

Ministry of the Environment,
Conservation and Parks
*Drinking Water and Environmental
Compliance Division*

Ministère de l'Environnement, de la
Protection de la nature et des Parcs
*Division de la conformité en matière
d'eau potable et d'environnement*

Central Region
York Durham District Office
230 Westney Road South, 5th Floor
Ajax, ON L1S 7J5
Toll-Free: 1-800-376-4547
Telephone.: 905-427-5600
Fax: 905-427-5602

Région du Centre
Bureau de district de York Durham
230 route Westney sud, 5^e étage
Ajax, ON L1S 7J5
Sans frais : 1-800-376-4547
Téléphone : 905 427-5600
Télécopieur : 905 427-5602

September 29, 2020

The Town of Newmarket
1275 Maple Hill Ct.
[Newmarket, ON](#), L3Y 9E8

Attention: Mr. Brett Bloxam, Manager, Water/Wastewater (Acting)

**RE: Newmarket Distribution System
Drinking Water Inspection Report # 1-NU8IP**

File: SI YO NE MA 540

Please find attached the Ministry of the Environment, Conservation and Parks inspection report for the above facility. The report details the findings of the inspection that began on May 5, 2020.

The Appendix section of the inspection includes the Stakeholder Appendix A with links to key reference and guidance materials available on the Ministry of the Environment Conservation and Parks (MECP) website. Appendix B contains the inspection rating record.

In the inspection report, any *“Actions Required”* are linked to incidents of non-compliance with regulatory requirements contained within the Act, a regulation, or site-specific approvals, licenses, permits, orders or instructions. Such violations could result in the issuance of mandatory abatement instruments including Orders, tickets, penalties, or referrals to the ministry’s Investigations and Enforcement Branch.

“Recommended Actions” convey information that the owner or operating authority should consider implementing in order to advance efforts already in place to address such issues as emergency preparedness, the availability of information to consumers, and conformance with existing and emerging industrial standards. Please note that items which appear as recommended actions do not, in themselves, constitute violations.

Please note, you will find in the report that bullets are shown in bold print and are the consistent and standard responses to the information gathered during the inspection. Statements shown in regular font provide additional site-specific details.

Section 19 of the Safe Drinking Water Act (Standard of Care) creates a number of obligations for individuals who exercise decision-making authority over municipal drinking water systems. Please be aware that the Ministry has encouraged such individuals, particularly municipal councillors, to take steps to be better informed about the drinking water systems over which they have decision-making authority. These steps could include asking for a copy of this inspection report and a review of its findings. Further information about Section 19 can be found in *"Taking Care of Your Drinking Water: A guide for members of municipal council"* found under "Resources" on the Drinking Water Ontario website at www.ontario.ca/drinkingwater.

I would like to thank the Town of Newmarket staff for the assistance afforded to me during this compliance assessment. If you have any questions or concerns please contact myself or Demetra Koros, Water Compliance Supervisor, Central Region at 905-409-0496.

Yours truly,



Jennifer Faria
Provincial Officer
Ministry of the Environment, Conservation and Parks
Drinking Water and Environmental Compliance Division
Central Region
Office: (905) 426-0857

cc:

Mr. Tyler Adamson, Compliance & Training Coordinator, Water/Wastewater, Town of Newmarket
York Public Health Inspector
Demetra Koros, Water Compliance Supervisor, York Durham District Office



Ministry of the Environment, Conservation and Parks

NEWMARKET DISTRIBUTION SYSTEM

Inspection Report

Site Number:	260003188
Inspection Number:	1-NU8IP
Date of Inspection:	May 05, 2020
Inspected By:	Jennifer Faria



Ministry of the Environment, Conservation and Parks
Drinking Water Inspection

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- A. Stakeholders Appendix**
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OWNER INFORMATION:

Company Name:	NEWMARKET, THE CORPORATION OF THE TOWN OF	Unit Identifier:	
Street Number:	395		
Street Name:	MULOCK Dr		
City:	NEWMARKET		
Province:	ON	Postal Code:	L3Y 4X7

CONTACT INFORMATION

INSPECTION DETAILS:

Site Name:	NEWMARKET DISTRIBUTION SYSTEM
Site Address:	1275 MAPLE HILL Court NEWMARKET ON L3Y 9E8
County/District:	NEWMARKET
MECP District/Area Office:	York-Durham District
Health Unit:	YORK REGION HEALTH SERVICES DEPARTMENT
Conservation Authority:	
MNR Office:	
Category:	Large Municipal Residential
Site Number:	260003188
Inspection Type:	Announced
Inspection Number:	1-NU8IP
Date of Inspection:	May 05, 2020
Date of Previous Inspection:	

