

A photograph of a water treatment plant with various pipes, valves, and blue tanks.

# DRINKING WATER SYSTEM

A close-up photograph of water being poured into a clear glass, creating a splash.

Annual  
Report  
**2020**

**CITY OF TORONTO DRINKING WATER SYSTEM ANNUAL REPORT**

<b>Drinking-Water System Number:</b>	<b>220002262</b>
<b>Drinking-Water System Name:</b>	City of Toronto Drinking Water System (R. C. Harris)
<b>Drinking-Water System Owner:</b>	City of Toronto
<b>Drinking-Water System Category:</b>	Large Municipal Residential
<b>Period being reported:</b>	January 1, 2020 to December 31, 2020

<p><b><u>Complete if your Category is Large Municipal Residential or Small Municipal Residential</u></b></p> <p><b>Does your Drinking-Water System serve more than 10,000 people? Yes [X ] No [ ]</b></p> <p><b>Is your annual report available to the public at no charge on a web site on the Internet? Yes [ X ] No [ ]</b></p> <p><b>Location where Summary Report required under O. Reg. 170/03 Schedule 22 will be available for inspection.</b></p> <div style="border: 1px solid black; padding: 5px;"> Metro Hall  55 John Street  Toronto, Ontario  M5V 3C6 </div>	<p><b><u>Complete for all other Categories.</u></b></p> <p><b>Number of Designated Facilities served:</b></p> <div style="border: 1px solid black; height: 20px; width: 100%;"></div> <p><b>Did you provide a copy of your annual report to all Designated Facilities you serve? Yes [ ] No [ ]</b></p> <p><b>Number of Interested Authorities you report to:</b></p> <div style="border: 1px solid black; height: 20px; width: 100%;"></div> <p><b>Did you provide a copy of your annual report to all Interested Authorities you report to for each Designated Facility? Yes [ ] No [ ]</b></p>
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**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:**

<b>Drinking Water System Name</b>	<b>Drinking Water System Number</b>
Region of York - receives some of their water from Toronto	260001929

**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
- [ ] Public access/notice via Public Request
- [ ] Public access/notice via a Public Library
- [ ] Public access/notice via other method \_\_\_\_\_

**Describe your Drinking-Water System**

Toronto Drinking Water Supply System consists of four water treatment plants, 18 pumping stations, 11 major underground storage reservoirs, four elevated storage tanks and approximately 532 kilometers of trunk watermains and 5,569 kilometers of distribution watermains.

The R.C. Harris Water Treatment Plant is a conventional water treatment plant, has a rated capacity of 950,000 m<sup>3</sup>/day and is located at 2701 Queen Street East, Toronto.

The other three (3) Toronto Water Treatment plants are as follows:

- R.L. Clark Water Treatment Plant (Rated Capacity of 615,000 m<sup>3</sup>/day) and is located at 45 Twenty Third Street, Toronto
- F.J. Horgan Water Treatment Plant (Rated Capacity of 800,000 m<sup>3</sup>/day) and is located at 201 Copperfield Road, Toronto
- Island Water Treatment Plant (Rated Capacity of 440,000 m<sup>3</sup>/day) and is located on Centre Island, Toronto

**List all water treatment chemicals used over this reporting period**

Alum (Aluminum sulphate)  
Chlorine  
Sodium bisulphite  
Hydrofluosilicic acid  
Aqueous Ammonia  
Phosphoric Acid

**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**

**Capital Projects** - The following amounts relate to various projects during 2020 and do not represent the total project costs. These numbers do not include the normal operating and maintenance costs.

No.	Project Name	Description	Monetary Expense
1.	HVAC Rehabilitation	Rehabilitation of plant heating, ventilation and cooling equipment, and installation of a Building Automation System	\$2,384,000
2.	Control Room Relocation	Relocation and modernization of the plant control room	\$705,000
3.	Filter and Reservoir Rehabilitation	Rehabilitation of four filters, backwash tanks and plant reservoir	\$6,444,000
4.	Water Treatment Plant Waterproofing	Repairs of water leaks into underground structures, reconstruction of plant roadway	\$1,652,000
5.	Raw Water Piping Rehabilitation	Blasting and coating of Raw Water piping and pumps and replacement of mechanical fasteners	\$674,400

**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**

**NOTE:** "Incident date" is the date adverse result was reported to MECP-SAC. "Corrective action date" is the date the location was resampled.

Incident Date	Parameter	Result	Unit of Measure	Corrective Action	Corrective Action Date
January 29, 2020	NDMA	0.0000257*	mg/L	Resample. Results acceptable.	February 2, 2020

\*Results were revised from the initial AWQI report as advised by ALS Laboratory on October 15, 2020, no further actions required, MECP was notified

**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	366	0 - 12	0 - 95	366	0 - 1500
Treated	1464	1464 A (100%A)	1464 A (100%A)	1464	0 - 7

**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	Range of Results (min.) - (max.)	Unit of Measure
Turbidity	8784	0 – 0.19	NTU
Chlorine	8784	1.72 – 2.32	mg/L
*Fluoride (If the DWS provides fluoridation)	346	0.34 – 0.69	mg/L

**NOTE:** For Continuous Monitoring (zero days offline):

Number of Grab Samples = 24 samples/day x 365 days/year (or 366 days/leap year) = 8760 (or 8784)

\*Fluoride Grab Sample numbers and range of results are reported using data from days when fluoridation was in service

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 (Annual Average)	Unit of Measure
Nov 09, 2020 Municipal Drinking Water Licence	Total Suspended Solids (Residue Management)	Jan 01-Dec 31, 2020	7.70	mg/L
	Total Chlorine (Residue Management)	Jan 01-Dec 31, 2020	0	mg/L

**NOTE:** A result of zero indicates that the result obtained was below the method detection/reporting limit

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

Parameter	Sample Date	Result Value (min.) - (max.)	Unit of Measure	Exceedance
Antimony	Jan – Dec 2020	0 – 0.0003	mg/L	No
Arsenic	Jan – Dec 2020	0.0005 – 0.0007	mg/L	No
Barium	Jan – Dec 2020	0.0209 – 0.0234	mg/L	No
Boron	Jan – Dec 2020	0.0223 – 0.0238	mg/L	No
Cadmium	Jan – Dec 2020	0 – 0	mg/L	No
Chromium	Jan – Dec 2020	0.0002 – 0.0003	mg/L	No
Lead	Jan – Dec 2020	0 – 0	mg/L	No
Mercury	Jan – Dec 2020	0 – 0	mg/L	No
Selenium	Jan – Dec 2020	0 – 0	mg/L	No
Sodium	Jan – Dec 2020	12.3 – 17.4	mg/L	No
Uranium	Jan – Dec 2020	0.0003 – 0.0004	mg/L	No
Nitrite	Jan – Dec 2020	0 – 0.0040	mg/L	No
Nitrate	Jan – Dec 2020	0.15 – 0.44	mg/L	No

**NOTE:** A result of zero indicates that the result obtained was below the method detection/reporting limit.

Summary of Lead (Pb) testing under Schedule 15.1 during this reporting period

Location Type	Number of Samples	Range of Lead Results (min.) - (max.)	Unit of Measure	Number of Exceedances
*Plumbing	*	*	*	*
*Distribution	*	*	*	*

**\*NOTE:** Refer to Toronto DS (Distribution System) Annual Report for Lead (Pb) testing data





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

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

Parameter	Sample Date	Result Value (min.) - (max.)	Unit of Measure	Exceedance
Alachlor	Jan – Dec 2020	0 – 0	µg/L	No
Atrazine + N-dealkylated metabolites	Jan – Dec 2020	0.0860 – 0.1010	µg/L	No
Azinphos-methyl	Jan – Dec 2020	0 – 0	µg/L	No
Benzene	Jan – Dec 2020	0 – 0	µg/L	No
Benzo(a)pyrene	Jan – Dec 2020	0 – 0	µg/L	No
Bromoxynil	Jan – Dec 2020	0 – 0	µg/L	No
Carbaryl	Jan – Dec 2020	0 – 0	µg/L	No
Carbofuran	Jan – Dec 2020	0 – 0	µg/L	No
Carbon Tetrachloride	Jan – Dec 2020	0 – 0	µg/L	No
Chlorpyrifos	Jan – Dec 2020	0 – 0	µg/L	No
Diazinon	Jan – Dec 2020	0 – 0	µg/L	No
Dicamba	Jan – Dec 2020	0 – 0	µg/L	No
1,2-Dichlorobenzene	Jan – Dec 2020	0 – 0	µg/L	No
1,4-Dichlorobenzene	Jan – Dec 2020	0 – 0	µg/L	No
1,2-Dichloroethane	Jan – Dec 2020	0 – 0	µg/L	No
1,1-Dichloroethylene (vinylidene chloride)	Jan – Dec 2020	0 – 0	µg/L	No
Dichloromethane	Jan – Dec 2020	0 – 0	µg/L	No
2,4-Dichlorophenol	Jan – Dec 2020	0 – 0	µg/L	No
2,4-Dichlorophenoxy acetic acid (2,4-D)	Jan – Dec 2020	0 – 0	µg/L	No
Diclofop-methyl	Jan – Dec 2020	0 – 0	µg/L	No
Dimethoate	Jan – Dec 2020	0 – 0	µg/L	No
Diquat	Jan – Dec 2020	0	µg/L	No
Diuron	Jan – Dec 2020	0 – 0	µg/L	No
Glyphosate	Jan – Dec 2020	0	µg/L	No
Malathion	Jan – Dec 2020	0 – 0	µg/L	No
Metolachlor	Jan – Dec 2020	0.0068 – 0.0075	µg/L	No
Metribuzin	Jan – Dec 2020	0 – 0	µg/L	No
Monochlorobenzene	Jan – Dec 2020	0 – 0	µg/L	No
Paraquat	Jan – Dec 2020	0	µg/L	No
Pentachlorophenol	Jan – Dec 2020	0 – 0	µg/L	No
Phorate	Jan – Dec 2020	0 – 0	µg/L	No
Picloram	Jan – Dec 2020	0 – 0	µg/L	No
Polychlorinated Biphenyls(PCB)	Jan – Dec 2020	0 – 0	µg/L	No
Prometryne	Jan – Dec 2020	0 – 0	µg/L	No
Simazine	Jan – Dec 2020	0.0038 – 0.0047	µg/L	No
THM (Note: Show latest annual average)	Jan – Dec 2020	10.6	µg/L	No

