



Town of Newmarket 2020 Annual Water Quality Summary Report



Abstract

This report contains the information necessary to satisfy the annual reporting requirements stipulated within the Ontario Safe Drinking Act, 2002, and its associated regulations.

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February 28, 2021

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Attachments:

There are a number of attachments associated with this report, these attachments consist of the following:

- [2020 MECP Newmarket Distribution System Inspection Report \(web link\)](#)
- Attachment One: 2020 Ontario Drinking Water Systems Regulation Annual Report
- Attachment Two: 2020 Town of Newmarket Water Quantity & Flow Rate Data

Background

Purpose

The purpose of this Annual Drinking Water Summary Report, and its associated attachments, is to satisfy the annual reporting requirements stipulated within O.Reg 170/03 of the *Safe Drinking Water Act, 2002*. This report, and its associated attachments, also contains information pertaining to the 2020 Annual MECP Inspection so that the Owner and Public may stay abreast of the Operating Authorities compliance with applicable legislative and regulatory requirements.

Scope

This Annual Drinking Water Summary Report includes reportable information stipulated within O.Reg 170/03 of the *Safe Drinking Water Act, 2002*; that pertains to the Town of Newmarket's drinking water system for the January 1 to December 31, 2020 reporting period.

Reporting Requirements under the Ontario Safe Drinking Water Act, 2002

This Annual Drinking Water Summary Report satisfies the requirements of the O.Reg. 170/03 of the *Safe Drinking Water Act, 2002 (SDWA, 2002)*; the requirements for which are identified below:

Section 11 of O. Reg. 170/03 states that the Annual Report must include:

- a brief description of the Drinking Water System, including a list of water treatment chemicals used by the system;
- a summary of adverse test results and other observations that were reported to the MECP during the reporting period;
- A description of any corrective actions that were taken in response to any adverse test results and other observations that were encountered during the reporting period;
- a summary of the most recent water testing results, required under O. Reg. 170/03 and our respective Municipal Drinking Water License (MDWL), that occurred during the reporting period;
- a description of the major expenses incurred during the reporting period to install, repair, or replace required equipment/infrastructure;

- a statement identifying the locations where the annual report will be made available for the public; and,
- the specific number of points sampled during the lead sampling periods identified within O. Reg. 170/03 as well as the total number of samples taken and the number of points where a sample exceeded the prescribed standard for lead.

Please note that the Town does not utilize any water treatment chemicals as the Town's drinking water system is strictly a drinking water distribution system.

Schedule 22 of O. Reg. 170/03 states that Summary Reports for Municipalities must also:

- List the requirements of the *SDWA, 2002* the regulations, the system's approval, Drinking Water Works Permit (DWWP), MDWL, and any orders applicable for the system that were not met at any time during the period covered by the report;
- Identify each requirement that was not met, the duration of the failure and the measures that were taken to correct the failure;
- Provide a summary of the quantities and flow rates of the water supplied during the period covered by the report, including monthly average and maximum daily flows.
- A comparison of the above summary against the rated capacity and flow rates approved in the systems approval, drinking water works permit or municipal drinking water license; or if the system is receiving all of its water from another system under an agreement pursuant to subsection 5(4) of O.Reg. 170/03, to the flow rates specified in this written agreement

Please note that the Town of Newmarket does not have any rated capacities identified within its respective Municipal Drinking Water License or Drinking Water Works Permit as it is strictly a drinking water distribution system. Similarly no agreement, under subsection 5(4) of O.Reg. 170/03, is in place between the Regional Municipality of York and the Town of Newmarket; therefore the above stipulated O.Reg. 170/03 Schedule 22 requirement is not applicable to the Town of Newmarket.

The Town of Newmarket 2020 Drinking Water Summary report satisfies all the above regulatory reporting requirements that are applicable to the Town of Newmarket.

O.Reg. 170/03 requires that a copy of the annual report be provided, without charge, to every person who requests a copy, and that a copy of the annual report be available to the public at no charge on the Town's website. O.Reg. 170/03 also requires that the Owner of a drinking water system take effective steps to advise users of the drinking water system that the annual report is available, at no cost, and how to obtain a copy of the annual report. Additionally, O.Reg. 170/03 requires that the annual report be provided

to members of council by no later than March 31st of the year following the associated reporting period.

