



ANNUAL REPORT – 2019

Drinking-Water System Number:	260006529
Drinking-Water System Name:	North Middlesex Distribution System
Drinking-Water System Owner:	Municipality of North Middlesex
Drinking-Water System Category:	Large Municipal Residential
Period being reported:	January 1 – December 31, 2019

<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 [] No [X]</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 229 Main St Parkhill, ON N0M 2K0</p>	<p><u>Complete for all other Categories.</u></p> <p>Number of Designated Facilities served: Not Applicable</p> <p>Did you provide a copy of your annual report to all Designated Facilities you serve? Not Applicable</p> <p>Number of Interested Authorities you report to: Not Applicable</p> <p>Did you provide a copy of your annual report to all Interested Authorities you report to for each Designated Facility? Not Applicable</p>
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List all Drinking-Water Systems (if any), which receive all of their drinking water from your system:

Drinking Water System Name	Drinking Water System Number
Not applicable	Not applicable

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?

Not Applicable



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-Water Department 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** _____

Describe your Drinking-Water System

The North Middlesex Distribution System provides drinking water to consumers within the Municipality of North Middlesex. The North Middlesex Distribution System purchases potable water from the Lake Huron Primary Water Supply System; water can enter the North Middlesex Distribution System from five points along the Lake Huron Primary Water Supply System main transmission line. The North Middlesex Distribution System is comprised of two water reservoirs, two booster pump stations, two booster pumps located in the Lake Huron Primary Water Supply System's Mc Gillivray Booster Station, multiple water-mains and other water main appurtenances such as valves, hydrants, air release chambers and pressure reducing and sustaining chambers. The North Middlesex Distribution System is connected to the East Lambton Shores Distribution System (Thedford) and the Lucan Biddulph Distribution System (Lucan). The East Lambton Shores Distribution System connection can supply water to a section of the North Middlesex Distribution System if necessary or in an emergency situation. The East Lambton Shores Distribution System (Thedford) is located in the Municipality of Lambton Shores and is operated by Jacobs Engineering Group Inc. The Lucan Biddulph Distribution System (Lucan) operated by the Township of Lucan Biddulph supplies water to the hamlet of Clandeboye located in the Municipality of North Middlesex. The East Lambton Shores Distribution System and the Lucan Biddulph Distribution System receive potable water from the Lake Huron Primary Water Supply System. The Municipality of North Middlesex reports annually to the Lake Huron Water Supply System's board.

List all water treatment chemicals used over this reporting period

Not applicable

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

Security System Installation	\$ 2,500
Pressure Reducing Valve	\$ 7,189
Equipment & System Repair Parts	\$ 20,500
Alternate Supply of Potable Water	\$ 135,000
Studies: Water Loss & Pressure Monitoring	\$ 39,534
TOTAL	\$ 204,723

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
AWQI # 146317 Issued: July 11, 2019	Total Coliform Count	1	cfu/100 mL	Flushed line and re-sampled from the site of the adverse plus upstream & downstream locations on July 11 th & 12 th 2019. Resample results were compliant with zero total coliform & zero E. coli/100 ml	July 16, 2019

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 Or Fecal Results (min #)-(max #)	Range of Total Coliform Results (min #)-(max #)	Number of HPC Samples	Range of HPC Results (min #)-(max #)
Distribution	252	0 - 0	0 – 1	85	<10 – 130

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 #)
Chlorine	618	0.5 – 1.9

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

NOTE: Record the unit of measure if it is **not** milligrams per litre.



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
Not Applicable				

Summary of Inorganic parameters tested during this reporting period or the most recent sample results:

Not Applicable

Summary of lead testing under Schedule 15.1 during this reporting period

(applicable to the following drinking water systems; large municipal residential systems, small municipal residential systems, and non-municipal year-round residential systems)

Location Type	Date Sampled	Number of Samples	pH Range	Range of Alkalinity (min.#) – (max#) mg/L	Range of Lead Results (min#)-(max #) ug/L	Number of Exceedances
Distribution	April 09, 2019	3	7.67-7.76	84 - 90	< 0.01 – 0.32	0
Distribution	August 13, 2019	3	7.95-8.03	80 - 82	0.04 - 0.06	0

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

Parameter	Annual Running Average	Result Value	Unit of Measure	Exceedance
THM (NOTE: show latest annual average)	Jan –Dec. 2019	20.63	ug/L	No
HAA (NOTE: show latest annual average)	Jan –Dec. 2019	8.38	ug/L	NA

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
Not Applicable			