Terbufos	Jan – Dec 2020	0 – 0	µg/L	No
Tetrachloroethylene	Jan – Dec 2020	0 – 0	µg/L	No
2,3,4,6-Tetrachlorophenol	Jan – Dec 2020	0 – 0	µg/L	No
Triallate	Jan – Dec 2020	0 – 0	µg/L	No
Trichloroethylene	Jan – Dec 2020	0 – 0	µg/L	No
2,4,6-Trichlorophenol	Jan – Dec 2020	0 – 0	µg/L	No
Trifluralin	Jan – Dec 2020	0 – 0	µg/L	No
Vinyl Chloride	Jan – Dec 2020	0 – 0	µg/L	No

**NOTE:** A result of zero indicates that the result obtained was below the method detection/reporting limit.

**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
NDMA	0.0000257	mg/L	06-Jan-20

**CITY OF TORONTO DRINKING WATER SYSTEM ANNUAL REPORT**

<b>Drinking-Water System Number:</b>	<b>220002244</b>
<b>Drinking-Water System Name:</b>	City of Toronto Drinking Water System (Island)
<b>Drinking-Water System Owner:</b>	City of Toronto
<b>Drinking-Water System Category:</b>	Large Municipal Residential
<b>Period being reported:</b>	January 1, 2020 to December 31, 2020

<p><b><u>Complete if your Category is Large Municipal Residential or Small Municipal Residential</u></b></p> <p><b>Does your Drinking-Water System serve more than 10,000 people? Yes [X ] No [ ]</b></p> <p><b>Is your annual report available to the public at no charge on a web site on the Internet? Yes [ X ] No [ ]</b></p> <p><b>Location where Summary Report required under O. Reg. 170/03 Schedule 22 will be available for inspection.</b></p> <div style="border: 1px solid black; padding: 5px;"> Metro Hall  55 John Street  Toronto, Ontario  M5V 3C6 </div>	<p><b><u>Complete for all other Categories.</u></b></p> <p><b>Number of Designated Facilities served:</b></p> <div style="border: 1px solid black; height: 20px; width: 100%;"></div> <p><b>Did you provide a copy of your annual report to all Designated Facilities you serve? Yes [ ] No [ ]</b></p> <p><b>Number of Interested Authorities you report to:</b></p> <div style="border: 1px solid black; height: 20px; width: 100%;"></div> <p><b>Did you provide a copy of your annual report to all Interested Authorities you report to for each Designated Facility? Yes [ ] No [ ]</b></p>
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**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:**

<b>Drinking Water System Name</b>	<b>Drinking Water System Number</b>
Region of York - receives some of their water from Toronto	260001929

**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.**

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- [ ] Public access/notice via other method \_\_\_\_\_





## Describe your Drinking-Water System

Toronto Drinking Water Supply System consists of four water treatment plants, 18 pumping stations, 11 major underground storage reservoirs, four elevated storage tanks and approximately 532 kilometers of trunk watermains and 5,569 kilometers of distribution watermains.

The Island Water Treatment Plant is a direct filtration water treatment plant, has a rated capacity of 440,000 m<sup>3</sup>/day and is located at Toronto Centre Island, Toronto.

The other three (3) Toronto Water Treatment plants are as follows:

- R.L. Clark Water Treatment Plant (Rated Capacity of 615,000 m<sup>3</sup>/day) and is located at 45 Twenty Third Street, Toronto
- R.C. Harris Water Treatment Plant (Rated Capacity of 950,000 m<sup>3</sup>/day) and is located at 2701 Queen Street East, Toronto
- F.J. Horgan Water Treatment Plant (Rated Capacity of 800,000 m<sup>3</sup>/day) and is located at 201 Copperfield Road, Toronto

## List all water treatment chemicals used over this reporting period

Chlorine  
Sulphur dioxide  
Sodium bisulphite  
Hydrofluosilicic acid  
Aqua ammonia  
Polyaluminum Chloride (PACL)  
PAX-XL52 (PACL Coagulant)  
Phosphoric Acid

## 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

**Capital Projects** - The following amounts relate to various projects during 2020 and do not represent the total project costs. These numbers do not include the normal operating and maintenance costs.

No.	Project Description	Monetary Expense
1.	Design & Construction of Ammonia & Fluoride System Upgrades	\$ 5,020,000
5.	Design & Construction of Treated Water Tunnel Rehabilitation	\$ 4,186,000
9.	Design & Construction of Plantwide HVAC Upgrades	\$ 1,030,000
4.	Design of UV Treatment, Residuals Dewatering, & Electrical Upgrades	\$ 554,000
2.	Design & Construction of Marine Yard Rehabilitation	\$ 166,000

3.	Design-Build Intake Cleaning	\$ 125,000
6.	Design & Construction of Residuals Management System	\$ 51,000
11.	Design & Construction of Flood Mitigation Upgrades	\$ 28,000
7.	Design of Scrubber Upgrades	\$ 25,000
8.	Engineering Study of WTP Re-rating	\$ 2,000
10.	Design & Construction of Flume/WW & Machine Shop Rehab	\$ 1,000

**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**

**NOTE:** "Incident date" is the date adverse result was reported to MECP-SAC. "Corrective action date" is the date the location was resampled.

Incident Date	Parameter	Result	Unit of Measure	Corrective Action	Corrective Action Date
October 9, 2020	chlorinated water	2.16	mg/L	15 minute reservoir overflow of 968 m <sup>3</sup> to lagoon due to Provincial power outage	October 9, 2020

**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	287	0 - 16	0 - 93	287	0 - 2500
Treated	1142	1142 A (100%A)	1142 A (100%A)	1142	0 - 51

**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	Range of Results (min.) - (max.)	Unit of Measure
Turbidity	6862*	0.03 - 0.08	NTU
Chlorine	6862*	1.65 – 2.23	mg/L
**Fluoride (If the DWS provides fluoridation)	271	0.23 – 0.73	mg/L

**NOTE:** For Continuous Monitoring (zero days offline):

Number of Grab Samples = 24 samples/day x 365 days/year (or 366 days/leap year) = 8760 (or 8784)

\*Number of Grab Samples for Turbidity and Chlorine reflects the fact that the Plant was not in service the full calendar year

\*\*Fluoride Grab Sample numbers and range of results are reported using data from days when fluoridation was in service

**Summary of additional testing and sampling carried out in accordance with the requirement of an approval, order or other legal instrument.**

<b>Date Of Legal Instrument Issued</b>	<b>Parameter</b>	<b>Date Sampled</b>	<b>Result (Monthly Average)</b>	<b>Unit of Measure</b>
3-May 2019, 30-January 2020, & 9-November 2020 Municipal Drinking Water Licence	Total Suspended Solids (Residue Management) *	Jan. 1, 2020 - Dec. 31, 2020	January = 7.3 February = 5.1 March = 5.8 April = 4.1 May = 5.1 June = 3.2 July = 1.9 August = 2.8 September = 3.2 October = 3.8 November = 3.5 December = 3.9	mg/L

<b>Date Of Legal Instrument Issued</b>	<b>Parameter</b>	<b>Date Sampled</b>	<b>Concentration Limit Condition A: single samples &lt; 0.2 mg/L</b>	<b>Unit of Measure</b>
3-May 2019, 30-January 2020, & 9-November 2020 Municipal Drinking Water Licence	Total Chlorine (Residue Management) **	Jan. 1, 2020 - Dec. 31, 2020	< 0.2 mg/L at all times	date & mg/L
<b>Date Of Legal Instrument Issued</b>	<b>Parameter</b>	<b>Date Sampled</b>	<b>Concentration Limit Condition B: 120-min average of all 5-min averaged samples &lt; 0.02 mg/L</b>	<b>Unit of Measure</b>
3-May 2019, 30-January 2020, & 9-November 2020 Municipal Drinking Water Licence	Total Chlorine (Residue Management) **	Jan. 1, 2020 - Dec. 31, 2020	October 16, 2020 0.0236 mg/L <sup>+</sup>	date & mg/L

**NOTES:**

\* For RMF effluent, the Total Suspended Solids limit is a monthly average concentration.

\*\* For RMF effluent, the Total Chlorine Residual limit is a maximum concentration of: i) Condition A, 0.2 mg/L (single 5-min averaged sample) or ii) Condition B, 0.02 mg/L (120-min average concentration of all 5-min averaged samples), as applicable.

+ Condition B sample exceeded 0.02 mg/L for 2 hours 10 minutes, however upon further investigation, Operator grab sample result (in lab) yielded 0.00 mg/L indicating an issue with the automated analyzer sensor; subsequent analyzer maintenance performed October 16, 2020.

