Ministry of 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



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File: SI-YO-GE-540
Keswick-Sutton Distribution System

February 26, 2024

The Corporation of the Town of Georgina
Department of Operations and Infrastructure
26657 Civic Centre Road,
Keswick, ON
L4P 3G1

Attention: Mario Puopolo, Operations Manager (Water, Wastewater, Waste)

RE: February 6, 2024 Inspection – Keswick-Sutton Distribution System Inspection Report

Enclosed is a copy of the inspection report prepared for the Keswick-Sutton Distribution System and the corresponding Inspection Rating Report (IRR) and Risk Methodology document.

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 councilors, 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 Councils" on the Drinking Water Ontario website at https://www.ontario.ca/environment-and-energy/taking-care-your-drinking-water-guide-members-municipal-councils.

The IRR is a summarized quantitative measure of the drinking water system's annual inspection and is published in the Ministry's Chief Drinking Water Inspector's Annual Report. The Risk Methodology document describes the risk rating methodology which has been applied to the findings of the Ministry's municipal residential drinking water system inspection results.

Thank you for the assistance afforded to me during this compliance inspection. 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 Moulton

Water Compliance Officer

Jennif Mouth

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

Central Region

Office: (905) 903-5765

ec:

Radu Apavaloae, Water and Wastewater Supervisor, Town of Georgina Anna Antoniadis, DWQMS Compliance Officer, Water and Wastewater/Operations and Infrastructure, Town of Georgina Demetra Koros, Water Compliance Supervisor, York Durham District Office York Public Health Inspector





KESWICK-SUTTON DISTRIBUTION SYSTEM 26557 CIVIC CENTRE RD, GEORGINA, ON, L4P 3G1

INSPECTION REPORT

System Number: 260062686

Entity: TOWN OF GEORGINA

Inspection Start Date: February 06, 2024 Inspection End Date: February 20, 2024

Inspected By: Jennifer Moulton

Badge #: 1268

(signature)

Jennif Mouth



Ministry of the Environment, Conservation and Parks Drinking Water Inspection

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Appendix:

- A. Stakeholders Appendix
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- C. Drinking Water System Components



INTRODUCTION

Purpose

This unannounced, detailed inspection was conducted to confirm compliance with Ministry of the Environment, Conservation and Parks' (MECP) legislation and conformance with ministry drinking water policies and guidelines.

Scope

The ministry utilizes a comprehensive, multi-barrier approach in the inspection of water systems that focuses on the source, treatment, and distribution components as well as management and the operation of the system.

The inspection of the drinking water system included both the physical inspection of the component parts of the system listed in section 4 "Systems Components" of the report and the review of data and documents associated with the operation of the drinking water system during the review 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 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.

Facility Contacts and Dates

The drinking water system is owned by the Town of Georgina (the Town) and operated by the Town.

The system serves an estimated population of 39,150 and is categorized as a Large Municipal Residential System. Information reviewed for this inspection covered the time period of February 1, 2023 to February 5, 2024.

Systems/Components

The following sites were visited as part of the inspection of the drinking water system:

- Connell Booster Pumping Station, commissioned on May 25, 2021; and
- Simcoe Landing (Joe Dales) Booster Pumping Station.

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The Keswick-Sutton Distribution System only maintains secondary disinfection and distribution of water. Primary disinfection is undertaken by another regulated drinking water system which provides treated water to this drinking water system.

Treated water is received from the Regional Municipality of York. The Regional Municipality of York provides water storage, and the Town of Georgina provides pressure boosting for the drinking water system.

The Regional Municipality of York drinking water system(s) are inspected separately from this drinking water system.

Permissions/Approvals

This drinking water system was subject to specific conditions contained within the following permissions and/or approvals (please note this list is not exhaustive) at the time of the inspection in addition to the requirements of the SDWA and its regulations:

- 1. MECP Municipal Drinking Water License (MDWL) number 119-101, issue 3 dated May 23, 2021
- 2. MECP Drinking Water Permit (DWWP) number 119-201, issue 3 dated May 23, 2021

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NON-COMPLIANCE

The following item(s) have been identified as non-compliance, based on a "No" response captured for a legislative question(s). For additional information on each question see the Inspection Details section of the report.