COMPONENTS DESCRIPTION

Site (Name):	MOE DWS Mapping	Sub Type:	
Type:	DWS Mapping Point		

Site (Name):	Newmarket Distribution System	Sub Type:	
Type:	Other		

Comments:
 The Newmarket Distribution System is owned and operated by the Town of Newmarket (The Town) and serves approximately 84,000 residents. The System receives treated water from the York Drinking Water System - Newmarket, which is owned and operated by The Regional Municipality of York (The Region).

The Region is responsible for the supply, production, treatment, and storage of the water and the Town owns and operates the distribution system that delivers the water from the regional watermains to homes in Newmarket. The Town owns and maintains approximately 300 km of watermains, 3,000 mainline valves, 2,500 fire hydrants, 25 sampling stations and 25,900 metered water services.

The Newmarket Well Supply System, owned and operated by the Region, consists of five production wells that draw water from the Yonge St. Aquifer and six water storage facilities. Chloramination (adding chlorine and ammonia) is the disinfection process used for the Newmarket production wells. The Newmarket Well Supply System also receives treated water from the Queensville Water Supply System, the Aurora Well Supply System, and two pipelines that

supply water from the Region of Peel and the City of Toronto.

INSPECTION SUMMARY:

Introduction

- **The primary focus of this inspection is to confirm compliance with Ministry of the Environment, Conservation and Parks (MECP) legislation as well as evaluating conformance with ministry drinking water policies and guidelines during the inspection period.**

This drinking water system is subject to the legislative requirements of the Safe Drinking Water Act, 2002 (SDWA) and regulations made therein, including Ontario Regulation 170/03, "Drinking Water Systems" (O.Reg. 170/03). This inspection has been conducted pursuant to Section 81 of the SDWA.

This report is based on an inspection of a "stand alone connected distribution system". This type of system receives treated water from a separately owned "donor" system. This report contains elements required to assess key compliance and conformance issues associated with a "receiver" system. This report does not contain items associated with the inspection of the donor system, such as source waters, intakes/wells and treatment facilities.

This inspection report does not suggest that all applicable legislation and regulations were evaluated. It remains the responsibility of the owner to ensure compliance with all applicable legislative and regulatory requirements.

The Town of Newmarket (the Town) owns and operates the Newmarket Distribution System (the System), which serves a population of about 84,227. On May 4, 2020, Environmental Officer (EO) Jennifer Faria with the Ministry of the Environment, Conservation and Parks (the MECP)'s York Durham District Office began a desktop inspection of the Newmarket Distribution System (the System). Due to COVID-19, a remote inspection via telephone was conducted on August 25, 2020 with Mr. Tyler Adamson of the Town.

Information and assistance with the inspection was provided by Mr. Tyler Adamson of the Town. Documents reviewed in association with this report included, but were not limited to:

1. Ministry of the Environment, Conservation and Parks Drinking Water Works Permit (DWWP), No.124-201, Issue Number: 2, dated May 19, 2016.
2. Ministry of the Environment, Conservation and Parks Municipal Drinking Water Licence (MDWL), No.124-101, Issue Number: 6, dated November 15, 2019.
3. Other documents maintained by the owner/operating authority for the inspection review period of April 17, 2019 through to May 4, 2020, were also reviewed in conjunction with this inspection.

The Newmarket Well Supply System is owned and operated by the Regional Municipality of York (the Region) and is inspected separately.

This inspection was conducted under the authority of Section 81 (1) of the Safe Drinking Water Act, 2002.

Treatment Processes

- **The owner had ensured that all equipment was installed in accordance with Schedule A and Schedule C of the Drinking Water Works Permit.**

Schedule A of the DWWP indicates that watermains in the distribution system consists of approximately 300 km of distribution watermains, 2,500 fire hydrants, 3,000 mainline valves, 25,900 metered water services. Schedule C authorizes proposed alterations that are in accordance with the applications, plans and supporting documentation listed in the letter dated August 13, 2012 prepared by the Town. Temporary operational alterations can also occur

Treatment Processes

subject to the conditions listed in Schedule C.

At the time of the inspection, all watermain projects were conducted in accordance with Section 3.0 of the DWWP, therefore no updates were required.