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

Parameter	Sample Date	Result Value (min.) - (max.)	Unit of Measure	Exceedance
Antimony	Jan – Dec 2020	0 – 0.0003	mg/L	No
Arsenic	Jan – Dec 2020	0.0008 – 0.0009	mg/L	No
Barium	Jan – Dec 2020	0.0222 – 0.0242	mg/L	No
Boron	Jan – Dec 2020	0.0220– 0.0240	mg/L	No
Cadmium	Jan – Dec 2020	0 – 0	mg/L	No
Chromium	Jan – Dec 2020	0 – 0.0017	mg/L	No
Lead	Jan – Dec 2020	0 – 0	mg/L	No
Mercury	Jan – Dec 2020	0 – 0	mg/L	No
Selenium	Jan – Dec 2020	0 – 0	mg/L	No
Sodium	Jan – Dec 2020	11.9 – 16.4	mg/L	No
Uranium	Jan – Dec 2020	0.0004 – 0.0004	mg/L	No
Nitrite	Jan – Dec 2020	0 – 0.0030	mg/L	No
Nitrate	Jan – Dec 2020	0.34– 0.49	mg/L	No

**NOTE:** A result of zero indicates that the result obtained was below the method detection/reporting limit.

#### Summary of Lead (Pb) testing under Schedule 15.1 during this reporting period

Location Type	Number of Samples	Range of Lead Results (min.) - (max.)	Unit of Measure	Number of Exceedances
*Plumbing	*	*	*	*
*Distribution	*	*	*	*

**\*NOTE:** Refer to Toronto DS (Distribution System) Annual Report for Lead (Pb) testing data



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

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

Parameter	Sample Date	Result Value (min.) - (max.)	Unit of Measure	Exceedance
Alachlor	Jan – Dec 2020	0 – 0	µg/L	No
Atrazine + N-dealkylated metabolites	Jan – Dec 2020	0.0880 – 0.0960	µg/L	No
Azinphos-methyl	Jan – Dec 2020	0 – 0	µg/L	No
Benzene	Jan – Dec 2020	0 – 0	µg/L	No
Benzo(a)pyrene	Jan – Dec 2020	0 – 0	µg/L	No
Bromoxynil	Jan – Dec 2020	0 – 0	µg/L	No
Carbaryl	Jan – Dec 2020	0 – 0	µg/L	No
Carbofuran	Jan – Dec 2020	0 – 0	µg/L	No
Carbon Tetrachloride	Jan – Dec 2020	0 – 0	µg/L	No
Chlorpyrifos	Jan – Dec 2020	0 – 0	µg/L	No
Diazinon	Jan – Dec 2020	0 – 0	µg/L	No
Dicamba	Jan – Dec 2020	0 – 0	µg/L	No
1,2-Dichlorobenzene	Jan – Dec 2020	0 – 0	µg/L	No
1,4-Dichlorobenzene	Jan – Dec 2020	0 – 0	µg/L	No
1,2-Dichloroethane	Jan – Dec 2020	0 – 0	µg/L	No
1,1-Dichloroethylene (vinylidene chloride)	Jan – Dec 2020	0 – 0	µg/L	No
Dichloromethane	Jan – Dec 2020	0 – 0	µg/L	No
2,4-Dichlorophenol	Jan – Dec 2020	0 – 0	µg/L	No
2,4-Dichlorophenoxy acetic acid (2,4-D)	Jan – Dec 2020	0 – 0	µg/L	No
Diclofop-methyl	Jan – Dec 2020	0 – 0	µg/L	No
Dimethoate	Jan – Dec 2020	0 – 0	µg/L	No
Diquat	Jan – Dec 2020	0	µg/L	No
Diuron	Jan – Dec 2020	0 – 0	µg/L	No
Glyphosate	Jan – Dec 2020	0	µg/L	No
Malathion	Jan – Dec 2020	0 – 0	µg/L	No
Metolachlor	Jan – Dec 2020	0.0066 – 0.0082	µg/L	No
Metribuzin	Jan – Dec 2020	0 – 0	µg/L	No
Monochlorobenzene	Jan – Dec 2020	0 – 0	µg/L	No
Paraquat	Jan – Dec 2020	0	µg/L	No
Pentachlorophenol	Jan – Dec 2020	0 – 0	µg/L	No
Phorate	Jan – Dec 2020	0 – 0	µg/L	No
Picloram	Jan – Dec 2020	0 – 0	µg/L	No
Polychlorinated Biphenyls (PCB)	Jan – Dec 2020	0 – 0	µg/L	No
Prometryne	Jan – Dec 2020	0 – 0	µg/L	No
Simazine	Jan – Dec 2020	0.0040 – 0.0047	µg/L	No
THM (Note: Show latest annual average)	Jan – Dec 2020	9.4	µg/L	No



Terbufos	Jan – Dec 2020	0 – 0	µg/L	No
Tetrachloroethylene	Jan – Dec 2020	0 – 0	µg/L	No
2,3,4,6-Tetrachlorophenol	Jan – Dec 2020	0 – 0	µg/L	No
Triallate	Jan – Dec 2020	0 – 0	µg/L	No
Trichloroethylene	Jan – Dec 2020	0 – 0	µg/L	No
2,4,6-Trichlorophenol	Jan – Dec 2020	0 – 0	µg/L	No
Trifluralin	Jan – Dec 2020	0 – 0	µg/L	No
Vinyl Chloride	Jan – Dec 2020	0 – 0	µg/L	No

**NOTE:** A result of zero indicates that the result obtained was below the method detection/reporting limit.

**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 (min.) - (max.)	Unit of Measure	Date of Sample
NONE	NONE	NONE	NONE



**CITY OF TORONTO DRINKING WATER SYSTEM ANNUAL REPORT**

<b>Drinking-Water System Number:</b>	220002253
<b>Drinking-Water System Name:</b>	City of Toronto Drinking Water System (R. L. Clark)
<b>Drinking-Water System Owner:</b>	City of Toronto
<b>Drinking-Water System Category:</b>	Large Municipal Residential
<b>Period being reported:</b>	January 1, 2020 to December 31, 2020

<p><b><u>Complete if your Category is Large Municipal Residential or Small Municipal Residential</u></b></p> <p><b>Does your Drinking-Water System serve more than 10,000 people? Yes [X ] No [ ]</b></p> <p><b>Is your annual report available to the public at no charge on a web site on the Internet? Yes [ X ] No [ ]</b></p> <p><b>Location where Summary Report required under O. Reg. 170/03 Schedule 22 will be available for inspection.</b></p> <div style="border: 1px solid black; padding: 5px;"> Metro Hall  55 John Street  Toronto, Ontario  M5V 3C6 </div>	<p><b><u>Complete for all other Categories.</u></b></p> <p><b>Number of Designated Facilities served:</b></p> <div style="border: 1px solid black; height: 20px; width: 100%;"></div> <p><b>Did you provide a copy of your annual report to all Designated Facilities you serve? Yes [ ] No [ ]</b></p> <p><b>Number of Interested Authorities you report to:</b></p> <div style="border: 1px solid black; height: 20px; width: 100%;"></div> <p><b>Did you provide a copy of your annual report to all Interested Authorities you report to for each Designated Facility? Yes [ ] No [ ]</b></p>
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**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:**

<b>Drinking Water System Name</b>	<b>Drinking Water System Number</b>
Region of York - receives some of their water from Toronto	260001929

**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

[ ] Public access/notice via Public Request

[ ] Public access/notice via a Public Library

[ ] Public access/notice via other method \_\_\_\_\_

**Describe your Drinking-Water System**

Toronto Water Supply System consists of four water treatment plants, 18 pumping stations, 11 major underground storage reservoirs, four elevated storage tanks and approximately 532 kilometers of trunk watermains and 5,569 kilometers of distribution watermains.

The R.L. Clark Water Treatment Plant is a conventional water treatment plant, has a rated capacity of 615,000 m<sup>3</sup>/day and is located at 45 Twenty Third Street, Toronto.

The other three (3) Toronto Water Treatment plants are as follows:

- R.C. Harris Water Treatment Plant (Rated Capacity of 950,000 m<sup>3</sup>/day) and is located at 2701 Queen Street East, Toronto
- F.J. Horgan Water Treatment Plant (Rated Capacity of 800,000 m<sup>3</sup>/day) and is located at 201 Copperfield Road, Toronto
- Island Water Treatment Plant (Rated Capacity of 440,000 m<sup>3</sup>/day) and is located on Centre Island, Toronto

**List all water treatment chemicals used over this reporting period**

Alum (Aluminum Sulphate)  
Chlorine  
Sulphur Dioxide  
Hydrofluosilic Acid  
Aqua Ammonia  
Phosphoric Acid

Cationic polymer was used for residuals treatment.

**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**

**Capital Projects** - The following amounts relate to various projects during 2020 and do not represent the total project costs. These numbers do not include the normal operating and maintenance costs.

No.	Project Name	Description	Monetary Expense
1.	Architectural and Security Upgrades	Building Envelope Rehabilitation	\$550,000
2.	Zebra Mussel Control System Replacement	System Engineering Design	\$25,000

3.	Gaseous Systems Upgrade	System Engineering Design	\$25,000
4.	Standby Power	System Engineering Design	\$550,000
5.	Misc. Plant Projects	Various plant equipment rehabilitation	\$400,00

**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**

**NOTE:** "Incident date" is the date adverse result was reported to MECP-SAC. "Corrective action date" is the date the location was resampled.

Incident Date	Parameter	Result	Unit of Measure	Corrective Action	Corrective Action Date
NONE	--	--	--	--	--

**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	155	0 - 139	0 - 286	155	0 - 3500
Treated	1455	1455 A (100%A)	1455 A (100%A)	1455	0 - 87

**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	Range of Results (min.) - (max.)	Unit of Measure
Turbidity	8743*	0.03 – 0.16	NTU
Chlorine	8743*	1.71 – 2.29	mg/L
**Fluoride (If the DWS provides fluoridation)	346	0.26 – 0.80	mg/L

**NOTE:** For Continuous Monitoring (zero days offline):

Number of Grab Samples = 24 samples/day x 365 days/year (or 366 days/leap year) = 8760 (or 8784)

\*There were a couple of days where the plant was not in service

\*\*Fluoride Grab Sample numbers and range of results are reported using data from days when fluoridation was in service.