Ministry Program: DRINKING WATER | Regulated Activity: DW Municipal Residential

ltem	Question	Compliance Response/Corrective Action(s)
NC-1	Question ID: DWMR1110000 Was an Annual Report containing the required information prepared by February 28 of the following year?	The Annual Report did not contain the required information and/or was not prepared by February 28th of the following year. At the time of the inspection, the Annual Reports for 2023 (in draft), 2022, and 2021 containing the required information were available for review. The 2021 and 2022 annual reports were posted on the Town's website. The 2021 annual report was completed by February 28th of the following year. A date was not found for when the 2022 annual report was prepared. On February 13, 2024, the 2023 Annual Water Quality Report was prepared and posted on the Town's website. No further actions required.
NC-2	Question ID: DWMR1111000 Have Summary Reports for municipal council been completed on time, include the required content, and distributed in accordance with the regulatory requirements?	Summary Reports for municipal council were not completed on time, did not include the required content, and/or were not distributed in accordance with the regulatory requirements. Summary Reports 2021 and 2022 containing the required information were available for review and included the required content. The Summary Reports are to be prepared and distributed to the Municipal Council by March 3 of the following year. The 2021 Summary Report was prepared for the municipal council on February 16, 2022.

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The 2022 Summary Report was prepared for the municipal council on April 26, 2023, which does not meet the requirements of Schedule 22 of O. Reg. 170/03.

Required Actions

By no later than April 12, 2024, The Town of Georgina shall submit documentation to the undersigned officer showing evidence that the 2023 Summary Report was submitted to municipal council by March 31, 2024.

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RECOMMENDATIONS

The following item(s) have been identified as non-conformance, based on a "No" response captured for a best management practice (BMP) question(s). For additional information on each question see the Inspection Details section of the report.

Ministry Program: DRINKING WATER | Regulated Activity: DW Municipal Residential

Item	Question	Recommendation(s)
R-1	Question ID: DWMR1116000	The following issues were also noted during the inspection:
	Were the inspection questions sufficient to address other identified best practice issues?	1. The Connell Booster pumping station logbook was reviewed as part of the inspection. The October 4, 2023 entry only had the day recorded. The full date was determined by looking at the dates prior to and after this entry. 2. There was a flushing record for November 28, 2023, that had the chlorine residual recorded incorrectly. It was recorded as 0.184 mg/L rather than 1.84 mg/L. 3. A total coliform adverse was reported on Friday July 28, 2023. A sample was collected at the original location of the adverse on the day the adverse was reported, but samples were not collected upstream or downstream of the location of the adverse, as required. A proper resample was collected on Monday July 31, 2023. The Town completed an After Action Review following this event. 4. Samples collected for lead were also analyzed for sodium which resulted in four (4) elevated sodium adverse water quality incidents. Guidance on corrective actions was provided by the Ministry for these adverse results.
		Recommendations
		It is recommended that the Town develop a procedure for checking logbooks and operational records for abnormalities. The undersigned officer supports the action items from the Town's After Action Review, including the update of the W/WW Adverse Water Quality Reporting Procedure. It is also

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recommended that the Town include actions required for all possible adverse results, including sodium, organics, and inorganics, in this procedure.

3. Another action item from the After Action Review is to train operators on a yearly basis on the W/WW Adverse Water Quality Reporting Procedure. It is recommended that proper records of the training be kept, which include the names of those that attended with a sign-off that they understand the information.

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INSPECTION DETAILS

This section includes all questions that were assessed during the inspection.

Ministry Program: DRINKING WATER | Regulated Activity: DW Municipal Residential

Question ID	DWMR1000000	Question Type	Information

Legislative Requirement(s):

Not Applicable

Question:

Does this drinking water system provide primary disinfection?