- **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.**

Section 3.0 of the DWWP outlines the requirements for watermain additions, modifications, replacements and extensions. A Form 1 document is required to be completed by a Professional Engineer and the System's owner prior to the change being placed into service. Form 1 is to be retained for ten years, as per Condition 3.3.

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 Owner's signature. This was discussed with the Town, who advised it has been flagged internally as an issue. A draft SOP is currently undergoing an internal review to ensure forms include all required information.

- **The owner/operating authority was in compliance with the requirement to prepare Form 2 documents as required by their Drinking Water Works Permit during the inspection period.**

Section 4.0 of the DWWP outlines the requirements for minor modifications to the System. A Form 2 document is required to be completed by the System's owner prior to the modified or replaced components being placed into service. Form 2 is to be retained for a period of ten (10) years, as per Condition 4.6.

Two (2) Form 2 documents were provided by the Town, regarding the installation of a new 6" valve, and the installation of a new 6" gate valve. Both forms were completed, signed, and dated by Town staff.

- **Where an activity has occurred that could introduce contamination, all parts of the drinking water system were disinfected in accordance with Schedule B, Condition 2.3 of the Drinking Water Works Permit.**

The Town's Operations and Maintenance Manual (O&M Manual) includes the Emergency Watermain Break Repair and Response procedure document to ensure that responses to watermain breaks and repairs are in accordance with the requirements stipulated in the Ontario Watermain Disinfection Procedure, listed in Schedule B, Condition 2.3 of the DWWP.

The directions provided in the Town's O&M are similar to those outlined in the MECP's procedure. Water main break reports were provided for review, which indicate disinfection of the pipe and repair parts took place during the repair work.

According to the Town, an SOP has been drafted to clarify when a watermain break should be reported to SAC. This SOP will help to ensure consistent reporting when required.

- **The owner had evidence indicating that all chemicals and materials that come in contact with water within the drinking water system met the AWWA and ANSI standards in accordance with the Municipal Drinking Water Licence and Drinking Water Works Permit issued under Part V of the SDWA.**

Section 14.0 of the MDWL outlines the requirements for chemicals and materials that come into contact with drinking water. Condition 14.3 outlines the exemptions, which includes chemicals/materials acceptable for use within the drinking water system.

According to the Town, the only chemical used in relation with the System includes a sodium hypochlorite disinfectant for use during watermain breaks. These chemicals are kept in a central inventory store where staff can purchase products as needed. The Town retains documentation for the chemical purchases.

- **Up-to-date plans for the drinking water system were kept in a place, or made available in such a manner, that they could be readily viewed by all persons responsible for all or part of the operation of the drinking**

Treatment Processes

water system in accordance with the DWWP and MDWL issued under Part V of the SDWA.

Updated plans are kept in the Town's internal GIS, which is readily accessible to staff. Hard copies are kept with the Town's engineering staff and can be accessed if requested.

Treatment Process Monitoring

- **The secondary disinfectant residual was measured as required for the distribution system.**

Ontario Regulation 170/03, Schedule 7-2 (3) requires the owner of a large municipal residential system that provides secondary disinfection, to take at least seven (7) distribution samples each week and test immediately for:

- a) Free chlorine residual, if the system provides chlorination and does not provide chloramination, or
- b) Combined chlorine residual, if the system provides chloramination.

Four (4) of the samples must be taken on one day of the week, and three (3) of the samples are to be taken on a second day of the week, at least 48 hours after the last sample was taken.

According to the Operations & Maintenance Manual (O&M Manual), primary disinfection is achieved using free chlorine and is continuously monitored by the Region. Secondary disinfection is achieved using chlorine and ammonia to produce a chloramine residual within the System. The Town records free, total and combined chlorine residuals during their microbiological sampling, dead-end flushing, unidirectional flushing, and water quality sampling/monitoring testing. According to SOP – Element 16 – Sampling, Testing and Monitoring, wherever possible, the Town collects chlorine residuals every day of the week. At least 4 (four) chlorine residuals are collected each day, one (1) for each pressure zone.

According to information provided by the Town, chlorine residuals are taken everyday. This information is kept in a Water Quality Data spreadsheet, maintained by the Water Quality Analyst (WQA). The information for this spreadsheet is taken from the Town's daily operational monitoring logs.

