CITY OF LONDON

2020 DRINKING WATER SUMMARY REPORT

System Name: City Of London Drinking Water System

System Rating:
Water Distribution Subsystem Class IV
Water Treatment Subsystem Class II
Average Day Demand: 130.885 MLD
Peak Day Demand: 194.876 MLD (July 6, 2020)
Population Served: 397,000 (approx.)
Source Water: Surface Water (Lake Huron, Lake Erie)
Drinking Water System Number: 260004917
Municipal Drinking Water Licence: 006-101

London
CANADA

CONTACT INFO:
Owner:
Corporation of the City of London
300 Dufferin Avenue, London, Ontario N6A 4L9
Contact: Mr. John Simon, P.Eng. Division Manager Water Operations
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Reporting Requirements

Ontario Regulation 170/03 requires that municipalities prepare a Summary Report for their drinking-water system for the preceding calendar year and submit it to the members of the Municipal Council by March 31 of each year. This report, presented to Municipal Council's Civic Works Committee on February 9, 2021 fulfills that requirement.

O. Reg 170/03 also requires the preparation of an Annual Report on the operation of the drinking-water system to be made available to members of the public.

Before February 28, 2021, a copy of the 2020 Annual Report and Summary Report for the City of London's water works will be provided to the local office of the Ministry of the Environment, Conservation and Parks (MECP) as a courtesy for information purposes.

The Elgin-Middlesex Pumping Station (EMPS) is jointly owned by the St. Thomas Area Secondary Water Supply System, the Aylmer Area Secondary Water Supply System, and the City of London. EMPS is operated by the Ontario Clean Water Agency (OCWA).

Water Budget

The 2020-2023 operating and capital budgets represent financial sustainability for Londoners, whereby annual rate increases are approximately the average of the Consumer Price Index (CPI) and the Non-Residential Building Construction Price Index (NRBCPI). The 2020-2023 water operating and capital budgets support four core business objectives:

- Compliance
- Financial Management
- Customer Service
- Best Management Practices

The total Water budget for 2020 was $84.7 million, which includes long term infrastructure improvements. The Water Budget helps maintain London's Advantage of a safe, clean and secure water supply. The Water Service Area remains proactive in initiatives to ensure that this service continues to meet the demands and expectations of customers. Existing infrastructure requires ongoing renewal (replacement and rehabilitation) activities to manage the infrastructure gap, ensuring that future generations are not faced with a water system that is failing, unreliable, and expensive to maintain.

Impacts of Covid-19 on Operational Performance

The novel coronavirus (COVID-19) has caused unprecedented interruption to the daily activities of individuals, businesses, and institutions around the world. The City of London has experienced significant challenges, and there remains considerable uncertainty in the foreseeable future. The Water Service Area is an Essential Service that must maintain service continuity. Operationally, the Water Service Area continued with "business-as-usual" to the best ability possible, with only minor service level impacts seen on non-critical work processes.

Staffing
During the course of 2020, from the initial onset of the Covid-19 pandemic, and through the lockdowns, adjustments were made to ensure continuity of service. Water Operations staff remained fully dedicated to the delivery of safe, reliable drinking water. During this time, staff modified work environments, created new procedures, and worked diligently to ensure to maintain uninterrupted supply of this essential service.

In the first few weeks of March and April 2020, staff reductions/rotations were implemented to limit potential exposure to staff. Once appropriate personal protective equipment, additional vehicles and new health and safety related procedures were adopted, Water Operations staff remobilized to a full staff complement to provide a "business-as-usual" level of service.

Business Continuity
During the early stages of the pandemic new processes and procedures were established to provide business continuity. Water Operations staff implemented a "start of day" procedure that strictly offset the working times between Water Operations staff and other City operations staff by 30 minutes. In addition, Water Operations staff quickly implemented a rotational shift system, social distancing protocols, eliminated shared/grouped vehicle travel by providing staff with separate vehicles to travel to and from work sites, and ensured proper personal protective equipment was available. All these efforts were put forth to minimize inter-staff contact. These combined efforts enabled the continued safe and reliable operation of the water distribution system over the course of the pandemic.

Budget
During the initial weeks of the Covid-19 pandemic, there were numerous indications that the lockdown would have a significant impact on water revenue. Water consumption dropped, construction activity ceased, restaurants and industries were closed. At its lowest, commercial demand was down 41% of the three-year average, institutional was 46%, and industrial was 23%. Once the lockdown was lifted, water consumption stabilized and returned to projected levels. Despite the significant drop in consumption in the spring, the overall water revenue for 2020 was approximately 3% higher than previously budgeted. Despite the Covid-19 pandemic, 2020's water consumption was the highest London has seen in nearly a decade. The majority of this increased usage is attributed to residential customers, at one point rising 27% above the sector's three-year average.

Maintenance and Construction
With the effects of the pandemic controlling and altering daily activities, the Water Operations Division continued to deliver essential water services. Water Operations Division and Water Engineering Division staff maintained, whenever possible, a "business-as-usual" level of service. Staff adapted to mandated requirements and found ways to continue their tasks and duties. The Corporation continued to provide support to staff by way of allocating necessary supplies, additional vehicles, sourcing and providing personal protective equipment.

Sampling & Water Quality Monitoring

In 2020, the MECP required large municipal drinking water systems to test for 70 different organic, inorganic and chemical parameters. The City of London's water

sampling regime includes monthly testing for microbiological indicators and chlorine residuals from 57 standard locations across the City, as well over 2,600 random grab samples. Analysis is also performed for up to 117 parameters, including organics, inorganics, chemicals, pesticides and metals at 13 standard locations around the City. This level of testing far exceeds the MECP's minimum sampling requirements.

London also has 10 locations throughout the City where continuous in-line sampling of chlorine residual and pH is monitored. Staff also perform approximately 4,000 additional chlorine tests each year related to construction and maintenance activities. These efforts help ensure that the water within the distribution system is always of high quality, completely safe to consume, and consistent for manufacturing processes.

2020 Water Quality Sampling Summary

Parameter	Ontario Maximum Acceptable Concentration (MAC)	Units	Lab's Method Detection Limit (MDL)	Measured Concentrations 2020	MAC Exceedance (Y/N)
REGULATED INORGANICS					
Antimony	6	ug/L	0.09	**0.12 - 0.14**	No
Arsenic	25	ug/L	0.2	**0.2 - 0.4**	No
Barium	1000	ug/L	0.02	**12.8 - 19.4**	No
Boron	5000	ug/L	2	**24 - 25**	No
Cadmium	5	ug/L	0.003	**0.004 - 0.008**	No
Chromium	50	ug/L	0.08	**0.08 - 0.10**	No
Fluoride	1.5	mg/L	0.06	**0.07 - 0.82**	No
Free Chlorine Residual	--	mg/L		**0.23 - 1.90**	No
Lead	10	ug/L	0.01	**0.01 0.06**	No
Mercury	1	ug/L	0.01	**0.01 <MDL**	No
Selenium	10	ug/L	0.04	**0.11 - 0.15**	No
Sodium	*20	mg/L	0.01	**8.62 - 14.4**	No
Uranium	20	ug/L	0.002	**0.03 - 0.064**	No

Parameter	Ontario Maximum Acceptable Concentration (MAC)	Units	Lab's Method Detection Limit (MDL)	Measured Concentrations 2020	MAC Exceedance (Y/N)
REGULATED ORGANICS					
Atrazine	--	ug/L	0.01	**0.02 - 0.02**	No
Atrazine + N-dealkylated metabolites	5	ug/L	0.01	**0.02 - 0.03**	No
De-ethylated Atrazine	--	ug/L	0.01	**0.01 <MDL**	No
Azinphos-methyl	20	ug/L	0.05	**0.05 <MDL**	No
Benzene	5	ug/L	0.32	**0.32 <MDL**	No
Benzo(a)pyrene	0.01	ug/L	0.004	**0.004 <MDL**	No
Bromoxynil	5	ug/L	0.33	**0.33 <MDL**	No
Carbaryl	90	ug/L	0.05	**0.05 <MDL**	No
Carbofuran	90	ug/L	0.01	**0.01 <MDL**	No
Carbon tetrachloride	5	ug/L	0.17	**0.17 <MDL**	No
Chlorpyrifos	90	ug/L	0.02	**0.02 <MDL**	No

Diazinon	20	ug/L	0.02	**0.02**	**<MDL**	No
Dicamba	120	ug/L	0.2	**0.2**	**<MDL**	No
1,2-Dichlorobenzene	200	ug/L	0.41	**0.41**	**<MDL**	No
1,4-Dichlorobenzene	5	ug/L	0.36	**0.36**	**<MDL**	No
1,2-Dichloroethane	5	ug/L	0.35	**0.35**	**<MDL**	No
Dichloromethane	50	ug/L	0.35	**0.35**	**<MDL**	No
2,4-dichlorophenol	900	ug/L	0.15	**0.15**	**<MDL**	No
2,4-dichlorophenoxyacetic acid (2,4-D)	100	ug/L	0.19	**0.19**	**<MDL**	No
Diclofop-methyl	9	ug/L	0.4	**0.4**	**<MDL**	No
Dimethoate	20	ug/L	0.06	**0.06**	**<MDL**	No
Diquat	70	ug/L	1	**1**	**<MDL**	No
Diuron	150	ug/L	0.03	**0.03**	**<MDL**	No
Glyphosate	280	ug/L	1	**1**	**<MDL**	No
Malathion	190	ug/L	0.02	**0.02**	**<MDL**	No
MCPA	--	mg/L	0.00012	**0.00012**	**<MDL**	No
Metolachlor	50	ug/L	0.01	**0.01**	**<MDL**	No
Metribuzin	80	ug/L	0.02	**0.02**	**<MDL**	No
Monochlorobenzene	80	ug/L	0.3	**0.3**	**<MDL**	No
Paraquat	10	ug/L	1	**1**	**<MDL**	No
Pentachlorophenol	--	ug/L	0.15	**0.15**	**<MDL**	No
Phorate	2	ug/L	0.01	**0.01**	**<MDL**	No
Picloram	190	ug/L	1	**1**	**<MDL**	No
Polychlorinated Biphenyls (PCBs)	3	ug/L	0.04	**0.04**	**<MDL**	No
Prometryne	1	ug/L	0.03	**0.03**	**<MDL**	No
Simazine	10	ug/L	0.01	**0.01**	**<MDL**	No
Terbufos	1	ug/L	0.01	**0.01**	**<MDL**	No
2,3,4,6-tetrachlorophenol	100	ug/L	0.2	**0.2**	**<MDL**	No
Triallate	230	ug/L	0.01	**0.01**	**<MDL**	No
Trichloroethylene	50	ug/L	0.44	**0.44**	**<MDL**	No
2,4,6-trichlorophenol	5	ug/L	0.25	**0.25**	**<MDL**	No
Trifluralin	45	ug/L	0.02	**0.02**	**<MDL**	No
Vinyl Chloride	2	ug/L	0.17	**0.17**	**<MDL**	No

Parameter	Ontario Maximum Acceptable Concentration (MAC)	Units	Lab's Method Detection Limit (MDL)	Measured Concentrations	MAC Exceedance (Y/N)
				2020	
NITRATES					
Nitrate (as nitrogen)	--	mg/L	0.006	**0.07 - 0.54**	No
Nitrate + Nitrite (as nitrogen)	--	mg/L	0.006	**0.07 - 0.54**	No
Nitrite (as nitrogen)	--	mg/L	0.003	**0.005 - 1.7**	No

Parameter	Ontario Maximum Acceptable Concentration (MAC)	Units	Lab's Method Detection Limit (MDL)	Measured Concentrations	MAC Exceedance (Y/N)
				2020	
TRIHALOMETHANES & HALOACETIC ACIDS					
Total Haloacetic Acids	--	ug/L	5.3	**5.3 - 26**	No
Dibromoacetic Acid	--	ug/L	2	**<MDL**	No
Dichloroacetic Acid	--	ug/L	2.6	**3.3 - 17.9**	No

Monobromoacetic acid	--	ug/L	2.9	<MDL	No
Monochloroacetic Acid	--	ug/L	4.7	<MDL	No
Trichloroacetic Acid	--	ug/L	5.3	**5.3 - 8.1**	No
Trihalomethanes (total)	--	ug/L	0.37	**16 - 43**	No
Bromodichloromethane	--	ug/L	0.26	**5.4 - 11**	No
Bromoform	--	ug/L	0.34	**0.34 - 0.37**	No
Chloroform	--	ug/L	0.29	**7.4 - 28**	No
Dibromochloromethane	--	ug/L	0.37	**2 - 4.5**	No

Parameter	Ontario Maximum Acceptable Concentration (MAC)	Units	Lab's Method Detection Limit (MDL)	Measured Concentrations 2020	MAC Exceedance (Y/N)
MICROBIOLOGICAL					
E. coli	0	cfu/100 mL	0	**0 - 0**	No
Total Coliform	0	cfu/100 mL	0	**0 - 15**	Yes
Heterotrophic Plate Count	N/A	cfu/1 mL	10	**10 - 2000**	No

Parameter	Ontario Maximum Acceptable Concentration (MAC)	Units	Lab's Method Detection Limit (MDL)	Measured Concentrations 2020	MAC Exceedance (Y/N)
NON-REGULATED INORGANICS/ORGANICS					
Alkalinity	--	mg/L as CaCO3	2	**73 - 92**	No
Aluminum	--	ug/L	1	**10 - 36**	No
Ammonia+Ammonium (N)	--	mg/L	0.04	**0.04 <MDL**	No
Calcium	--	mg/L	0.01	**24.4 - 32**	No
Chloride	--	mg/L	0.04	**9.5 - 18**	No
Cobalt	--	ug/L	0.004	**0.005 - 0.012**	No