**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
November 9, 2020 Municipal Drinking Water Licence	Total Suspended Solids (Residue Management)	Jan 01-Dec 31, 2020	3.75	mg/L
	Total Chlorine (Residue Management)	Jan 01-Dec 31, 2020	0	mg/L

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

Parameter	Sample Date	Result Value (min.) - (max.)	Unit of Measure	Exceedance
Antimony	Jan – Dec 2020	0 – 0.0003	mg/L	No
Arsenic	Jan – Dec 2020	0.0006 – 0.0007	mg/L	No
Barium	Jan – Dec 2020	0.0222 – 0.0239	mg/L	No
Boron	Jan – Dec 2020	0.0232 – 0.0255	mg/L	No
Cadmium	Jan – Dec 2020	0 – 0	mg/L	No
Chromium	Jan – Dec 2020	0.0002 – 0.0003	mg/L	No
Lead	Jan – Dec 2020	0 – 0	mg/L	No
Mercury	Jan – Dec 2020	0 – 0	mg/L	No
Selenium	Jan – Dec 2020	0 – 0	mg/L	No
Sodium	Jan – Dec 2020	12.5 – 29.5	mg/L	Yes but within 57 months of last reporting
Uranium	Jan – Dec 2020	0.0003 – 0.0004	mg/L	No
Nitrite	Jan – Dec 2020	0 – 0.0030	mg/L	No
Nitrate	Jan – Dec 2020	0.18 – 0.59	mg/L	No

**NOTE:** A result of zero indicates that the result obtained was below the method detection/reporting limit.

**Summary of Lead (Pb) testing under Schedule 15.1 during this reporting period**

Location Type	Number of Samples	Range of Lead Results (min.) - (max.)	Unit of Measure	Number of Exceedances
*Plumbing	*	*	*	*
*Distribution	*	*	*	*

**\*NOTE:** Refer to Toronto DS (Distribution System) Annual Report for Lead (Pb) testing data

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



Parameter	Sample Date	Result Value (min.) - (max.)	Unit of Measure	Exceedance
Alachlor	Jan – Dec 2020	0 – 0	µg/L	No
Atrazine + N-dealkylated metabolites	Jan – Dec 2020	0.0870 – 0.0980	µg/L	No
Azinphos-methyl	Jan – Dec 2020	0 – 0	µg/L	No
Benzene	Jan – Dec 2020	0 – 0	µg/L	No
Benzo(a)pyrene	Jan – Dec 2020	0 – 0	µg/L	No
Bromoxynil	Jan – Dec 2020	0 – 0	µg/L	No
Carbaryl	Jan – Dec 2020	0 – 0	µg/L	No
Carbofuran	Jan – Dec 2020	0 – 0	µg/L	No
Carbon Tetrachloride	Jan – Dec 2020	0 – 0	µg/L	No
Chlorpyrifos	Jan – Dec 2020	0 – 0	µg/L	No
Diazinon	Jan – Dec 2020	0 – 0	µg/L	No
Dicamba	Jan – Dec 2020	0 – 0	µg/L	No
1,2-Dichlorobenzene	Jan – Dec 2020	0 – 0	µg/L	No
1,4-Dichlorobenzene	Jan – Dec 2020	0 – 0	µg/L	No
1,2-Dichloroethane	Jan – Dec 2020	0 – 0	µg/L	No
1,1-Dichloroethylene (vinylidene chloride)	Jan – Dec 2020	0 – 0	µg/L	No
Dichloromethane	Jan – Dec 2020	0 – 0	µg/L	No
2-4 Dichlorophenol	Jan – Dec 2020	0 – 0	µg/L	No
2,4-Dichlorophenoxy acetic acid (2,4-D)	Jan – Dec 2020	0 – 0	µg/L	No
Diclofop-methyl	Jan – Dec 2020	0 – 0	µg/L	No
Dimethoate	Jan – Dec 2020	0 – 0	µg/L	No
Diquat	Jan – Dec 2020	0	µg/L	No
Diuron	Jan – Dec 2020	0 – 0	µg/L	No
Glyphosate	Jan – Dec 2020	0	µg/L	No
Malathion	Jan – Dec 2020	0 – 0	µg/L	No
Metolachlor	Jan – Dec 2020	0.0069 – 0.0078	µg/L	No
Metribuzin	Jan – Dec 2020	0 – 0	µg/L	No
Monochlorobenzene	Jan – Dec 2020	0 – 0	µg/L	No
Paraquat	Jan – Dec 2020	0	µg/L	No
Pentachlorophenol	Jan – Dec 2020	0 – 0	µg/L	No
Phorate	Jan – Dec 2020	0 – 0	µg/L	No
Picloram	Jan – Dec 2020	0 – 0	µg/L	No
Polychlorinated Biphenyls (PCB)	Jan – Dec 2020	0 – 0	µg/L	No
Prometryne	Jan – Dec 2020	0 – 0	µg/L	No
Simazine	Jan – Dec 2020	0.0040 – 0.0047	µg/L	No
THM (Note: showing latest annual average)	Jan – Dec 2020	11.2	µg/L	No
Terbufos	Jan – Dec 2020	0 – 0	µg/L	No
Tetrachloroethylene	Jan – Dec 2020	0 – 0	µg/L	No
2,3,4,6-Tetrachlorophenol	Jan – Dec 2020	0 – 0	µg/L	No



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

Triallate	Jan – Dec 2020	0 – 0	µg/L	No
Trichloroethylene	Jan – Dec 2020	0 – 0	µg/L	No
2,4,6-Trichlorophenol	Jan – Dec 2020	0 – 0	µg/L	No
Trifluralin	Jan – Dec 2020	0 – 0	µg/L	No
Vinyl Chloride	Jan – Dec 2020	0 – 0	µg/L	No

**NOTE:** A result of zero indicates that the result obtained was below the method detection/reporting limit.

**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 (min.) - (max.)	Unit of Measure	Date of Sample
NONE	NONE	NONE	NONE





## CITY OF TORONTO DRINKING WATER SYSTEM ANNUAL REPORT

<b>Drinking-Water System Number:</b>	<b>220004536</b>
<b>Drinking-Water System Name:</b>	City of Toronto Drinking Water System (F. J. Horgan)
<b>Drinking-Water System Owner:</b>	City of Toronto
<b>Drinking-Water System Category:</b>	Large Municipal Residential
<b>Period being reported:</b>	January 1, 2020 to December 31, 2020

<p><b><u>Complete if your Category is Large Municipal Residential or Small Municipal Residential</u></b></p> <p><b>Does your Drinking-Water System serve more than 10,000 people? Yes [X ] No [ ]</b></p> <p><b>Is your annual report available to the public at no charge on a web site on the Internet? Yes [ X ] No [ ]</b></p> <p><b>Location where Summary Report required under O. Reg. 170/03 Schedule 22 will be available for inspection.</b></p> <div style="border: 1px solid black; padding: 5px;"> Metro Hall  55 John Street  Toronto, Ontario  M5V 3C6 </div>	<p><b><u>Complete for all other Categories.</u></b></p> <p><b>Number of Designated Facilities served:</b></p> <div style="border: 1px solid black; height: 20px; width: 100%;"></div> <p><b>Did you provide a copy of your annual report to all Designated Facilities you serve? Yes [ ] No [ ]</b></p> <p><b>Number of Interested Authorities you report to:</b></p> <div style="border: 1px solid black; height: 20px; width: 100%;"></div> <p><b>Did you provide a copy of your annual report to all Interested Authorities you report to for each Designated Facility? Yes [ ] No [ ]</b></p>
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**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:**

<b>Drinking Water System Name</b>	<b>Drinking Water System Number</b>
Region of York - receives some of their water from Toronto	260001929

**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

[ ] Public access/notice via Public Request

[ ] Public access/notice via a Public Library

[ ] Public access/notice via other method \_\_\_\_\_

**Describe your Drinking-Water System**

Toronto Water Supply System consists of four water treatment plants, 18 pumping stations, 11 major underground storage reservoirs, four elevated storage tanks and approximately 532 kilometers of trunk watermains and 5,569 kilometers of distribution watermains.

The F.J. Horgan Water Treatment Plant is a direct water treatment plant, has a rated capacity of 800,000 m<sup>3</sup>/day and is located at 201 Copperfield Road, Toronto.

The other three (3) Toronto Water Treatment plants are as follows:

- R.L. Clark Water Treatment Plant (Rated Capacity of 615,000 m<sup>3</sup>/day) and is located at 45 Twenty Third Street, Toronto
- R.C. Harris Water Treatment Plant (Rated Capacity of 950,000 m<sup>3</sup>/day) and is located at 2701 Queen Street East, Toronto
- Island Water Treatment Plant (Rated Capacity of 440,000 m<sup>3</sup>/day) and is located on Centre Island, Toronto

**List all water treatment chemicals used over this reporting period**

Alum (Aluminum sulphate)  
 Polyaluminum Chloride (PACL – XL52)  
 Chlorine  
 Sulphur dioxide  
 Hydrofluosilicic acid  
 Aqua ammonia  
 Liquid Oxygen  
 Ozone  
 Sodium bisulphite (SBS)  
 Phosphoric acid  
 Polymer - Anionic (FLO AF340) for waste residuals treatment  
 Polymer - Cationic (Floquat MG FL 4620)

**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**

**Capital Projects** - The following amounts relate to various projects during 2020 and do not represent the total project costs. These numbers do not include the normal operating and maintenance costs.

No.	Project Description	Monetary Expense
1.	Facility and Process Upgrades	\$134,000
2.	Replacement of MCCs	\$4,000
3.	Standby Power Optimization	\$123,000
4.	Zebra Mussel Control System Replacement	\$25,000
5.	Gaseous System Upgrades	\$25,000
6.	Raw Water Valves Replacement	\$52,000
7.	Ozone System Rehabilitation	\$308,000
8.	Server Room Upgrade	\$80,000
9.	Baffle Installation	\$44,000

**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**

**NOTE:** "Incident date" is the date adverse result was reported to MECP-SAC. "Corrective action date" is the date the location was resampled.