Copies of the 2020 Annual Water Quality Summary Report are available to the public at:

- Robert N. Shelton Operations Centre (1275 Maple Hill Court)
- Newmarket Municipal Offices, Customer Service Counter (395 Mulock Drive)
- Online at www.newmarket.ca

Please note that Newmarket's 2020 Annual Water Quality Summary Report will only be available to the public at the Robert N. Shelton Operations Centre and Newmarket Municipal Offices (Customer Service Counter) once public access has been permitted to these locations.

Drinking Water System Description

The Newmarket Water Distribution System is a Class I Distribution Subsystem. From January 1, 2020 to December 31, 2020, eighteen (18) water operators and staff were certified to operate/maintain the system.

The Town of Newmarket purchases water from York Region, which in turn purchases it from the City of Toronto and Peel Region. York Region also operates and maintains groundwater wells located in the Yonge Street Aquifer that service the Town of Newmarket. The integrated system includes Newmarket's local distribution watermains and York Region's transmission watermains, pumping stations, storage facilities and groundwater treatment facilities. Treated water from the Region supply network is monitored by York Region staff through the Regional SCADA (Supervisory Control and Data Acquisition) system.

The Town and York Region work closely to deliver source to tap drinking water in this complex integrated system.

The Region also produces Annual Drinking Water Summary Report(s) summarizing applicable drinking water system(s) information for the preceding year; these are also made available to the public. More information, as well as electronic version(s) of these report(s) are found on their website at york.ca.

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

Drinking Water System Monetary Expenses

Information regarding the major expenses incurred by the Town during the period associated with this report to install, repair and/or replace drinking water system infrastructure can be found within “Attachment Two: 2020 Ontario Drinking Water Systems Regulation Annual Report”.

Legislative & Regulatory Requirements

The following are the primary legislative and regulatory requirements that directly affect the operation of the Town’s drinking water distribution system; please note that this is not an exhaustive list of legislative and regulatory requirements applicable to the operation of a Town’s large municipal residential drinking water system.

Safe Drinking Water Act, 2002

The Ontario *Safe Drinking Water Act, 2002 (SDWA, 2002)* protects human health through the control and regulation of drinking-water systems and drinking-water testing, among other things. The Act also contains all the regulations relating to the treatment and distribution of drinking water.

Highlights of the Act address:

- Accreditation of operating authorities
- Municipal drinking water systems
- Drinking water testing
- Inspections, Compliance and Enforcement
- Standard of Care

The Town is required to maintain compliance with all applicable *SDWA, 2002* requirements at all times and adequately address any identified incidents of non-compliance.

Standard of Care, Section 19, *Safe Drinking Water Act, 2002*

The Standard of Care is the legal responsibility of the Owner and applicable Operating Authority personnel for a municipal drinking water system. It requires municipal drinking water system Owners and applicable Operating Authority personnel to exercise the level of care, diligence and skill in regards to the system that a reasonably prudent person would be expected to exercise in a similar situation. Municipal drinking water system Owners and applicable Operating Authority personnel must act honestly, competently and with integrity with a view of ensuring the protection and safety of the users of the system. Within the Town's Drinking Water Quality Management Standard Operational Plan, the Mayor and Council are identified as the Owner of the Town's drinking water distribution system; Public Works Services is identified as the Operating Authority for the Town's drinking water distribution system.

The information contained within this report, and its associated attachments, can assist the Owner and applicable Operating Authority personnel in meeting their respective Standard of Care requirements as identified within the Ontario *Safe Drinking Water Act, 2002*.

Ontario Regulation 169/03: Ontario Drinking Water Quality Standards

The Ontario Drinking Water Quality Standards (O.Reg. 169/03) regulates the maximum allowable concentration of specific parameters in drinking water. This regulation contains microbiological standards, chemical standards and radiological standards for drinking water. Compliance with O. Reg. 169/03 is partially determined through system inspections conducted annually by Ministry of the Environment, Conservation and Parks (MECP) Inspectors.

Ontario Regulation 170/03: Drinking Water Systems Regulation

The Drinking Water Systems Regulation (O. Reg. 170/03) regulates municipal drinking water systems. This regulation stipulates requirements for operational checks and sampling, chemical and microbiological testing requirements, reporting adverse test results, corrective actions, and reporting; among many other things. Compliance with O. Reg. 170/03 is determined partially through system inspections conducted annually by the Ministry of the Environment, Conservation and Parks (MECP). The annual reporting requirements for drinking water systems is also stipulated within O.Reg. 170/03 under Section 11 (Annual Reports) and Schedule 22 (Report). The Town is required to maintain compliance with all applicable O.Reg. 170/03 requirements at all times and adequately address any identified incidents of non-compliance.