Parameter	Ontario Maximum Acceptable Concentration (MAC)	Units	Lab's Method Detection Limit (MDL)	Measured Concentrations 2020	MAC Exceedance (Y/N)
NON-REGULATED INORGANICS/ORGANICS CON'T					
Colour	--	TCU	3	**3 <MDL**	No
Conductivity	--	uS/cm	2	**231 - 307**	No
Copper	--	ug/L	0.2	**1.1 - 1.9**	No
Cyanide	200.0	ug/L	2	**7.4 - 19.1**	No
1,1-Dichloroethylene (vinylidene chloride)	14	ug/L	0.33	**0.33 <MDL**	No
Dissolved Organic Carbon	--	mg/L	1	**2 - 2**	No
Ethylbenzene	--	ug/L	0.33	**0.33 <MDL**	No
Hardness	--	mg/L as CaCO3	0.05	**89.5 - 113**	No
Iron	--	ug/L	7	**7 <MDL**	No
Magnesium	--	mg/L	0.001	**6.95 - 8.05**	No
Manganese	--	ug/L	0.01	**0.05 - 0.79**	No
Nickel	--	ug/L	0.1	**0.3 - 0.5**	No
Nitrogen-Kjeldahl (N)	--	mg/L	0.05	**0.05 - 0.08**	No

Organic Nitrogen	--	mg/L	0.01	**0.05**	**-**	**0.06**	No
pH	--	no unit	0.05	**7.93**	**-**	**8.08**	No
Phosphorus	--	mg/L	0.003	**0.003**		**<MDL**	No
Potassium	--	mg/L	0.009	**0.924**	**-**	**1.3**	No
Silicon; reactive silicate	--	mg/L	0.02	**0.64**	**-**	**1.67**	No
Silver	--	ug/L	0.05	**0.05**		**<MDL**	No
Solids (Total Dissolved)	--	mg/L	30	**117**	**-**	**149**	No
Sulphate	--	mg/L	0.04	**24**	**-**	**32**	No
Sulphide	--	mg/L	6	**6**		**<MDL**	No
Surr 1,2-Dichloroethane-d4	--	Surr Rec %	--	**99**	**-**	**101**	No
Surr 4-Bromofluorobenzene	--	Surr Rec %	--	**94**	**-**	**99**	No
Surr Decachlorobiphenyl	--	%	--	**106**	**-**	**133**	No
Tetrachloroethylene (perchloroethylene)	30	ug/L	0.35	**0.35**		**<MDL**	No
Toluene	--	ug/L	0.36	**0.36**		**<MDL**	No
Total Chlorine-Field	--	mg/L	--	**1.11**	**-**	**1.29**	No
2,4,5-TP (Silvex)	--	ug/L	0.18	**0.18**		**<MDL**	No
Turbidity	1	NTU	0.1	**0.1**	**-**	**0.16**	No
Xylene (Total)	--	ug/L	0.43	**0.43**		**<MDL**	No
m/p-xylene	--	ug/L	0.43	**0.43**		**<MDL**	No
o-xylene	--	ug/L	0.17	**0.17**		**<MDL**	No
Zinc	--	ug/L	2	**2**		**<MDL**	No

In 2020, there were three (3) adverse microbiological results out of 2,624 samples taken. All involved the detection of Total Coliform bacteria (ranging from 1 to 15 cfu/100 mL). In each case, staff implemented the mandatory adverse response procedure, which included notifying the MECP and the Middlesex-London Health Unit, and immediately re-sampled at each location. The re-sample results revealed no adverse indicators.

In all instances it is highly unlikely that there were ‘actual’ water quality issues at these sites, as all adverse samples were identified as having free chlorine residuals which were well above the minimum acceptable level at the time of the sampling (ranging between 0.48 to 0.94 mg/L). E. coli and Coliform bacteria cannot survive in chlorinated water; therefore, it is suspected that post-sampling contamination occurred. The re-sampling results support this conclusion. The microbiological testing procedure is extremely sensitive; accidental sample contamination can occur through operator or laboratory error, despite the specific procedures and precautions being adhered to while processing samples.

System Statistics and Major Events

During the period from January 1, 2020 through to December 31, 2020 a total of 47,923,719,000 litres of water were purchased, at a cost of more than $27,031,998, from the Joint Water Boards and subsequently pumped into London via the Arva Pumping Station and the London components within the Elgin Middlesex Pumping Station. Average day demand was 130,884,910 litres, the highest in nearly 10 years. Peak day consumption of 194,876,000 litres occurred on July 6, 2020, the highest in a decade.

A summary of system pumpage can be found in the full version of the Summary Report. The data includes monthly average and maximum daily flows. These values are also

compared to the rated flow rate capacities identified in London's Municipal Drinking Water Licence. There were no occurrences of flow rate exceedance during the specified time period.

Listed below are some 2020 statistics for the City of London Distribution System:

Approximate Replacement Value of Drinking Water System	**$5,869,000,000**
Number of Pumping Stations	**9**
Number of Fire Hydrants	**9,726**
Number of Watermain Valves	**13,940**
Total Number of Water Services	**120,011**
Length of Watermain	**1,624 km**
Number of Watermain Breaks	**55**
Number of Water Service Leaks	**292**

Municipalities Receiving London Water

In the Municipality of Middlesex Centre, the villages of Arva, Ballymote, and Delaware continued to receive their drinking water under contract from the City of London during 2020. The Municipality of Middlesex Centre has been provided a copy of the Annual Report as per O. Reg 170/03.

Several residences within Central Elgin also continued to receive drinking water from the transmission watermain that supplies the City of London from the EMPS. For this reason, Central Elgin has also been provided a copy of the report.

2020 Annual Report
(London)

Drinking Water System Number: **260004917**
Municipal Drinking-Water Licence: **006-001**
Drinking-Water System Name: **City of London Drinking Water System**
Drinking-Water System Owner: **The Corporation of the City of London**
Drinking-Water System Category: **Large Municipal Residential System**
Period being reported: **January 1, 2020 to December 31, 2020**

Does your Drinking-Water System serve more than 10,000 people? **Yes**

Is your annual report available to the public at no charge on a web site? **Yes**

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

City of London – City Hall
Customer Service Division – 8th Floor
(Public Service Information Area)
300 Dufferin Avenue, London, ON

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
Middlesex Centre Distribution System	260004202
Includes: Arva Waterworks	260004202
Ballymote Waterworks	260004202
Delaware Distribution System	260063323

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**

Indicate how you notified system users that your annual report is available, and is free of charge.

Public access/notice via the web: **Yes**
Public access/notice via Government Office: **Yes**
Public access/notice via a newspaper: **No**
Public access/notice via Public Request: **Yes**
Public access/notice via a Public Library: **No**
Public access/notice via other method: **No**

Describe your Drinking-Water System:
There are two primary water supplies in the City of London. These are both surface water sources and are:
- Lake Huron Primary Water Supply System (LHPWSS)
- Elgin Area Primary Water Supply System (EAPWSS)

During 2020 the London-Elgin-Middlesex Booster Station was operated by a designated Operating Authority that being, Ontario Clean Water Agency. The annual report for the London-Elgin-Middlesex Booster Station was not available at the time this report was created and therefore, it will be provided under separate cover.

List all water treatment chemicals used over this reporting period:

- Liquid Chlorine
- Sodium Hypochlorite
- Fluorosilicic Acid (hydrofluorosilicic acid)

Were any significant expenses incurred to?

Large numbers of Water Service Leaks continue to dominate repair/remediation efforts. In excess of 290 water service leaks occurred in 2020, attributing to nearly a 6:1 ratio of water service leaks to water main breaks. Note that 2020 had an exceptionally low number of watermain breaks.

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.

Bacteriological Adverse							
				Parameters			
Adverse Incident Date	Corrective Action	Corrective Action Date	Adverse Water Quality Indicator # (AWQI #)	E. coli (cfu/100ml)	Total Coliform (cfu/100ml)	HPC / Background (cfu/1ml)	Free Cl2 (mg/L)
3-Jun-2020 [1]			150147	0	15	0	0.81
	Resample	4-Jun-2020		0	0	<10	0.86
	Resample	4-Jun-2020		0	0	<10	0.90
	Resample	4-Jun-2020		0	0	<10	0.89
25-Aug-2020 [2]			151592	0	1	0	0.94
	Resample	26-Aug-2020		0	0	<10	0.90
	Resample	26-Aug-2020		0	0	<10	0.89
	Resample	26-Aug-2020		0	0	50	0.81
29-Sep-2020 [3]			152371	0	2	0	0.48
	Resample	30-Sep-2020		0	0	<10	0.62
	Resample	30-Sep-2020		0	0	<10	0.82
	Resample	30-Sep-2020		0	0	<10	0.51

Notes:

[1]**Details:** A Total Coliform count of 15 per 100 mL was detected in a sample collected from 89 St. Lawrence Blvd (Hydrant).

Corrective Action: he original site was immediately re-sampled and samples were also taken at sites upstream and downstream from the original site. There were no indicators of adverse water quality in any of the re-sample results. Free chlorine concentration of 0.81 mg/L for the original sample is indicative of a false positive.

[2]**Details:** A Total Coliform count of 1 per 100 mL was detected in a sample collected from a hydrant at 1015 Green Valley Rd.

Corrective Action: The original site was immediately re-sampled and a sample was also taken upstream from the original site. No downstream sample was taken as the original site was at a dead-end. There were no indicators of adverse water quality in the

re-sample results. Free chlorine concentration of 0.94 mg/L for the original sample is indicative of a false positive.

[3]**Details:** A Total Coliform count of 2 per 100 mL was detected in a sample collected from a fire hydrant at 213 Montebello Dr.

Corrective Action: The original site was immediately re-sampled and samples were also taken at sites upstream and downstream from the original site. There were no indicators of adverse water quality in any of the re-sample results. Free chlorine concentration of 0.48 mg/L for the original sample is indicative of a false positive.

Microbiological testing done under the Schedule 10, 11 or 12 of Regulation 170/03, during this reporting period.

	# of E. coli Samples Taken	Range of E. coli (cfu/100mL)	# of Total Coliform Samples Taken	Range of Coliform (cfu/100mL)	# of HPC / Background Samples	Range of HPC (cfu/1mL)
Treated	N/A	N/A	N/A	N/A	N/A	N/A
Distribution	2624	0	2624	0 - 15	2624	<10 - 2000

Operational testing done under Schedule 7, 8 or 9 of Regulation 170/03 during the period covered by this Annual Report.

	# of Grab Samples	Continuous Monitoring	Range of Results
Turbidity	4	N/A	0.1 - 0.2 NTU
Alkalinity	7	N/A	73 - 92 mg/L as $CaCO_3$
Lead	5	N/A	<0.01 - 0.55 µg/L
Chlorine*	2548	87600	0.23 - 1.9 mg/L
Fluoride**	102	17520	0.07 - 0.82 mg/L

*London has 10 locations with continuous online chlorine monitoring
**Continuous online fluoride monitoring occurs at Arva and SERPs

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

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

As outlined below, sampling was carried out for inorganic and organic parameters at the following sites: Arva Pumping Station and Southeast Reservoir and Pumping Station.

SITE: Arva Pumping Station - Treated Distribution

a) INORGANIC PARAMETERS (including lead, sodium, nitrate, nitrite, and fluoride)

Date of Municipal Drinking Water Licence	Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
September 21, 2017	Antimony	16/Jun/20	0.12	ug/L	N
September 21, 2017	Arsenic	16/Jun/20	0.2 <MDL	ug/L	N
September 21, 2017	Barium	16/Jun/20	12.8	ug/L	N
September 21, 2017	Boron	16/Jun/20	24	ug/L	N
September 21, 2017	Cadmium	16/Jun/20	0.004	ug/L	N
September 21, 2017	Chromium	16/Jun/20	0.1	ug/L	N
September 21, 2017	Fluoride	8/Jan/20	0.08	mg/L	N
September 21, 2017	Fluoride	8/Jan/20	0.08	mg/L	N
September 21, 2017	Fluoride	15/Jan/20	0.08	mg/L	N
September 21, 2017	Fluoride	29/Jan/20	0.55	mg/L	N
September 21, 2017	Fluoride	5/Feb/20	0.54	mg/L	N
September 21, 2017	Fluoride	12/Feb/20	0.63	mg/L	N
September 21, 2017	Fluoride	19/Feb/20	0.54	mg/L	N
September 21, 2017	Fluoride	26/Feb/20	0.59	mg/L	N
September 21, 2017	Fluoride	4/Mar/20	0.58	mg/L	N
September 21, 2017	Fluoride	11/Mar/20	0.54	mg/L	N
September 21, 2017	Fluoride	18/Mar/20	0.53	mg/L	N
September 21, 2017	Fluoride	25/Mar/20	0.53	mg/L	N
September 21, 2017	Fluoride	1/Apr/20	0.64	mg/L	N
September 21, 2017	Fluoride	8/Apr/20	0.56	mg/L	N
September 21, 2017	Fluoride	15/Apr/20	0.56	mg/L	N
September 21, 2017	Fluoride	29/Apr/20	0.74	mg/L	N
September 21, 2017	Fluoride	6/May/20	0.08	mg/L	N
September 21, 2017	Fluoride	13/May/20	0.66	mg/L	N
September 21, 2017	Fluoride	20/May/20	0.59	mg/L	N
September 21, 2017	Fluoride	27/May/20	0.62	mg/L	N
September 21, 2017	Fluoride	3/Jun/20	0.70	mg/L	N
September 21, 2017	Fluoride	10/Jun/20	0.51	mg/L	N
September 21, 2017	Fluoride	17/Jun/20	0.52	mg/L	N
September 21, 2017	Fluoride	24/Jun/20	0.60	mg/L	N
September 21, 2017	Fluoride	30/Jun/20	0.63	mg/L	N
September 21, 2017	Fluoride	7/Jul/20	0.59	mg/L	N
September 21, 2017	Fluoride	15/Jul/20	0.63	mg/L	N
September 21, 2017	Fluoride	22/Jul/20	0.59	mg/L	N
September 21, 2017	Fluoride	29/Jul/20	0.71	mg/L	N