Incident Date	Parameter	Result	Unit of Measure	Corrective Action	Corrective Action Date
2020/03/10	Sodium	20.1	mg/L	Resample taken, result was 17.6 mg/L	2020/03/09

**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	362	0 - 3	0 - 71	362	0 - 900
Treated	1448	1448 A (100%A)	1448 A (100%A)	1448	0 - 5

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	Range of Results (min.) - (max.)	Unit of Measure
Turbidity	8784	0.03 – 0.09	NTU
Chlorine	8784	1.17 – 2.33	mg/L
*Fluoride (If the DWS provides fluoridation)	346	0.39 – 0.80	mg/L

**NOTE:** For Continuous Monitoring (zero days offline):

Number of Grab Samples = 24 samples/day x 365 days/year (or 366 days/leap year) = 8760 (or 8784)

\*Fluoride Grab Sample numbers and range of results are reported using data from days when fluoridation was in service.

**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 (Annual Average)	Unit of Measure
11-Feb-2015 & 7-June 2016 Municipal Drinking Water Licence	Total Suspended Solids (Residue Management)	Jan. 1, 2020 - Dec. 31, 2020	16.75	mg/L

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

Parameter	Sample Date	Result Value (min.) - (max.)	Unit of Measure	Exceedance
Antimony	Jan – Dec 2020	0 – 0.0003	mg/L	No
Arsenic	Jan – Dec 2020	0.0008 – 0.0009	mg/L	No
Barium	Jan – Dec 2020	0.0202 – 0.0242	mg/L	No
Boron	Jan – Dec 2020	0.0212 – 0.0235	mg/L	No
Cadmium	Jan – Dec 2020	0 – 0	mg/L	No
Chromium	Jan – Dec 2020	0.0002 – 0.0003	mg/L	No
Lead	Jan – Dec 2020	0 – 0.00009	mg/L	No
Mercury	Jan – Dec 2020	0 – 0	mg/L	No
Selenium	Jan – Dec 2020	0 – 0	mg/L	No
Sodium	Jan – Dec 2020	12.2 – 20.1	mg/L	Yes
Uranium	Jan – Dec 2020	0.0004 – 0.0004	mg/L	No
Nitrite	Jan – Dec 2020	0 – 0.0040	mg/L	No
Nitrate	Jan – Dec 2020	0.24 – 0.50	mg/L	No

**NOTE:** A result of zero indicates that the result obtained was below the method detection/reporting limit.

**Summary of Lead (Pb) testing under Schedule 15.1 during this reporting period**

Location Type	Number of Samples	Range of Lead Results (min.) - (max.)	Unit of Measure	Number of Exceedances
*Plumbing	*	*	*	*
*Distribution	*	*	*	*

**\*NOTE:** Refer to Toronto DS (Distribution System) Annual Report for Lead (Pb) testing data

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

Parameter	Sample Date	Result Value (min.) - (max.)	Unit of Measure	Exceedance
Alachlor	Jan – Dec 2020	0 – 0	µg/L	No
Atrazine + N-dealkylated metabolites	Jan – Dec 2020	0.0700 – 0.0800	µg/L	No
Azinphos-methyl	Jan – Dec 2020	0 – 0	µg/L	No
Benzene	Jan – Dec 2020	0 – 0	µg/L	No
Benzo(a)pyrene	Jan – Dec 2020	0 – 0	µg/L	No
Bromoxynil	Jan – Dec 2020	0 – 0	µg/L	No
Carbaryl	Jan – Dec 2020	0 – 0	µg/L	No
Carbofuran	Jan – Dec 2020	0 – 0	µg/L	No
Carbon Tetrachloride	Jan – Dec 2020	0 – 0	µg/L	No
Chlorpyrifos	Jan – Dec 2020	0 – 0	µg/L	No
Diazinon	Jan – Dec 2020	0 – 0	µg/L	No
Dicamba	Jan – Dec 2020	0 – 0	µg/L	No
1,2-Dichlorobenzene	Jan – Dec 2020	0 – 0	µg/L	No
1,4-Dichlorobenzene	Jan – Dec 2020	0 – 0	µg/L	No
1,2-Dichloroethane	Jan – Dec 2020	0 – 0	µg/L	No
1,1-Dichloroethylene (vinylidene chloride)	Jan – Dec 2020	0 – 0	µg/L	No
Dichloromethane	Jan – Dec 2020	0 – 0	µg/L	No
2,4-Dichlorophenol	Jan – Dec 2020	0 – 0	µg/L	No
2,4-Dichlorophenoxy acetic acid (2,4-D)	Jan – Dec 2020	0 – 0	µg/L	No
Diclofop-methyl	Jan – Dec 2020	0 – 0	µg/L	No
Dimethoate	Jan – Dec 2020	0 – 0	µg/L	No
Diquat	Jan – Dec 2020	0	µg/L	No
Diuron	Jan – Dec 2020	0 – 0	µg/L	No
Glyphosate	Jan – Dec 2020	0	µg/L	No
Malathion	Jan – Dec 2020	0 – 0	µg/L	No
Metolachlor	Jan – Dec 2020	0.0030 – 0.0057	µg/L	No
Metribuzin	Jan – Dec 2020	0 – 0	µg/L	No
Monochlorobenzene	Jan – Dec 2020	0 – 0	µg/L	No



Paraquat	Jan – Dec 2020	0	µg/L	No
Pentachlorophenol	Jan – Dec 2020	0 – 0	µg/L	No
Phorate	Jan – Dec 2020	0 – 0	µg/L	No
Picloram	Jan – Dec 2020	0 – 0	µg/L	No
Polychlorinated Biphenyls(PCB)	Jan – Dec 2020	0 – 0	µg/L	No
Prometryne	Jan – Dec 2020	0 – 0	µg/L	No
Simazine	Jan – Dec 2020	0.0022 – 0.0026	µg/L	No
THM (Note: Show latest annual average)	Jan – Dec 2020	7.7	µg/L	No
Terbufos	Jan – Dec 2020	0 – 0	µg/L	No
Tetrachloroethylene	Jan – Dec 2020	0 – 0	µg/L	No
2,3,4,6-Tetrachlorophenol	Jan – Dec 2020	0 – 0	µg/L	No
Triallate	Jan – Dec 2020	0 – 0	µg/L	No
Trichloroethylene	Jan – Dec 2020	0 – 0	µg/L	No
2,4,6-Trichlorophenol	Jan – Dec 2020	0 – 0	µg/L	No
Trifluralin	Jan – Dec 2020	0 – 0	µg/L	No
Vinyl Chloride	Jan – Dec 2020	0 – 0	µg/L	No

**NOTE:** A result of zero indicates that the result obtained was below the method detection/reporting limit.

**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 (min.) - (max.)	Unit of Measure	Date of Sample
NONE	NONE	NONE	NONE





## CITY OF TORONTO DRINKING WATER SYSTEM ANNUAL REPORT

<b>Drinking-Water System Number:</b>	<b>260090363</b>
<b>Drinking-Water System Name:</b>	City of Toronto Drinking Water System – Toronto DS
<b>Drinking-Water System Owner:</b>	City of Toronto
<b>Drinking-Water System Category:</b>	Large Municipal Residential
<b>Period being reported:</b>	January 1, 2020 to December 31, 2020

<p><b><u>Complete if your Category is Large Municipal Residential or Small Municipal Residential</u></b></p> <p><b>Does your Drinking-Water System serve more than 10,000 people? Yes [ X ] No [ ]</b></p> <p><b>Is your annual report available to the public at no charge on a web site on the Internet? Yes [ X ] No [ ]</b></p> <p><b>Location where Summary Report required under O. Reg. 170/03 Schedule 22 will be available for inspection.</b></p> <div style="border: 1px solid black; padding: 5px;"> Metro Hall  55 John Street  Toronto, Ontario  M5V 3C6 </div>	<p><b><u>Complete for all other Categories.</u></b></p> <p><b>Number of Designated Facilities served:</b></p> <div style="border: 1px solid black; height: 20px; width: 100%;"></div> <p><b>Did you provide a copy of your annual report to all Designated Facilities you serve? Yes [ ] No [ ]</b></p> <p><b>Number of Interested Authorities you report to:</b></p> <div style="border: 1px solid black; height: 20px; width: 100%;"></div> <p><b>Did you provide a copy of your annual report to all Interested Authorities you report to for each Designated Facility? Yes [ ] No [ ]</b></p>
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**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:**

<b>Drinking Water System Name</b>	<b>Drinking Water System Number</b>
Region of York – receives some of their water from Toronto	260001929

**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

[ ] Public access/notice via Public Request

[ ] Public access/notice via a Public Library

[ ] Public access/notice via other method \_\_\_\_\_

**Describe your Drinking-Water System**

Toronto Drinking Water Supply System consists of four water treatment plants, 18 pumping stations, 11 major underground storage reservoirs, four elevated storage tanks and approximately 532 kilometers of trunk watermains and 5,569 kilometers of distribution watermains.

Working from multiple facilities across the city, Distribution & Supply staff inspect, operate and maintain the existing water distribution and supply systems.

There are four (4) Toronto Water Treatment plants:

- R.L. Clark Water Treatment Plant (Rated Capacity of 615,000 m<sup>3</sup>/day) and is located at 45 Twenty Third Street, Toronto
- R.C. Harris Water Treatment Plant (Rated Capacity of 950,000 m<sup>3</sup>/day) and is located at 2701 Queen Street East, Toronto
- F.J. Horgan Water Treatment Plant (Rated Capacity of 800,000 m<sup>3</sup>/day) and is located at 201 Copperfield Road, Toronto
- Island Water Treatment Plant (Rated Capacity of 440,000 m<sup>3</sup>/day) and is located on Centre Island, Toronto

**List all water treatment chemicals used over this reporting period**

N/A

**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**

Please note that the following amounts relate to various projects during 2020 and do not represent the total project costs. These numbers do not include normal operating and maintenance costs.

