/stn LSW-066	1	109	Mg/l	7.59	N/A
s/stn LSW-004	1	90	Mg/l	7.64	N/A
s/stn LSW-006	1	92	Mg/l	7.69	N/A
s/stn LSW-018	1	114	Mg/l	7.66	N/A
Summer Session					
s/stn LSW-006	1	96	Mg/l	7.87	N/A
s/stn LSW-004	1	89	Mg/l	7.84	N/A
s/stn LSW-018	1	93	Mg/l	7.91	N/A
s/stn LSW-027	1	93	Mg/l	7.81	N/A
s/stn LSW-066	1	92	Mg/l	7.84	N/A
s/stn LSW-039	1	91	Mg/l	7.79	N/A
s/stn LSW-046	1	93	Mg/l	7.74	N/A

Summary of Organic parameters sampled during this reporting period

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Alachlor	November 13, 2019	N/D	Mg/L	NO
Atrazine + N-dealkylated metabolites	November 13, 2019	N/D	Mg/L	NO
Azinphos-methyl	November 13, 2019	N/D	Mg/L	NO
Benzene	November 13, 2019	N/D	Mg/L	NO
Benzo(a)pyrene	November 13, 2019	N/D	Mg/L	NO
Bromoxynil	November 13, 2019	N/D	Mg/L	NO
Carbaryl	November 13, 2019	N/D	Mg/L	NO
Carbofuran	November 13, 2019	N/D	Mg/L	NO
Carbon Tetrachloride	November 13, 2019	N/D	Mg/L	NO
Chlordane (Total)	November 13, 2019	N/D	Mg/L	NO
Chlorpyrifos	November 13, 2019	N/D	Mg/L	NO
Diazinon	November 13, 2019	N/D	Mg/L	NO
Dicamba	November 13, 2019	N/D	Mg/L	NO
1,2-Dichlorobenzene	November 13, 2019	N/D	Mg/L	NO
1,4-Dichlorobenzene	November 13, 2019	N/D	Mg/L	NO
Dichlorodiphenyltrichloroethane (DDT) + metabolites	November 13, 2019	N/D	Mg/L	NO
1,2-Dichloroethane	November 13, 2019	N/D	Mg/L	NO

1,1-Dichloroethylene (vinylidene chloride)	November 13, 2019	N/D	Mg/L	NO
Dichloromethane	November 13, 2019	N/D	Mg/L	NO
2-4 Dichlorophenol	November 13, 2019	N/D	Mg/L	NO
2,4-Dichlorophenoxy acetic acid (2,4-D)	November 13, 2019	N/D	Mg/L	NO
Diclofop-methyl	November 13, 2019	N/D	Mg/L	NO
Dimethoate	November 13, 2019	N/D	Mg/L	NO
Diquat	November 13, 2019	N/D	Mg/L	NO
Diuron	November 13, 2019	N/D	Mg/L	NO
Glyphosate	November 13, 2019	N/D	Mg/L	NO
Malathion	November 13, 2019	N/D	Mg/L	NO
HAA's – distribution only	Running Annual Average	0.09	Mg/L	NO
MCPA	November 13, 2019	N/D	Mg/L	NO
Metolachlor	November 13, 2019	N/D	Mg/L	NO
Metribuzin	November 13, 2019	N/D	Mg/L	NO
Monochlorobenzene	November 13, 2019	N/D	Mg/L	NO
Oxychlordane	November 13, 2019	N/D	Mg/L	NO

Summary of Organic parameters sampled during this reporting period (continued)

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Paraquat	November 13, 2019	N/D	Mg/L	NO
Pentachlorophenol	November 13, 2019	N/D	Mg/L	NO
Phorate	November 13, 2019	N/D	Mg/L	NO
Picloram	November 13, 2019	N/D	Mg/L	NO
Polychlorinated Biphenyls(PCB)	November 13, 2019	N/D	Mg/L	NO
Prometryne	November 13, 2019	N/D	Mg/L	NO
Simazine	November 13, 2019	N/D	Mg/L	NO
THM - treatment	Running Annual Average	0.015	Mg/L	NO
THM – distribution	Running Annual Average	0.019	Mg/L	NO



Terbufos	November 13, 2019	N/D	Mg/L	NO
Tetrachloroethylene	November 13, 2019	N/D	Mg/L	NO
2,3,4,6-Tetrachlorophenol	November 13, 2019	N/D	Mg/L	NO
Triallate	November 13, 2019	N/D	Mg/L	NO
Trichloroethylene	November 13, 2019	N/D	Mg/L	NO
2,4,6-Trichlorophenol	November 13, 2019	N/D	Mg/L	NO
2,4,5-Trichlorophenoxy acetic acid (2,4,5-T)	November 13, 2019	N/D	Mg/L	NO
Trifluralin	November 13, 2019	N/D	Mg/L	NO
Vinyl Chloride	November 13, 2019	N/D	Mg/L	NO

List of 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
None			