



**2018 ANNUAL COMPLIANCE AND SUMMARY
REPORT ON BRIGHTON'S DRINKING WATER
SYSTEM**

**Municipal Drinking Water License # 135-101 Issue #4
Drinking Water Works Permit # 135-201 Issue #3
Waterworks Identification No. 220000807**

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1.0 ONTARIO DRINKING WATER LEGISLATION

The Municipality of Brighton is pleased to present the 2018 Annual Compliance and Summary Report for Brighton's Drinking Water System covering the period from January 1st, 2018 to December 31st, 2018. There are several laws that govern municipal drinking water systems. Some of the Acts include: the Clean Water Act, the Safe Drinking Water Act, and the Ontario Water Resources Act. This report is prepared in compliance with Section 11 and Schedule 22 of Ontario Regulation 170/03 of the Safe Drinking Water Act. "The purpose of the Safe Drinking Water Act is to protect human health through the control and regulation of drinking water systems and drinking water testing (Ministry of the Environment 2010)." Under the Act, all drinking water systems in Ontario must receive approval from the Ministry of the Environment, Conservation and Parks (MECP) in order to operate. Drinking water operators must achieve proper certification and receive appropriate training. There are specific standards for the testing of drinking water and all testing must be performed in a licensed, MECP accredited laboratory. There are eleven regulations under the Act, which are listed below:

- O. Reg. 128/04 - Certification of Drinking Water System Operators and Water Quality Analysts
- O. Reg. 242/05 - Compliance and Enforcement
- O. Reg. 172/03 - Definitions of "Deficiency" and "Municipal Drinking Water System"
- O. Reg. 171/03 - Definitions of Words and Expressions Used In The Act
- O. Reg. 170/03 - Drinking Water Systems
- O. Reg. 248/03 - Drinking Water Testing Services
- O. Reg. 453/07 - Financial Plans
- O. Reg. 188/07 - Licensing of Municipal Drinking Water Systems
- O. Reg. 169/03 - Ontario Drinking Water Quality Standards
- O. Reg. 243/07 - Schools, Private Schools and Day Nurseries
- O. Reg. 229/07 - Service of Documents

Brighton's drinking water system had no (0), non-compliances during the period covered by this report

Brighton's drinking water system operates under the following permits and license:

1. Permit to Take Water No. 3210-9P3LCQ,
2. Municipal Drinking Water License # 135-101 issue number 4.
3. Drinking Water Works Permit # 135-201 issue number 3.

2.0 BRIGHTON'S DRINKING WATER SYSTEM

The Water Department is responsible for delivering clean and safe drinking water to the approximate Seven Thousand (7,000) residents of Brighton who are connected to the municipal distribution system. The source of drinking water is three (3) ground water wells located at 406 County Road 26. The wells are approximately forty (40) metres, (130 ft) deep and supply water to Brighton's water treatment plant (WTP) on a rotational basis. Water from the wells is pumped to the (WTP) and is monitored by a Supervisory Control And Data Acquisition (SCADA), where chlorine is added to the water before it is distributed to customers. The distribution system consists of two (2) booster pumps, hydrants, valves, four (4) pressure reducing valves, service connections, and approximately 60 kilometres of piping.

Water quality in the distribution system is maintained by the flushing of fire hydrants to clean the water mains. During the flushing program, fire hydrants are also inspected. To confirm water quality, microbiological sampling and testing in the distribution system is conducted on a weekly basis at six (6) strategically chosen sites. In addition, operators test chlorine residuals on a daily basis, as per O. Reg. 170/03.

3.0 WATER CONSUMPTION

Over the year of 2018, a total of 838,973 cubic metres of water entered the distribution system from the WTP (Table I, Appendix I). Based on a service population of 7,000 residents, the per capita consumption was 120 cubic metres per person for the year, or 0.328 cubic metres (328 litres) per person, per day (365 days). This equates to an average daily demand of 2,299 cubic metres per day. Peak day demand represents the highest volume of treated water supplied to the distribution system over a 24-hour period, usually the hottest day of the year, or on a day with very high usage due to fire suppression. In 2018, the peak day demand occurred on July 8th, with a recorded flow of 4,257.6 cubic metres.