Compliance Response(s)/Corrective Action(s)/Observation(s):

This drinking water system provides for only secondary disinfection and distribution of water. Primary disinfection is undertaken by another regulated drinking water system which provides treated water to this drinking water system.

Drinking water is supplied by two (2) surface water treatment plants, owned and operated by the Regional Municipality of York (the Region). The water from the Georgina Drinking Water System – Georgina (DWS number 260026156) and the Georgina Drinking Water System – Keswick (DWS number 210003280) is drawn from Lake Simcoe. The Region is responsible for the supply, production, treatment, and storage of drinking water.

The Town owns, operates and maintains the distribution system, including two pumping stations, that delivers the water from the regional watermains to homes in Keswick and Sutton.

Question ID DWMR1018000	Question Type Legislative
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Legislative Requirement(s):

SDWA | 31 | (1);

Question:

Has the owner ensured that all equipment is installed in accordance with Schedule A and Schedule C of the Drinking Water Works Permit?

Compliance Response(s)/Corrective Action(s)/Observation(s):

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

The following were visited on February 6, 2024:

- The Simcoe Landing Booster Pumping Station with two (2) peak hour pumps (1 duty, 1 standby), each rated at 42 L/s, two (2) fire flow pumps (1 duty, 1 standby), each rated at 173 L/s, and one (1) standby diesel generator set having a minimum continuous rating of 160 kW; and
- The Connell Booster Pumping Station with one (1) jockey pump, rated at 11 L/s, two (2) service pumps, each rated at 25 L/s, and two (2) high flow pumps (1 duty, 1 standby), each

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rated at 166 L/s and a standby natural gas generator rated at 300 kW.

Question ID DWMR1020000 Question Type Legislative

Legislative Requirement(s):

SDWA | 31 | (1);

Question:

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?

Compliance Response(s)/Corrective Action(s)/Observation(s):

The owner/operating authority was in compliance with the requirement to prepare Form 1 documents as required by their Drinking Water Works Permit during the inspection period.

There were four (4) Form 1 documents – Record of Watermains Authorized as Future Alteration prepared for the Keswick-Sutton Distribution System during the inspection period. These were for commissioning, replacing, relining, and abandoning watermains.

Question ID DWMR1114000 Question Type Legislative

Legislative Requirement(s):

SDWA | 31 | (1);

Question:

Does the owner have evidence that, when required, all legal owners associated with the DWS were notified of the requirements of the Licence & Permit?

Compliance Response(s)/Corrective Action(s)/Observation(s):

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

Question ID DWMR1028000 Question Type Legislative

Legislative Requirement(s):

SDWA | 31 | (1);

Question:

Are up-to-date plans for the drinking water system kept in place, or made available in such a manner, that they may be readily viewed by all persons responsible for all or part of the operation of the drinking water system in accordance with the DWWP and MDWL issued under Part V of the SDWA?

Compliance Response(s)/Corrective Action(s)/Observation(s):

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

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

Up to date plans and drawings were available for review at the time of the inspection. Drawings of the pumping stations were posted on-site. The Town is also using Geographic Information System (GIS) programming to capture and store information pertaining to the distribution system. The live portal is available to view by operations staff on field laptops. Any discrepancies or updates found by operational staff, or Development and Engineering are reported to the Assessment Management group to have them rectified/updated.

Question ID	DWMR1025000	Question Type	Legislative	

Legislative Requirement(s):

SDWA | 31 | (1);

Question:

Were all parts of the drinking water system that came in contact with drinking water (added, modified, replaced or extended) disinfected in accordance with a procedure listed in Schedule B of the Drinking Water Works Permit?

Compliance Response(s)/Corrective Action(s)/Observation(s):

All parts of the drinking water system were disinfected in accordance with a procedure listed in Schedule B of the Drinking Water Works Permit.

The Drinking Water Works Permit (DWWP) Schedule B, 2.3, requires that all parts of the drinking water system in contact with the drinking water which are added, modified, replaced, extended, or taken out of service for inspection, repaired, or other activities that may lead to contamination, be disinfected before being put into service in accordance with the provisions of the ministry's Watermain Disinfection Procedure.