September 21, 2017	Fluoride	5/Aug/20	0.58	mg/L	N
September 21, 2017	Fluoride	12/Aug/20	0.55	mg/L	N
September 21, 2017	Fluoride	19/Aug/20	0.59	mg/L	N
September 21, 2017	Fluoride	26/Aug/20	0.57	mg/L	N
September 21, 2017	Fluoride	2/Sep/20	0.62	mg/L	N
September 21, 2017	Fluoride	9/Sep/20	0.61	mg/L	N
September 21, 2017	Fluoride	16/Sep/20	0.57	mg/L	N
September 21, 2017	Fluoride	23/Sep/20	0.53	mg/L	N
September 21, 2017	Fluoride	30/Sep/20	0.62	mg/L	N
September 21, 2017	Fluoride	7/Oct/20	0.55	mg/L	N
September 21, 2017	Fluoride	14/Oct/20	0.55	mg/L	N
September 21, 2017	Fluoride	21/Oct/20	0.56	mg/L	N
September 21, 2017	Fluoride	28/Oct/20	0.52	mg/L	N
September 21, 2017	Fluoride	4/Nov/20	0.53	mg/L	N
September 21, 2017	Fluoride	11/Nov/20	0.61	mg/L	N
September 21, 2017	Fluoride	18/Nov/20	0.58	mg/L	N
September 21, 2017	Fluoride	25/Nov/20	0.61	mg/L	N
September 21, 2017	Fluoride	2/Dec/20	0.64	mg/L	N
September 21, 2017	Fluoride	9/Dec/20	0.55	mg/L	N
September 21, 2017	Fluoride	16/Dec/20	0.53	mg/L	N
September 21, 2017	Fluoride	23/Dec/20	0.55	mg/L	N
September 21, 2017	Fluoride	30/Dec/20	0.55	mg/L	N
September 21, 2017	Lead	3/Mar/20	0.01 <MDL	ug/L	N
September 21, 2017	Lead	16/Jun/20	0.02	ug/L	N
September 21, 2017	Lead	17/Sep/20	0.06	ug/L	N
September 21, 2017	Lead	10/Dec/20	0.01 <MDL	ug/L	N
September 21, 2017	Mercury	16/Jun/20	0.01 <MDL	ug/L	N
September 21, 2017	Nitrate (as nitrogen)	3/Mar/20	0.54	mg/L	N
September 21, 2017	Nitrate (as nitrogen)	16/Jun/20	0.29	mg/L	N
September 21, 2017	Nitrate (as nitrogen)	17/Sep/20	0.286	mg/L	N
September 21, 2017	Nitrate (as nitrogen)	10/Dec/20	0.484	mg/L	N
September 21, 2017	Nitrate + Nitrite (as nitrogen)	3/Mar/20	0.54	mg/L	N
September 21, 2017	Nitrate + Nitrite (as nitrogen)	16/Jun/20	0.29	mg/L	N
September 21, 2017	Nitrate + Nitrite (as nitrogen)	17/Sep/20	0.286	mg/L	N
September 21, 2017	Nitrate + Nitrite (as nitrogen)	10/Dec/20	0.484	mg/L	N
September 21, 2017	Nitrite (as nitrogen)	3/Mar/20	0.003 <MDL	mg/L	N
September 21, 2017	Nitrite (as nitrogen)	16/Jun/20	0.003 <MDL	mg/L	N
September 21, 2017	Nitrite (as nitrogen)	17/Sep/20	0.003 <MDL	mg/L	N
September 21, 2017	Nitrite (as nitrogen)	10/Dec/20	0.003 <MDL	mg/L	N
September 21, 2017	Selenium	16/Jun/20	0.11	ug/L	N
September 21, 2017	Sodium	16/Jun/20	8.62	mg/L	N
September 21, 2017	Uranium	16/Jun/20	0.064	ug/L	N

b) ORGANIC PARAMETERS (including THM & HAA)

Date of Municipal Drinking Water Licence	Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
September 21, 2017	Alachlor	16/Jun/20	0.02 <MDL	ug/L	N
September 21, 2017	Atrazine	16/Jun/20	0.02	ug/L	N
September 21, 2017	Atrazine + N-dealkylated metabolites	16/Jun/20	0.03	ug/L	N
September 21, 2017	De-ethylated Atrazine	16/Jun/20	0.01	ug/L	N
September 21, 2017	Azinphos-methyl	16/Jun/20	0.05 <MDL	ug/L	N
September 21, 2017	Benzene	16/Jun/20	0.32 <MDL	ug/L	N
September 21, 2017	Benzo(a)pyrene	16/Jun/20	0.004 <MDL	ug/L	N
September 21, 2017	Bromoxynil	16/Jun/20	0.33 <MDL	ug/L	N
September 21, 2017	Carbaryl	16/Jun/20	0.05 <MDL	ug/L	N
September 21, 2017	Carbofuran	16/Jun/20	0.01 <MDL	ug/L	N
September 21, 2017	Carbon tetrachloride	16/Jun/20	0.17 <MDL	ug/L	N
September 21, 2017	Chlorpyrifos	16/Jun/20	0.02 <MDL	ug/L	N
September 21, 2017	Diazinon	16/Jun/20	0.02 <MDL	ug/L	N
September 21, 2017	Dicamba	16/Jun/20	0.2 <MDL	ug/L	N
September 21, 2017	1,2-Dichlorobenzene	16/Jun/20	0.41 <MDL	ug/L	N
September 21, 2017	1,4-Dichlorobenzene	16/Jun/20	0.36 <MDL	ug/L	N
September 21, 2017	1,2-Dichloroethane	16/Jun/20	0.35 <MDL	ug/L	N
September 21, 2017	Dichloromethane	16/Jun/20	0.35 <MDL	ug/L	N
September 21, 2017	2,4-dichlorophenol	16/Jun/20	0.15 <MDL	ug/L	N
September 21, 2017	2,4-dichlorophenoxyacetic acid (2,4-D)	16/Jun/20	0.19 <MDL	ug/L	N
September 21, 2017	Diclofop-methyl	16/Jun/20	0.4 <MDL	ug/L	N
September 21, 2017	Dimethoate	16/Jun/20	0.06 <MDL	ug/L	N
September 21, 2017	Diquat	16/Jun/20	1 <MDL	ug/L	N
September 21, 2017	Diuron	16/Jun/20	0.03 <MDL	ug/L	N
September 21, 2017	Glyphosate	16/Jun/20	1 <MDL	ug/L	N
September 21, 2017	Malathion	16/Jun/20	0.02 <MDL	ug/L	N
September 21, 2017	MCPA	16/Jun/20	0.00012<MDL	mg/L	N
September 21, 2017	Metolachlor	16/Jun/20	0.01 <MDL	ug/L	N
September 21, 2017	Metribuzin	16/Jun/20	0.02 <MDL	ug/L	N
September 21, 2017	Paraquat	16/Jun/20	1 <MDL	ug/L	N
September 21, 2017	Pentachlorophenol	16/Jun/20	0.15 <MDL	ug/L	N
September 21, 2017	Phorate	16/Jun/20	0.01 <MDL	ug/L	N
September 21, 2017	Picloram	16/Jun/20	1 <MDL	ug/L	N
September 21, 2017	Polychlorinated Biphenyls (PCBs)	16/Jun/20	0.04 <MDL	ug/L	N
September 21, 2017	Prometryne	16/Jun/20	0.03 <MDL	ug/L	N
September 21, 2017	Simazine	16/Jun/20	0.01 <MDL	ug/L	N
September 21, 2017	Terbufos	16/Jun/20	0.01 <MDL	ug/L	N
September 21, 2017	2,3,4,6-tetrachlorophenol	16/Jun/20	0.2 <MDL	ug/L	N
September 21, 2017	Triallate	16/Jun/20	0.01 <MDL	ug/L	N
September 21, 2017	Trichloroethylene	16/Jun/20	0.44 <MDL	ug/L	N
September 21, 2017	2,4,6-trichlorophenol	16/Jun/20	0.25 <MDL	ug/L	N
September 21, 2017	Trifluralin	16/Jun/20	0.02 <MDL	ug/L	N

September 21, 2017	Total Haloacetic Acids	3/Mar/20	5.3 <MDL	ug/L	N
September 21, 2017	Dibromoacetic Acid	3/Mar/20	2 <MDL	ug/L	N
September 21, 2017	Dichloroacetic Acid	3/Mar/20	4.7	ug/L	N
September 21, 2017	Monobromoacetic acid	3/Mar/20	2.9 <MDL	ug/L	N
September 21, 2017	Monochloroacetic Acid	3/Mar/20	4.7 <MDL	ug/L	N
September 21, 2017	Trichloroacetic Acid	3/Mar/20	5.3 <MDL	ug/L	N
September 21, 2017	Total Haloacetic Acids	16/Jun/20	5.6	ug/L	N
September 21, 2017	Dibromoacetic Acid	16/Jun/20	2 <MDL	ug/L	N
September 21, 2017	Dichloroacetic Acid	16/Jun/20	5.6	ug/L	N
September 21, 2017	Monobromoacetic acid	16/Jun/20	2.9 <MDL	ug/L	N
September 21, 2017	Monochloroacetic Acid	16/Jun/20	4.7 <MDL	ug/L	N
September 21, 2017	Trichloroacetic Acid	16/Jun/20	5.3 <MDL	ug/L	N
September 21, 2017	Total Haloacetic Acids	17/Sep/20	6.7	ug/L	N
September 21, 2017	Dibromoacetic Acid	17/Sep/20	2 <MDL	ug/L	N
September 21, 2017	Dichloroacetic Acid	17/Sep/20	6.7	ug/L	N
September 21, 2017	Monobromoacetic acid	17/Sep/20	2.9 <MDL	ug/L	N
September 21, 2017	Monochloroacetic Acid	17/Sep/20	4.7 <MDL	ug/L	N
September 21, 2017	Trichloroacetic Acid	17/Sep/20	5.3 <MDL	ug/L	N
September 21, 2017	Total Haloacetic Acids	10/Dec/20	5.3 <MDL	ug/L	N
September 21, 2017	Dibromoacetic Acid	10/Dec/20	2 <MDL	ug/L	N
September 21, 2017	Dichloroacetic Acid	10/Dec/20	3.3	ug/L	N
September 21, 2017	Monobromoacetic acid	10/Dec/20	2.9 <MDL	ug/L	N
September 21, 2017	Monochloroacetic Acid	10/Dec/20	4.7 <MDL	ug/L	N
September 21, 2017	Trichloroacetic Acid	10/Dec/20	5.3 <MDL	ug/L	N
September 21, 2017	Trihalomethanes (total)	3/Mar/20	16	ug/L	N
September 21, 2017	Bromodichloromethane	3/Mar/20	5.7	ug/L	N
September 21, 2017	Bromoform	3/Mar/20	0.34 <MDL	ug/L	N
September 21, 2017	Chloroform	3/Mar/20	8.3	ug/L	N
September 21, 2017	Dibromochloromethane	3/Mar/20	2	ug/L	N
September 21, 2017	Trihalomethanes (total)	16/Jun/20	20	ug/L	N
September 21, 2017	Bromodichloromethane	16/Jun/20	6	ug/L	N
September 21, 2017	Bromoform	16/Jun/20	0.34 <MDL	ug/L	N
September 21, 2017	Chloroform	16/Jun/20	11	ug/L	N
September 21, 2017	Dibromochloromethane	16/Jun/20	2.8	ug/L	N
September 21, 2017	Trihalomethanes (total)	17/Sep/20	30	ug/L	N
September 21, 2017	Bromodichloromethane	17/Sep/20	8.6	ug/L	N
September 21, 2017	Bromoform	17/Sep/20	0.34 <MDL	ug/L	N
September 21, 2017	Chloroform	17/Sep/20	18	ug/L	N
September 21, 2017	Dibromochloromethane	17/Sep/20	4.1	ug/L	N
September 21, 2017	Trihalomethanes (total)	10/Dec/20	16	ug/L	N
September 21, 2017	Bromodichloromethane	10/Dec/20	5.4	ug/L	N
September 21, 2017	Bromoform	10/Dec/20	0.34 <MDL	ug/L	N
September 21, 2017	Chloroform	10/Dec/20	8.3	ug/L	N
September 21, 2017	Dibromochloromethane	10/Dec/20	2.2	ug/L	N
September 21, 2017	Vinyl Chloride	16/Jun/20	0.17 <MDL	ug/L	N