Table I –Water consumption by month, for the years 2014-2018, measured at the WTP as water enters the distribution system

Month	2018	2017	2016	2015	2014
	Flows (m ³)	Flows (m ³)	Flows (m ³)	Flows (m ³)	Flows (m ³)
January	61,957.40	58,432.10	56,581.70	65,741	53,040
February	53,906.40	51,788.70	51,010.20	56,272	49,874
March	58,604.50	57,770.40	55,288.60	66,404	57,233
April	59,475.80	60,754.70	61,771.20	73,004	57,829
May	70,901.60	67,046.90	91,635.10	87,248	69,415
June	80,562.30	72,477.20	110,773.60	78,428	77,019
July	110,647.40	85,999.80	115,956.80	107,970	87,549
August	93,273.80	100,453.40	96,367.30	82,191	84,798
September	76,489.50	90,460.70	77,516.10	78,161	75,489
October	59,229.50	80,014.80	68,466.70	63,666	69,528
November	55,339.90	71,348.30	60,190.40	56,755	61,083
December	58,584.70	60,576.60	60,899.40	56,898	65,293
Total Flow	838,973	857,094	906,457	872,738	808,150
Monthly Avg.	69,914	71,424	75,538	72,728	67,346
Monthly Max.	110,647	100,453	115,957	107,970	87,549
Monthly Min.	53,906	51,789	51,010	56,272	49,874
Annual avg. Daily Flow m ³ /day	2,298.6	2,348.2	2,476	2,391.1	2214.1
Max Daily	4,257.60	3,790.4	4,566	5787	3649
Rated Capacity	6445	6445	6445	6445	6445
% Max Day	66%	59%	71%	90%	57%
rated capacity % annual avg daily flow m ³ /day	36%	36%	38%	37%	34%

3.1 Water Use

The actual use of the water in Brighton is broken down into categories in Table III. Over the reporting period, there were nine (9) water leaks in the distribution system consisting of no (0) main line breaks, seven (7) municipal services leaks and two (2) customer service leaks. Most of the water service leaks were caused by worn flared connection fittings, and worn copper services. For 2018, the estimated water loss is 12.2%

Table III- Water Use Summary for 2018

	Cubic Meters
Water produced at the Water Treatment Plant	838,973.00
Customer Consumption including Bulk Water Station	644,096.00
Amount of water used for Hydrant flushing	4,559.00
Amount of water sold at Public Dispensing	6.00
Estimated amount of water used for flushing and swabbing of new watermains	453.00
Estimated amount of water used by Fire Department for practices and fires	125.00
Estimated watermain and/or service connection leak/and analyzers	87,066.00
Water Accounted For	736,305.00
Water Unaccounted For	102,668.00
Loss per day	281.28
Loss per hour	11.72
Loss per minute	0.1953
Loss per second	0.0032
Percentage Loss	12.2

4.0 WATER SAMPLING REQUIREMENTS OF O. REG. 170/03

4.1 Microbiological Sampling and Testing

Ontario Regulation 170/03 specifies the frequency and type of sampling required to measure water quality, depending on the category of the drinking water system. Brighton's drinking water system is categorized as a large municipal drinking water system. Schedule 10 of the regulation requires that at least eight (8) distribution samples, plus one additional distribution sample for every one thousand (1,000) people served by the system, are taken every month, with at least one (1) of the samples being taken each week. Therefore, fifteen (15) treated distribution samples would be required monthly. Brighton samples six (6) distribution samples weekly, or approximately twenty-six (26) samples monthly, and one (1) treated water sample weekly. These samples are tested for Escherichia coliform and total coliforms, and twenty-five (25) percent of the samples are additionally tested for general bacteria populations expressed as background colony on a heterotrophic plate. Raw water samples must be tested at least once every week. Raw water was sampled in Brighton weekly from each supply well in service (Table IV).

