



2019 ONTARIO DRINKING WATER SYSTEMS REGULATION ANNUAL REPORT

Drinking-Water System Number:	260003188
Drinking-Water System Name:	Town of Newmarket Water Distribution System
Drinking-Water System Owner:	The Corporation of the Town of Newmarket
Drinking-Water System Category:	Large Municipal Residential
Period being reported:	January 1 st , 2020 to December 31 st , 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 ☒ No ☐

Is your annual report available to the public at no charge on a web site on the Internet? Yes ☒ No ☐

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

- Newmarket Operations Centre, 1275 Maple Hill Court, Newmarket, ON
- Newmarket Municipal Offices, Customer Service Counter, 395 Mulock Drive, Newmarket, ON
- Online at newmarket.ca

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 ☐ N/A ☒

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 ☐ N/A ☒

Note: For the following tables below, additional rows or columns may be added or an appendix may be attached to the report

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

Drinking Water System Name	Drinking Water System Number
N/A	N/A

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 ☐ No ☐ N/A ☒



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

- ☒ Public access/notice via the web
☐ Public access/notice via Government Office
☐ Public access/notice via a newspaper
☒ Public access/notice via Public Request
☐ Public access/notice via a Public Library
☐ Public access/notice via other method _____

Describe your Drinking-Water System

The Newmarket Water Distribution System is a Class I Distribution Subsystem. The Town's Distribution System Infrastructure services approximately 84,224 people within the Town of Newmarket.

The Newmarket DWS is comprised of approximately:

- 26,668 metered water services;
- 2758 mainline valves;
- 2,355 municipally owned fire hydrants;
- 309 kilometers of municipally owned watermain;
- 28 sample stations and autoflushers;
- 6 Air/vacuum relief combo valves;
- 4 pressure zones;
- 4 air relief valves; and
- 2 pressure reducing valves

List all water treatment chemicals used over this reporting period

Water treatment is the responsibility of York Region. Chlorine is added to provide primary disinfection, and chloramine (addition of ammonia) provides a secondary residual in the distribution system. Sodium silicate is added to sequester naturally occurring iron and manganese in the groundwater supply(ies) associated with the York Region drinking water system(s).

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

Drinking Water System Capital Improvements: \$ 805,000 (approx.)

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	AWQI	Parameter	Result	Corrective	Resolution
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Date	Number		(mg/L or Present)	Action(s)	Date
2020-01-06	149379	Combined chlorine	0.18 mg/L	Flush and re-sample	2020-01-06
2020-01-27	149495	Combined chlorine	0.20 mg/L	Flush and re-sample	2020-01-27
2020-02-24	149631	Combined chlorine	0.22 mg/L	Flush and re-sample	2020-02-24
2020-03-02	149669	Combined chlorine	0.22 mg/L	Flush and re-sample	2020-03-02
2020-03-09	149717	Combined chlorine	0.23 mg/L	Flush and re-sample	2020-03-09
2020-03-23	149781	Combined chlorine	0.16 mg/L	Flush and re-sample	2020-03-23
2020-03-30	149804	Combined chlorine	0.23 mg/L	Flush and re-sample	2020-03-30
2020-04-01	149812	Combined chlorine	0.12 mg/L	Flush and re-sample	2020-04-01
2020-04-14	149866	Combined chlorine	0.19 mg/L	Flush and re-sample	2020-04-14
2020-04-27	149922	Combined chlorine	0.22 mg/L	Flush and re-sample	2020-04-27
2020-04-28	149931	Combined chlorine	0.22 mg/L	Flush and re-sample	2020-04-28
2020-05-19	149985	Combined chlorine	0.19 mg/L	Flush and re-sample	2020-05-19
2020-06-01	150089	Combined chlorine	0.19 mg/L	Flush and re-sample	2020-06-01
2020-06-08	150172	Combined chlorine	0.22 mg/L	Flush and re-sample	2020-06-08
2020-06-15	150246	Combined chlorine	0.17 mg/L	Flush and re-sample	2020-06-15
2020-06-22	150321	Combined chlorine	0.17 mg/L	Flush and re-sample	2020-06-22
2020-06-23	150332	Combined chlorine	0.23 mg/L	Flush and re-sample	2020-06-23
2020-06-24	150359	Combined chlorine	0.18 mg/L	Flush and re-sample	2020-06-24
2020-06-25	150382	Combined chlorine	0.05 mg/L	Flush and re-sample	2020-06-25
2020-06-26	150405	Combined chlorine	0.22 mg/L	Flush and re-sample	2020-06-26
2020-06-29	150416	Combined chlorine	0.22 mg/L	Flush and re-sample	2020-06-29
2020-06-30	150436	Combined chlorine	0.14 mg/L	Flush and re-	2020-06-30



