



ANNUAL REPORT – City of Vaughan

Drinking-Water System Number:	260003097
Drinking-Water System Name:	Vaughan Distribution System
Drinking-Water System Owner:	The Corporation of the City of Vaughan
Drinking-Water System Category:	Large Municipal Residential
Period being reported:	January 1, 2019 – December 31, 2019

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 []

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

City of Vaughan, Joint Operation Centre, 2800 Rutherford Road, Vaughan, ON L4K 2N9

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.

http://www.vaughan.ca/services/residential/water/water_quality/Pages/default.aspx

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

Not Applicable

Did you provide a copy of your annual report to all Drinking-Water System owners that are connected to you and to whom you provide all its drinking water?

Not Applicable

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

[X] Public access/notice via the web

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

The Vaughan Distribution System consists of one (1) booster pumping station (Maplewood Booster Station/North Maple Booster Station), one (1) pressure elevating system (Woodland Acres Pressure Elevating System) and trunk and distribution watermains in the City of Vaughan.

Drinking water for the City of Vaughan is supplied from York Region, who procure water from the City of Toronto and Peel Region. The City of Toronto operates four (4) water treatment plants using Lake Ontario as a raw water source.

List all water treatment chemicals used over this reporting period

Water is treated by City of Toronto and the Regional Municipality of Peel. List of chemicals used for water supplied to City of Vaughan is available on their web site www.toronto.ca and <https://www.peelregion.ca/pw/water/quality/reports/>, respectively.

Brief description and a breakdown of expenses incurred to repair, replace and install equipment

- Removal of easement at Islington Ave by extending the Tayok Dr watermain- \$77,700
- Maplewood Water Booster Station controller switch replaced- \$15,000
- Hydrant repairs- \$89,200
- Concrete pressure pipe repairs on Langstaff Rd at Hwy 27- \$33,000
- Water service connection repair on Park St - \$10,000
- Watermain Replacement on Hanlan Rd and Clark Avenue, Bass Pro Mills Dr and Friuli Ct - \$9.1 million (approximately)

Provide details on the notices submitted in accordance with subsection 18(1) of the Safe Drinking-Water Act or section 16-4 of Schedule 16 of O.Reg.170/03 and reported to Spills Action Centre.

Incident Date	Parameter	Result	Unit of Measure	Corrective Action	Corrective Action Date
01/24/19	Combined Chlorine	0.02	mg/L	Flush and resample	01/24/19
01/26/19	NDOGN	NDOGN	Count/100mL	Flush and resample	01/28/19
02/22/19	Combined Chlorine	0.01	mg/L	Flush and resample	02/22/19
05/08/19	Combined Chlorine	0.04	mg/L	Flush and resample	05/10/19
06/12/19	Total Coliform	TC – P	P-A/100mL	Flush and resample	06/14/19



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09/13/19	Total Coliform	TC – P	P-A/100mL	Flush and resample	09/13/19
10/04/19	Total Coliform	TC – P	P-A/100mL	Flush and resample	10/05/19
10/10/19	NDMA	0.000023	mg/L	Flush and resample	10/25/19

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 Present (P)/ Absent (A)	Range of Total Coliform Results Present (P)/ Absent (A)	Number of HPC Samples	Range of HPC Results (min #)-(max #)
Distribution	1,943	A MPN/100mL	A – P MPN/100mL	991	<1 CFU/mL – 3,000 CFU/mL

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 #)
Turbidity	1	0.10 NTU
Combined Chlorine – Range (Maximum/ Minimum)	2,286	Combined- 0.01mg/L – 2.65mg/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 Last Sampled	Range of Results	Unit of Measure
05/23/19	Nitrosodimethylamine (NDMA)	12/10/19	<0.000009- 0.000023	mg/L
05/23/19	Chlorite	06/27/19	0.01	mg/L
05/23/19	Chlorate	06/27/19	0.01-0.06	mg/L

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

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Antimony	10/30/2019	<0.0005	mg/L	No
Arsenic	10/30/2019	0.0008	mg/L	No
Cadmium	10/30/2019	<0.0005	mg/L	No
Chromium	10/30/2019	<0.0005	mg/L	No
Selenium	10/30/2019	<0.0005	mg/L	No
Sodium	10/30/2019	16.8	mg/L	No
Fluoride	10/30/2019	0.61	mg/L	No


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Nitrite	12/10/2019	<0.05	mg/L	No
Nitrate	12/10/2019	0.76	mg/L	No

Summary of Lead testing under Schedule 15.1 during this reporting period

Location Type	Number of Samples	Range of Lead Results (min#) – (max #)	Number of Exceedances
Plumbing	74	<0.0005 – 0.0017	0
Distribution	49	<0.0005 – 0.0046	0

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

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Haloacetic Acids (HAA's) (NOTE: show latest annual average)	4/year	8.8	µg/L	No
Trihalomethane (THM) (NOTE: show latest annual average)	4/year	18.9	µg/L	No

None of inorganic or organic parameters exceeded half the standard as prescribed in Schedule 2 of Ontario Drinking Water Quality Standards