



ANNUAL REPORT

Drinking-Water System Number:	260091507
Drinking-Water System Name:	Lakeshore Water Treatment Plant/Water Service Area
Drinking-Water System Owner:	Municipality of Lakeshore
Drinking-Water System Category:	Large Municipal Residential
Period being reported:	January 01, 2020 to December 31, 2020

<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>Municipality of Lakeshore Municipal Building (Town Hall) 419 Notre Dame Street Belle River, Ont. NOR 1A0</p>	<p>Number of Designated Facilities served: None</p> <p>Number of Interested Authorities reported to: None</p>
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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, Ontario and serves approximately 31,366 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 (DeIPAC products), 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

Notre Dame Phase 4 – Watermain Work	- \$495,688
UV Train #2 Flowmeter Replacement	- \$16,000

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
None					

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	1-390	2 – 2000	N/A	N/A
Treated	104	0-0	0-0	104	0-20
Distribution	520	0-0	0-0	212	0 - 20



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	0.01-0.05 (avg of 4 filters)	NTU
Chlorine	8760	1.21 – 2.36	Mg/L
All Distribution Free Chlorine Residuals	794	0.25 – 2.00	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	5.98	Mg/L

Summary of Inorganic parameters tested during this reporting period

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Antimony	December 6, 2020	N/D	Mg/L	NO
Arsenic	December 6, 2020	N/D	Mg/L	NO
Barium	December 6, 2020	0.018	Mg/L	NO
Boron	December 6, 2020	N/D	Mg/L	NO
Cadmium	December 6, 2020	N/D	Mg/L	NO
Chromium	December 6, 2020	N/D	Mg/L	NO
Mercury	December 6, 2020	N/D	Mg/L	NO
Selenium	December 6, 2020	N/D	Mg/L	NO
Sodium	December 1, 2020	N/D	Mg/L	NO
Uranium	December 6, 2020	N/D	Mg/L	NO
Fluoride	December 1, 2020	N/D	Mg/L	NO
Nitrite	Annual Average	N/D	Mg/L	NO
Nitrate	Annual Average	0.62	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-003	1	129	Mg/l	7.79	N/A
s/stn LSW-060	1	94	Mg/l	8.02	N/A



s/stn LSW-064	1	111	Mg/l	8.13	N/A
s/stn LSW-067	1	108	Mg/l	8.08	N/A
s/stn LSW-053	1	129	Mg/l	8.39	N/A
s/stn LSW-045	1	122	Mg/l	8.38	N/A
s/stn LSW-033	1	111	Mg/l	8.33	N/A
Summer Session					
s/stn LSW-003	1	71	Mg/l	7.81	N/A
s/stn LSW-064	1	76	Mg/l	7.86	N/A
s/stn LSW-067	1	69	Mg/l	7.89	N/A
s/stn LSW-053	1	77	Mg/l	7.84	N/A
s/stn LSW-045	1	68	Mg/l	7.84	N/A
s/stn LSW-033	1	70	Mg/l	7.93	N/A
s/stn LSW-060	1	72	Mg/l	7.89	N/A

Summary of Organic parameters sampled during this reporting period

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Alachlor	December 1, 2020	N/D	Mg/L	NO
Atrazine + N-dealkylated metabolites	December 1, 2020	N/D	Mg/L	NO
Azinphos-methyl	December 1, 2020	N/D	Mg/L	NO
Benzene	December 1, 2020	N/D	Mg/L	NO
Benzo(a)pyrene	December 1, 2020	N/D	Mg/L	NO
Bromoxynil	December 1, 2020	N/D	Mg/L	NO
Carbaryl	December 1, 2020	N/D	Mg/L	NO
Carbofuran	December 1, 2020	N/D	Mg/L	NO
Carbon Tetrachloride	December 1, 2020	N/D	Mg/L	NO
Chlorpyrifos	December 1, 2020	N/D	Mg/L	NO
Diazinon	December 1, 2020	N/D	Mg/L	NO
Dicamba	December 1, 2020	N/D	Mg/L	NO
1,2-Dichlorobenzene	December 1, 2020	N/D	Mg/L	NO
1,4-Dichlorobenzene	December 1, 2020	N/D	Mg/L	NO
Dichlorodiphenyltrichloroethane (DDT) + metabolites	December 1, 2020	N/D	Mg/L	NO
1,2-Dichloroethane	December 1, 2020	N/D	Mg/L	NO
1,1-Dichloroethylene (vinylidene chloride)	December 1, 2020	N/D	Mg/L	NO
Dichloromethane	December 1, 2020	N/D	Mg/L	NO
2-4 Dichlorophenol	December 1, 2020	N/D	Mg/L	NO
2,4-Dichlorophenoxy acetic acid (2,4-D)	December 1, 2020	N/D	Mg/L	NO
Diclofop-methyl	December 1, 2020	N/D	Mg/L	NO



Dimethoate	December 1, 2020	N/D	Mg/L	NO
Diquat	December 1, 2020	N/D	Mg/L	NO
Diuron	December 1, 2020	N/D	Mg/L	NO
Glyphosate	December 1, 2020	N/D	Mg/L	NO
Malathion	December 1, 2020	N/D	Mg/L	NO
HAA's – distribution only	Running Annual Average	0.005	Mg/L	NO
MCPA	December 1, 2020	N/D	Mg/L	NO
Metolachlor	December 1, 2020	N/D	Mg/L	NO
Metribuzin	December 1, 2020	N/D	Mg/L	NO
Monochlorobenzene	December 1, 2020	N/D	Mg/L	NO
Paraquat	December 1, 2020	N/D	Mg/L	NO
Pentachlorophenol	December 1, 2020	N/D	Mg/L	NO
Phorate	December 1, 2020	N/D	Mg/L	NO
Picloram	December 1, 2020	N/D	Mg/L	NO
Polychlorinated Biphenyls(PCB)	December 1, 2020	N/D	Mg/L	NO
Prometryne	December 1, 2020	N/D	Mg/L	NO
Simazine	December 1, 2020	N/D	Mg/L	NO
THM - treatment	Running Annual Average	0.012	Mg/L	NO
THM – distribution	Running Annual Average	0.019	Mg/L	NO
Terbufos	December 1, 2020	N/D	Mg/L	NO
Tetrachloroethylene	December 1, 2020	N/D	Mg/L	NO
2,3,4,6-Tetrachlorophenol	December 1, 2020	N/D	Mg/L	NO
Triallate	December 1, 2020	N/D	Mg/L	NO
Trichloroethylene	December 1, 2020	N/D	Mg/L	NO
2,4,6-Trichlorophenol	December 1, 2020	N/D	Mg/L	NO
Trifluralin	December 1, 2020	N/D	Mg/L	NO
Vinyl Chloride	December 1, 2020	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			