Table IV- Summary of 2018 Microbiological Samples and Results

Microbiological Results	Number of Samples	Range of E.Coli Results	Range of Total Coliform Results	Number of HPC Samples	Range of HPC Results
Raw	156	0	0-1	0	0
Treated Water - Treatment Plant	52	0	0	52	<10-20
Distribution	312	0	0	104	<10-320

4.2 Lead and Alkalinity Sampling and Testing

In 2012, the Municipality applied for relief from the frequency of lead sampling required in the regulation, based on satisfactory historical sample results. Supported by the Health Unit, Brighton was successful in this application and is therefore not required to conduct residential and non-residential lead sampling. Relief was again applied for in 2016. It is important to note however, that distribution sampling for lead is still required as per O. Reg. 170/03 (Table V).

Table V
 Lead and Alkalinity Sampling Spring 2018

Location	Date	Lead (mg/L)	Alkalinity (mg/L)
305 Main St Hydrant A-2	April 23rd/2018	N/A	219
John St Hydrant C-20	April 23rd/2018	N/A	218
Price Street East Hydrant I-17	April 23rd/2018	N/A	215

Lead and Alkalinity Sampling Fall 2018

Location	Date	Lead (mg/L)	Alkalinity (mg/L)
John st. Hydrant # C-20	July 23/2018	N/A	204
305 Main St. Hydrant # A-2	July 23/2018	N/A	217
Price St. East Hydrant # I-17	July 23/2018	N/A	206

*Note: Plumbing sampling was exempt from lead sampling due to MECP approval for reduced sampling.

4.3 Chemical Sampling and Testing

Schedule 13 of the regulation requires Large Municipal Residential Systems to test the water supply for the following parameters:

- (i) Inorganics (Schedule 23) be tested at least every 12 months if the system obtains water from a raw water supply that is surface water. Note that once the water system switches to groundwater (wells) then sampling for organic/ inorganic parameters can be reduced to every 36 months.
- (ii) Lead - at least one sample in the distribution system is taken every 12 months from a point in the drinking-water system's distribution system or in plumbing that is connected to the drinking-water system that is likely to have an elevated concentration of lead. In 2007 new Regulations were added to test for Lead -Schedule 15.1-5. Sampling is to be conducted from December 15th to April 15th in the spring, and June 15th to October 15th in the fall in various locations. This constitutes 52 samples for each reporting period; unless the Operating Authority has applied for and received a reduction.
- (iii) Organics – (Schedule 24) if the system obtains water from a raw water supply that is surface water, at least one water sample is taken every 12 months. When the raw water source is groundwater (wells) then at least one water sample must be taken every 36 months.
- (iv) Trihalomethanes – at least one distribution sample is taken every three months from a point in the drinking-water system that is likely to have an elevated potential for the formation of Trihalomethanes.
- (v) Nitrate and Nitrite, one water sample taken every three months.
- (vi) Sodium, one water sample taken every 60 months.
- (vii) Fluoride, one water sample taken every 60 months.
- (viii) Haloacetic Acids, one water sample taken every three months

Sampling results for the above parameters are listed in Appendix 2. There were no exceedances of organic or inorganic parameters tested during the most recent sampling period.

5.0 REPORTS TO MINISTRY OF THE ENVIRONMENT

There were no (0) reports to the Ministry of Environment, Conservation and Parks (MECP).

There were no (0) adverse test results for Brighton's Drinking Water System during the reporting period.