The System staff utilizes the Watermain Repair Disinfection procedure No. W/WW12, which was updated May 10, 2016, and New Watermain Testing and Commissioning procedure No. W/WW11, updated April 4, 2021.

Watermain break and commissioning records showed that the disinfection procedure was followed for the inspection period.

Question ID DWMR1027000 Question Type Legislative

Legislative Requirement(s):

SDWA [31 | (1);

Question:

Does the owner have evidence indicating that all chemicals and materials which come in contact with water within the drinking water system have met all applicable AWWA and ANSI standards in accordance with the DWWP and MDWL issued under Part V of the SDWA?

Compliance Response(s)/Corrective Action(s)/Observation(s):

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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.

The Town requires contractors to sign a letter of acknowledgment confirming they will adhere to the established standards including watermain disinfection procedures, NSF/ANSI Standard 61 and AWWA Standards. The Town uses an Essential Suppliers list that gives required accreditation for different types of materials that may be used in the drinking water system.

Question ID	DWMR1033000	Question Type	Legislative
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Legislative Requirement(s):

SDWA | O. Reg. 170/03 | 7-2 | (3); SDWA | O. Reg. 170/03 | 7-2 | (4);

Question:

Is the secondary disinfectant residual measured as required for the large municipal residential distribution system?

Compliance Response(s)/Corrective Action(s)/Observation(s):

The secondary disinfectant residual was measured as required for the large municipal residential 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.

Unless at least one sample is taken on each day of the week, 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.

The Town collects at least 5 grab samples for free chlorine residuals each business day within the distribution system. They also collect chlorine residuals while conducting routine distribution microbiological sampling, and dead-end flushing.

Question ID	DWMR1049000	Question Type	ВМР

Legislative Requirement(s):

Not Applicable

Question:

Do records confirm that disinfectant residuals are routinely checked at the extremities and dead ends of the distribution system?

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Compliance Response(s)/Corrective Action(s)/Observation(s):

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

Question ID DWMR1036000 Question Type Legislative

Legislative Requirement(s):

SDWA | O. Reg. 170/03 | 6-7 | (1);

Question:

Where continuous monitoring equipment is not used for chlorine residual analysis, are samples tested using an acceptable portable device?

Compliance Response(s)/Corrective Action(s)/Observation(s):

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

The Town uses Hach DR300 pocket colorimeters and a Pocket II colorimeter. These are calibrated annually and verified monthly against secondary standards.

 Question ID
 DWMR1099000
 Question Type
 Information

Legislative Requirement(s):

Not Applicable

Question:

Do records 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)?

Compliance Response(s)/Corrective Action(s)/Observation(s):

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).

During the inspection review period there was one (1) distribution sample that resulted in an exceedance of the Ontario Drinking Water Quality Standard for total coliforms.

Question ID DWMR1081000 Question Type Legislative

Legislative Requirement(s):

SDWA | O. Reg. 170/03 | 10-2 | (1); SDWA | O. Reg. 170/03 | 10-2 | (2); SDWA | O. Reg. 170/03 | 10-2 | (3);

Question:

For LMR systems, are all microbiological water quality monitoring requirements for distribution samples being met?

Compliance Response(s)/Corrective Action(s)/Observation(s):

All microbiological water quality monitoring requirements prescribed by legislation for distribution

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samples in a large municipal residential system were being met.

In accordance with section 10-2 of Schedule 10 of O. Reg. 170/03, the Town must collect at least eight distribution samples, plus one additional sample for every 1,000 people served by the system, every month with at least one sample taken each week. All samples are to be analyzed for E. coli (EC) and total coliforms (TC), of which 25% of the required samples must also be tested for heterotrophic plate count (HPC).

The Town reviews the total number of registered water accounts and applies an average household size of 2.9 persons to calculate the serviced population. This equates to 39,150 persons.

