



2021 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 , 2021 to December 31 st , 2021

<p><u>Complete if your Category is Large Municipal Residential or Small Municipal Residential</u></p> <p>Does your Drinking-Water System serve more than 10,000 people? Yes [X] No []</p> <p>Is your annual report available to the public at no charge on a web site on the Internet? Yes [X] No []</p> <p>Location where Summary Report required under O. Reg. 170/03 Schedule 22 will be available for inspection.</p> <ul style="list-style-type: none"> • Robert N. Shelton Operations Centre, 1275 Maple Hill Court, Newmarket, ON • Newmarket Municipal Offices, Customer Service Counter, 395 Mulock Drive, Newmarket, ON • Online at newmarket.ca 	<p><u>Complete for all other Categories.</u></p> <p>Number of Designated Facilities served:</p> <p style="text-align: center;">N/A</p> <p>Did you provide a copy of your annual report to all Designated Facilities you serve? Yes [] No [] N/A [X]</p> <p>Number of Interested Authorities you report to:</p> <p style="text-align: center;">N/A</p> <p>Did you provide a copy of your annual report to all Interested Authorities you report to for each Designated Facility? Yes [] No [] N/A [X]</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:

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 [X]



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 87,942 people within the Town of Newmarket.

The Newmarket DWS is comprised of approximately:

- 26,652 metered water services;
- 2718 mainline valves;
- 2,361 municipally owned fire hydrants;
- 318.6 kilometers of municipally owned watermain;
- 29 sample stations;
- 10 auto-flushers;
- 6 air/vacuum relief combo valves;
- 4 pressure zones;
- 5 air relief valves; and
- 4 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

• Water System Capital Improvements	\$541,000 (approx.)
• Emergency repairs related to water	\$290,536 (approx.)
• Cathodic Protection	\$196,910 (approx.)
• Unidirectional Flushing:	\$156,599 (approx.)
• Hydrant Inspections:	\$19,774 (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 Date	AWQI Number	Parameter	Result (mg/L or Present)	Corrective Action(s)	Resolution Date
04-Jan-21	153352	Combined Chlorine	0.09 mg/L	Flush and re-sample	04-Jan-21
05-Jan-21	153362	Combined Chlorine	0.18 mg/L	Flush and re-sample	05-Jan-21
11-Jan-21	153383	Combined Chlorine	0.13 mg/L	Flush and re-sample	11-Jan-21
11-Jan-21	153410	Sodium	24.7 mg/L	Re-sample	19-Jan-21
16-Jan-21	153417	Combined Chlorine	0.23 mg/L	Flush and re-sample	16-Jan-21
18-Jan-21	153421	Combined Chlorine	0.21 mg/L	Flush and re-sample	18-Jan-21
19-Jan-21	153432	Combined Chlorine	0.12 mg/L	Flush and re-sample	19-Jan-21
01-Feb-21	153487	Combined Chlorine	0.14 mg/L	Flush and re-sample	01-Feb-21
02-Feb-21	153498	Combined Chlorine	0.00 mg/L	Flush and re-sample	02-Feb-21
08-Feb-21	153529	Combined Chlorine	0.17 mg/L	Flush and re-sample	08-Feb-21
09-Feb-21	153539	Combined Chlorine	0.15 mg/L	Flush and re-sample	09-Feb-21
16-Feb-21	153572	Combined Chlorine	0.23 mg/L	Flush and re-sample	16-Feb-21
23-Feb-21	153610	Combined Chlorine	0.15mg/L	Flush and re-sample	23-Feb-21
24-Feb-21	153625	Combined Chlorine	0.16mg/L	Flush and re-sample	24-Feb-21
08-Mar-21	153666	Combined Chlorine	0.12mg/L	Flush and re-sample	08-Mar-21
11-Mar-21	153681	Combined Chlorine	0.21mg/L	Flush and re-sample	11-Mar-21
16-Mar-21	153700	Combined Chlorine	0.24mg/L	Flush and re-sample	16-Mar-21
17-Mar-21	153707	Combined Chlorine	0.19mg/L	Flush and re-sample	17-Mar-21
17-Mar-21	153708	Combined Chlorine	0.15mg/L	Flush and re-sample	17-Mar-21
18-Mar-21	153712	Combined Chlorine	0.23mg/L	Flush and re-sample	18-Mar-21