6.0 MAJOR EXPENSES

Major expenses to the drinking water system in 2018 to install, repair or replace required equipment:

Description	Cost (CAD)
Valve Turner	\$50,000
Portable Generator	\$5,000

Appendix 1 - 2018 Monthly Summary

Monthly Data 2018													
Brighton Reservoir Outlet Monthly Data													
	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	ANNUAL
<u>FLOW</u>													
TOTAL DISCHARGE FLOWS (m ³)	61,957.40	53,906.40	58,604.50	59,475.80	70,901.60	80,562.30	110,647.4	93,273.8	76,489.50	59,229.50	55,339.90	58,584.70	838,973
DAILY AVG. FLOW (m ³)	1,998.60	1,925.20	1,890.50	1,982.50	2,287.10	2,685.40	3,569.30	3,008.80	2,549.60	1,910.60	1,844.70	1,889.80	2,295
MAXIMUM DAILY DISCHARGE FLOW (m ³)	2,129.10	2,105.10	2,040.00	2,626.90	3,091.50	3,229.30	4,257.60	4,054.80	3,131.10	2,375.00	2,042.10	2,099.40	4,258
MINIMUM DAILY DISCHARGE FLOW (m ³)	1,868.60	1,789.50	1,784.80	1,815.60	1,802.60	2,071.90	2,509.90	2,344.70	1,887.20	1,725.80	1,709.20	1,757.80	1,709
<u>CHLORINE CONSUMPTION</u>													
TOTAL USED (kg)	79.90	67.50	74.80	77.60	90.00	94.10	121.50	100.90	86.80	69.20	62.70	64.10	989.10
DAILY AVERAGE (kg)	2.6	2.4	2.4	2.6	2.9	3.1	3.9	3.3	2.90	2.23	2.09	2.10	2.71
AVERAGE PRE-DAILY DOSAGE (mg/L)	1.22	1.18	1.18	1.21	1.23	1.08	1.09	1.05	1.03	1.14	1.08	1.07	1.13
LOWEST RESIDUAL (mg/l) (POST)	1.04	1.07	1.01	1.04	1.05	0.51	0.96	0.00	0.90	0.82	0.93	0.94	0.00
<u>TURBIDITY (NTU) post</u>													
MONTHLY AVERAGE (POST)	0.04	0.03	0.04	0.03	0.020	0.020	0.02	0.02	0.03	0.03	0.03	0.03	0.028
RANGE (POST)	0.03-2.00	0.03-1.33	0.03-2.00	0.02-0.05	0.02-0.03	0.02-0.03	0.02-0.03	0.00-0.03	0.02-0.04	0.02-0.05	0.02-0.03	0.02-0.03	
<u>PH OUTLET</u>													
MONTHLY AVERAGE	7.40	7.40	7.40	7.40	7.40	7.50	7.60	7.60	7.60	7.60	7.70	7.70	7.53
HIGHEST PH	7.40	7.40	7.40	7.40	7.40	7.60	7.60	7.60	7.60	7.60	7.70	7.70	7.70
<u>TEMPERATURE (°C) OUTLET</u>													
MONTHLY AVERAGE	9.20	9.40	9.60	9.50	9.40	9.50	9.40	9.40	9.40	9.40	9.20	9.10	9.38
MONTHLY LOWEST	9.00	9.00	9.30	9.2	9.3	9.3	9.3	9.3	9.3	9.2	8.9	8.9	8.90