Ontario Regulation 128/04: Certification of Drinking Water System Operators and Water Quality Analysts

The Certification of Drinking Water Operators and Water Quality Analyst Regulation (O. Reg. 128/04) establishes the training and certification requirements for Operators of regulated drinking water systems in Ontario. Operators are required to achieve and maintain compliance with these training and certification requirements in order to be able to legally operate drinking water systems regulated under O.Reg. 128/04 and the *Safe Drinking Water Act, 2002*. O. Reg 128/04 also specifies overall responsible operator (ORO) requirements, operator in charge (OIC) responsibilities, record keeping requirements, and operations/maintenance manuals requirements; among other things. Compliance with O. Reg. 128/04 is determined partially through system inspections conducted annually by the Ministry of the Environment, Conservation and Parks (MECP). The Town is required to maintain compliance with all applicable O.Reg. 128/04 requirements at all times and adequately address any identified incidents of non-compliance.

Ontario Regulation 453/07: Financial Plans

The Financial Plans Regulation (O. Reg. 453/07) requirements dictate that all owners of municipal residential drinking water systems prepare a Financial Plan that detail the drinking water system's six year projected financial information. O.Reg. 453/07 also specifies what needs to be included in these Financial Plans. As part of the process identified within O.Reg. 453/07, Financial Plan's must be formally approved and acknowledged by the Owner of the drinking water system through a resolution of the municipal council. The Financial Plan requirements specified within O.Reg. 453/07 are one of the components associated with the provincial drinking water system approvals framework that is applicable to the Town and must be complied with at all times. The O.Reg. 453/07 Financial Plan is also associated with the Operating Authorities respective Municipal Drinking Water License and must be updated in accordance with O.Reg. 453/07 Financial Plan requirements as part of the provincial Municipal Drinking Water License renewal process. The Town is required to maintain compliance with all applicable O.Reg. 453/07 requirements at all times and adequately address any identified incidents of non-compliance.

Drinking Water Quality Management Standard (DWQMS)

The Drinking Water Quality Management Standard (DWQMS) sets out the framework for Operating Authorities and Owners of Drinking Water Systems to develop and maintain a Quality Management System (QMS) that is relevant and appropriate for their respective

drinking water system. The DWQMS is the approved QMS under the *SDWA, 2002*. The purpose of a QMS is to establish policy and objectives, achieve those objectives as well as direct and control an organization with regards to quality. To adhere to the DWQMS requirements the Town has developed a DWQMS Operational Plan that is relevant and appropriate for the Town, this DWQMS Operational Plan is the QMS associated with the Town's drinking water system. The Town's QMS is subject to annual internal and external audits as part of the on-going Operating Authority accreditation process. The DWQMS, and associated QMS requirements, is one of the components associated with the provincial drinking water system approvals framework that is applicable to the Town. The Town is required to maintain compliance with all applicable DWQMS requirements at all times and adequately address any identified incidents of non-compliance.

Drinking Water System Licence and Permit

- Municipal Drinking Water License (MDWL) number: 124-101 (Issue Number 6)
- Drinking Water Works Permit (DWWP) number: 124-201 (Issue Number 2)

The Town's MDWL and the DWWP describe system-specific requirements in addition to those included in provincial regulations. These documents outline detailed conditions and regulatory requirements in regards to the operation, maintenance, and monitoring of the drinking water system; among many other things. The MDWL and DWWP are two of the components associated with the provincial drinking water system approvals framework that are applicable to the Town and must be complied with at all times. The MDWL is valid for a period of five (5) years and must be renewed every five (5) years in accordance with Ministry of Environment, Conservation and Parks requirements; the Drinking Water Works Permit is also renewed on this frequency as part of the Municipal Drinking Water License renewal process. The Town is required to maintain compliance with all applicable Municipal Drinking Water License and Drinking Water Works Permit requirements at all times and adequately address any identified incidents of non-compliance.