22-Mar-21	153723	Combined Chlorine	0.16mg/L	Flush and re-sample	22-Mar-21
29-Mar-21	153770	Combined Chlorine	0.19mg/L	Flush and re-sample	29-Mar-21
06-Apr-21	153803	Combined Chlorine	0.10mg/L	Flush and re-sample	06-Apr-21
07-Apr-21	153813	Combined Chlorine	0.23mg/L	Flush and re-sample	07-Apr-21
12-Apr-21	153844	Combined Chlorine	0.14mg/L	Flush and re-sample	12-Apr-21
14-Apr-21	153874	Combined Chlorine	0.24mg/L	Flush and re-sample	14-Apr-21
19-Apr-21	153897	Combined Chlorine	0.13mg/L	Flush and re-sample	19-Apr-21
26-Apr-21	153941	Combined Chlorine	0.15mg/L	Flush and re-sample	26-Apr-21
28-Apr-21	153953	Combined Chlorine	0.23mg/L	Flush and re-sample	28-Apr-21
04-May-21	153974	Combined Chlorine	0.12mg/L	Flush and re-sample	04-May-21
07-May-21	153989	Combined Chlorine	0.23mg/L	Flush and re-sample	07-May-21
10-May-21	154004	Combined Chlorine	0.08mg/L	Flush and re-sample	10-May-21
13-May-21	154036	Combined Chlorine	0.19mg/L	Flush and re-sample	13-May-21
18-May-21	154077	Combined Chlorine	0.14mg/L	Flush and re-sample	18-May-21
25-May-21	154117	Combined Chlorine	0.09mg/L	Flush and re-sample	25-May-21
27-May-21	154137	Combined Chlorine	0.23mg/L	Flush and re-sample	27-May-21
28-May-21	154150	Combined Chlorine	0.15mg/L	Flush and re-sample	28-May-21
31-May-21	154164	Combined Chlorine	0.10mg/L	Flush and re-sample	31-May-21
01-Jun-21	154180	Combined Chlorine	0.10mg/L	Flush and re-sample	01-Jun-21
09-Jun-21	154224	Combined Chlorine	0.14mg/L	Flush and re-sample	09-Jun-21
14-Jun-21	154286	Combined Chlorine	0.11mg/L	Flush and re-sample	14-Jun-21
21-Jun-21	154357	Combined Chlorine	0.13mg/L	Flush and re-sample	21-Jun-21



28-Jun-21	154432	Combined Chlorine	0.19mg/L	Flush and re-sample	28-Jun-21
29-Jun-21	154453	Combined Chlorine	0.16mg/L	Flush and re-sample	29-Jun-21
06-Jul-21	154528	Combined Chlorine	0.08mg/L	Flush and re-sample	06-Jul-21
06-Jul-21	154535	Combined Chlorine	0.10mg/L	Flush and re-sample	06-Jul-21
07-Jul-21	154546	Combined Chlorine	0.23mg/L	Flush and re-sample	07-Jul-21
12-Jul-21	154614	Combined Chlorine	0.18mg/L	Flush and re-sample	12-Jul-21
14-Jul-21	154648	Combined Chlorine	0.21mg/L	Flush and re-sample	14-Jul-21
19-Jul-21	154750	Combined Chlorine	0.10mg/L	Flush and re-sample	19-Jul-21
19-Jul-21	154752	Combined Chlorine	0.22mg/L	Flush and re-sample	19-Jul-21
19-Jul-21	154779	Total Coliforms	P	Flush and re-sample	26-Jul-21
22-Jul-21	154786	Combined Chlorine	0.12mg/L	Flush and re-sample	22-Jul-21
26-Jul-21	154839	Combined Chlorine	0.09mg/L	Flush and re-sample	26-Jul-21
26-Jul-21	154844	Combined Chlorine	0.24mg/L	Flush and re-sample	26-Jul-21
04-Aug-21	154946	Combined Chlorine	0.19mg/L	Flush and re-sample	04-Aug-21
17-Aug-21	155111	Combined Chlorine	0.07mg/L	Flush and re-sample	17-Aug-21
07-Sep-21	155402	Combined Chlorine	0.14mg/L	Flush and re-sample	07-Sep-21
07-Sep-21	155403	Combined Chlorine	0.15mg/L	Flush and re-sample	07-Sep-21
20-Sep-21	155574	Combined Chlorine	0.17mg/L	Flush and re-sample	20-Sep-21
21-Sep-21	155587	Combined Chlorine	0.08mg/L	Flush and re-sample	21-Sep-21
22-Sep-21	155602	Combined Chlorine	0.08mg/L	Flush and re-sample	22-Sep-21
01-Oct-21	155763	Combined Chlorine	0.21mg/L	Flush and re-sample	01-Oct-21
04-Oct-21	155783	Combined Chlorine	0.11mg/L	Flush and re-sample	04-Oct-21