Appendix 1 - 2018 Monthly Summary

Monthly Data 2018

Brighton Reservoir Outlet Monthly Data

	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	ANNUAL
FLOWS													
TOTAL DISCHARGE FLOWS (m ³)	61,957.40	53,906.40	58,604.50	59,475.80	70,901.60	80,562.30	110,647.4	93,273.8	76,489.50	59,229.50	55,339.90	58,584.70	838,973
DAILY AVG. FLOW (m ³)	1,998.60	1,925.20	1,890.50	1,982.50	2,287.10	2,685.40	3,569.30	3,008.80	2,549.60	1,910.60	1,844.70	1,889.80	2,295
MAXIMUM DAILY DISCHARGE FLOW (m ³)	2,129.10	2,105.10	2,040.00	2,626.90	3,091.50	3,229.30	4,257.60	4,054.80	3,131.10	2,375.00	2,042.10	2,099.40	4,258
MINIMUM DAILY DISCHARGE FLOW (m ³)	1,868.60	1,789.50	1,784.80	1,815.60	1,802.60	2,071.90	2,509.90	2,344.70	1,887.20	1,725.80	1,709.20	1,757.80	1,709
CHLORINE CONSUMPTION													
TOTAL USED (kg)	79.90	67.50	74.80	77.60	90.00	94.10	121.50	100.90	86.80	69.20	62.70	64.10	989.10
DAILY AVERAGE (kg)	2.6	2.4	2.4	2.6	2.9	3.1	3.9	3.3	2.90	2.23	2.09	2.10	2.71
AVERAGE PRE-DAILY DOSAGE (mg/L)	1.22	1.18	1.18	1.21	1.23	1.08	1.09	1.05	1.03	1.14	1.08	1.07	1.13
LOWEST RESIDUAL (mg/l) (POST)	1.04	1.07	1.01	1.04	1.05	0.51	0.96	0.00	0.90	0.82	0.93	0.94	0.00
TURBIDITY (NTU) (POST)													
MONTHLY AVERAGE (POST)	0.04	0.03	0.04	0.03	0.020	0.020	0.02	0.02	0.03	0.03	0.03	0.03	0.028
RANGE (POST)	0.03-2.00	0.03-1.33	0.03-2.00	0.02-0.05	0.02-0.03	0.02-0.03	0.02-0.03	0.00-0.03	0.02-0.04	0.02-0.05	0.02-0.03	0.02-0.03	
PH OUTLET													
MONTHLY AVERAGE	7.40	7.40	7.40	7.40	7.40	7.50	7.60	7.60	7.60	7.60	7.70	7.70	7.53
HIGHEST PH	7.40	7.40	7.40	7.40	7.40	7.60	7.60	7.60	7.60	7.60	7.70	7.70	7.70
TEMPERATURE (°C) OUTLET													
MONTHLY AVERAGE	9.20	9.40	9.60	9.50	9.40	9.50	9.40	9.40	9.40	9.40	9.20	9.10	9.38
MONTHLY LOWEST	9.00	9.00	9.30	9.2	9.3	9.3	9.3	9.3	9.3	9.2	8.9	8.9	8.90



OPTIONAL ANNUAL REPORT TEMPLATE

Drinking-Water System Number:	220000807
Drinking-Water System Name:	Brighton Springs Drinking Water System
Drinking-Water System Owner:	Corporation of the Municipality of Brighton
Drinking-Water System Category:	Large Municipal Residential
Period being reported:	January 1, 2018 – December 31, 2018

Complete if your Category is Large Municipal Residential or Small Municipal Residential

Does your Drinking-Water System serve more than 10,000 people? Yes [] No [x]

Is your annual report available to the public at no charge on a web site on the Internet? Yes [x] No []

Location where Summary Report required under O. Reg. 170/03 Schedule 22 will be available for inspection.

Municipal Offices: 35 Alice St., Brighton 67 Sharp Rd., Brighton
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Complete for all other Categories.

Number of Designated Facilities served:

Did you provide a copy of your annual report to all Designated Facilities you serve? Yes [] No []

Number of Interested Authorities you report to:

Did you provide a copy of your annual report to all Interested Authorities you report to for each Designated Facility? Yes [] No []

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:

Drinking Water System Name	Drinking Water System Number
Presqu'ile Provincial Park – Parks Ontario	

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 [x] 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 (Newsletter)

Describe your Drinking-Water System

Raw Water Source

The water supply for the Municipality of Brighton is from three drilled wells located at 406 County Road 26. The wells are approximately forty metres (130 ft) deep and supply water to Brighton's water treatment plant (WTP) on a rotational basis. Upon initiation of a well pump that has been static for any period of time, the water is pumped to a waste detention pond for a pre-determined time to purge the transmission line from initial pump start up. Then, the water is permitted to pass through the treatment plant system.