Regulatory Compliance and MECP Inspections

2020 Adverse Water Quality Incidents (AWQI's)

In 2020 a total of 99 AWQI events occurred, 97 were related to low chlorine residuals, 1 (one) was related to the presence of Total Coliform and 1 (one) was related to the presence of E.coli and Total Coliform.

The AWQI involving E.Coli and Total Coliform was an isolated incident and associated with 1 (one) specific sample station. The corrective actions necessary to resolve this AWQI were

completed by the Town in a timely fashion once the Town was informed of this AWQI. All the necessary corrective actions and reporting were completed, with respect to this AWQI, to the satisfaction of the local Medical Officer of Health (MOH) and Ministry of Environment Conservation and Parks (MECP).

The AWQI involving Total Coliform was an isolated incident and associated with 1 (one) specific sample location. The corrective actions necessary to resolve this AWQI were completed by the Town in a timely fashion once the Town was informed of this AWQI. All the necessary corrective actions and reporting were completed, with respect to this AWQI, to the satisfaction of the local Medical Officer of Health (MOH) and Ministry of Environment Conservation and Parks (MECP).

All applicable AWQI's must be reported to the MECP as well as the local Medical Officer of Health (MOH) in accordance with *SDWA, 2002* and O.Reg. 170/03 requirements. Based upon the information possessed by the Operating Authority, in 2020 all AWQI's were reported in accordance with *SDWA, 2002* and O.Reg. 170/03 requirements. Additionally, any corrective actions that must be taken to resolve an AWQI must be completed in accordance with O.Reg. 170/03, our respective MDWL as well as any additional instruction provided by the MOH. Based upon the information possessed by the Operating Authority, all corrective actions that were necessary to resolve the AWQI's that occurred in 2020 were completed in accordance with the requirements stipulated within O.Reg. 170/03, our respective MDWL as well as any additional instruction provided by the MOH. More Specific information regarding the AWQI's that occurred in 2020, as well as any corrective actions that were taken, can be found within "Attachment Two: 2020 Ontario Drinking Water Systems Regulation Annual Report".

2020 Annual MECP Inspection Results

The Town undergoes an annual inspection of its drinking water system by the MECP. The primary focus of the annual MECP drinking water system inspection is to confirm the Town is complying with applicable legislative and regulatory requirements that fall under the jurisdiction of the MECP.

During the 2020 inspection the MECP identified 2 (two) incidents of non-compliance with regulatory requirements. Schedule 22 of O.Reg. 170/03 requires that all non-compliance(s) with applicable legislation be documented within the Summary Report; "Table One: Incidents of Regulatory Non-Compliance and Actions Required" describes in detail the regulatory non-compliances identified during the 2020 MECP inspection.

Table One: Incidents of Regulatory Non-Compliance and Actions Required

Non-Compliance	MECP Observation	Action(s) Required	Additional Information
1. The Owner/ Operating Authority was not in compliance with the requirement to prepare Form 1 documents as required by their Drinking Water Works Permit during the inspection period.	Seven (7) Form 1 documents were provided by the Town, regarding new watermain installations in May 2019 and March 2020. Part 4 of the forms were observed to be missing information, such as the date and the Owners signature. This was discussed with the Town, who advised it has been flagged internally as an issue.	A draft procedure is currently undergoing review to ensure forms include all required information. No further action required.	The Town is in the process of creating a procedure/process to ensure that this regulatory requirement is better adhered to moving forward in order to prevent repeat occurrences of this regulatory non-compliance.
2. All changes to the system registration information were not provided within ten (10) days of the change.	The Town underwent recent staffing changes, which are not reflected in the system registration information.	An email dated September 28 th , 2020 was sent to waterforms@ontario.ca to update the contacts in the system registration information to reflect the recent staffing changes. No further actions required.	The Town intends to create a procedure/ process to ensure that this regulatory requirement is better adhered to moving forward in order to prevent repeat occurrences of this regulatory non-compliance.

The Town received a final inspection rating of 97.57% as a result of the 2020 MECP inspection. The final inspection rating received during the 2020 MECP inspection was an improvement over the final inspection rating of 91.39% received in relation to the 2019 MECP Inspection. The full details regarding the 2020 MECP inspection are located within “Attachment One: 2020 MECP Newmarket Distribution System Inspection Report”.