Beginning in the fall of 2009, the System has experienced chlorine residual decay in areas which has resulted in numerous AWQI incidents of low chlorine residuals, with approximately 137 AWQIs in the inspection review period. The Town continues to work collaboratively with the Region of York, as well as industry experts to help with data analysis, system maintenance recommendations, flow monitoring and modelling water quality trends.

A review of information provided by the Town demonstrates the sampling requirements are being met.

- **Samples for chlorine residual analysis were tested using an acceptable portable device.**

The Town uses a Hach Pocket Chlorimeter 2 and a HACH SL1000 to monitor chlorine residual within the System. The equipment is calibrated monthly by staff and verified annually by manufacturer.

Distribution System

- **The owner had up-to-date documents describing the distribution components as required.**
- **There is a backflow prevention program, policy and/or bylaw in place.**

A Backflow Prevention By-law (By-law 2019-36) was enacted on May 27, 2019 for all industrial, commercial & institutional, and multi-residential properties.

- **The owner had implemented a program for the flushing of watermains as per industry standards.**

The Town's O&M Manual includes a procedure for the flushing of the System. This occurs annually in predetermined sections, with additional flushing where needed (determined through monitoring and/or customer complaints).

Distribution System

Flushing is done with a mixture of permanent, seasonal and temporary auto-flushers. Four permanent auto-flushers are anticipated to be set up with auto-monitoring for chlorine.

- **Records confirmed that disinfectant residuals were routinely checked at the extremities and "dead ends" of the distribution system.**

The Town's O&M Manual includes a procedure to flush dead-end water mains. Dead-ends are flushed at a minimum of once a year or as determined through system monitoring to help prevent chlorine residual decay. Residual samples are taken twice as part of the flushing procedure.

According to the 2019 Annual Water Quality Report, 77 dead-end locations were flushed on a monthly basis and 55 dead-end locations were flushed on a quarterly basis. The Water Quality Data spreadsheet kept by the Town identifies all chlorine residuals taken, including those taken during dead-end flushing.

- **A program was in place for inspecting and exercising valves.**

The Town's O&M Manual includes an Operational Plan document that outlines the System. Duties performed by the Town's certified operation staff include inspecting and exercising valves.

According to the 2019 Annual Water Quality Report, valves are routinely inspected and cycled as part of the regular System operations, including uni-directional flushing, swabbing, watermain commissioning and watermain break repairs. According to information provided by the Town, there is no formalized valve maintenance program as these are done on an as-needed basis. However, the Town is currently looking into implementing a formalized schedule.

- **There was a program in place for inspecting and operating hydrants.**

The Town's O&M Manual includes an Operational Plan document that outlines the System. Duties performed by the Town's certified operation staff include hydrant inspections.

According to the 2019 Annual Water Quality Report, hydrants are required to be inspected annually under the Ontario Fire Code (O. Reg. 388/97). The Town uses the services of a contractor, Canadian Hydrant Technologies (CHT) to perform annual inspections. The Town receives and retains inspection reports prepared by CHT.

- **There was a by-law or policy in place limiting access to hydrants.**

By-law # 2017-49 includes Section 26, which only allows access to hydrants by authorized persons where a permit is issued prior to the use of any fire hydrant.

Another by-law 2017-49 – to regulate water meters not posted on website – includes Section 26 (take water from hydrants – only authorized ppl can take water with permit)/27 (fire hydrant permits) includes provision regarding access to hydrants.

- **The owner was able to maintain proper pressures in the distribution system and pressure was monitored to alert the operator of conditions which may lead to loss of pressure below the value under which the system is designed to operate.**

The Town's Operational Plan indicates the System is comprised of three pressure districts ranging from 40 – 100 psi.

According to the 2019 Annual Water Quality Report, water pressure is periodically monitored throughout the Town's System. In 2019, water pressures within the System ranged between approximately 35-100 psi. Under the Ontario Design Guidelines for Drinking Water System, normal operating pressures within distribution systems should be approx. 50-70 psi and not less than 40 psi.

Distribution System

The Region of York has a SCADA integration system, and the Town has implemented remote pressure monitoring devices in areas of the System with higher rates of pressure complaints. Information from these monitoring devices is shared and discussed with the Region for possible pressure remedies.

- **The donor had provided an Annual Report to the receiver drinking water system.**

The Town receives a notification from the Region of York and provided a hyperlink to the Annual Report. The Town's Annual Report and the Region's Annual Report are made available to the public.