**Distribution System:**

Watermain Replacement	\$ 91 million
Water Service Replacement	\$ 45 million
Watermain Rehabilitation	\$ 63 million

**Water Supply:**

Facility Rehab and Standby Power	\$ 31.8 million
Transmission Main Rehabilitation	\$ 4.8 million
New Transmission Main Construction	\$ 21.4 million

**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**

**NOTE:** "Incident date" is the date adverse result was reported to MECP-SAC. "Corrective action date" is the date the location was resampled.

<b>AWQI Number</b>	<b>Incident Date</b>	<b>Parameter</b>	<b>Result</b>	<b>Unit of Measure</b>	<b>Corrective Action</b>	<b>Corrective Action Resample Date</b>
149515	1-Feb-20	Total Coliform	Presence	Result in 100 mL sample	Flushed watermain. Resampled. Results acceptable.	3-Feb-20
149544	16-Feb-20	Sodium	>20	mg/L	Resampled. Results acceptable.	11-Feb-20
149545	16-Feb-20	Sodium	>20	mg/L	Resampled. Results acceptable	11-Feb-20
149668	29-Feb-20	Total Coliform	Presence	Result in 100 mL sample	Flushed watermain. Resampled. Results acceptable.	02-Mar-20
149797	26-Mar-20	Total Coliform	Presence	Result in 100 mL sample	Flushed watermain. Resampled.	26-Mar-20
149803	28-Mar-20	Total Coliform	1	per 100 mL sample	Flushed watermain. Resampled. Results acceptable.	30-Mar-20
150018	21-May-20	Total Chlorine	<0.25	mg/L	Flushed watermain. Resampled. Results acceptable	21-May-20
150084	30-May-20	Total Coliform	Presence	Result in 100 mL sample	Flushed watermain. Resampled	30-May-20
150095	01-Jun-20	Total Coliform	7	per 100 mL sample	Flushed watermain. Resampled.	01-Jun-20
150136	04-Jun-20	Total Coliform	20	per 100 mL sample	Flushed watermain. Resampled.	04-Jun-20
150154	05-Jun-20	No back flow preventer	-	-	Back flow preventer installed and tested	05-Jun-20

150165	06-Jun-20	Total Coliform	1	per 100 mL sample	Flushed watermain. Resampled.	05-Jun-20
150175	08-Jun-20	Total Coliform	6	per 100 mL sample	Flushed watermain. Resampled. Results acceptable.	07-Jun-20
150176	08-Jun-20	Total Coliform	2	per 100 mL sample	Flushed watermain. Resampled. Results acceptable.	07-Jun-20
150233	12-Jun-20	E.coli and Total Coliform	Presence	Result in 100 mL sample	Flushed watermain. Resampled. Results acceptable	12-Jun-20
150234	12-Jun-20	Total Coliform	Presence	Result in 100 mL sample	Flushed watermain. Resampled. Results acceptable	12-Jun-20
150412	27-Jun-20	Total Coliform	Presence	Result in 100 mL sample	Flushed watermain. Resampled. Results acceptable	29-Jun-20
150567	08-Jul-20	Arsenic	>0.01	mg/L	Flushed watermain. Resampled. Results acceptable	07-Jul-20
150568	08-Jul-20	Arsenic	>0.01	mg/L	Flushed watermain. Resampled. Results acceptable	07-Jul-20
150805	19-Jul-20	Total Coliform	Presence	Result in 100 mL sample	Flushed watermain. Resampled. Results acceptable	20-Jul-20
150933	25-Jul-20	Total Coliform	Presence	Result in 100 mL sample	Flushed watermain. Resampled. Results acceptable	27-Jul-20
151015	30-Jul-20	Total Coliform	Presence	Result in 100 mL sample	Flushed watermain. Resampled. Results acceptable	31-Jul-20
151038	31-Jul-20	Total Coliform	Presence	Result in 100 mL sample	Flushed watermain. Resampled. Results acceptable	31-Jul-20



151203	05-Aug-20	Total Coliform	Presence	Result in 100 mL sample	Flushed watermain. Resampled. Results acceptable	08-Aug-20
151245	09-Aug-20	Total Coliform	Presence	Result in 100 mL sample	Flushed watermain. Resampled. Results acceptable	10-Aug-20
151339	12-Aug-20	Total Coliform	Presence	Result in 100 mL sample	Flushed watermain. Resampled. Results acceptable	12-Aug-20
151351	13-Aug-20	Total Coliform	Presence	Result in 100 mL sample	Flushed watermain. Resampled.	14-Aug-20
151385	15-Aug-20	Total Coliform	5	cfu/100 mL	Flushed watermain. Resampled. Results acceptable	16-Aug-20
151386	15-Aug-20	Total Coliform	2	cfu/100 mL	Flushed watermain. Resampled. Results acceptable	16-Aug-20
151410	17-Aug-20	Total Coliform	24	cfu/100 mL	Flushed watermain. Resampled.	19-Aug-20
151444	19-Aug-20	Total Coliform	Presence	Result in 100 mL sample	Flushed watermain. Resampled. Results acceptable	19-Aug-20
151468	20-Aug-20	Total Coliform	5	cfu/100 mL	Flushed watermain. Resampled.	20-Aug-20
151469	20-Aug-20	Total Coliform	Presence	Result in 100 mL sample	Flushed watermain. Resampled. Results acceptable	20-Aug-20
151505	21-Aug-20	Total Coliform	13	cfu/100 mL	Flushed watermain. Resampled.	24-Aug-20
151506	21-Aug-20	Total Coliform	Presence	Result in 100 mL sample	Flushed watermain. Resampled. Results acceptable	21-Aug-20
151507	21-Aug-20	Total Coliform	Presence	Result in 100 mL sample	Flushed watermain. Resampled.	22-Aug-20
151525	23-Aug-20	Total Coliform	1	cfu/100 mL	Flushed watermain.	23-Aug-20

					Resampled. Results acceptable	
151534	23-Aug-20	Total Coliform	Presence	Result in 100 mL sample	Flushed watermain. Resampled.	23-Aug-20
151536	23-Aug-20	Total Coliform	Presence	Result in 100 mL sample	Flushed watermain. Resampled. Results acceptable	23-Aug-20
151545	24-Aug-20	Total Coliform	29	cfu/100 mL	Flushed watermain. Resampled. Results acceptable	25-Aug-20
151553	25-Aug-20	Total Coliform	38	cfu/100 mL	Flushed watermain. Resampled. Results acceptable	26-Aug-20
151588	26-Aug-20	Total Coliform	18	cfu/100 mL	Flushed watermain. Resampled.	26-Aug-20
151589	26-Aug-20	Total Coliform	1	cfu/100 mL	Flushed watermain. Resampled.	25-Aug-20
151590	26-Aug-20	Total Coliform	22	cfu/100 mL	Flushed watermain. Resampled.	28-Aug-20
151591	26-Aug-20	Total Coliform	1	cfu/100 mL	Flushed watermain. Resampled. Results acceptable	28-Aug-20
151604	27-Aug-20	Total Coliform	Presence	Result in 100 mL sample	Flushed watermain. Resampled.	28-Aug-20
151607	27-Aug-20	Total Coliform	Presence	Result in 100 mL sample	Flushed watermain. Resampled. Results acceptable	28-Aug-20
151608	27-Aug-20	Total Coliform	Presence	Result in 100 mL sample	Flushed watermain. Resampled. Results acceptable	28-Aug-20
151609	27-Aug-20	Total Coliform	Presence	Result in 100 mL sample	Flushed watermain. Resampled. Results acceptable	29-Aug-20
151610	27-Aug-20	Total Coliform	1	cfu/100 mL	Flushed watermain. Resampled. Results acceptable	27-Aug-20





151611	27-Aug-20	Total Coliform	1	cfu/100 mL	Flushed watermain. Resampled. Results acceptable	29-Aug-20
151641	28-Aug-20	Total Coliform	1	cfu/100 mL	Flushed watermain. Resampled. Results acceptable	28-Aug-20
151676	30-Aug-20	Total Coliform	4	cfu/100 mL	Flushed watermain. Resampled.	29-Aug-20
151677	30-Aug-20	Total Coliform	58	cfu/100 mL	Flushed watermain. Resampled.	31-Aug-20
151678	30-Aug-20	Total Coliform	34	cfu/100 mL	Flushed watermain. Resampled.	31-Aug-20
151724	31-Aug-20	Total Coliform	4	cfu/100 mL	Flushed watermain. Resampled.	01-Sep-20
151746	01-Sep-20	Total Coliform	4	cfu/100 mL	Flushed watermain. Resampled.	02-Sep-20
151747	01-Sep-20	E.coli Total Coliform	2 5	cfu/100 mL	Flushed watermain. Resampled.	02-Sep-20
151798	03-Sep-20	Total Coliform	3	cfu/100 mL	Flushed watermain. Resampled. Filler Piece isolated Sep 3/20. Rechlorinated and resampled. Results Acceptable	03-Sep-20
151821	04-Sep-20	Total Coliform	6	cfu/100 mL	Flushed watermain. Resampled.	03-Sep-20
151822	04-Sep-20	Total Coliform	2	cfu/100 mL	Flushed watermain. Resampled.	03-Sep-20
151847	05-Sep-20	Total Coliform	1	cfu/100 mL	Flushed watermain. Resampled.	05-Sep-20
151848	05-Sep-20	Total Coliform	Present	Result in 100 mL sample	Flushed watermain. Resampled.	05-Sep-20
151849	05-Sep-20	Total Coliform	Present	Result in 100 mL sample	Flushed watermain.	05-Sep-20