Based on the reported service population, a minimum of 47 samples are to be collected within the distribution system on a monthly basis and sampled for EC and TC. At least 11 of those samples are to be tested for HPC.

Question ID	DWMR1096000	Question Type	Legislative
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Legislative Requirement(s):

SDWA | O. Reg. 170/03 | 6-3 | (1);

Question:

Do records confirm that chlorine residual tests are being conducted at the same time and at the same location that microbiological samples are obtained?

Compliance Response(s)/Corrective Action(s)/Observation(s):

Records confirmed that chlorine residual tests were being conducted at the same time and at the same location that microbiological samples were obtained.

Question ID	DWMR1086000	Question Type	Legislative

Legislative Requirement(s):

SDWA | O. Reg. 170/03 | 13-6.1 | (1); SDWA | O. Reg. 170/03 | 13-6.1 | (2); SDWA | O. Reg. 170/03 | 13-6.1 | (3); SDWA | O. Reg. 170/03 | 13-6.1 | (4); SDWA | O. Reg. 170/03 | 13-6.1 | (5); SDWA | O. Reg. 170/03 | 13-6.1 | (6);

Question:

Are all haloacetic acid water quality monitoring requirements prescribed by legislation conducted within the required frequency and at the required location?

Compliance Response(s)/Corrective Action(s)/Observation(s):

All haloacetic acid water quality monitoring requirements prescribed by legislation were conducted within the required frequency and at the required location.

Haloacetic acids (HAA) monitoring is conducted at least once every calendar quarter within the drinking water system's distribution system, as required by section 13-6.1 of Schedule 13 of O. Reg. 170/03.

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Question ID	DWMR1087000	Question Type	Legislative

Legislative Requirement(s):

SDWA | O. Reg. 170/03 | 13-6 | (1); SDWA | O. Reg. 170/03 | 13-6 | (2); SDWA | O. Reg. 170/03 | 13-6 | (3); SDWA | O. Reg. 170/03 | 13-6 | (4); SDWA | O. Reg. 170/03 | 13-6 | (5); SDWA | O. Reg. 170/03 | 13-6 | (6);

Question:

Have all trihalomethane water quality monitoring requirements prescribed by legislation been conducted within the required frequency and at the required location?

Compliance Response(s)/Corrective Action(s)/Observation(s):

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

Trihalomethane (THM) monitoring is conducted at least once every calendar quarter within the drinking water system's distribution system, as required by section 13-6(1) of Schedule 13 of O. Reg. 170/03.

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Question ID	DWMR1092000	Question Type	Legislative

Legislative Requirement(s):

SDWA | O. Reg. 170/03 | 6-2;

Question:

Has the owner ensured that water samples are taken at the prescribed location?

Compliance Response(s)/Corrective Action(s)/Observation(s):

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

Question ID	DWMR1095000	Question Type	Legislative
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Legislative Requirement(s):

SDWA | O. Reg. 170/03 | 15.1-10; SDWA | O. Reg. 170/03 | 15.1-4 | (1); SDWA | O. Reg. 170/03 | 15.1-5 | (1); SDWA | O. Reg. 170/03 | 15.1-5 | (10); SDWA | O. Reg. 170/03 | 15.1-5 | (11); SDWA | O. Reg. 170/03 | 15.1-5 | (12); SDWA | O. Reg. 170/03 | 15.1-5 | (2); SDWA | O. Reg. 170/03 | 15.1-5 | (3); SDWA | O. Reg. 170/03 | 15.1-5 | (4); SDWA | O. Reg. 170/03 | 15.1-5 | (7); SDWA | O. Reg. 170/03 | 15.1-5 | (6); SDWA | O. Reg. 170/03 | 15.1-5 | (7); SDWA | O. Reg. 170/03 | 15.1-5 | (7); SDWA | O. Reg. 170/03 | 15.1-5 | (8); SDWA | O. Reg. 170/03 | 15.1-5 | (9); SDWA | O. Reg. 170/03 | 15.1-7 | (3); SDWA | O. Reg. 170/03 | 15.1-7 | (3); SDWA | O. Reg. 170/03 | 15.1-7 | (4); SDWA | O. Reg. 170/03 | 15.1-9 | (1); SDWA | O. Reg. 170/03 | 15.1-9 | (4); SDWA | O. Reg. 170/03 | 15.1-9 | (6); SDWA | O. Reg. 170/03 | 15.1-9 | (9); SDWA | O. Reg. 170/03 | 15.1-9 | (9);