Operations Manuals

- **Operators and maintenance personnel had ready access to operations and maintenance manuals.**

All staff are assigned tablets and are provided links to the documents that satisfy the conditions of the O&M manual. Any updates to procedure documents are provided electronically to staff through email. The Town is looking into compiling the documents into one manual.

- **The operations and maintenance manuals contained plans, drawings and process descriptions sufficient for the safe and efficient operation of the system.**

Plans, drawings and process descriptions are available in the Town's internal GIS portal. All operators have been assigned a tablet which provides access to the Town's GIS application. Any hard copies are maintained by the Town's engineering department and made available to operators when needed.

- **The operations and maintenance manuals met the requirements of the Drinking Water Works Permit and Municipal Drinking Water Licence issued under Part V of the SDWA.**

Section 16.0 of the MDWL outlines the requirements of the O&M Manual. The Town currently keeps documents and procedures to meet the O&M manual requirements. The Town is looking into compiling all documents with the required information into one O&M Manual.

Logbooks

- **Records or other record keeping mechanisms confirmed that operational testing not performed by continuous monitoring equipment was being done by a certified operator, water quality analyst, or person who suffices the requirements of O. Reg. 170/03 7-5.**

Every water operator, including the 2 Lead Hands, complete Daily Work Logs. Information within the daily work logs indicate operational testing is done by certified operators. Individual daily work orders are completed by all staff and tailboard logs are completed by the Overall Responsible Operator (ORO).

Staff will soon be required to maintain individual logbooks and complete daily work orders.

- **For every required operational test and every required sample, a record was made of the date, time, location, name of the person conducting the test and result of the test.**

A review of the sampling records indicate the required information is documented. The Water Quality Data spreadsheet provided also includes the required information.

- **The operator-in-charge ensured that records were maintained of all adjustments made to the processes within his or her responsibility.**

- **Logs or other record keeping mechanisms were available for at least five (5) years.**

The Town is also looking to implement a draft procedure to outline detailed record retention and record-keeping requirements.

Logbooks

Contingency/Emergency Planning

- **Spill containment was provided for process chemicals and/or standby power generator fuel.**

The Town does not perform any water treatment and therefore doesn't store/work with many process chemicals.

Any sodium hypochlorite bottles (2L) used for watermain disinfection are kept within the waste/waste water operation's storage, which is secured in the operator's centre bay. Storage is located on a concrete pad, and any spills would enter the grit separator associated with sanitary treatment. No chemical storage occurs outside and no spill would be able to enter the natural environment.

- **Clean-up equipment and materials were in place for the clean up of spills.**

The Town keeps absorbent materials onsite in the event of any spills to asphalt.

Security

- **The owner had provided security measures to protect components of the drinking water system.**

The majority of the System's components are located underground, providing security. The Town's Operations Centre is located in a gated compound area, only open during regular business hours. Any spare parts for the System are stored within the gated area, within a sea can container, providing an additional level of security.

Consumer Relations

- **The owner and/or operating authority undertook efforts to promote water conservation and reduce water losses in their system.**

The Town has implemented a smart meter project, which includes the replacement of all residential and ICI meters. Remote monitoring provides the capability to identify water losses and backflow. The Town also has an Outdoor Water Conservation By-law Water, which outlines standard watering restrictions as well as water use during advisories or bans.

Certification and Training

- **The overall responsible operator had been designated for each subsystem.**

Ontario Regulation 128.04 (O. Reg. 128/04) requires the owner/operating authority of a municipal residential subsystem to designate an Overall Responsible Operator (ORO). The ORO shall be an operator who holds a certificate for that type of subsystem and is of the same class as, or high than, the class of the subsystem.

Based on information provided by the Town, the ORO meets the regulatory requirements. The ORO is identified on the Daily Work Logs. The Town is also implementing an SOP to ensure that the applicable ORO and OIC requirements are met.

- **Operators-in-charge had been designated for all subsystems which comprised the drinking water system.**

O. Reg. 128/04 states that the owner or operating authority of a subsystem shall designate one or more operators as operators-in-charge (OIC) of the subsystem. As per O. Reg. 128/04, a person who holds an operator-in-training (OIT) certificate shall not be designated as an OIC. Duties of the OIC are listed in Section 26 of O. Reg. 128/04.

According to information provided by the Town, Lead Hands are the designated OIC during business hours. On-call operators act as OIC for after-hours shifts. The Town is also implementing an SOP to ensure that the applicable OIC and ORO requirements are met.