05-Oct-21	155818	Total Coliforms	P	Flush and re-sample	07-Oct-21
15-Oct-21	156007	Combined Chlorine	0.00mg/L	Flush and re-sample	15-Oct-21
18-Oct-21	156035	Combined Chlorine	0.17mg/L	Flush and re-sample	18-Oct-21
19-Oct-21	156065	Combined Chlorine	0.13mg/L	Flush and re-sample	19-Oct-21
20-Oct-21	156084	Combined Chlorine	0.23mg/L	Flush and re-sample	20-Oct-21
20-Oct-21	156089	Combined Chlorine	0.22mg/L	Flush and re-sample	20-Oct-21
25-Oct-21	156190	Combined Chlorine	0.16mg/L	Flush and re-sample	25-Oct-21
25-Oct-21	156191	Combined Chlorine	0.21mg/L	Flush and re-sample	25-Oct-21
25-Oct-21	156192	Combined Chlorine	0.06mg/L	Flush and re-sample	25-Oct-21
26-Oct-21	156198	Combined Chlorine	0.19mg/L	Flush and re-sample	26-Oct-21
01-Nov-21	156286	Combined Chlorine	0.22mg/L	Flush and re-sample	01-Nov-21
02-Nov-21	156333	Combined Chlorine	0.10mg/L	Flush and re-sample	02-Nov-21
08-Nov-21	156435	Combined Chlorine	0.12mg/L	Flush and re-sample	08-Nov-21
09-Nov-21	156449	Combined Chlorine	0.20mg/L	Flush and re-sample	09-Nov-21
09-Nov-21	156460	Combined Chlorine	0.16mg/L	Flush and re-sample	09-Nov-21
12-Nov-21	156528	Combined Chlorine	0.14mg/L	Flush and re-sample	12-Nov-21
15-Nov-21	156561	Combined Chlorine	0.07mg/L	Flush and re-sample	15-Nov-21
15-Nov-21	156566	Combined Chlorine	0.19mg/L	Flush and re-sample	15-Nov-21
16-Nov-21	156594	Combined Chlorine	0.10mg/L	Flush and re-sample	16-Nov-21
16-Nov-21	156603	Combined Chlorine	0.24mg/L	Flush and re-sample	16-Nov-21
17-Nov-21	156645	Combined Chlorine	0.11mg/L	Flush and re-sample	17-Nov-21
22-Nov-21	156779	Combined Chlorine	0.14mg/L	Flush and re-sample	22-Nov-21

25-Nov-21	156826	Combined Chlorine	0.14mg/L	Flush and re-sample	25-Nov-21
29-Nov-21	156923	Combined Chlorine	0.22mg/L	Flush and re-sample	29-Nov-21
13-Dec-21	157302	Combined Chlorine	0.12mg/L	Flush and re-sample	13-Dec-21
15-Dec-21	157400	Combined Chlorine	0.24mg/L	Flush and re-sample	15-Dec-21
20-Dec-21	157438	Combined Chlorine	0.22mg/L	Flush and re-sample	20-Dec-21

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	1359 (approx.)	0 “Present” samples	2 “Present” samples	676 (approx.)	0 – 3900 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	<i>NOTE: For continuous monitors use 8760 as the number of samples.</i>
Turbidity	N/A	N/A	N/A	
Chlorine	4594	0.00 - 3.56 (Combined Cl ₂)	mg/L	
Fluoride (If the DWS provides fluoridation)	N/A	N/A	N/A	

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 2021	14.0 – 24.7*	mg/L	*Yes - Next required



				reporting date is October 11 th , 2025 or later
Fluoride	Jan 1 - Dec 31 2021	0.22 – 0.64	mg/L	No
Nitrite	Jan 1 - Dec 31 2021	0.000 – 0.099	mg/L	No
Nitrate	Jan 1 - Dec 31 2021	<0.50 – 0.74	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	N/A	N/A	mg/L	N/A
Distribution	18	Non-Detect - <0.0005	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 2021	Q4 RAA 0.0080	mg/L	No
THM (Total) (NOTE: show latest annual average)	Jan 1 - Dec 31 2021	Q4 RAA 0.0161	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