Question:

Have all lead sampling requirements prescribed by Schedule 15.1 of O. Reg. 170/03 been met? Compliance Response(s)/Corrective Action(s)/Observation(s):

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

For this drinking water system, pH and alkalinity are to be collected in the distribution system during every sampling period (winter and summer sampling periods). Distribution samples are to also be collected and tested for lead every third "twelve-month period." The number of samples, according to the reduced sampling table, is four (4) distribution samples.

Records were reviewed for this inspection which included the winter 2022/2023 and summer 2023 sampling periods. Samples were collected and tested for alkalinity, pH and lead in the distribution system.

Question ID	DWMR1098000	Question Type	Legislative
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Legislative Requirement(s):

SDWA | O. Reg. 170/03 | 13 | (1); SDWA | O. Reg. 170/03 | 13 | (2); SDWA | O. Reg. 170/03 | 13 | (3);

Question:

Has the owner indicated that the required records are kept and will be kept for the required time period?

Compliance Response(s)/Corrective Action(s)/Observation(s):

The owner indicated that the required records are kept and will be kept for the required time period.

The QMS SOP-5 Document and Records Control, dated December 2023, outlines the retention times for records pertaining to the drinking water system.

Question ID	DWMR1101000	Question Type	Legislative
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Legislative Requirement(s):

SDWA | O. Reg. 170/03 | 17-1; SDWA | O. Reg. 170/03 | 17-10 | (1); SDWA | O. Reg. 170/03 | 17-11; SDWA | O. Reg. 170/03 | 17-12; SDWA | O. Reg. 170/03 | 17-13; SDWA | O. Reg. 170/03 | 17-14; SDWA | O. Reg. 170/03 | 17-2; SDWA | O. Reg. 170/03 | 17-3; SDWA | O. Reg. 170/03 | 17-4; SDWA | O. Reg. 170/03 | 17-5; SDWA | O. Reg. 170/03 | 17-6; SDWA | O. Reg. 170/03 | 17-9;

Question:

For LMR Systems, have corrective actions (as per Schedule 17 of O. Reg. 170/03) been taken to address adverse conditions, including any other steps as directed by the Medical Officer of Health?

Compliance Response(s)/Corrective Action(s)/Observation(s):

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

One (1) AWQI was reported on Friday July 28, 2023, due to a test result that did not meet the microbiological standard of the Ontario Drinking Water Quality Standards (ODWQS) in the

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distribution system. The corrective action required is to resample and test as soon as reasonably possible. A resample is to include a sample from the original adverse location and samples upstream and downstream of the original location. A sample was collected at the original location of the adverse on the day the adverse was reported, but samples were not collected upstream or downstream of the location of the adverse. A proper resample was collected on Monday, July 31, 2023. The resample results met the ODWQS.

During the inspection review period, there were also four (4) adverse water quality incidents (AWQIs) reported on the same day for elevated levels of sodium. Resamples were collected and confirmed elevated levels of sodium. The Town updated their website to include information about elevated sodium, as directed by Public Health.

Please refer to Question ID DWMR1116000 for recommendations.

Question ID	DWMR1104000	Question Type	Legislative

Legislative Requirement(s):

SDWA | O. Reg. 170/03 | 16-6 | (1); SDWA | O. Reg. 170/03 | 16-6 | (2); SDWA | O. Reg. 170/03 | 16-6 | (3); SDWA | O. Reg. 170/03 | 16-6 | (3.1); SDWA | O. Reg. 170/03 | 16-6 | (3.2); SDWA | O. Reg. 170/03 | 16-6 | (4); SDWA | O. Reg. 170/03 | 16-6 | (5); SDWA | O. Reg. 170/03 | 16-6 | (6);

Question:

Were all required verbal notifications of adverse water quality incidents immediately provided as per O. Reg. 170/03 16-6?