					Resampled.Result s Acceptable	
151865	06-Sep-20	E.coli Total Coliform	11 11	cfu/100 mL	Flushed watermain. Resampled. Blow off isolated Sep 6/20. Rechlorinated and resampled. Results Acceptable	06-Sep-20
151866	06-Sep-20	E.coli Total Coliform	4 4	cfu/100 mL	Flushed watermain. Resampled. Hydrant isolated Sep 6/20. Rechlorinated and resampled. Results Acceptable	06-Sep-20
151874	07-Sep-20	Total Coliform	29	cfu/100 mL	Flushed watermain. Resampled.	08-Sep-20
151875	07-Sep-20	Total Coliform	13	cfu/100 mL	Flushed watermain. Resampled.Result s Acceptable	08-Sep-20
151873	07-Sep-20	Total Coliform	38	cfu/100 mL	Flushed watermain. Resampled.	08-Sep-20
151951	10-Sep-20	Total Coliform	Present	Result in 100 mL sample	Flushed watermain. Resampled.	11-Sep-20
151937	10-Sep-20	Total Coliform	5	cfu/100 mL	Flushed watermain. Resampled.	10-Sep-20
151939	10-Sep-20	Total Coliform	9	cfu/100 mL	Flushed watermain. Resampled.	10-Sep-20
151949	10-Sep-20	Total Coliform	Present	Result in 100 mL sample	Flushed watermain. Resampled.Result s Acceptable	11-Sep-20
151967	11-Sep-20	Total Coliform	Present	Result in 100 mL sample	Flushed watermain. Resampled.	11-Sep-20
151962	11-Sep-20	Total Coliform	2	cfu/100 mL	Flushed watermain. Resampled.	14-Sep-20
151963	11-Sep-20	Total Coliform	1	cfu/100 mL	Flushed watermain.	14-Sep-20

					Resampled.Result s Acceptable	
151992	12-Sep-20	Total Coliform	5	cfu/100 mL	Flushed watermain. Resampled.	14-Sep-20
151993	12-Sep-20	Total Coliform	Present and 2*	Result in 100 mL sample cfu/100 mL	Flushed watermain. Resampled.	14-Sep-20
152010	13-Sep-20	Total Coliform	28	cfu/100 mL	Flushed watermain. Resampled.	14-Sep-20
152011	13-Sep-20	Total Coliform	30	cfu/100 mL	Flushed watermain. Resampled.	14-Sep-20
152023	15-Sep-20	Total Coliform	33	cfu/100 mL	Flushed watermain. Resampled.	15-Sep-20
152024	15-Sep-20	Total Coliform	29	cfu/100 mL	Flushed watermain. Resampled.	15-Sep-20
152025	15-Sep-20	Total Coliform	5	cfu/100 mL	Flushed watermain. Resampled.	15-Sep-20
152053	16-Sep-20	Total Coliform	2	cfu/100 mL	Flushed watermain. Resampled.	16-Sep-20
152054	16-Sep-20	Total Coliform	2	cfu/100 mL	Flushed watermain. Resampled.	15-Sep-20
152052	16-Sep-20	Total Coliform	2	cfu/100 mL	Flushed watermain. Resampled.	15-Sep-20
152081	17-Sep-20	Total Coliform	1	cfu/100 mL	Flushed watermain. Resampled.	17-Sep-20
152072	17-Sep-20	Total Coliform	11	cfu/100 mL	Flushed watermain. Resampled.	18-Sep-20
152073	17-Sep-20	Total Coliform	9	cfu/100 mL	Flushed watermain. Resampled.	18-Sep-20
152075	17-Sep-20	Total Coliform	9	cfu/100 mL	Flushed watermain. Resampled.	18-Sep-20
152076	17-Sep-20	Total Coliform	161	cfu/100 mL	Flushed watermain. Resampled.	18-Sep-20



152083	17-Sep-20	Total Coliform	3	cfu/100 mL	Flushed watermain. Resampled.	18-Sep-20
152068	17-Sep-20	Total Coliform	4	cfu/100 mL	Flushed watermain. Resampled. Results Acceptable	17-Sep-20
152070	17-Sep-20	Total Coliform	1	cfu/100 mL	Flushed watermain. Resampled.	17-Sep-20
152071	17-Sep-20	Total Coliform	1	cfu/100 mL	Flushed watermain. Resampled.	17-Sep-20
152098	18-Sep-20	Total Coliform	Present	Result in 100 mL sample	Flushed watermain. Resampled.	20-Sep-20
152117	19-Sep-20	Total Coliform	1	cfu/100 mL	Flushed watermain. Resampled. Results Acceptable	18-Sep-20
152118	19-Sep-20	Total Coliform	Present	Result in 100 mL sample	Flushed watermain. Resampled. Results Acceptable	18-Sep-20
152119	19-Sep-20	Total Coliform	Present	Result in 100 mL sample	Flushed watermain. Resampled. Results Acceptable	18-Sep-20
152115	19-Sep-20	Total Coliform	1	cfu/100 mL	Flushed watermain. Resampled.	18-Sep-20
152116	19-Sep-20	Total Coliform	Present	Results in 100 mL sample	Flushed watermain. Resampled.	18-Sep-20
152121	19-Sep-20	Total Coliform	Present	Results in 100 mL sample	Flushed watermain. Resampled.	20-Sep-20
152122	19-Sep-20	Total Coliform	Present	Results in 100 mL sample	Flushed watermain. Resampled. Results Acceptable	20-Sep-20
152127	20-Sep-20	Total Coliform	26	cfu/100 mL	Flushed watermain. Resampled. Results Acceptable	22-Sep-20



152129	20-Sep-20	Total Coliform	1	cfu/100 mL	Flushed watermain. Resampled. Results Acceptable	21-Sep-20
152124	20-Sep-20	Total Coliform	14	cfu/100 mL	Flushed watermain. Resampled.	22-Sep-20
152125	20-Sep-20	Total Coliform	4	cfu/100 mL	Flushed watermain. Resampled.	22-Sep-20
152126	20-Sep-20	Total Coliform	7	cfu/100 mL	Flushed watermain. Resampled.	22-Sep-20
152128	20-Sep-20	Total Coliform	3	cfu/100 mL	Flushed watermain. Resampled.	22-Sep-20
152159	22-Sep-20	Total Coliform	10	cfu/100 mL	Flushed watermain. Resampled. Results Acceptable	23-Sep-20
152161	22-Sep-20	Total Coliform	1	cfu/100 mL	Flushed watermain. Resampled. Results Acceptable	23-Sep-20
152164	22-Sep-20	Total Coliform	1	cfu/100 mL	Flushed watermain. Resampled. Results Acceptable	23-Sep-20
152165	22-Sep-20	Total Coliform	5	cfu/100 mL	Flushed watermain. Resampled.	23-Sep-20
152177	23-Sep-20	Total Coliform	8	cfu/100 mL	Flushed watermain. Resampled. Main taken out of service and re-chlorinated. Resample Results Acceptable	23-Sep-20
152178	23-Sep-20	Total Coliform	7	cfu/100 mL	Flushed watermain. Resampled. Hydrant taken out of service and re-chlorinated.	23-Sep-20

					Resample Results Acceptable	
152179	23-Sep-20	Total Coliform	36	cfu/100 mL	Flushed watermain. Resampled. Hydrant taken out of service and re- chlorinated. Resample Results Acceptable	18-Sep-20
152211	24-Sep-20	Total Coliform	Present	Result in 100 mL sample	Flushed watermain. Resampled. Results Acceptable	25-Sep-20
152210	24-Sep-20	Total Coliform	9	cfu/100 mL	Flushed watermain. Resampled.	25-Sep-20
152209	24-Sep-20	Total Coliform	5	cfu/100 mL	Flushed watermain. Resampled.	24-Sep-20
152208	24-Sep-20	Total Coliform	198	cfu/100 mL	Flushed watermain. Resampled. Results Acceptable	24-Sep-20
152226	25-Sep-20	Total Coliform	3	cfu/100 mL	Flushed watermain. Resampled.Result s Acceptable	26-Sep-20
152240	26-Sep-20	Total Coliform	1	cfu/100 mL	Flushed watermain. Resampled.Result s Acceptable	26-Sep-20
152349	30-Sep-20	Total Coliform	Present	Result in 100 mL sample	Flushed watermain. Resampled. Results Acceptable	01-Oct-20
152377	01-Oct-20	Total Coliform	Present	Result in 100 mL sample	Flushed watermain. Resampled. Results Acceptable	02-Oct-20
152378	01-Oct-20	Total Coliform	Present	Result in 100 mL sample	Flushed watermain. Resampled.	03-Oct-20
152379	01-Oct-20	Total Coliform	Present	Result in 100 mL sample	Flushed watermain. Resampled.	02-Oct-20

					Results Acceptable	
152380	01-Oct-20	Total Coliform	Present	Result in 100 mL sample	Flushed watermain. Resampled.	02-Oct-20
152392	02-Oct-20	Total Coliform	Present	Result in 100 mL sample	Flushed watermain. Resampled. Results Acceptable	03-Oct-20
152393	02-Oct-20	Total Coliform	Present	Result in 100 mL sample	Flushed watermain. Resampled. Results Acceptable	03-Oct-20
152403	03-Oct-20	Total Coliform	23	cfu/100 mL	Flushed watermain. Resampled. Results Acceptable	04-Oct-20
152404	03-Oct-20	Total Coliform	3	cfu/100 mL	Flushed watermain. Resampled.	05-Oct-20
152411	04-Oct-20	Total Coliform	1	cfu/100 mL	Flushed watermain. Resampled. Results Acceptable	05-Oct-20
152412	04-Oct-20	Total Coliform	Present	Result in 100 mL sample	Flushed watermain. Resampled. Results Acceptable	05-Oct-20
152421	05-Oct-20	Total Coliform	4	cfu/100 mL	Flushed watermain. Resampled.	06-Oct-20
152422	05-Oct-20	Total Coliform	8	cfu/100 mL	Flushed watermain. Resampled.	06-Oct-20
152438	06-Oct-20	Total Coliform	1	cfu/100 mL	Flushed watermain. Resampled. Results Acceptable	05-Oct-20
152458	07-Oct-20	Total Coliform	1	cfu/100 mL	Flushed watermain. Resampled.Result s Acceptable	06-Oct-20