According to a report by HydroTerra (2002), the water in the wells is not considered Groundwater Under the Direct Influence of Surface Water (GUDI). A fail safe control system has been installed to ensure that an upward hydraulic gradient is maintained at all times in the supply aquifer. This system includes: water level sensors in each of three observation wells that surround each supply well, a water level sensor in each supply well, an alarm system equipped with pre-determined set-points for well water depth, and a supervisory control and data acquisition (SCADA) data-log system.

Treatment Process

Brighton's WTP provides chlorine disinfection to the water supply and it provides water storage in a two-celled reservoir. The WTP houses a primary and secondary disinfection system consisting of two gas chlorinators, weigh scales, vacuum regulators, injectors and appurtenances to facilitate the application of a chlorine solution at a pre-chlorination location, prior to entering the reservoir and a post-chlorination location, prior to entering the distribution system. Instrumentation and controls, including on-line chlorine residual analyzers and turbidity meters, measure free chlorine residuals and turbidity in the water supply prior to distribution. The concrete water storage reservoir is approximately 39 metres by 58 metres. Each cell is equipped with baffles and provides approximately 5,600 cubic metres of water storage. Emergency power for the WTP is provided by an 80 kilowatt, pad mounted standby generator, including an automatic transfer switch.



Distribution System

The Municipality of Brighton's distribution system provides drinking water to approximately 7,000 residents, and Presqu'ile Park, through a network of approximately sixty (60) kilometres of piping. There is a chlorine booster station, located at the entrance of Presqu'ile Park, where chlorine, turbidity, and pressure in the water supply are monitored and recorded. Additionally, there are four pressure reducing valves and two pressure booster pumps.

List all water treatment chemicals used over this reporting period

Chlorine Gas

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

Description	Cost (CAD)
New Valve Turner	\$49,437.50
Replacement Generator/ Inverter	\$4,689.50

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					

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 #)
Raw	156	0	0-1	0	0
Treated	52	0	0	52	<10 - 20
Distribution	312	0	0	104	<10 - 320

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 #)

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



Turbidity	8760	0.00-2.00 NTU
Chlorine	8760	0.51 – 1.22 mg/L
Fluoride (If the DWS provides fluoridation)	N/A	

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
N/A				

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

Parameter	Sample Date	Result	Unit of Measure	Exceedance
Antimony	Aug 29/17	<0.0001	Mg/L	NO
Arsenic	Aug 29/17	0.0002	Mg/L	NO
Barium	Aug 29/17	0.083	Mg/L	NO
Boron	Aug 29/17	0.009	Mg/L	NO
Cadmium	Aug 29/17	<0.000014	Mg/L	NO
Chromium	Aug 29/17	<0.002	Mg/L	NO
*Lead	N/A			
Mercury	Aug 29/17	<0.00002	Mg/L	NO
Selenium	Aug 29/17	<0.001	Mg/L	NO
Sodium - mg/L	Feb 28/17	5.2	Mg/L	NO
Uranium	Aug 29/17	0.00068	Mg/L	NO
Fluoride - mg/L	Feb 28/17	<0.3	Mg/L	NO
Nitrite	Nov 6/18	<0.1	Mg/L	NO
Nitrate	Nov 6/18	3.1	Mg/L	NO

*only for drinking water systems testing under Schedule 15.2; this includes large municipal non-residential systems, small municipal non-residential systems, non-municipal seasonal residential systems, large non-municipal non-residential systems, and small non-municipal non-residential systems

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	Number of Samples	Range of Lead Results ug/L (min#) – (max #)	Number of Exceedances / Adverses