Compliance Response(s)/Corrective Action(s)/Observation(s):

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

Question ID	DWMR1105000	Question Type	Legislative
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Legislative Requirement(s):

SDWA | O. Reg. 170/03 | 16-7 | (1); SDWA | O. Reg. 170/03 | 16-7 | (2); SDWA | O. Reg. 170/03 | 16-7 | (3); SDWA | O. Reg. 170/03 | 16-7 | (4); SDWA | O. Reg. 170/03 | 16-7 | (5);

Question:

Were all required written notices of adverse water quality incidents provided as per O. Reg. 170/03 16-7?

Compliance Response(s)/Corrective Action(s)/Observation(s):

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

Question ID	DWMR1106000	Question Type	Legislative
Legislative Requ	irement(s):		

Event Number: 1-191694700 Page 16 of 26



SDWA | O. Reg. 170/03 | 16-9 | (1); SDWA | O. Reg. 170/03 | 16-9 | (2);

Question:

Were all required written notices of issue resolution provided as per O. Reg. 170/03 16-9?

Compliance Response(s)/Corrective Action(s)/Observation(s):

All required written notices of issue resolution were provided as per O. Reg. 170/03 16-9.

Question ID	DWMR1110000	Question Type	Legislative

Legislative Requirement(s):

SDWA | O. Reg. 170/03 | 11 | (6);

Question:

Was an Annual Report containing the required information prepared by February 28 of the following year?

Compliance Response(s)/Corrective Action(s)/Observation(s):

The Annual Report did not contain the required information and/or was not prepared by February 28th of the following year.

At the time of the inspection, the Annual Reports for 2023 (in draft), 2022, and 2021 containing the required information were available for review. The 2021 and 2022 annual reports were posted on the Town's website.

The 2021 annual report was completed by February 28th of the following year.

A date was not found for when the 2022 annual report was prepared.

On February 13, 2024, the 2023 Annual Water Quality Report was prepared and posted on the Town's website. No further actions required.

		·	
Question ID	DWMR1056000	Question Type	Information

Legislative Requirement(s):

Not Applicable

Question:

Has the donor provided an Annual Report to the owner of this receiver drinking water system?

Compliance Response(s)/Corrective Action(s)/Observation(s):

The donor provided an Annual Report to the owner of this receiver drinking water system.

The Regional Municipality of York provided their 2022 Annual Report to the Town on February 27, 2023.

Question ID	DWMR1111000	Question Type	Legislative

Event Number: 1-191694700 Page 17 of 26



Legislative Requirement(s):

SDWA | O. Reg. 170/03 | 22-2 | (1); SDWA | O. Reg. 170/03 | 22-2 | (2); SDWA | O. Reg. 170/03 | 22-2 | (3); SDWA | O. Reg. 170/03 | 22-2 | (4);

Question:

Have Summary Reports for municipal council been completed on time, include the required content, and distributed in accordance with the regulatory requirements?

Compliance Response(s)/Corrective Action(s)/Observation(s):

Summary Reports for municipal council were not completed on time, did not include the required content, and/or were not distributed in accordance with the regulatory requirements.

Summary Reports 2021 and 2022 containing the required information were available for review and included the required content.

The Summary Reports are to be prepared and distributed to the Municipal Council by March 31 of the following year.

The 2021 Summary Report was prepared for the municipal council on February 16, 2022. The 2022 Summary Report was prepared for the municipal council on April 26, 2023, which does not meet the requirements of Schedule 22 of O. Reg. 170/03.

Required Actions

By no later than April 12, 2024. The Town of Georgina shall submit documentation to the undersigned officer showing evidence that the 2023 Summary Report was submitted to municipal council by March 31, 2024.