152494	08-Oct-20	Total Coliform	2	cfu/100 mL	Flushed watermain. Resampled.	07-Oct-20
152495	08-Oct-20	Total Coliform	1	cfu/100 mL	Flushed watermain. Resampled. Results Acceptable	07-Oct-20
152497	08-Oct-20	Total Coliform	Present	Result in 100 mL sample	Flushed watermain. Resampled. Results Acceptable	10-Oct-20
152498	08-Oct-20	Total Coliform	Present	Result in 100 mL sample	Flushed watermain. Resampled. Results Acceptable	10-Oct-20
152499	08-Oct-20	Total Coliform	Present	Result in 100 mL sample	Flushed watermain. Resampled.	10-Oct-20
152513	09-Oct-20	Total Coliform	5	cfu/100 mL	Flushed watermain. Resampled. Results Acceptable	09-Oct-20
152516	09-Oct-20	Total Coliform	2	cfu/100 mL	Flushed watermain. Resampled.	09-Oct-20
152521	09-Oct-20	Total Coliform	Present	Result in 100 mL sample	Flushed watermain. Resampled. Results Acceptable	10-Oct-20
152522	09-Oct-20	Total Coliform	Present	Result in 100 mL sample	Flushed watermain. Resampled. Results Acceptable	10-Oct-20
152532	10-Oct-20	Total Coliform	Present	Result in 100 mL sample	Flushed watermain. Resampled. Results Acceptable	11-Oct-20
152534	10-Oct-20	Total Coliform	2	cfu/100 mL	Flushed watermain. Resampled.	10-Oct-20
152535	10-Oct-20	Total Coliform	1	cfu/100 mL	Flushed watermain. Resampled. Results Acceptable	10-Oct-20
152546	12-Oct-20	Total Coliform	1	cfu/100 mL	Flushed watermain.	11-Oct-20



					Resampled. Results Acceptable	
152547	12-Oct-20	Total Coliform	1	cfu/100 mL	Flushed watermain. Resampled.Result s Acceptable	13-Oct-20
152579	15-Oct-20	Total Coliform	Present	Result in 100 mL sample	Flushed watermain. Resampled. Results Acceptable	15-Oct-20
152744	29-Oct-20	Total Coliform	Present	Result in 100 mL sample	Flushed watermain. Resampled. Results Acceptable	15-Oct-20
152781	01-Nov-20	Total Coliform	1	cfu/100 mL	Flushed watermain. Resampled.Result s Acceptable	03-Nov-20
152782	01-Nov-20	Total Coliform	1	cfu/100 mL	Flushed watermain. Resampled.Result s Acceptable	03-Nov-20
152948	14-Nov-20	Total Coliform	Present	Result in 100 mL sample	Flushed watermain. Resampled.Result s Acceptable	16-Nov-20
153279	17-Dec-20	Total Coliform	Present	Result in 100 mL sample	Flushed watermain. Resampled.Result s Acceptable	18-Dec-20
153294	19-Dec-20	Total Coliform	Present	Result in 100 mL sample	Flushed watermain. Resampled.Result s Acceptable	19-Dec-20
153089	27-Nov-20	Chlorine analyzer Total chlorine residual	> 3.0	mg/L	Analyzer inspected and calibrated. Resampled.Result s Acceptable	27-Nov-20

**\*NOTE:** Sample analyzed by Membrane filtration and P/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.) or P/A	Range of Total Coliform Results (min.) - (max.) or P/A	Number of HPC Samples	Range of HPC Results (min.) - (max.)
*Distribution	2942	2942A (100% A)	2942A (100% A)	2942	0 - 4831
Transmission	2230	2230A (100% A)	2230A (100% A)	2230	0 - 812
Main Work	1595	1594A (99.94% A)	1525A (95.61% A)	1595	0 - 7909
Resample and vicinity	432	429A (99.31% compliance) (0 - 11)	352A (81.48% compliance) (0 - 198)	416	0 - 1211

**\*NOTE:** "Distribution" includes samples submitted for Water Quality Inquiry as well as distribution samples.

Resample and vicinity bacti samples are processed by Membrane filtration technique. The rest of the bacti samples are processed using the Presence/Absence technique.

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

#### For Distribution

	Number of Grab Samples	Range of Results (min.) - (max.)
Turbidity	2905	<0.1 – 7.44 NTU
Chlorine	2955	<0.1 – 2.34 mg/L

#### For Transmission

	Number of Grab Samples	Range of Results (min.) - (max.)
Turbidity	2233	<0.1 – 2.07 NTU
Chlorine	2234	0.37 – 3.01 mg/L

#### For Main Work

	Number of Grab Samples	Range of Results (min.) - (max.)
Turbidity	1596	0.09 – 3.63 NTU
Chlorine	1596	0.76 – 2.20 mg/L

#### For Resample/Vicinity

	Number of Grab Samples	Range of Results (min.) - (max.)
Turbidity	420	0.09 – 0.96 NTU
Chlorine	422	1.11 – 2.20 mg/L



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
NONE	NONE	NONE	NONE	NONE

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

Parameter	Sample Date	Result Value (min.) - (max.)	Unit of Measure	Exceedance
Sodium	Jan-Dec 2020	12.1 – 23.8	mg/L	Yes
Nitrite	Jan-Dec 2020	<0.002 – 0.003	mg/L	No
Nitrate	Jan-Dec 2020	0.21 – 0.52	mg/L	No

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

Parameter	Sample Date	Result Value (min.) - (max.)	Unit of Measure	Exceedance
Antimony	Jan – Dec 2020	0 – 0.0003	mg/L	No
Arsenic	Jan – Dec 2020	0.0006 – 0.0689	mg/L	Yes
Barium	Jan – Dec 2020	0.0224 – 0.134	mg/L	No
Boron	Jan – Dec 2020	0.0227 – 0.0283	mg/L	No
Cadmium	Jan – Dec 2020	0 – 0.0002	mg/L	No
Chromium	Jan – Dec 2020	0.0002 – 0.0032	mg/L	No
Nitrate	Jan-Dec 2020	0.40 – 0.41	mg/L	No
Nitrite	Jan-Dec 2020	<0.002 – <0.002	mg/L	No
Selenium	Jan – Dec 2020	0 – 0.0007	mg/L	No
Sodium	Jan-Dec 2020	13.5 – 13.9	mg/L	No
Uranium	Jan – Dec 2020	0.0004 – 0.0086	mg/L	No

Summary of Lead (Pb) testing under Schedule 15.1 during this reporting period

Location Type	Number of Samples	Range of Lead Results (min.) - (max.)	Unit of Measure	Number of Exceedances
*Plumbing	26	<0.00005 – 0.00523	mg/L	None
Distribution	11	<0.00005 – 0.000346	mg/L	None

**\*NOTE:** Regulatory Relief was granted to eliminate sampling from May 2020 to December 2020 due to access limitations imposed by COVID-related health and safety concerns for residential and non-residential sampling locations

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

Parameter	Sample Date	Result Value (min.) - (max.)	Unit of Measure	Exceedance
Benzene	Jan-Dec 2020	0 - 0	µg/L	No



Carbon Tetrachloride	Jan-Dec 2020	0 - 0	µg/L	No
1,2-Dichlorobenzene	Jan-Dec 2020	0 - 0	µg/L	No
1,4-Dichlorobenzene	Jan-Dec 2020	0 - 0	µg/L	No
1,2-Dichloroethane	Jan-Dec 2020	0 - 0	µg/L	No
1,1-Dichloroethylene (vinylidene chloride)	Jan-Dec 2020	0 - 0	µg/L	No
Dichloromethane	Jan-Dec 2020	0 - 0	µg/L	No
Monochlorobenzene	Jan-Dec 2020	0 - 0	µg/L	No
THM (NOTE: show latest annual average)	Jan-Dec 2020	12.5	µg/L	No
Tetrachloroethylene	Jan-Dec 2020	0 - 0	µg/L	No
Trichloroethylene	Jan-Dec 2020	0 - 0	µg/L	No
Vinyl Chloride	Jan-Dec 2020	0 - 0	µg/L	No

**NOTE:** A result of zero indicates that the result obtained was below the method detection/reporting limit.

**Summary of Organic parameters sampled during this reporting period or the most recent sample results for TRANSMISSION (SUPPLY) samples.**

Parameter	Sample Date	Result Value (min.) - (max.)	Unit of Measure	Exceedance
Benzene	Jan-Dec 2020	0 - 0	µg/L	No
Carbon Tetrachloride	Jan-Dec 2020	0 - 0	µg/L	No
1,2-Dichlorobenzene	Jan-Dec 2020	0 - 0	µg/L	No
1,4-Dichlorobenzene	Jan-Dec 2020	0 - 0	µg/L	No
1,2-Dichloroethane	Jan-Dec 2020	0 - 0	µg/L	No
1,1-Dichloroethylene (vinylidene chloride)	Jan-Dec 2020	0 - 0	µg/L	No
Dichloromethane	Jan-Dec 2020	0 - 0	µg/L	No
Monochlorobenzene	Jan-Dec 2020	0 - 0	µg/L	No
THM (NOTE: show latest annual average)	Jan-Dec 2020	13.0	µg/L	No
Tetrachloroethylene	Jan-Dec 2020	0 - 0	µg/L	No
Trichloroethylene	Jan-Dec 2020	0 - 0	µg/L	No
Vinyl Chloride	Jan-Dec 2020	0 - 0	µg/L	No

**NOTE:** A result of zero indicates that the result obtained was below the method detection/reporting limit.

**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
Arsenic	0.0689	mg/L	06-Jul-20
Arsenic	0.0476	mg/L	06-Jul-20

**NOTE:** The exceeding Arsenic values were attributed to a localized hydraulic disturbance in the system due to an unplanned Water Treatment Plant shutdown and is not reflective of normal distribution system water quality.