Certification and Training

- **All operators possessed the required certification.**

The Town provided a list of valid operators' licences. All operators appeared to be licensed appropriately for the Class 1 System.

- **An adequately licenced operator was designated to act in place of the overall responsible operator when the overall responsible operator was unable to act**

If the ORO is unable to act, the Town's water/wastewater manager is designated the ORO. If the manager is unable to act, the ORO responsibility defaults to the Lead Hands. An email is provided to staff detailing the reason for the ORO's absence.

Water Quality Monitoring

- **All microbiological water quality monitoring requirements for distribution samples were being met.**

The System serves a population of 84,227, therefore a minimum of 92 microbiological samples (E. coli and total coliform) must be taken each month from the distribution system, with at least one of the samples being taken in each week. Additionally, 23 of these must also be tested for general bacteria, expressed as colony counts on heterotrophic plate count (HPC), in accordance with Schedule 10-2 (1) of O. Reg. 170/03.

Based on a review of the sampling information available, it appears the microbiological sampling requirements are being met.

- **All haloacetic acid water quality monitoring requirements prescribed by legislation are being conducted within the required frequency and at the required location.**

Schedule 13-6.1 (1) of O. Reg. 170/03 requires large municipal residential systems to take a haloacetic acid (HAA) distribution sample at least once in a calendar quarter. Results indicate there were no exceedances during the inspection period.

Based on a review of the sampling information available, it appears the HAA sampling requirements are being met.

- **All trihalomethane water quality monitoring requirements prescribed by legislation were conducted within the required frequency and at the required location.**

Schedule 13-6. (1) of O. Reg. 170/03 requires large municipal residential systems to take at least one trihalomethane distribution sample in each calendar quarter. Results indicate there were no exceedances during the inspection period.

Based on a review of the sampling information available, it appears the trihalomethane sampling requirements are being met.

- **The owner ensured that water samples were taken at the prescribed location.**

Water samples appear to be taken throughout the distribution system to ensure an accurate reflection of the conditions of the System.

- **All sampling requirements for lead prescribed by schedule 15.1 of O. Reg. 170/03 were being met.**

Lead sampling requirements are outlined in Schedule 15.1-4 of O. Reg. 170/03. The number of samples to be taken depends on criteria such as population served by thy drinking water system, number of sampling points in plumbing that serves private residences, number of sampling points in plumbing that does not serve private residences and the number of sampling points in distribution systems.

Reduced sampling can be granted for a drinking water system if they meet the criteria outlined in Schedule 15.1-5

Water Quality Monitoring

of O. Reg. 170/03. The Town received regulatory relief from the lead sampling requirements and are now required to collect eight (8) lead samples from the System. Samples are to be taken from December 15 – April 15 and June 15 – October 15 each year, as outlined in Condition 1 of Schedule D of the MDWL.

A review of sampling data indicates the Town is meeting these reduced sampling requirements.

- **Records confirmed that chlorine residual tests were being conducted at the same time and at the same location that microbiological samples were obtained.**
- **The owner indicated that the required records are kept and will be kept for the required time period.**

Water Quality Assessment

- **Records did not show that all water sample results taken during the inspection review period did not exceed the values of tables 1, 2 and 3 of the Ontario Drinking Water Quality Standards (O.Reg. 169/03).**

Exceedances of the standards for sodium and total coliform (TC) were observed during the inspection review period. Sodium exceedances were last reported in 2016. TC exceedances were reported and addressed in accordance with O. Reg. 170/03.

Reporting & Corrective Actions

- **Corrective actions (as per Schedule 17) had been taken to address adverse conditions, including any other steps that were directed by the Medical Officer of Health.**

A review of all AWQI Incidents occurring during the inspection review period was conducted. Most of the incidents were due to low chlorine residuals (free and/or combined). Corrective actions included flushing and restoring secondary disinfection to ensure chlorine residuals meet the requirements of O. Reg. 170/03. Other AWQIs included exceedances of sodium and TC standards. Corrective actions as directed by the Medical Officer of Health were taken.

- **All required notifications of adverse water quality incidents were immediately provided as per O. Reg. 170/03 16-6.**

A review of the AWQI Incidents occurring during the inspection period indicated verbal notifications were immediately provided.

- **All required written notices of adverse water quality incidents were provided as per O. Reg. 170/03 16-7.**

A review of the AWQI Incidents occurring during the inspection period indicated written notices were provided.