				sample	
2020-07-06	150515	Combined chlorine	0.21 mg/L	Flush and re-sample	2020-07-06
2020-07-07	150530	Combined chlorine	0.11 mg/L	Flush and re-sample	2020-07-07
2020-07-13	150622	Combined chlorine	0.08 mg/L	Flush and re-sample	2020-07-13
2020-07-15	150680	Combined chlorine	0.16 mg/L	Flush and re-sample	2020-07-15
2020-07-15	150683	Combined chlorine	0.19 mg/L	Flush and re-sample	2020-07-15
2020-07-20	150810	Combined chlorine	0.10 mg/L	Flush and re-sample	2020-07-20
2020-07-21	150816	Combined chlorine	0.21 mg/L	Flush and re-sample	2020-07-21
2020-07-21	150823	Combined chlorine	0.24 mg/L	Flush and re-sample	2020-07-21
2020-07-22	150862	Combined chlorine	0.19 mg/L	Flush and re-sample	2020-07-22
2020-07-27	150953	Combined chlorine	0.07 mg/L	Flush and re-sample	2020-07-27
2020-07-28	150965	Combined chlorine	0.20 mg/L	Flush and re-sample	2020-07-28
2020-07-31	151036	Combined chlorine	0.17 mg/L	Flush and re-sample	2020-07-31
2020-08-04	151082	Combined chlorine	0.20 mg/L	Flush and re-sample	2020-08-04
2020-08-04	151083	Combined chlorine	0.18 mg/L	Flush and re-sample	2020-08-04
2020-08-05	151102	Combined chlorine	0.06 mg/L	Flush and re-sample	2020-08-05
2020-08-05	151103	Combined chlorine	0.21 mg/L	Flush and re-sample	2020-08-05
2020-08-04	151105	E.Coli & Total Coliform	Present	Flush and re-sample	2020-08-11
2020-08-06	151186	Combined chlorine	0.14 mg/L	Flush and re-sample	2020-08-06
2020-08-06	151262	Combined chlorine	0.13 mg/L	Flush and re-sample	2020-08-10
2020-08-10	151263	Combined chlorine	0.16 mg/L	Flush and re-sample	2020-08-10
2020-08-11	151310	Combined chlorine	0.20 mg/L	Flush and re-sample	2020-08-11
2020-08-13	151348	Combined chlorine	0.07 mg/L	Flush and re-sample	2020-08-13



2020-08-17	151408	Combined chlorine	0.19 mg/L	Flush and re-sample	2020-08-17
2020-08-18	151423	Combined chlorine	0.23 mg/L	Flush and re-sample	2020-08-18
2020-08-18	151428	Combined chlorine	0.09 mg/L	Flush and re-sample	2020-08-18
2020-08-24	151542	Combined chlorine	0.17 mg/L	Flush and re-sample	2020-08-24
2020-08-25	151550	Combined chlorine	0.23 mg/L	Flush and re-sample	2020-08-25
2020-08-31	151694	Combined chlorine	0.22 mg/L	Flush and re-sample	2020-08-31
2020-09-01	151732	Combined chlorine	0.06 mg/L	Flush and re-sample	2020-09-01
2020-09-01	151733	Combined chlorine	0.23 mg/L	Flush and re-sample	2020-09-01
2020-09-02	151742	Combined chlorine	0.15 mg/L	Flush and re-sample	2020-09-02
2020-09-02	151744	Combined chlorine	0.12 mg/L	Flush and re-sample	2020-09-02
2020-09-04	151816	Combined chlorine	0.11 mg/L	Flush and re-sample	2020-09-04
2020-09-08	151893	Combined chlorine	0.06 mg/L	Flush and re-sample	2020-09-08
2020-09-10	151927	Combined chlorine	0.22 mg/L	Flush and re-sample	2020-09-10
2020-09-10	151929	Combined chlorine	0.15 mg/L	Flush and re-sample	2020-09-10
2020-09-14	152015	Combined chlorine	0.09 mg/L	Flush and re-sample	2020-09-14
2020-09-17	152061	Combined chlorine	0.21 mg/L	Flush and re-sample	2020-09-17
2020-09-18	152096	Combined chlorine	0.19 mg/L	Flush and re-sample	2020-09-18
2020-09-21	152146	Combined chlorine	0.19 mg/L	Flush and re-sample	2020-09-21
2020-09-22	152156	Combined chlorine	0.17 mg/L	Flush and re-sample	2020-09-22
2020-09-22	152158	Combined chlorine	0.23 mg/L	Flush and re-sample	2020-09-22
2020-09-25	152218	Combined chlorine	0.24 mg/L	Flush and re-sample	2020-09-25
2020-09-28	152281	Combined chlorine	0.15 mg/L	Flush and re-sample	2020-09-28
2020-09-29	152300	Combined chlorine	0.24 mg/L	Flush and re-	2020-09-29