2020 Water Quantity & Flow Rate Data

The 2020 water quantity and flow rate data is located within “Attachment Three: 2020 Town of Newmarket Water Quantity & Flow Rate Data”

2020 Water Quality Data

The applicable 2020 water quality data is located within “Attachment Two: 2020 Ontario Drinking Water Systems Regulation Annual Report”.

Specific Information regarding the summary of the most recent water testing results that occurred during the reporting period associated with this report, as required under O.Reg. 170/03 and the Town's respective Municipal Drinking Water License, can be found within "Attachment Two: 2020 Ontario Drinking Water Systems Regulation Annual Report".

Specific information regarding any lead sampling that took place during the reporting period associated with this report can be found within "Attachment Two: 2020 Ontario Drinking Water Systems Regulation Annual Report".

In 2020 nine (9) exceedances were observed by the Town with respect to sodium concentrations in drinking water samples that were collected from the distribution system; based upon the 2020 drinking water sample results the sodium concentrations within the Town's distribution system ranged from 14.1 – 24.8 mg/L. A drinking water sample with a result indicating that the concentration of sodium exceeds 20 mg/L is prescribed as an adverse result of a drinking water test for the purpose of Section 18 of the *SDWA, 2002*; and must therefore be reported accordingly. A result indicating that the concentration of sodium exceeds 20 mg/L in a drinking water sample must be reported under Section 18 of the *SDWA, 2002* if a report has not been made in respect to sodium in the preceding 57 months. The last report that the Town made with respect to a sodium exceedance was April 11th, 2016 therefore the next reporting date with respect to an adverse result for sodium in the Town's drinking water is January 7th, 2021; any sodium exceedances that may be observed by the Town in the future will be reported and responded to in accordance with all applicable legislative and regulatory requirements. The Town continues to meet all legislative and regulatory response obligations with respect to sodium exceedances identified within drinking water samples, no further actions are required by the Town at this time in relation to this subject matter.

Sodium is a naturally occurring element in the environment that may be present in both groundwater and surface water sources. Sodium levels in groundwater and surface water sources may also be influenced by road salt application practices. Sodium levels within municipal drinking water may also be influenced due to the addition of water treatment/conditioning chemicals, such as sodium silicate and sodium hypochlorite; both of which are added to the drinking water supplied to the Town by York Region. Additional information regarding sodium in drinking water can be located on the "Drinking Water Quality and Monitoring" page of York Regions website.



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

<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"> Newmarket 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: 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: 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 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 Date	AWQI Number	Parameter	Result (mg/L or Present)	Corrective Action(s)	Resolution 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



Incident Date	AWQI Number	Parameter	Result (mg/L or Present)	Corrective Action(s)	Resolution Date
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-sample	2020-06-30
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



Incident Date	AWQI Number	Parameter	Result (mg/L or Present)	Corrective Action(s)	Resolution Date
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



Incident Date	AWQI Number	Parameter	Result (mg/L or Present)	Corrective Action(s)	Resolution Date
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-sample	2020-09-29
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



Incident Date	AWQI Number	Parameter	Result (mg/L or Present)	Corrective Action(s)	Resolution Date
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



Incident Date	AWQI Number	Parameter	Result (mg/L or Present)	Corrective Action(s)	Resolution Date
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.

Information	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.