- **In instances where written notice of issue resolution was required by regulation, the notice was provided as per O. Reg. 170/03 16-9.**

A review of the AWQI Incidents occurring during the inspection period indicated written notices of issue resolution were provided.

- **Summary Reports for municipal council were completed on time, included the required content, and were distributed in accordance with the regulatory requirements.**

An Annual Water Quality Summary Report was prepared to satisfy the annual reporting requirements stipulated in O. Reg. 170/03. The 2019 report dated February 28, 2020 and is available on the Town's website for public access. According to information provided by the Town, the report is provided to the council via email.

- **All changes to the system registration information were not provided within ten (10) days of the change.**

Reporting & Corrective Actions

The Town underwent recent staffing changes, which are not reflected in the system registration information. Please refer to the Non-Compliance with Regulatory Requirements and Actions Required section at the back of this report.

- **The owner had evidence that all required notifications to all legal owners associated with the Drinking Water System had been made during the inspection period.**

The owners have been made aware of the requirements of the MDWL and the DWWP. According to information provided by the Town, training sessions are provided to new council members, which includes knowledge of the MDWL and DWWP.

NON-COMPLIANCE WITH REGULATORY REQUIREMENTS AND ACTIONS REQUIRED

This section provides a summary of all non-compliance with regulatory requirements identified during the inspection period, as well as actions required to address these issues. Further details pertaining to these items can be found in the body of the inspection report.

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.**

Action(s) Required:

Section 3.0 of the DWWP outlines the requirements for watermain additions, modifications, replacements and extensions. A Form 1 document is required to be completed by a Professional Engineer and the System's owner prior to the change being placed into service. Form 1 is to be retained for ten years, as per Condition 3.3.

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 Owner's signature. This was discussed with the Town, who advised it has been flagged internally as an issue. A draft SOP is currently undergoing an internal review to ensure forms include all required information.

No further action is required.

2. **All changes to the system registration information were not provided within ten (10) days of the change.**

Action(s) Required:

The Town underwent recent staffing changes, which are not reflected in the system registration information

An email dated September 28, 2020 was sent to waterforms@ontario.ca to update the contacts in the system registration information to reflect the recent staffing changes. No further action is required.

SUMMARY OF RECOMMENDATIONS AND BEST PRACTICE ISSUES

This section provides a summary of all recommendations and best practice issues identified during the inspection period. Details pertaining to these items can be found in the body of the inspection report. In the interest of continuous improvement in the interim, it is recommended that owners and operators develop an awareness of the following issues and consider measures to address them.

Not Applicable

SIGNATURES

Inspected By:

Jennifer Faria

Signature: (Provincial Officer)



Reviewed & Approved By:

Demetra Koros

Signature: (Supervisor)



Review & Approval Date:

September 29, 2020

Note: This inspection does not in any way suggest that there is or has been compliance with applicable legislation and regulations as they apply or may apply to this facility. It is, and remains, the responsibility of the owner and/or operating authority to ensure compliance with all applicable legislative and regulatory requirements.

APPENDIX A

STAKEHOLDER APPENDIX

Key Reference and Guidance Material for Municipal Residential Drinking Water Systems

Many useful materials are available to help you operate your drinking water system. Below is a list of key materials owners and operators of municipal residential drinking water systems frequently use.

To access these materials online click on their titles in the table below or use your web browser to search for their titles. Contact the Ministry if you need assistance or have questions at 1-866-793-2588 or waterforms@ontario.ca.

For more information on Ontario's drinking water visit www.ontario.ca/drinkingwater



PUBLICATION TITLE	PUBLICATION NUMBER
FORMS: Drinking Water System Profile Information Laboratory Services Notification Adverse Test Result Notification	012-2149E 012-2148E 012-4444E
Taking Care of Your Drinking Water: A Guide for Members of Municipal Councils	Website
Procedure for Disinfection of Drinking Water in Ontario	Website
Strategies for Minimizing the Disinfection Products Trihalomethanes and Haloacetic Acids	Website
Filtration Processes Technical Bulletin	Website
Ultraviolet Disinfection Technical Bulletin	Website
Guide for Applying for Drinking Water Works Permit Amendments, & License Amendments	Website
Certification Guide for Operators and Water Quality Analysts	Website
Guide to Drinking Water Operator Training Requirements	9802E
Community Sampling and Testing for Lead: Standard and Reduced Sampling and Eligibility for Exemption	Website
Drinking Water System Contact List	7128E01
Ontario's Drinking Water Quality Management Standard - Pocket Guide	Website
Watermain Disinfection Procedure	Website
List of Licensed Laboratories	Website