				sample	
2020-09-29	152303	Combined chlorine	0.23 mg/L	Flush and re-sample	2020-09-29
2020-10-02	152388	Combined chlorine	0.10 mg/L	Flush and re-sample	2020-10-02
2020-10-05	152414	Combined chlorine	0.22 mg/L	Flush and re-sample	2020-10-05
2020-10-06	152437	Combined chlorine	0.14 mg/L	Flush and re-sample	2020-10-06
2020-10-07	152447	Combined chlorine	0.18 mg/L	Flush and re-sample	2020-10-07
2020-10-13	152555	Combined chlorine	0.22 mg/L	Flush and re-sample	2020-10-13
2020-10-14	152564	Combined chlorine	0.23 mg/L	Flush and re-sample	2020-10-14
2020-10-19	152611	Combined chlorine	0.20 mg/L	Flush and re-sample	2020-10-19
2020-10-21	152636	Combined chlorine	0.18 mg/L	Flush and re-sample	2020-10-21
2020-10-26	152702	Combined chlorine	0.11 mg/L	Flush and re-sample	2020-10-26
2020-10-29	152738	Combined chlorine	0.14 mg/L	Flush and re-sample	2020-10-29
2020-11-02	152794	Combined chlorine	0.14 mg/L	Flush and re-sample	2020-11-02
2020-10-31	152797	Total Coliform	Present	Flush and re-sample	2020-11-05
2020-11-09	152874	Combined chlorine	0.16 mg/L	Flush and re-sample	2020-11-09
2020-11-10	152882	Combined chlorine	0.17 mg/L	Flush and re-sample	2020-11-10
2020-11-11	152901	Combined chlorine	0.06 mg/L	Flush and re-sample	2020-11-11
2020-11-16	152970	Combined chlorine	0.23 mg/L	Flush and re-sample	2020-11-16
2020-11-16	152972	Combined chlorine	0.12 mg/L	Flush and re-sample	2020-11-16
2020-11-19	153011	Combined chlorine	0.23 mg/L	Flush and re-sample	2020-11-19
2020-11-23	153059	Combined chlorine	0.14 mg/L	Flush and re-sample	2020-11-23
2020-11-23	153060	Combined chlorine	0.19 mg/L	Flush and re-sample	2020-11-23
2020-11-24	153066	Combined chlorine	0.24 mg/L	Flush and re-sample	2020-11-24



2020-11-24	153069	Combined chlorine	0.07 mg/L	Flush and re-sample	2020-11-24
2020-11-30	153108	Combined chlorine	0.13 mg/L	Flush and re-sample	2020-11-30
2020-12-01	153117	Combined chlorine	0.12 mg/L	Flush and re-sample	2020-12-01
2020-12-04	153160	Combined chlorine	0.13 mg/L	Flush and re-sample	2020-12-04
2020-12-07	153185	Combined chlorine	0.15 mg/L	Flush and re-sample	2020-12-07
2020-12-14	153233	Combined chlorine	0.14 mg/L	Flush and re-sample	2020-12-14
2020-12-15	153246	Combined chlorine	0.21 mg/L	Flush and re-sample	2020-12-15
2020-12-21	153300	Combined chlorine	0.17 mg/L	Flush and re-sample	2020-12-21
2020-12-23	153320	Combined chlorine	0.10 mg/L	Flush and re-sample	2020-12-23
2020-12-29	153332	Combined chlorine	0.19 mg/L	Flush and re-sample	2020-12-29

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	N/A	N/A	N/A	N/A	N/A
Treated	N/A	N/A	N/A	N/A	N/A
Distribution	1352 (approx.)	1 “Present” sample	2 “Present” samples	650 (approx.)	0 – 740 CFU/mL

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

	Number of Grab Samples	Range of Results (min #)-(max #)	Unit of Measure
Turbidity	N/A	N/A	N/A
Chlorine	5752	0.05 - 3.42 (combined Cl ₂)	mg/L
Fluoride (If the DWS provides fluoridation)	N/A	N/A	N/A

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

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

Date of legal instrument issued	Parameter	Date Sampled	Result	Unit of Measure
N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A

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

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Sodium	Jan 1 - Dec 31 2020	14.1 – 24.8*	mg/L	*Yes - Next required reporting date is January 7 th , 2021 or later
Fluoride	Jan 1 - Dec 31 2020	0.15 – 0.60	mg/L	No
Nitrite	Jan 1 - Dec 31 2020	0.05 – 0.05	mg/L	No
Nitrate	Jan 1 - Dec 31 2020	0.50 – 0.78	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 #)	Unit of Measure	Number of Exceedances
Plumbing	2	0.0005 - 0.0005	mg/L	0
Distribution	19	0.0005 - 0.0006	mg/L	0

Note: The Town of Newmarket possesses Lead Regulatory Relief under Schedule D of Municipal Drinking Water License 124-101; and is only required to sample “8” (eight) points in our respective distribution system during each of the sampling periods identified within O.Reg 170/03 and our respective Municipal Drinking Water License. All other lead sampling that is completed is above the requirements stipulated within the above referenced license and regulation and is done at the sole discretion of the Town of Newmarket.

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

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
HAA (Total) (NOTE: show latest annual average)	Jan 1 - Dec 31 2020	Q4 RAA 0.0080	mg/L	No
THM (Total) (NOTE: show latest annual average)	Jan 1 - Dec 31 2020	Q4 RAA 0.0159	mg/L	No



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

Parameter	Result Value	Unit of Measure	Date of Sample
N/A	N/A	N/A	N/A