c) NON-REGULATED INORGANIC/ORGANIC PARAMETERS

Date of Municipal Drinking Water Licence	Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
September 21, 2017	Alkalinity	16/Jun/20	73	mg/L as CaCO3	N
September 21, 2017	Aluminum	16/Jun/20	36	ug/L	N
September 21, 2017	Ammonia+Ammonium (N)	16/Jun/20	0.04 <MDL	mg/L	N
September 21, 2017	Calcium	16/Jun/20	24.4	mg/L	N
September 21, 2017	Chloride	16/Jun/20	9.5	mg/L	N
September 21, 2017	Cobalt	16/Jun/20	0.005	ug/L	N
September 21, 2017	Colour	16/Jun/20	3 <MDL	TCU	N
September 21, 2017	Conductivity	16/Jun/20	231	uS/cm	N
September 21, 2017	Copper	16/Jun/20	1.9	ug/L	N
September 21, 2017	Cyanide; total	16/Jun/20	7.4	ug/L	N
September 21, 2017	1,1-Dichloroethylene (vinylidene chloride)	16/Jun/20	0.33 <MDL	ug/L	N
September 21, 2017	Dissolved Organic Carbon	16/Jun/20	2	mg/L	N
September 21, 2017	Ethylbenzene	16/Jun/20	0.33 <MDL	ug/L	N
September 21, 2017	Hardness	16/Jun/20	89.5	mg/L as CaCO3	N
September 21, 2017	Iron	16/Jun/20	7 <MDL	ug/L	N
September 21, 2017	Magnesium	16/Jun/20	6.95	mg/L	N
September 21, 2017	Manganese	16/Jun/20	0.79	ug/L	N
September 21, 2017	Monochlorobenzene	16/Jun/20	0.3 <MDL	ug/L	N
September 21, 2017	Nickel	16/Jun/20	0.3	ug/L	N
September 21, 2017	Nitrogen-Kjeldahl (N)	16/Jun/20	0.05 <MDL	mg/L	N
September 21, 2017	Organic Nitrogen	16/Jun/20	0.05 <MDL	mg/L	N
September 21, 2017	pH	16/Jun/20	8.08	no unit	N
September 21, 2017	pH-Field	16/Jun/20	7.95	no unit	N
September 21, 2017	Phosphorus	16/Jun/20	0.003 <MDL	mg/L	N
September 21, 2017	Potassium	16/Jun/20	0.924	mg/L	N
September 21, 2017	Silicon; reactive silicate	16/Jun/20	1.67	mg/L	N
September 21, 2017	Silver	16/Jun/20	0.05 <MDL	ug/L	N
September 21, 2017	Solids (Total Dissolved)	16/Jun/20	117	mg/L	N
September 21, 2017	Sulphate	16/Jun/20	24	mg/L	N
September 21, 2017	Sulphide	16/Jun/20	6 <MDL	ug/L	N
September 21, 2017	Surr 1,2-Dichloroethane-d4	16/Jun/20	99	Surr Rec %	N
September 21, 2017	Surr 4-Bromofluorobenzene	16/Jun/20	94	Surr Rec %	N
September 21, 2017	Surr Decachlorobiphenyl	16/Jun/20	106	%	N
September 21, 2017	Temperature-Field	16/Jun/20	13.1	celcius	N
September 21, 2017	Tetrachloroethylene (perchloroethylene)	16/Jun/20	0.35 <MDL	ug/L	N
September 21, 2017	Toluene	16/Jun/20	0.36 <MDL	ug/L	N
September 21, 2017	Total Chlorine-Field	16/Jun/20	1.11	mg/L	N
September 21, 2017	2-(2,4,5-Trichlorophenoxy)propanoic acid (2,4,5-TP)	16/Jun/20	0.18 <MDL	ug/L	N
September 21, 2017	Turbidity	16/Jun/20	0.1	NTU	N
September 21, 2017	Turbidity-Field	16/Jun/20	0.16	NTU	N
September 21, 2017	Xylene (Total)	16/Jun/20	0.43 <MDL	ug/L	N
September 21, 2017	m/p-Xylene	16/Jun/20	0.43 <MDL	ug/L	N
September 21, 2017	o-xylene	16/Jun/20	0.17 <MDL	ug/L	N
September 21, 2017	Zinc	16/Jun/20	2 <MDL	ug/L	N

SITE: Southeast Reservoir and Pumping Station - Treated Distribution
a) INORGANIC PARAMETERS (including lead, sodium, nitrate, nitrite, and fluoride)

Date of Municipal Drinking Water Licence	Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
September 21, 2017	Antimony	16/Jun/20	0.14	ug/L	N
September 21, 2017	Arsenic	16/Jun/20	0.4	ug/L	N
September 21, 2017	Barium	16/Jun/20	19.4	ug/L	N
September 21, 2017	Boron	16/Jun/20	25	ug/L	N
September 21, 2017	Cadmium	16/Jun/20	0.008	ug/L	N
September 21, 2017	Chromium	16/Jun/20	0.08 <MDL	ug/L	N
September 21, 2017	Fluoride	8/Jan/20	0.49	mg/L	N
September 21, 2017	Fluoride	15/Jan/20	0.50	mg/L	N
September 21, 2017	Fluoride	22/Jan/20	0.44	mg/L	N
September 21, 2017	Fluoride	29/Jan/20	0.42	mg/L	N
September 21, 2017	Fluoride	5/Feb/20	0.45	mg/L	N
September 21, 2017	Fluoride	12/Feb/20	0.43	mg/L	N
September 21, 2017	Fluoride	19/Feb/20	0.41	mg/L	N
September 21, 2017	Fluoride	26/Feb/20	0.46	mg/L	N
September 21, 2017	Fluoride	4/Mar/20	0.45	mg/L	N
September 21, 2017	Fluoride	11/Mar/20	0.39	mg/L	N
September 21, 2017	Fluoride	18/Mar/20	0.43	mg/L	N
September 21, 2017	Fluoride	25/Mar/20	0.37	mg/L	N
September 21, 2017	Fluoride	1/Apr/20	0.47	mg/L	N
September 21, 2017	Fluoride	8/Apr/20	0.52	mg/L	N
September 21, 2017	Fluoride	15/Apr/20	0.53	mg/L	N
September 21, 2017	Fluoride	29/Apr/20	0.55	mg/L	N
September 21, 2017	Fluoride	6/May/20	0.61	mg/L	N
September 21, 2017	Fluoride	13/May/20	0.56	mg/L	N
September 21, 2017	Fluoride	20/May/20	0.55	mg/L	N
September 21, 2017	Fluoride	27/May/20	0.55	mg/L	N
September 21, 2017	Fluoride	3/Jun/20	0.57	mg/L	N
September 21, 2017	Fluoride	10/Jun/20	0.52	mg/L	N
September 21, 2017	Fluoride	17/Jun/20	0.65	mg/L	N
September 21, 2017	Fluoride	24/Jun/20	0.55	mg/L	N
September 21, 2017	Fluoride	30/Jun/20	0.57	mg/L	N
September 21, 2017	Fluoride	7/Jul/20	0.55	mg/L	N
September 21, 2017	Fluoride	15/Jul/20	0.58	mg/L	N
September 21, 2017	Fluoride	22/Jul/20	0.51	mg/L	N
September 21, 2017	Fluoride	29/Jul/20	0.57	mg/L	N
September 21, 2017	Fluoride	5/Aug/20	0.57	mg/L	N
September 21, 2017	Fluoride	12/Aug/20	0.59	mg/L	N
September 21, 2017	Fluoride	19/Aug/20	0.62	mg/L	N
September 21, 2017	Fluoride	26/Aug/20	0.58	mg/L	N

September 21, 2017	Fluoride	2/Sep/20	0.58	mg/L	N
September 21, 2017	Fluoride	9/Sep/20	0.61	mg/L	N
September 21, 2017	Fluoride	16/Sep/20	0.55	mg/L	N
September 21, 2017	Fluoride	23/Sep/20	0.54	mg/L	N
September 21, 2017	Fluoride	30/Sep/20	0.60	mg/L	N
September 21, 2017	Fluoride	7/Oct/20	0.58	mg/L	N
September 21, 2017	Fluoride	14/Oct/20	0.55	mg/L	N
September 21, 2017	Fluoride	21/Oct/20	0.55	mg/L	N
September 21, 2017	Fluoride	28/Oct/20	0.53	mg/L	N
September 21, 2017	Fluoride	4/Nov/20	0.52	mg/L	N
September 21, 2017	Fluoride	11/Nov/20	0.51	mg/L	N
September 21, 2017	Fluoride	18/Nov/20	0.53	mg/L	N
September 21, 2017	Fluoride	25/Nov/20	0.43	mg/L	N
September 21, 2017	Fluoride	2/Dec/20	0.48	mg/L	N
September 21, 2017	Fluoride	9/Dec/20	0.52	mg/L	N
September 21, 2017	Fluoride	16/Dec/20	0.51	mg/L	N
September 21, 2017	Fluoride	23/Dec/20	0.48	mg/L	N
September 21, 2017	Fluoride	30/Dec/20	0.50	mg/L	N
September 21, 2017	Lead	3/Mar/20	0.01 <MDL	ug/L	N
September 21, 2017	Lead	16/Jun/20	0.01 <MDL	ug/L	N
September 21, 2017	Lead	17/Sep/20	0.01	ug/L	N
September 21, 2017	Lead	10/Dec/20	0.01	ug/L	N
September 21, 2017	Mercury	16/Jun/20	0.01 <MDL	ug/L	N
September 21, 2017	Nitrate (as nitrogen)	3/Mar/20	0.10	mg/L	N
September 21, 2017	Nitrate (as nitrogen)	16/Jun/20	0.07	mg/L	N
September 21, 2017	Nitrate (as nitrogen)	17/Sep/20	0.14	mg/L	N
September 21, 2017	Nitrate (as nitrogen)	10/Dec/20	0.11	mg/L	N
September 21, 2017	Nitrate + Nitrite (as nitrogen)	3/Mar/20	0.10	mg/L	N
September 21, 2017	Nitrate + Nitrite (as nitrogen)	16/Jun/20	0.07	mg/L	N
September 21, 2017	Nitrate + Nitrite (as nitrogen)	17/Sep/20	0.14	mg/L	N
September 21, 2017	Nitrate + Nitrite (as nitrogen)	10/Dec/20	0.11	mg/L	N
September 21, 2017	Nitrite (as nitrogen)	3/Mar/20	0.003 <MDL	mg/L	N
September 21, 2017	Nitrite (as nitrogen)	16/Jun/20	0.003 <MDL	mg/L	N
September 21, 2017	Nitrite (as nitrogen)	17/Sep/20	0.003 <MDL	mg/L	N
September 21, 2017	Nitrite (as nitrogen)	10/Dec/20	0.003 <MDL	mg/L	N
September 21, 2017	Selenium	16/Jun/20	0.15	ug/L	N
September 21, 2017	Sodium	16/Jun/20	14.4	mg/L	N
September 21, 2017	Uranium	16/Jun/20	0.03	ug/L	N

b) ORGANIC PARAMETERS (including THM & HAA)

Date of Municipal Drinking Water Licence	Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
September 21, 2017	Alachlor	16/Jun/20	0.02 <MDL	ug/L	N
September 21, 2017	Atrazine	16/Jun/20	0.02	ug/L	N
September 21, 2017	Atrazine + N-dealkylated metabolites	16/Jun/20	0.02	ug/L	N
September 21, 2017	De-ethylated Atrazine	16/Jun/20	0.01 <MDL	ug/L	N
September 21, 2017	Azinphos-methyl	16/Jun/20	0.05 <MDL	ug/L	N
September 21, 2017	Benzene	16/Jun/20	0.32 <MDL	ug/L	N
September 21, 2017	Benzo(a)pyrene	16/Jun/20	0.004 <MDL	ug/L	N
September 21, 2017	Bromoxynil	16/Jun/20	0.33 <MDL	ug/L	N
September 21, 2017	Carbaryl	16/Jun/20	0.05 <MDL	ug/L	N
September 21, 2017	Carbofuran	16/Jun/20	0.01 <MDL	ug/L	N
September 21, 2017	Carbon tetrachloride	16/Jun/20	0.17 <MDL	ug/L	N
September 21, 2017	Chlorpyrifos	16/Jun/20	0.02 <MDL	ug/L	N
September 21, 2017	Diazinon	16/Jun/20	0.02 <MDL	ug/L	N
September 21, 2017	Dicamba	16/Jun/20	0.2 <MDL	ug/L	N
September 21, 2017	1,2-Dichlorobenzene	16/Jun/20	0.41 <MDL	ug/L	N
September 21, 2017	1,4-Dichlorobenzene	16/Jun/20	0.36 <MDL	ug/L	N
September 21, 2017	1,2-Dichloroethane	16/Jun/20	0.35 <MDL	ug/L	N
September 21, 2017	Dichloromethane	16/Jun/20	0.35 <MDL	ug/L	N
September 21, 2017	2,4-dichlorophenol	16/Jun/20	0.15 <MDL	ug/L	N
September 21, 2017	2,4-dichlorophenoxyacetic acid (2,4-D)	16/Jun/20	0.19 <MDL	ug/L	N
September 21, 2017	Diclofop-methyl	16/Jun/20	0.4 <MDL	ug/L	N
September 21, 2017	Dimethoate	16/Jun/20	0.06 <MDL	ug/L	N
September 21, 2017	Diquat	16/Jun/20	1 <MDL	ug/L	N
September 21, 2017	Diuron	16/Jun/20	0.03 <MDL	ug/L	N
September 21, 2017	Glyphosate	16/Jun/20	1 <MDL	ug/L	N
September 21, 2017	Malathion	16/Jun/20	0.02 <MDL	ug/L	N
September 21, 2017	MCPA	16/Jun/20	0.00012<MDL	mg/L	N
September 21, 2017	Metolachlor	16/Jun/20	0.01 <MDL	ug/L	N
September 21, 2017	Metribuzin	16/Jun/20	0.02 <MDL	ug/L	N
September 21, 2017	Paraquat	16/Jun/20	1 <MDL	ug/L	N
September 21, 2017	Pentachlorophenol	16/Jun/20	0.15 <MDL	ug/L	N
September 21, 2017	Phorate	16/Jun/20	0.01 <MDL	ug/L	N
September 21, 2017	Picloram	16/Jun/20	1 <MDL	ug/L	N
September 21, 2017	Polychlorinated Biphenyls (PCBs)	16/Jun/20	0.04 <MDL	ug/L	N
September 21, 2017	Prometryne	16/Jun/20	0.03 <MDL	ug/L	N
September 21, 2017	Simazine	16/Jun/20	0.01 <MDL	ug/L	N
September 21, 2017	Terbufos	16/Jun/20	0.01 <MDL	ug/L	N
September 21, 2017	2,3,4,6-tetrachlorophenol	16/Jun/20	0.2 <MDL	ug/L	N
September 21, 2017	Triallate	16/Jun/20	0.01 <MDL	ug/L	N
September 21, 2017	Trichloroethylene	16/Jun/20	0.44 <MDL	ug/L	N
September 21, 2017	2,4,6-trichlorophenol	16/Jun/20	0.25 <MDL	ug/L	N
September 21, 2017	Trifluralin	16/Jun/20	0.02 <MDL	ug/L	N