Principaux guides et documents de référence sur les réseaux résidentiels municipaux d'eau potable

De nombreux documents utiles peuvent vous aider à exploiter votre réseau d'eau potable. Vous trouverez ci-après une liste de documents que les propriétaires et exploitants de réseaux résidentiels municipaux d'eau potable utilisent fréquemment. Pour accéder à ces documents en ligne, cliquez sur leur titre dans le tableau ci-dessous ou faites une recherche à l'aide de votre navigateur Web. Communiquez avec le ministère au 1-866-793-2588, ou encore à waterforms@ontario.ca si vous avez des questions ou besoin d'aide.



Pour plus de renseignements sur l'eau potable en Ontario, consultez le site www.ontario.ca/eaupotable

TITRE DE LA PUBLICATION	NUMÉRO DE PUBLICATION
Renseignements sur le profil du réseau d'eau potable	012-2149F
Avis de demande de services de laboratoire	012-2148F
Avis de résultats d'analyse insatisfaisants et de règlement des problèmes	012-4444F
Prendre soin de votre eau potable - Un guide destiné aux membres des conseils municipaux	Site Web
Marche à suivre pour désinfecter l'eau potable en Ontario	Site Web
Stratégies pour minimiser les trihalométhanes et les acides haloacétiques de sous-produits de désinfection	Site Web
Filtration Processes Technical Bulletin (en anglais seulement)	Site Web
Ultraviolet Disinfection Technical Bulletin (en anglais seulement)	Site Web
Guide de présentation d'une demande de modification du permis d'aménagement de station de production d'eau potable	Site Web
Guide sur l'accréditation des exploitants de réseaux d'eau potable et des analystes de la qualité de l'eau de réseaux d'eau potable	Site Web
Guide sur les exigences relatives à la formation des exploitants de réseaux d'eau potable	9802F
Échantillonnage et analyse du plomb dans les collectivités : échantillonnage normalisé ou réduit et admissibilité à l'exemption	Site Web
Liste des personnes-ressources du réseau d'eau potable	Site Web
L'eau potable en Ontario - Norme de gestion de la qualité - Guide de poche	Site Web
Procédure de désinfection des conduites principales	Site Web
Laboratoires autorisés	Site Web



APPENDIX B

INSPECTION RATING RECORD

Ministry of the Environment - Inspection Summary Rating Record (Reporting Year - 2020-2021)

DWS Name:	NEWMARKET DISTRIBUTION SYSTEM
DWS Number:	260003188
DWS Owner:	Newmarket, The Corporation Of The Town Of
Municipal Location:	Newmarket

Regulation: O.REG 170/03
Category: Large Municipal Residential System
Type Of Inspection: Standalone
Inspection Date: May 5, 2020
Ministry Office: York-Durham District

Maximum Question Rating: 329

Inspection Module	Non-Compliance Rating
Treatment Processes	4 / 55
Distribution System	0 / 4
Operations Manuals	0 / 42
Logbooks	0 / 26
Certification and Training	0 / 35
Water Quality Monitoring	0 / 71
Reporting & Corrective Actions	4 / 67
Treatment Process Monitoring	0 / 29
TOTAL	8 / 329

Inspection Risk Rating	2.43%
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FINAL INSPECTION RATING:	97.57%
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Ministry of the Environment - Detailed Inspection Rating Record (Reporting Year - 2020-2021)

DWS Name: NEWMARKET DISTRIBUTION SYSTEM
DWS Number: 260003188
DWS Owner: Newmarket, The Corporation Of The Town Of
Municipal Location: Newmarket
Regulation: O.REG 170/03
Category: Large Municipal Residential System
Type Of Inspection: Standalone
Inspection Date: May 5, 2020
Ministry Office: York-Durham District

Non-compliant Question(s)	Question Rating
Reporting & Corrective Actions	
Have all changes to the system registration information been provided to the Ministry within ten (10) days of the change?	4
Treatment Processes	
Is the owner/operating authority able to demonstrate that, when required during the inspection period, Form 1 documents were prepared in accordance with their Drinking Water Works Permit?	4
TOTAL QUESTION RATING	8

Maximum Question Rating: 329

Inspection Risk Rating	2.43%
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FINAL INSPECTION RATING:	97.57%
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