Element	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

Town of Newmarket
Monthly Water 2020

Date: 1/29/2021



Newmarket	January	February	March	April	May	June	July	August	September	October	November	December	Year to Date Total
Aurora Ballymore (Aurora) m3	0	0	0	0	0	0	0	0	0	0	0	0	0
Aurora Ballymore (Newmarket) m3	48,362	44,826	46,831	46,943	52,147	62,516	60,295	31,646	13,774	12,896	26,188	27,578	474,002
Aurora West 12" (Aurora) m3	-6	-1	-1	-1	-1	-1	-12	-27	-9	-1	-77	-4	-141
Aurora West 12" (Newmarket) m3	164,973	155,892	157,492	175,191	195,358	214,898	229,377	208,387	219,795	216,091	207,100	216,723	2,361,277
Aurora West 8" (Aurora) m3	0	0	0	0	0	0	0	0	0	0	0	0	0
Aurora West 8" (Newmarket) m3	0	0	0	0	0	0	0	0	0	0	0	0	0
Davis Drive/Hwy. 404 m3	-5,185	-5,551	-5,061	-5,560	-6,251	-7,007	-7,685	-10,319	-14,637	-12,514	-6,558	-6,030	-92,358
EG Leslie Street MC 12" Fwd to NW m3	0	53,615	57,104	50,576	37,115	44,115	63,448	63,416	67,978	51,592	41,626	40,245	570,830
EG Leslie Street MC 12" Rev to EG m3	0	-13,182	-15,038	-30,708	-38,798	-18,149	-10,712	-9,664	-6,432	-10,657	-6,700	-5,211	-165,252
EG Leslie Street MC 22" Fwd to NW m3	63,871	5,324	0	0	0	0	0	0	0	0	0	0	69,195
EG Leslie Street MC 22" Rev to EG m3	-10,331	-2,215	0	0	0	0	0	0	0	0	0	0	-12,546
Leslie/Broughton (Aurora) m3	-3	-4	-1	-4	-3	-8	-7	-11	-17	-24	-16	-14	-112
Leslie/Broughton (Newmarket) m3	185,146	188,195	195,352	204,227	264,375	280,314	321,736	277,281	266,514	260,097	192,080	195,413	2,830,727
Newmarket Well No. 1 m3	29,299	52,414	51,646	25,080	29,166	26,998	23,215	24,322	21,003	24,328	20,465	23,457	351,392
Newmarket Well No. 13 m3	68,779	64,748	74,152	31,521	53,776	74,532	90,747	74,837	29,754	31,759	28,232	22,960	645,797
Newmarket Well No. 15 m3	0	0	0	0	0	0	0	0	0	1	0	0	1
Newmarket Well No. 16 m3	3,377	2,630	1,342	32,494	7,822	659	377	274	27,423	16,655	33,759	36,964	163,776
Newmarket Well No. 2 m3	58,532	4,129	10,451	54,166	64,176	61,670	66,693	63,588	50,118	51,849	50,537	50,148	586,057
Newmarket/Aurora (Aurora) m3	0	-3	0	0	0	0	0	0	0	0	0	-4	-8
Newmarket/Aurora (Newmarket) m3	66,811	91,577	99,839	57,168	75,711	93,940	119,562	80,715	50,750	41,940	51,198	58,091	887,301
Woodspring Avenue (East Gwillimbury) m3	-14,690	-14,150	-15,206	-14,099	-15,777	-12,948	-14,686	-12,317	-10,269	-9,407	-9,260	-10,300	-153,107
Woodspring Avenue (Newmarket) m3	1	2	2	1	1	0	0	0	0	10	0	0	16
Yonge/Aspenwood (East Gwillimbury) m3	0	0	0	0	-144	-3,589	-6,628	-5,869	-4,155	-2,935	-2,188	-1,743	-27,251
Yonge/Aspenwood (Newmarket) m3	0	0	0	0	0	8	8	0	1	336	2	0	355
Yonge/Bristol (East Gwillimbury) m3	-5,474	-5,862	-4,352	-787	-1,159	-4,765	-5,734	-6,972	-6,090	-1,992	-2,091	-3,703	-48,982
Yonge/Bristol (Newmarket) m3	12	7	14	16	18	19	14	7	9	95	15	11	237
Total Water Consumption m3	653,474	622,389	654,564	626,225	717,530	813,202	930,006	779,295	705,510	670,117	624,311	644,581	8,441,204

	January	February	March	April	May	June	July	August	September	October	November	December	Total
Maximum Daily Flow m3	23,793	23,264	23,259	23,662	32,531	33,141	38,348	29,849	27,682	26,982	23,805	24,240	38,348
Maximum Date	04-Jan-2020	05-Feb-2020	18-Mar-2020	08-Apr-2020	25-May-2020	16-Jun-2020	07-Jul-2020	14-Aug-2020	01-Sep-2020	22-Oct-2020	09-Nov-2020	08-Dec-2020	
Minimum Daily Flow m3	18,490	19,485	18,983	18,034	18,352	21,960	19,290	19,292	20,162	18,173	17,648	18,519	17,648
Minimum Date	10-Jan-2020	28-Feb-2020	29-Mar-2020	11-Apr-2020	15-May-2020	11-Jun-2020	11-Jul-2020	02-Aug-2020	12-Sep-2020	10-Oct-2020	21-Nov-2020	25-Dec-2020	
Average Daily Flow m3	21,080	21,462	21,115	20,874	23,146	27,107	30,000	25,139	23,517	21,617	20,810	20,793	23,055