September 21, 2017	Total Haloacetic Acids	3/Mar/20	5.30	ug/L	N
September 21, 2017	Dibromoacetic Acid	3/Mar/20	2.00 <MDL	ug/L	N
September 21, 2017	Dichloroacetic Acid	3/Mar/20	5.30	ug/L	N
September 21, 2017	Monobromoacetic acid	3/Mar/20	2.90 <MDL	ug/L	N
September 21, 2017	Monochloroacetic Acid	3/Mar/20	4.70 <MDL	ug/L	N
September 21, 2017	Trichloroacetic Acid	3/Mar/20	5.30 <MDL	ug/L	N
September 21, 2017	Total Haloacetic Acids	16/Jun/20	16.00	ug/L	N
September 21, 2017	Dibromoacetic Acid	16/Jun/20	2.00 <MDL	ug/L	N
September 21, 2017	Dichloroacetic Acid	16/Jun/20	10.20	ug/L	N
September 21, 2017	Monobromoacetic acid	16/Jun/20	2.90 <MDL	ug/L	N
September 21, 2017	Monochloroacetic Acid	16/Jun/20	4.70 <MDL	ug/L	N
September 21, 2017	Trichloroacetic Acid	16/Jun/20	5.80	ug/L	N
September 21, 2017	Total Haloacetic Acids	17/Sep/20	22.00	ug/L	N
September 21, 2017	Dibromoacetic Acid	17/Sep/20	2.00 <MDL	ug/L	N
September 21, 2017	Dichloroacetic Acid	17/Sep/20	15.30	ug/L	N
September 21, 2017	Monobromoacetic acid	17/Sep/20	2.90 <MDL	ug/L	N
September 21, 2017	Monochloroacetic Acid	17/Sep/20	4.70 <MDL	ug/L	N
September 21, 2017	Trichloroacetic Acid	17/Sep/20	6.70	ug/L	N
September 21, 2017	Total Haloacetic Acids	10/Dec/20	13.80	ug/L	N
September 21, 2017	Dibromoacetic Acid	10/Dec/20	2.00 <MDL	ug/L	N
September 21, 2017	Dichloroacetic Acid	10/Dec/20	8.30	ug/L	N
September 21, 2017	Monobromoacetic acid	10/Dec/20	2.90 <MDL	ug/L	N
September 21, 2017	Monochloroacetic Acid	10/Dec/20	4.70 <MDL	ug/L	N
September 21, 2017	Trichloroacetic Acid	10/Dec/20	5.40	ug/L	N
September 21, 2017	Trihalomethanes (total)	3/Mar/20	16.00	ug/L	N
September 21, 2017	Bromodichloromethane	3/Mar/20	5.80	ug/L	N
September 21, 2017	Bromoform	3/Mar/20	0.34 <MDL	ug/L	N
September 21, 2017	Chloroform	3/Mar/20	7.40	ug/L	N
September 21, 2017	Dibromochloromethane	3/Mar/20	3.10	ug/L	N
September 21, 2017	Trihalomethanes (total)	16/Jun/20	25.00	ug/L	N
September 21, 2017	Bromodichloromethane	16/Jun/20	7.90	ug/L	N
September 21, 2017	Bromoform	16/Jun/20	0.34 <MDL	ug/L	N
September 21, 2017	Chloroform	16/Jun/20	14.00	ug/L	N
September 21, 2017	Dibromochloromethane	16/Jun/20	3.10	ug/L	N
September 21, 2017	Trihalomethanes (total)	17/Sep/20	35.00	ug/L	N
September 21, 2017	Bromodichloromethane	17/Sep/20	10.00	ug/L	N
September 21, 2017	Bromoform	17/Sep/20	0.34 <MDL	ug/L	N
September 21, 2017	Chloroform	17/Sep/20	21.00	ug/L	N
September 21, 2017	Dibromochloromethane	17/Sep/20	4.20	ug/L	N
September 21, 2017	Trihalomethanes (total)	10/Dec/20	24.00	ug/L	N
September 21, 2017	Bromodichloromethane	10/Dec/20	7.80	ug/L	N
September 21, 2017	Bromoform	10/Dec/20	0.34 <MDL	ug/L	N
September 21, 2017	Chloroform	10/Dec/20	13.00	ug/L	N
September 21, 2017	Dibromochloromethane	10/Dec/20	3.00	ug/L	N
September 21, 2017	Vinyl Chloride	16/Jun/20	0.17 <MDL	ug/L	N

c) NON-REGULATED INORGANIC/ORGANIC PARAMETERS

Date of Municipal Drinking Water Licence	Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
September 21, 2017	Alkalinity	16/Jun/20	92	mg/L as CaCO3	N
September 21, 2017	Aluminum	16/Jun/20	10	ug/L	N
September 21, 2017	Ammonia+Ammonium (N)	16/Jun/20	0.04 <MDL	mg/L	N
September 21, 2017	Calcium	16/Jun/20	32	mg/L	N
September 21, 2017	Chloride	16/Jun/20	18	mg/L	N
September 21, 2017	Cobalt	16/Jun/20	0.012	ug/L	N
September 21, 2017	Colour	16/Jun/20	3 <MDL	TCU	N
September 21, 2017	Conductivity	16/Jun/20	307	uS/cm	N
September 21, 2017	Copper	16/Jun/20	1.1	ug/L	N
September 21, 2017	Cyanide; total	16/Jun/20	19.1	ug/L	N
September 21, 2017	1,1-Dichloroethylene (vinylidene chloride)	16/Jun/20	0.33 <MDL	ug/L	N
September 21, 2017	Dissolved Organic Carbon	16/Jun/20	2	mg/L	N
September 21, 2017	Ethylbenzene	16/Jun/20	0.33 <MDL	ug/L	N
September 21, 2017	Hardness	16/Jun/20	113	mg/L as CaCO3	N
September 21, 2017	Iron	16/Jun/20	7 <MDL	ug/L	N
September 21, 2017	Magnesium	16/Jun/20	8.05	mg/L	N
September 21, 2017	Manganese	16/Jun/20	0.05	ug/L	N
September 21, 2017	Monochlorobenzene	16/Jun/20	0.3 <MDL	ug/L	N
September 21, 2017	Nickel	16/Jun/20	0.5	ug/L	N
September 21, 2017	Nitrogen-Kjeldahl (N)	16/Jun/20	0.08	mg/L	N
September 21, 2017	Organic Nitrogen	16/Jun/20	0.06	mg/L	N
September 21, 2017	pH	16/Jun/20	7.93	no unit	N
September 21, 2017	pH-Field	16/Jun/20	7.25	no unit	N
September 21, 2017	Phosphorus	16/Jun/20	0.003 <MDL	mg/L	N
September 21, 2017	Potassium	16/Jun/20	1.3	mg/L	N
September 21, 2017	Silicon; reactive silicate	16/Jun/20	0.64	mg/L	N
September 21, 2017	Silver	16/Jun/20	0.05 <MDL	ug/L	N
September 21, 2017	Solids (Total Dissolved)	16/Jun/20	149	mg/L	N
September 21, 2017	Sulphate	16/Jun/20	32	mg/L	N
September 21, 2017	Sulphide	16/Jun/20	6 <MDL	ug/L	N
September 21, 2017	Surr 1,2-Dichloroethane-d4	16/Jun/20	101	Surr Rec %	N
September 21, 2017	Surr 4-Bromofluorobenzene	16/Jun/20	99	Surr Rec %	N
September 21, 2017	Surr Decachlorobiphenyl	16/Jun/20	133	%	N
September 21, 2017	Temperature-Field	16/Jun/20	11.5	celcius	N
September 21, 2017	Tetrachloroethylene (perchloroethylene)	16/Jun/20	0.35 <MDL	ug/L	N
September 21, 2017	Toluene	16/Jun/20	0.36 <MDL	ug/L	N
September 21, 2017	Total Chlorine-Field	16/Jun/20	1.29	mg/L	N
September 21, 2017	2-(2,4,5-Trichlorophenoxy)propanoic acid (2,4,5-TP)	16/Jun/20	0.18 <MDL	ug/L	N
September 21, 2017	Turbidity	16/Jun/20	0.1 <MDL	NTU	N
September 21, 2017	Turbidity-Field	16/Jun/20	0.2	NTU	N
September 21, 2017	Xylene (Total)	16/Jun/20	0.43 <MDL	ug/L	N
September 21, 2017	m/p-Xylene	16/Jun/20	0.43 <MDL	ug/L	N
September 21, 2017	o-xylene	16/Jun/20	0.17 <MDL	ug/L	N
September 21, 2017	Zinc	16/Jun/20	2 <MDL	ug/L	N

Summary of Inorganic/Organic parameters tested during this reporting period.

As outlined below, sampling was carried out for THM's & HAA's at 603 Wonderland Rd. S., 525 Crestwood Dr., 214 Rathowan St., 4318 Colonel Talbot Rd., and 950 East Springbank Gate.

SITE: 603 Wonderland Rd. S. - Treated Distribution

b) ORGANIC PARAMETERS (THM & HAA)

Date of Municipal Drinking Water Licence	Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
September 21, 2017	Total Haloacetic Acids	3/Mar/20	13.1	ug/L	N
September 21, 2017	(Dibromoacetic Acid)	3/Mar/20	2 <MDL	ug/L	N
September 21, 2017	(Dichloroacetic Acid)	3/Mar/20	7	ug/L	N
September 21, 2017	(Monobromoacetic acid)	3/Mar/20	2.9 <MDL	ug/L	N
September 21, 2017	(Monochloroacetic Acid)	3/Mar/20	4.7 <MDL	ug/L	N
September 21, 2017	(Trichloroacetic Acid)	3/Mar/20	6.1	ug/L	N
September 21, 2017	Total Haloacetic Acids	16/Jun/20	8.5	ug/L	N
September 21, 2017	(Dibromoacetic Acid)	16/Jun/20	2 <MDL	ug/L	N
September 21, 2017	(Dichloroacetic Acid)	16/Jun/20	8.5	ug/L	N
September 21, 2017	(Monobromoacetic acid)	16/Jun/20	2.9 <MDL	ug/L	N
September 21, 2017	(Monochloroacetic Acid)	16/Jun/20	4.7 <MDL	ug/L	N
September 21, 2017	(Trichloroacetic Acid)	16/Jun/20	5.3 <MDL	ug/L	N
September 21, 2017	Total Haloacetic Acids	17/Sep/20	11.4	ug/L	N
September 21, 2017	(Dibromoacetic Acid)	17/Sep/20	2 <MDL	ug/L	N
September 21, 2017	(Dichloroacetic Acid)	17/Sep/20	5.4	ug/L	N
September 21, 2017	(Monobromoacetic acid)	17/Sep/20	2.9 <MDL	ug/L	N
September 21, 2017	(Monochloroacetic Acid)	17/Sep/20	4.7 <MDL	ug/L	N
September 21, 2017	(Trichloroacetic Acid)	17/Sep/20	6.1	ug/L	N
September 21, 2017	Total Haloacetic Acids	10/Dec/20	13.2	ug/L	N
September 21, 2017	(Dibromoacetic Acid)	10/Dec/20	2 <MDL	ug/L	N
September 21, 2017	(Dichloroacetic Acid)	10/Dec/20	7.4	ug/L	N
September 21, 2017	(Monobromoacetic acid)	10/Dec/20	2.9 <MDL	ug/L	N
September 21, 2017	(Monochloroacetic Acid)	10/Dec/20	4.7 <MDL	ug/L	N
September 21, 2017	(Trichloroacetic Acid)	10/Dec/20	5.8	ug/L	N

SITE: 525 Crestwood Dr. - Treated Distribution

b) ORGANIC PARAMETERS (THM & HAA)

Date of Municipal Drinking Water Licence	Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
September 21, 2017	Total Haloacetic Acids	3/Mar/20	11.5	ug/L	N
September 21, 2017	(Dibromoacetic Acid)	3/Mar/20	2 <MDL	ug/L	N
September 21, 2017	(Dichloroacetic Acid)	3/Mar/20	6.2	ug/L	N
September 21, 2017	(Monobromoacetic acid)	3/Mar/20	2.9 <MDL	ug/L	N

September 21, 2017	(Monochloroacetic Acid)	3/Mar/20	4.7 <MDL	ug/L	N
September 21, 2017	(Trichloroacetic Acid)	3/Mar/20	5.3	ug/L	N
September 21, 2017	Total Haloacetic Acids	16/Jun/20	16.5	ug/L	N
September 21, 2017	(Dibromoacetic Acid)	16/Jun/20	2 <MDL	ug/L	N
September 21, 2017	(Dichloroacetic Acid)	16/Jun/20	11	ug/L	N
September 21, 2017	(Monobromoacetic acid)	16/Jun/20	2.9 <MDL	ug/L	N
September 21, 2017	(Monochloroacetic Acid)	16/Jun/20	4.7 <MDL	ug/L	N
September 21, 2017	(Trichloroacetic Acid)	16/Jun/20	5.5	ug/L	N
September 21, 2017	Total Haloacetic Acids	17/Sep/20	10.6	ug/L	N
September 21, 2017	(Dibromoacetic Acid)	17/Sep/20	2 <MDL	ug/L	N
September 21, 2017	(Dichloroacetic Acid)	17/Sep/20	4.7	ug/L	N
September 21, 2017	(Monobromoacetic acid)	17/Sep/20	2.9 <MDL	ug/L	N
September 21, 2017	(Monochloroacetic Acid)	17/Sep/20	4.7 <MDL	ug/L	N
September 21, 2017	(Trichloroacetic Acid)	17/Sep/20	5.9	ug/L	N
September 21, 2017	Total Haloacetic Acids	10/Dec/20	5.6	ug/L	N
September 21, 2017	(Dibromoacetic Acid)	10/Dec/20	2 <MDL	ug/L	N
September 21, 2017	(Dichloroacetic Acid)	10/Dec/20	5.6	ug/L	N
September 21, 2017	(Monobromoacetic acid)	10/Dec/20	2.9 <MDL	ug/L	N
September 21, 2017	(Monochloroacetic Acid)	10/Dec/20	4.7 <MDL	ug/L	N
September 21, 2017	(Trichloroacetic Acid)	10/Dec/20	5.3 <MDL	ug/L	N

SITE: Fire Hydrant at 214 Rathowan St. - Treated Distribution

b) ORGANIC PARAMETERS (THM & HAA)