Residential	0	-	0
Non-Residential	0	-	0
Distribution	0	-	0

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

Parameter	Sample Date	Result	Unit of Measure	Exceedance
Alachlor	Aug 29/17	<0.3	µg/L	NO
Aldicarb	Removed			
Aldrin + Dieldrin	Removed			
Atrazine + N-dealkylated metabolites	Aug 29/17	<0.5	µg/L	NO
Azinphos-methyl	Aug 29/17	<1	µg/L	NO
Bendiocarb	Removed			
Benzene	Aug 29/17	<0.5	µg/L	NO
Benzo(a)pyrene	Aug 29/17	<0.005	µg/L	NO
Bromoxynil	Aug 29/17	<0.3	µg/L	NO
Carbaryl	Aug 29/17	<3	µg/L	NO
Carbofuran	Aug 29/17	<1	µg/L	NO
Carbon Tetrachloride	Aug 29/17	<0.2	µg/L	NO
Chlordane (Total)	Removed			
Chlorpyrifos	Aug 29/17	<0.5	µg/L	NO
Cyanazine	Removed			
Diazinon	Aug 29/17	<1	µg/L	NO
Dicamba	Aug 29/17	<5	µg/L	NO
1,2-Dichlorobenzene	Aug 29/17	<0.1	µg/L	NO
1,4-Dichlorobenzene	Aug 29/17	<0.2	µg/L	NO
Dichlorodiphenyltrichloroethane (DDT) + metabolites	Removed			
1,2-Dichloroethane	Aug 29/17	<0.1	µg/L	NO
1,1-Dichloroethylene (vinylidene chloride)	Aug 29/17	<0.1	µg/L	NO
Dichloromethane	Aug 29/17	<0.3	µg/L	NO
2-4 Dichlorophenol	Aug 29/17	<0.1	µg/L	NO
2,4-Dichlorophenoxy acetic acid (2,4-D)	Aug 29/17	<5	µg/L	NO
Diclofop-methyl	Aug 29/17	<0.5	µg/L	NO
Dimethoate	Aug 29/17	<1	µg/L	NO
Dinoseb	Removed			
Diquat	Aug 29/17	<5	µg/L	NO
Diuron	Aug 29/17	<5	µg/L	NO



Glyphosate	Aug 29/17	<25	µg/L	NO
Haloacetic Acid HAA's Annual Ave.	Feb 14/18 May 9/18 Aug 14/18 Nov 6/18	0.0053	Ug/ L	NO
Lindane (Total)	Removed			
Malathion	Aug 29/17	<5	µg/L	NO
2-Methyl-4Chlorophenoxyacetic Acid (MCPA)	Aug 29/17	<0.000 12	ug/L	No
Metolachlor	Aug 29/17	<3	µg/L	NO
Metribuzin	Aug 29/17	<3	µg/L	NO
Monochlorobenzene	Aug 29/17	<0.2	µg/L	NO
Paraquat	Aug 29/17	<1	µg/L	NO
Parathion	Removed			
Pentachlorophenol	Aug 29/17	<0.1	µg/L	NO
Phorate	Aug 29/17	<0.3	µg/L	NO
Picloram	Aug 29/17	<5	µg/L	NO
Polychlorinated Biphenyls(PCB)	Aug 29/17	<0.05	µg/L	NO
Prometryne	Aug 29/17	<0.1	µg/L	NO
Simazine	Aug 29/17	<0.5	µg/L	NO
THM's THM Annual Average - ug/L	Feb 14/18 May 9/18 Aug 14/18 Nov 6/18	7.15	µg/L	NO
Temephos	Removed			
Terbufos	Aug 29/17	<0.3	µg/L	NO
Tetrachloroethylene	Aug 29/17	<0.2	µg/L	NO
2,3,4,6-Tetrachlorophenol	Aug 29/17	<0.1	µg/L	NO
Triallate	Aug 29/17	<10	µg/L	NO
Trichloroethylene	Aug 29/17	<0.1	µg/L	NO
2,4,6-Trichlorophenol	Aug 29/17	<0.1	µg/L	NO
2,4,5-Trichlorophenoxy acetic acid (2,4,5-T)	Removed			
Trifluralin	Aug 29/17	<0.5	µg/L	NO
Vinyl Chloride	Aug 29/17	<0.2	µg/L	NO

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
N/A			