Date of Municipal Drinking Water Licence	Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
September 21, 2017	Total Haloacetic Acids	3/Mar/20	11.4	ug/L	N
September 21, 2017	(Dibromoacetic Acid)	3/Mar/20	2 <MDL	ug/L	N
September 21, 2017	(Dichloroacetic Acid)	3/Mar/20	6	ug/L	N
September 21, 2017	(Monobromoacetic acid)	3/Mar/20	2.9 <MDL	ug/L	N
September 21, 2017	(Monochloroacetic Acid)	3/Mar/20	4.7 <MDL	ug/L	N
September 21, 2017	(Trichloroacetic Acid)	3/Mar/20	5.4	ug/L	N
September 21, 2017	Total Haloacetic Acids	16/Jun/20	8	ug/L	N
September 21, 2017	(Dibromoacetic Acid)	16/Jun/20	2 <MDL	ug/L	N
September 21, 2017	(Dichloroacetic Acid)	16/Jun/20	8	ug/L	N
September 21, 2017	(Monobromoacetic acid)	16/Jun/20	2.9 <MDL	ug/L	N
September 21, 2017	(Monochloroacetic Acid)	16/Jun/20	4.7 <MDL	ug/L	N
September 21, 2017	(Trichloroacetic Acid)	16/Jun/20	5.3 <MDL	ug/L	N
September 21, 2017	Total Haloacetic Acids	17/Sep/20	5.3 <MDL	ug/L	N
September 21, 2017	(Dibromoacetic Acid)	17/Sep/20	2 <MDL	ug/L	N
September 21, 2017	(Dichloroacetic Acid)	17/Sep/20	3.6	ug/L	N
September 21, 2017	(Monobromoacetic acid)	17/Sep/20	2.9 <MDL	ug/L	N
September 21, 2017	(Monochloroacetic Acid)	17/Sep/20	4.7 <MDL	ug/L	N
September 21, 2017	(Trichloroacetic Acid)	17/Sep/20	5.3 <MDL	ug/L	N
September 21, 2017	Total Haloacetic Acids	10/Dec/20	5.4	ug/L	N

September 21, 2017	(Dibromoacetic Acid)	10/Dec/20	2 <MDL	ug/L	N
September 21, 2017	(Dichloroacetic Acid)	10/Dec/20	5.4	ug/L	N
September 21, 2017	(Monobromoacetic acid)	10/Dec/20	2.9 <MDL	ug/L	N
September 21, 2017	(Monochloroacetic Acid)	10/Dec/20	4.7 <MDL	ug/L	N
September 21, 2017	(Trichloroacetic Acid)	10/Dec/20	5.3 <MDL	ug/L	N
September 21, 2017	Trihalomethanes (total)	3/Mar/20	19	ug/L	N
September 21, 2017	(bromodichloromethane)	3/Mar/20	6.3	ug/L	N
September 21, 2017	(bromoform)	3/Mar/20	0.34 <MDL	ug/L	N
September 21, 2017	(chloroform)	3/Mar/20	10	ug/L	N
September 21, 2017	(dibromochloromethane)	3/Mar/20	2.2	ug/L	N
September 21, 2017	Trihalomethanes (total)	16/Jun/20	30	ug/L	N
September 21, 2017	(bromodichloromethane)	16/Jun/20	8	ug/L	N
September 21, 2017	(bromoform)	16/Jun/20	0.34 <MDL	ug/L	N
September 21, 2017	(chloroform)	16/Jun/20	19	ug/L	N
September 21, 2017	(dibromochloromethane)	16/Jun/20	3.8	ug/L	N
September 21, 2017	Surr 1,2-Dichloroethane-d4	16/Jun/20	99	Surr Rec %	N
September 21, 2017	Surr 4-Bromofluorobenzene	16/Jun/20	94	Surr Rec %	N
September 21, 2017	Trihalomethanes (total)	17/Sep/20	39	ug/L	N
September 21, 2017	(bromodichloromethane)	17/Sep/20	10	ug/L	N
September 21, 2017	(bromoform)	17/Sep/20	0.37	ug/L	N
September 21, 2017	(chloroform)	17/Sep/20	24	ug/L	N
September 21, 2017	(dibromochloromethane)	17/Sep/20	4.5	ug/L	N
September 21, 2017	Trihalomethanes (total)	10/Dec/20	20	ug/L	N
September 21, 2017	(bromodichloromethane)	10/Dec/20	6.5	ug/L	N
September 21, 2017	(bromoform)	10/Dec/20	0.34 <MDL	ug/L	N
September 21, 2017	(chloroform)	10/Dec/20	11	ug/L	N
September 21, 2017	(dibromochloromethane)	10/Dec/20	2.5	ug/L	N

SITE: 4318 Colonel Talbot Rd. - Treated Distribution
b) ORGANIC PARAMETERS (THM & HAA)

Date of Municipal Drinking Water Licence	Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
September 21, 2017	Total Haloacetic Acids	3/Mar/20	6.7	ug/L	N
September 21, 2017	(Dibromoacetic Acid)	3/Mar/20	2 <MDL	ug/L	N
September 21, 2017	(Dichloroacetic Acid)	3/Mar/20	6.7	ug/L	N
September 21, 2017	(Monobromoacetic acid)	3/Mar/20	2.9 <MDL	ug/L	N
September 21, 2017	(Monochloroacetic Acid)	3/Mar/20	4.7 <MDL	ug/L	N
September 21, 2017	(Trichloroacetic Acid)	3/Mar/20	5.3 <MDL	ug/L	N
September 21, 2017	Total Haloacetic Acids	16/Jun/20	18.3	ug/L	N
September 21, 2017	(Dibromoacetic Acid)	16/Jun/20	2 <MDL	ug/L	N
September 21, 2017	(Dichloroacetic Acid)	16/Jun/20	11.9	ug/L	N
September 21, 2017	(Monobromoacetic acid)	16/Jun/20	2.9 <MDL	ug/L	N
September 21, 2017	(Monochloroacetic Acid)	16/Jun/20	4.7 <MDL	ug/L	N
September 21, 2017	(Trichloroacetic Acid)	16/Jun/20	6.5	ug/L	N
September 21, 2017	Total Haloacetic Acids	17/Sep/20	26	ug/L	N
September 21, 2017	(Dibromoacetic Acid)	17/Sep/20	2 <MDL	ug/L	N

September 21, 2017	(Dichloroacetic Acid)	17/Sep/20	17.9	ug/L	N
September 21, 2017	(Monobromoacetic acid)	17/Sep/20	2.9 <MDL	ug/L	N
September 21, 2017	(Monochloroacetic Acid)	17/Sep/20	4.7 <MDL	ug/L	N
September 21, 2017	(Trichloroacetic Acid)	17/Sep/20	8.1	ug/L	N
September 21, 2017	Total Haloacetic Acids	10/Dec/20	18.2	ug/L	N
September 21, 2017	(Dibromoacetic Acid)	10/Dec/20	2 <MDL	ug/L	N
September 21, 2017	(Dichloroacetic Acid)	10/Dec/20	11.4	ug/L	N
September 21, 2017	(Monobromoacetic acid)	10/Dec/20	2.9 <MDL	ug/L	N
September 21, 2017	(Monochloroacetic Acid)	10/Dec/20	4.7 <MDL	ug/L	N
September 21, 2017	(Trichloroacetic Acid)	10/Dec/20	6.9	ug/L	N
September 21, 2017	Trihalomethanes (total)	3/Mar/20	19	ug/L	N
September 21, 2017	(bromodichloromethane)	3/Mar/20	6.6	ug/L	N
September 21, 2017	(bromoform)	3/Mar/20	0.34 <MDL	ug/L	N
September 21, 2017	(chloroform)	3/Mar/20	9.1	ug/L	N
September 21, 2017	(dibromochloromethane)	3/Mar/20	3.7	ug/L	N
September 21, 2017	Trihalomethanes (total)	16/Jun/20	35	ug/L	N
September 21, 2017	(bromodichloromethane)	16/Jun/20	9.1	ug/L	N
September 21, 2017	(bromoform)	16/Jun/20	0.34 <MDL	ug/L	N
September 21, 2017	(chloroform)	16/Jun/20	22	ug/L	N
September 21, 2017	(dibromochloromethane)	16/Jun/20	3.6	ug/L	N
September 21, 2017	Surr 1,2-Dichloroethane-d4	16/Jun/20	101	Surr Rec %	N
September 21, 2017	Surr 4-Bromofluorobenzene	16/Jun/20	97	Surr Rec %	N
September 21, 2017	Trihalomethanes (total)	17/Sep/20	43	ug/L	N
September 21, 2017	(bromodichloromethane)	17/Sep/20	11	ug/L	N
September 21, 2017	(bromoform)	17/Sep/20	0.34 <MDL	ug/L	N
September 21, 2017	(chloroform)	17/Sep/20	28	ug/L	N
September 21, 2017	(dibromochloromethane)	17/Sep/20	4.3	ug/L	N
September 21, 2017	Trihalomethanes (total)	10/Dec/20	30	ug/L	N
September 21, 2017	(bromodichloromethane)	10/Dec/20	8.8	ug/L	N
September 21, 2017	(bromoform)	10/Dec/20	0.34 <MDL	ug/L	N
September 21, 2017	(chloroform)	10/Dec/20	18	ug/L	N
September 21, 2017	(dibromochloromethane)	10/Dec/20	3.2	ug/L	N

SITE: 950 East Springbank Gate - Treated Distribution
b) ORGANIC PARAMETERS (THM & HAA)

Date of Municipal Drinking Water Licence	Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
September 21, 2017	Total Haloacetic Acids	3/Mar/20	11.8	ug/L	ug/L
September 21, 2017	(Dibromoacetic Acid)	3/Mar/20	2 <MDL	ug/L	ug/L
September 21, 2017	(Dichloroacetic Acid)	3/Mar/20	6.4	ug/L	ug/L
September 21, 2017	(Monobromoacetic acid)	3/Mar/20	2.9 <MDL	ug/L	ug/L
September 21, 2017	(Monochloroacetic Acid)	3/Mar/20	4.7 <MDL	ug/L	ug/L
September 21, 2017	(Trichloroacetic Acid)	3/Mar/20	5.4	ug/L	ug/L
September 21, 2017	Total Haloacetic Acids	17/Jun/20	9.2	ug/L	ug/L
September 21, 2017	(Dibromoacetic Acid)	17/Jun/20	2 <MDL	ug/L	ug/L

September 21, 2017	(Dichloroacetic Acid)	17/Jun/20	9.2	ug/L	ug/L
September 21, 2017	(Monobromoacetic acid)	17/Jun/20	2.9 <MDL	ug/L	ug/L
September 21, 2017	(Monochloroacetic Acid)	17/Jun/20	4.7 <MDL	ug/L	ug/L
September 21, 2017	(Trichloroacetic Acid)	17/Jun/20	5.3 <MDL	ug/L	ug/L
September 21, 2017	Total Haloacetic Acids	17/Sep/20	10.3	ug/L	ug/L
September 21, 2017	(Dibromoacetic Acid)	17/Sep/20	2 <MDL	ug/L	ug/L
September 21, 2017	(Dichloroacetic Acid)	17/Sep/20	10.3	ug/L	ug/L
September 21, 2017	(Monobromoacetic acid)	17/Sep/20	2.9 <MDL	ug/L	ug/L
September 21, 2017	(Monochloroacetic Acid)	17/Sep/20	4.7 <MDL	ug/L	ug/L
September 21, 2017	(Trichloroacetic Acid)	17/Sep/20	5.3 <MDL	ug/L	ug/L
September 21, 2017	Total Haloacetic Acids	10/Dec/20	16.9	ug/L	ug/L
September 21, 2017	(Dibromoacetic Acid)	10/Dec/20	2 <MDL	ug/L	ug/L
September 21, 2017	(Dichloroacetic Acid)	10/Dec/20	10.7	ug/L	ug/L
September 21, 2017	(Monobromoacetic acid)	10/Dec/20	2.9 <MDL	ug/L	ug/L
September 21, 2017	(Monochloroacetic Acid)	10/Dec/20	4.7 <MDL	ug/L	ug/L
September 21, 2017	(Trichloroacetic Acid)	10/Dec/20	6.2	ug/L	ug/L

List any Inorganic or Organic parameter(s) that exceeded half the standard prescribed in Schedule 2 of Ontario Drinking Water Quality Standards.

None.

2020 Summary of Water Pumpage

DAY	DATE	SERPS PUMPAGE (m^3)	ARVA PUMPAGE (m^3)	TOTAL LONDON CONSUMPTION (m^3)
Wednesday	1/Jan/20	21,550	85,535	105,732
Thursday	2/Jan/20	21,443	85,224	113,319
Friday	3/Jan/20	22,378	98,005	113,619
Saturday	4/Jan/20	24,036	97,775	116,061
Sunday	5/Jan/20	24,674	100,296	121,588
Monday	6/Jan/20	24,016	100,944	121,352
Tuesday	7/Jan/20	23,938	100,240	124,742
Wednesday	8/Jan/20	24,081	101,384	128,622
Thursday	9/Jan/20	23,810	109,864	126,346
Friday	10/Jan/20	24,041	100,744	120,501
Saturday	11/Jan/20	23,946	91,568	120,813
Sunday	12/Jan/20	***25,619***	92,854	122,644
Monday	13/Jan/20	23,111	97,312	120,198
Tuesday	14/Jan/20	23,219	96,803	120,586
Wednesday	15/Jan/20	23,059	97,978	122,164
Thursday	16/Jan/20	23,192	98,343	121,084
Friday	17/Jan/20	23,278	96,433	123,431
Saturday	18/Jan/20	22,505	97,606	119,435
Sunday	19/Jan/20	22,274	98,006	124,677
Monday	20/Jan/20	23,827	104,344	127,720
Tuesday	21/Jan/20	22,920	100,472	***129,255***
Wednesday	22/Jan/20	22,484	***117,984***	126,714
Thursday	23/Jan/20	22,115	114,576	124,966
Friday	24/Jan/20	22,384	104,376	122,814
Saturday	25/Jan/20	22,272	89,328	121,859
Sunday	26/Jan/20	23,218	96,048	124,565
Monday	27/Jan/20	24,304	97,649	120,826
Tuesday	28/Jan/20	23,185	96,203	120,854
Wednesday	29/Jan/20	24,431	101,369	123,094
Thursday	30/Jan/20	23,234	102,422	124,416
Friday	31/Jan/20	23,065	86,901	122,029
January 2020 Monthly Max		25,619	117,984	129,255
January 2020 Monthly Average		23,335	99,102	122,343
January 2020 Total		700,059	2,973,051	3,670,291

DAY	DATE	SERPS PUMPAGE (m^3)	ARVA PUMPAGE (m^3)	TOTAL LONDON CONSUMPTION (m^3)
Saturday	1/Feb/20	23,211	96,986	120,535
Sunday	2/Feb/20	23,138	102,653	121,507
Monday	3/Feb/20	23,375	105,072	123,712
Tuesday	4/Feb/20	22,811	100,528	122,775
Wednesday	5/Feb/20	23,136	100,160	124,085
Thursday	6/Feb/20	23,206	91,024	121,445
Friday	7/Feb/20	14,101	106,164	120,716
Saturday	8/Feb/20	17,161	106,255	122,401
Sunday	9/Feb/20	22,292	***106,907***	124,464
Monday	10/Feb/20	23,179	104,048	124,183
Tuesday	11/Feb/20	23,089	104,792	124,837
Wednesday	12/Feb/20	22,994	100,160	125,183
Thursday	13/Feb/20	22,630	100,088	124,635
Friday	14/Feb/20	23,035	98,137	120,157
Saturday	15/Feb/20	22,936	100,712	120,491
Sunday	16/Feb/20	22,848	95,424	116,355
Monday	17/Feb/20	22,909	87,991	119,356
Tuesday	18/Feb/20	23,022	97,249	117,227
Wednesday	19/Feb/20	21,336	97,648	120,450
Thursday	20/Feb/20	23,059	95,995	119,618
Friday	21/Feb/20	22,978	96,452	120,896
Saturday	22/Feb/20	22,931	97,153	119,633
Sunday	23/Feb/20	22,896	97,262	124,329
Monday	24/Feb/20	20,624	104,200	123,584
Tuesday	25/Feb/20	23,108	104,624	122,884
Wednesday	26/Feb/20	***23,940***	99,776	121,799
Thursday	27/Feb/20	22,103	100,392	124,975
Friday	28/Feb/20	22,913	99,368	125,325
Saturday	29/Feb/20	19,618	95,908	***125,560***
February 2020 Monthly Max		23,940	106,907	125,560
February 2020 Monthly Max		22,227	99,763	122,177
February 2020 Total		644,579	2,893,128	3,543,119

DAY	DATE	SERPS PUMPAGE (m^3)	ARVA PUMPAGE (m^3)	TOTAL LONDON CONSUMPTION (m^3)
Sunday	1/Mar/20	22,878	***112,639***	***128,414***
Monday	2/Mar/20	24,620	98,220	120,923
Tuesday	3/Mar/20	25,344	100,801	121,072
Wednesday	4/Mar/20	23,885	101,764	124,071
Thursday	5/Mar/20	22,098	106,751	123,325
Friday	6/Mar/20	20,389	97,102	122,001
Saturday	7/Mar/20	20,570	106,811	123,886
Sunday	8/Mar/20	20,049	95,634	122,560
Monday	9/Mar/20	20,534	108,728	122,723
Tuesday	10/Mar/20	24,580	99,713	121,700
Wednesday	11/Mar/20	***29,569***	83,824	123,765
Thursday	12/Mar/20	14,870	109,000	121,390
Friday	13/Mar/20	14,202	104,488	120,945
Saturday	14/Mar/20	18,304	104,928	124,134
Sunday	15/Mar/20	18,212	102,241	123,046
Monday	16/Mar/20	18,200	105,249	120,180
Tuesday	17/Mar/20	23,570	102,511	119,204
Wednesday	18/Mar/20	27,740	87,258	117,366
Thursday	19/Mar/20	28,109	82,369	115,664
Friday	20/Mar/20	25,573	82,215	115,454
Saturday	21/Mar/20	24,921	91,879	118,491
Sunday	22/Mar/20	24,696	100,512	119,796
Monday	23/Mar/20	24,872	95,872	116,234
Tuesday	24/Mar/20	24,761	91,464	117,578
Wednesday	25/Mar/20	24,853	91,816	118,924
Thursday	26/Mar/20	25,541	91,744	117,623
Friday	27/Mar/20	25,264	90,688	117,530
Saturday	28/Mar/20	24,708	88,890	113,260
Sunday	29/Mar/20	24,426	88,468	114,021
Monday	30/Mar/20	25,379	92,451	115,575
Tuesday	31/Mar/20	25,405	92,528	115,002
March 2020 Monthly Max		29,569	112,639	128,414
March 2020 Monthly Average		23,165	97,050	119,866
March 2020 Total		718,122	3,008,558	3,715,857

DAY	DATE	SERPS PUMPAGE (m^3)	ARVA PUMPAGE (m^3)	TOTAL LONDON CONSUMPTION (m^3)
Wednesday	1/Apr/20	24,410	92,838	113,753
Thursday	2/Apr/20	24,389	92,418	118,047
Friday	3/Apr/20	23,853	93,075	116,928
Saturday	4/Apr/20	23,936	91,712	116,212
Sunday	5/Apr/20	23,100	94,273	115,456
Monday	6/Apr/20	23,084	96,416	118,034
Tuesday	7/Apr/20	23,875	91,920	116,359
Wednesday	8/Apr/20	22,831	***99,905***	116,730
Thursday	9/Apr/20	23,632	99,208	114,001
Friday	10/Apr/20	21,743	87,032	111,741
Saturday	11/Apr/20	23,024	86,456	112,381
Sunday	12/Apr/20	23,062	87,080	110,833
Monday	13/Apr/20	23,067	86,952	113,431
Tuesday	14/Apr/20	***26,377***	86,872	119,247
Wednesday	15/Apr/20	21,100	91,312	113,611
Thursday	16/Apr/20	23,211	96,423	117,165
Friday	17/Apr/20	23,182	96,009	117,749
Saturday	18/Apr/20	23,110	95,376	116,291
Sunday	19/Apr/20	23,167	90,968	113,923
Monday	20/Apr/20	23,136	93,400	118,191
Tuesday	21/Apr/20	23,263	92,491	115,064
Wednesday	22/Apr/20	23,150	97,448	116,848
Thursday	23/Apr/20	24,058	98,021	113,967
Friday	24/Apr/20	23,896	95,497	117,298
Saturday	25/Apr/20	23,996	90,928	118,453
Sunday	26/Apr/20	23,959	91,496	114,359
Monday	27/Apr/20	24,836	92,032	118,609
Tuesday	28/Apr/20	24,852	91,984	***119,737***
Wednesday	29/Apr/20	23,938	92,651	114,268
Thursday	30/Apr/20	23,093	93,069	115,259
April 2020 Monthly Max		26,377	99,905	119,737
April 2020 Monthly Average		23,544	92,842	115,798
April 2020 Total		706,330	2,785,262	3,473,945

DAY	DATE	SERPS PUMPAGE (m^3)	ARVA PUMPAGE (m^3)	TOTAL LONDON CONSUMPTION (m^3)
Friday	1/May/20	23,170	94,678	116,430
Saturday	2/May/20	23,157	87,875	117,877
Sunday	3/May/20	23,121	92,281	121,924
Monday	4/May/20	23,200	99,399	118,962
Tuesday	5/May/20	23,053	100,368	122,330
Wednesday	6/May/20	23,355	100,440	124,485
Thursday	7/May/20	24,015	100,296	123,621
Friday	8/May/20	24,001	100,448	120,339
Saturday	9/May/20	23,937	99,904	116,991
Sunday	10/May/20	23,968	100,136	114,994
Monday	11/May/20	22,155	88,053	118,040
Tuesday	12/May/20	22,272	92,748	122,568
Wednesday	13/May/20	22,868	101,326	123,904
Thursday	14/May/20	23,243	101,901	118,761
Friday	15/May/20	23,085	92,711	121,373
Saturday	16/May/20	24,888	97,972	124,939
Sunday	17/May/20	24,687	102,442	113,685
Monday	18/May/20	24,830	87,632	112,933
Tuesday	19/May/20	24,688	100,152	126,186
Wednesday	20/May/20	24,701	108,792	132,618
Thursday	21/May/20	24,730	100,632	137,929
Friday	22/May/20	23,763	117,960	133,061
Saturday	23/May/20	23,939	105,112	134,280
Sunday	24/May/20	24,043	109,336	141,320
Monday	25/May/20	24,046	111,312	152,238
Tuesday	26/May/20	***26,564***	131,389	***157,210***
Wednesday	27/May/20	25,240	***144,430***	151,978
Thursday	28/May/20	23,566	121,043	132,882
Friday	29/May/20	22,432	110,639	128,695
Saturday	30/May/20	22,407	103,929	123,823
Sunday	31/May/20	23,093	103,938	126,918
May 2020 Monthly Max		26,564	144,430	157,210
May 2020 Monthly Average		23,749	103,525	126,880
May 2020 Total		736,217	3,209,274	3,933,293

DAY	DATE	SERPS PUMPAGE (m^3)	ARVA PUMPAGE (m^3)	TOTAL LONDON CONSUMPTION (m^3)
Monday	1/Jun/20	23,054	104,713	136,984
Tuesday	2/Jun/20	23,105	111,776	137,557
Wednesday	3/Jun/20	23,169	115,200	142,543
Thursday	4/Jun/20	23,029	127,472	149,228
Friday	5/Jun/20	23,198	127,072	147,949
Saturday	6/Jun/20	23,922	123,136	147,396
Sunday	7/Jun/20	24,020	131,680	147,557
Monday	8/Jun/20	23,617	136,080	155,500
Tuesday	9/Jun/20	23,011	146,312	163,056
Wednesday	10/Jun/20	22,881	107,361	136,151
Thursday	11/Jun/20	22,850	111,780	134,292
Friday	12/Jun/20	23,217	107,535	133,490
Saturday	13/Jun/20	22,348	113,640	136,863
Sunday	14/Jun/20	22,299	120,392	142,983
Monday	15/Jun/20	22,350	132,037	154,228
Tuesday	16/Jun/20	19,712	139,017	160,526
Wednesday	17/Jun/20	23,216	147,249	166,089
Thursday	18/Jun/20	***25,785***	147,459	171,019
Friday	19/Jun/20	22,465	142,368	150,354
Saturday	20/Jun/20	22,388	107,409	153,615
Sunday	21/Jun/20	22,373	140,160	146,671
Monday	22/Jun/20	22,238	110,992	149,559
Tuesday	23/Jun/20	22,239	118,240	140,946
Wednesday	24/Jun/20	22,514	117,034	145,753
Thursday	25/Jun/20	22,431	134,973	156,598
Friday	26/Jun/20	22,300	141,698	158,308
Saturday	27/Jun/20	20,526	134,149	141,464
Sunday	28/Jun/20	22,227	130,829	154,816
Monday	29/Jun/20	22,150	119,627	167,470
Tuesday	30/Jun/20	23,978	***150,548***	***171,353***
June 2020 Monthly Max		25,785	150,548	171,353
June 2020 Monthly Average		22,754	126,598	150,011
June 2020 Total		682,612	3,797,938	4,500,320

DAY	DATE	SERPS PUMPAGE (m^3)	ARVA PUMPAGE (m^3)	TOTAL LONDON CONSUMPTION (m^3)
Wednesday	1/Jul/20	23,819	158,512	172,020
Thursday	2/Jul/20	26,953	133,874	178,687
Friday	3/Jul/20	***30,298***	152,064	182,188
Saturday	4/Jul/20	20,627	161,008	180,139
Sunday	5/Jul/20	23,505	160,560	186,441
Monday	6/Jul/20	23,435	169,166	***194,876***
Tuesday	7/Jul/20	22,285	170,475	191,879
Wednesday	8/Jul/20	22,462	***173,138***	178,443
Thursday	9/Jul/20	24,374	147,320	178,976
Friday	10/Jul/20	23,683	139,471	163,204
Saturday	11/Jul/20	23,649	133,378	136,330
Sunday	12/Jul/20	22,771	124,999	142,783
Monday	13/Jul/20	22,570	133,238	153,867
Tuesday	14/Jul/20	20,700	130,161	164,050
Wednesday	15/Jul/20	27,002	146,784	169,569
Thursday	16/Jul/20	21,617	131,744	147,616
Friday	17/Jul/20	21,344	142,208	159,106
Saturday	18/Jul/20	23,220	143,232	164,208
Sunday	19/Jul/20	20,772	123,216	143,710
Monday	20/Jul/20	25,527	123,888	152,636
Tuesday	21/Jul/20	23,176	113,616	153,817
Wednesday	22/Jul/20	25,375	118,720	147,979
Thursday	23/Jul/20	23,056	127,888	147,753
Friday	24/Jul/20	19,060	136,384	156,089
Saturday	25/Jul/20	22,339	144,800	158,042
Sunday	26/Jul/20	22,270	145,488	163,006
Monday	27/Jul/20	22,764	127,840	157,690
Tuesday	28/Jul/20	22,412	143,728	157,587
Wednesday	29/Jul/20	22,204	123,744	157,710
Thursday	30/Jul/20	23,093	131,168	164,085
Friday	31/Jul/20	23,049	139,616	160,682
July 2020 Monthly Max		30,298	173,138	194,876
July 2020 Monthly Average		23,207	140,369	163,393
July 2020 Total		719,411	4,351,428	5,065,169

DAY	DATE	SERPS PUMPAGE (m^3)	ARVA PUMPAGE (m^3)	TOTAL LONDON CONSUMPTION (m^3)
Saturday	1/Aug/20	23,057	131,264	144,597
Sunday	2/Aug/20	22,991	114,608	124,718
Monday	3/Aug/20	24,006	95,649	126,403
Tuesday	4/Aug/20	23,958	104,206	132,971
Wednesday	5/Aug/20	23,907	116,898	136,653
Thursday	6/Aug/20	23,892	116,697	144,450
Friday	7/Aug/20	23,904	129,528	149,346
Saturday	8/Aug/20	23,964	128,258	147,528
Sunday	9/Aug/20	23,807	108,445	135,231
Monday	10/Aug/20	22,691	112,645	145,580
Tuesday	11/Aug/20	23,635	131,504	147,892
Wednesday	12/Aug/20	24,699	126,976	154,771
Thursday	13/Aug/20	23,245	138,784	***158,754***
Friday	14/Aug/20	23,432	139,056	157,504
Saturday	15/Aug/20	23,283	134,672	150,717
Sunday	16/Aug/20	23,508	106,752	135,196
Monday	17/Aug/20	23,666	115,536	142,565
Tuesday	18/Aug/20	23,574	123,378	145,778
Wednesday	19/Aug/20	24,661	121,033	147,274
Thursday	20/Aug/20	25,633	121,388	152,242
Friday	21/Aug/20	25,578	130,468	157,326
Saturday	22/Aug/20	25,683	130,056	155,156
Sunday	23/Aug/20	25,599	129,893	153,967
Monday	24/Aug/20	***25,867***	125,912	153,125
Tuesday	25/Aug/20	21,034	***140,128***	155,536
Wednesday	26/Aug/20	22,973	113,744	142,051
Thursday	27/Aug/20	23,949	126,768	144,977
Friday	28/Aug/20	22,998	104,528	132,504
Saturday	29/Aug/20	23,054	99,344	130,045
Sunday	30/Aug/20	23,153	104,480	134,773
Monday	31/Aug/20	23,029	113,360	141,535
August 2020 Monthly Max		25,867	140,128	158,754
August 2020 Monthly Average		23,820	120,515	144,554
August 2020 Total		738,430	3,735,958	4,481,162

DAY	DATE	SERPS PUMPAGE (m^3)	ARVA PUMPAGE (m^3)	TOTAL LONDON CONSUMPTION (m^3)
Tuesday	1/Sep/20	22,823	123,229	***145,989***
Wednesday	2/Sep/20	22,765	123,382	137,003
Thursday	3/Sep/20	22,979	122,630	141,435
Friday	4/Sep/20	22,839	122,350	138,704
Saturday	5/Sep/20	22,921	119,096	128,674
Sunday	6/Sep/20	22,878	93,119	124,002
Monday	7/Sep/20	23,101	99,284	129,002
Tuesday	8/Sep/20	23,118	103,630	129,553
Wednesday	9/Sep/20	24,203	107,941	133,311
Thursday	10/Sep/20	22,833	112,386	134,927
Friday	11/Sep/20	21,832	120,315	137,771
Saturday	12/Sep/20	22,794	119,901	136,075
Sunday	13/Sep/20	22,799	116,350	135,922
Monday	14/Sep/20	27,755	99,553	138,117
Tuesday	15/Sep/20	***36,156***	67,373	138,499
Wednesday	16/Sep/20	24,553	114,609	138,179
Thursday	17/Sep/20	23,571	***127,107***	139,561
Friday	18/Sep/20	21,284	126,311	137,788
Saturday	19/Sep/20	20,555	123,178	132,739
Sunday	20/Sep/20	20,612	114,750	136,821
Monday	21/Sep/20	22,959	114,836	140,368
Tuesday	22/Sep/20	21,899	121,605	140,706
Wednesday	23/Sep/20	21,934	121,544	143,591
Thursday	24/Sep/20	22,020	121,090	144,456
Friday	25/Sep/20	22,936	126,196	144,285
Saturday	26/Sep/20	22,176	124,447	140,594
Sunday	27/Sep/20	23,463	125,667	140,652
Monday	28/Sep/20	22,409	111,827	136,531
Tuesday	29/Sep/20	22,058	106,915	129,740
Wednesday	30/Sep/20	23,014	95,254	125,196
September 2020 Monthly Max		36,156	127,107	145,989
September 2020 Monthly Average		23,241	114,196	136,673
September 2020 Total		697,239	3,425,875	4,100,191

DAY	DATE	SERPS PUMPAGE (m^3)	ARVA PUMPAGE (m^3)	TOTAL LONDON CONSUMPTION (m^3)
Thursday	1/Oct/20	23,062	94,446	126,615
Friday	2/Oct/20	22,952	97,841	124,564
Saturday	3/Oct/20	25,191	97,371	124,996
Sunday	4/Oct/20	24,312	106,374	125,464
Monday	5/Oct/20	23,941	106,540	126,405
Tuesday	6/Oct/20	23,956	111,420	128,663
Wednesday	7/Oct/20	24,818	112,228	***129,463***
Thursday	8/Oct/20	24,251	103,266	129,458
Friday	9/Oct/20	24,131	103,559	127,284
Saturday	10/Oct/20	24,199	98,463	123,113
Sunday	11/Oct/20	24,142	91,358	117,260
Monday	12/Oct/20	24,142	94,515	122,539
Tuesday	13/Oct/20	24,029	91,424	127,068
Wednesday	14/Oct/20	24,193	101,184	128,568
Thursday	15/Oct/20	24,072	108,128	127,203
Friday	16/Oct/20	24,119	111,104	126,293
Saturday	17/Oct/20	23,572	102,944	124,575
Sunday	18/Oct/20	23,124	99,136	126,309
Monday	19/Oct/20	23,141	99,024	125,261
Tuesday	20/Oct/20	23,032	100,720	127,026
Wednesday	21/Oct/20	23,128	100,640	125,444
Thursday	22/Oct/20	19,930	100,112	126,199
Friday	23/Oct/20	22,384	109,088	129,086
Saturday	24/Oct/20	22,018	108,976	123,261
Sunday	25/Oct/20	22,055	108,448	125,477
Monday	26/Oct/20	22,398	***113,350***	120,132
Tuesday	27/Oct/20	26,088	88,105	117,620
Wednesday	28/Oct/20	***26,245***	85,666	121,060
Thursday	29/Oct/20	22,778	95,936	123,458
Friday	30/Oct/20	22,796	95,296	122,939
Saturday	31/Oct/20	22,747	100,528	119,303
October 2020 Monthly Max		26,245	113,350	129,463
October 2020 Monthly Average		23,579	101,200	124,907
October 2020 Total		730,946	3,137,190	3,872,108

DAY	DATE	SERPS PUMPAGE (m^3)	ARVA PUMPAGE (m^3)	TOTAL LONDON CONSUMPTION (m^3)
Sunday	1/Nov/20	23,043	95,824	122,368
Monday	2/Nov/20	22,747	101,600	125,917
Tuesday	3/Nov/20	22,991	103,473	121,637
Wednesday	4/Nov/20	22,926	103,555	121,516
Thursday	5/Nov/20	23,229	93,666	121,973
Friday	6/Nov/20	23,898	95,184	120,663
Saturday	7/Nov/20	23,521	103,153	120,902
Sunday	8/Nov/20	22,612	88,118	122,280
Monday	9/Nov/20	22,463	102,577	123,186
Tuesday	10/Nov/20	22,591	104,681	125,148
Wednesday	11/Nov/20	22,923	102,305	122,680
Thursday	12/Nov/20	23,044	90,812	121,647
Friday	13/Nov/20	22,828	102,078	120,324
Saturday	14/Nov/20	23,038	86,120	117,405
Sunday	15/Nov/20	22,842	101,822	120,408
Monday	16/Nov/20	22,861	107,699	121,997
Tuesday	17/Nov/20	23,065	88,112	***127,957***
Wednesday	18/Nov/20	23,136	95,472	121,514
Thursday	19/Nov/20	21,540	***108,432***	123,596
Friday	20/Nov/20	20,774	104,768	122,385
Saturday	21/Nov/20	20,606	99,488	121,221
Sunday	22/Nov/20	19,959	100,512	122,388
Monday	23/Nov/20	19,897	104,976	122,731
Tuesday	24/Nov/20	20,104	101,781	123,351
Wednesday	25/Nov/20	22,340	102,045	121,958
Thursday	26/Nov/20	24,191	101,922	121,040
Friday	27/Nov/20	24,249	92,202	119,495
Saturday	28/Nov/20	***24,284***	91,995	123,043
Sunday	29/Nov/20	24,201	101,976	123,133
Monday	30/Nov/20	23,374	101,914	120,215
November 2020 Monthly Max		24,284	108,432	127,957
November 2020 Monthly Average		22,643	99,275	122,136
November 2020 Total		679,277	2,978,262	3,664,078

DAY	DATE	SERPS PUMPAGE (m^3)	ARVA PUMPAGE (m^3)	TOTAL LONDON CONSUMPTION (m^3)
Tuesday	1/Dec/20	***23,058***	94,563	119,312
Wednesday	2/Dec/20	20,825	94,492	122,983
Thursday	3/Dec/20	19,604	104,208	124,263
Friday	4/Dec/20	19,101	104,276	121,460
Saturday	5/Dec/20	18,476	103,275	123,104
Sunday	6/Dec/20	18,986	108,235	129,589
Monday	7/Dec/20	19,105	112,730	128,453
Tuesday	8/Dec/20	19,006	111,632	126,016
Wednesday	9/Dec/20	20,330	107,984	124,481
Thursday	10/Dec/20	21,063	103,024	124,763
Friday	11/Dec/20	21,311	103,056	122,676
Saturday	12/Dec/20	22,222	99,056	121,053
Sunday	13/Dec/20	19,342	99,392	128,993
Monday	14/Dec/20	19,185	103,776	126,005
Tuesday	15/Dec/20	19,352	105,152	***129,690***
Wednesday	16/Dec/20	19,192	111,520	128,683
Thursday	17/Dec/20	19,095	113,616	127,976
Friday	18/Dec/20	18,999	***113,920***	128,409
Saturday	19/Dec/20	19,198	109,200	121,859
Sunday	20/Dec/20	19,085	90,960	119,515
Monday	21/Dec/20	18,936	96,192	120,427
Tuesday	22/Dec/20	19,128	101,690	119,465
Wednesday	23/Dec/20	18,942	97,582	119,455
Thursday	24/Dec/20	18,081	97,556	114,397
Friday	25/Dec/20	18,049	87,088	106,941
Saturday	26/Dec/20	18,197	98,629	116,375
Sunday	27/Dec/20	18,282	101,962	114,832
Monday	28/Dec/20	18,204	96,808	114,787
Tuesday	29/Dec/20	18,300	97,326	122,052
Wednesday	30/Dec/20	18,364	106,824	115,041
Thursday	31/Dec/20	18,194	92,403	115,558
December 2020 Monthly Max		23,058	113,920	129,690
December 2020 Monthly Average		19,329	102,198	121,891
December 2020 Total		599,212	3,168,127	3,778,613

2020 Annual Report (EMPS – London)

Ontario **Drinking-Water Systems Regulation O. Reg. 170/03**

Drinking-Water System Number:	260004917
Drinking-Water System Name:	**Elgin Middlesex Pumping Station – City of London Distribution System**
Drinking-Water System Owner:	City of London
Drinking-Water System Category:	Large Municipal Residential
Period being reported:	January 1, 2020 through December 31, 2020

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

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

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.

City of London
300 Dufferin Ave
London, ON
N6B 1Z2
www.london.ca

Elgin Area Primary Water Supply System
Treatment Plant
43665 Dexter Line, Union, ON

Complete for all other Categories.

Number of Designated Facilities served:

N/A

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

Number of Interested Authorities you report to: N/A

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

List all Drinking-Water Systems (if any), which receive all of their drinking water from your system:

Systems that receive their drinking water directly from the London EMPS:

Drinking Water System Name	Drinking Water System Number
City of London Distribution System	260004917

Systems that receive their drinking water indirectly from the London EMPS:

Drinking Water System Name	Drinking Water System Number
Municipality of Central Elgin	260004761

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.

- **[X] Public access/notice via the web**
- **[X] Public access/notice via Government Office**
- **[ ] Public access/notice via a newspaper**
- **[X] 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 Elgin Middlesex Pumping Station (EMPS) receives water from the Elgin Area Primary Water Supply System, which is located to the east of Port Stanley. Through various secondary water supply systems, the EMPS serves the Cities of London, St. Thomas, Town of Aylmer, Municipalities of Central Elgin, Malahide and Southwold.

The EMPS is a shared facility encompassing a twin celled reservoir with a total capacity of 54,600m^3. Booster pumps are dedicated to directing water to the City of London, St. Thomas Secondary and/or Aylmer Area Secondary Water Supply Systems. The EMPS houses a surge facility to service the London transmission main.

Three pipelines exit the EMPS: one pipeline runs North along Highbury Avenue into the Southeast Reservoir Pumping Station (SERPS) to service the London distribution system, the second exits to the south of the EMPS property and extends West to service the St. Thomas Area Secondary Water Supply System; the third exits to the South, to Highway 3 and then runs in an Easterly direction to service the municipalities on the Aylmer Area Secondary Water Supply System.

List all water treatment chemicals used over this reporting period

No re-treatment of water directed into the London system took place at the EMPS in 2020.

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

- Replaced underground primary power cables
- Glycol circulating pump and motor replacement
- Air compressor motor #2 replacement
- Air compressor motor #1 rebuild and installation

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/100 mL) (min #)-(max #)	Range of Total Coliform Results (CFU/100 mL) (min #)-(max #)	Number of Heterotrophic Plate Count (HPC) Samples	Range of HPC Results (CFU/1 mL) (min #)-(max #)
Distribution	52	(0) – (0)	(0) – (0)	52	(<10)-(10)

Operational testing done under Schedule 7, 8 or 9 of Regulation 170/03 during the period covered by this Annual Report.

Parameter	Number of Grab Samples (Continuous Monitoring)	Min	Max	Avg
Free Chlorine Residual (mg/L)	8760	0.62	1.48	0.89

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

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
THM (NOTE: result value is based on one sample)	January 7, 2020 April 7, 2020 July 7, 2020 October 14, 2020	16 17 22 26	µg/L µg/L µg/L µg/L	NO
THM Running Annual Average (RAA)	2020	20.3	µg/L	NO
HAA (NOTE: result value is based on one sample)	January 7, 2020 April 7, 2020 July 7, 2020 October 7, 2020	ND 5.9 8.5 8.5	µg/L µg/L µg/L µg/L	NO
HAA Running Annual Average (RAA)	2020	5.7	µg/L	NO

ND = Non-detect