Question ID	DWMR1113000	Question Type	Legislative
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Legislative Requirement(s):

SDWA | O. Reg. 170/03 | 10.1 | (3);

Question:

Have all changes to the system registration information been provided to the Ministry within ten (10) days of the change?

Compliance Response(s)/Corrective Action(s)/Observation(s):

All changes to the system registration information were provided within ten (10) days of the change.

Changes to the profile information were submitted to the ministry on November 2023 to update the contact information.

Question ID	DWMR1046000	Question Type	ВМР	
Legislative Requirement(s):				
Not Applicable				

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Question:

Is there a backflow prevention program, policy and/or bylaw in place that addresses cross connections and connections to high hazard facilities?

Compliance Response(s)/Corrective Action(s)/Observation(s):

There was a backflow prevention program, policy and/or bylaw in place.

By-law 2007-132 is in place for the purpose of providing requirements for backflow prevention.

Question ID	DWMR1053000	Question Type	BMP
	4		

Legislative Requirement(s):

Not Applicable

Question:

Is the Owner able to maintain proper pressures in the distribution system and is pressure 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?

Compliance Response(s)/Corrective Action(s)/Observation(s):

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.

Static pressures in the system are monitored during hydrant inspections. Pressure is also continuously monitored through the Supervisory Control and Data Acquisition (SCADA) system at the two (2) booster pumping stations. The Town has potable water at their sewage pumping stations, where they monitor and transmit water pressure data through SCADA as well.

Question ID	DWMR1048000	Question Type	ВМР
Landin Latina Daiss			

Legislative Requirement(s):

Not Applicable

Question:

Has the owner implemented a program for the flushing of watermains as per industry standards?

Compliance Response(s)/Corrective Action(s)/Observation(s):

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

All hydrants, blowoffs, and problem areas are flushed routinely on a rotational basis. Flushing records were reviewed for the inspection period.

Question ID	DWMR1050000	Question Type	ВМР	
Legislative Requ	uirement(s):			
Not Applicable				
Question:				

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Is there a program in place for inspecting and exercising valves?

Compliance Response(s)/Corrective Action(s)/Observation(s):

There was a program in place for inspecting and exercising valves.

The Town has implemented a valve inspection and exercising program following their procedure No. W/WW 15. The Town is aiming to inspect and exercise all of the main valves over a two-year period to ensure that all valves are in working condition when it becomes necessary to operate them.

Question ID DWMR1051000 Question Type BMP

Legislative Requirement(s):

Not Applicable

Question:

Is there a program in place for inspecting and operating hydrants?

Compliance Response(s)/Corrective Action(s)/Observation(s):

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

Hydrants are inspected at least once annually, as per Procedure No. W/WW 16, to ensure the proper working condition of hydrants for fire protection and other authorized uses. Hydrant inspection-Service Reports were provided and reviewed as part of this inspection.

Question ID DWMR1052000 Question Type BMP

Legislative Requirement(s):

Not Applicable

Question:

Is there a by-law or policy in place limiting access to hydrants?

Compliance Response(s)/Corrective Action(s)/Observation(s):

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

By-law No. 97-089 (PWO-3) restricts fire hydrant operation to the Town Engineer or those acting under their direction or authority.

Question ID DWMR1058000 Question Type Legislative

Legislative Requirement(s):

SDWA | O. Reg. 128/04 | 28;

Question:

Do operators and maintenance personnel have ready access to operations and maintenance manuals?

Compliance Response(s)/Corrective Action(s)/Observation(s):

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

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Manuals are available to the operators online through their laptops and are at the waterworks facility.

Question ID DWMR1059000 Question Type Legislative

Legislative Requirement(s):

SDWA | O. Reg. 128/04 | 28;

Question:

Do the operations and maintenance manuals contain plans, drawings and process descriptions sufficient for the safe and efficient operation of the system?

Compliance Response(s)/Corrective Action(s)/Observation(s):

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

The system uses the ArcGIS system for the Town's water and wastewater linear infrastructure with the GeoCortex extension for hydrant and valve maintenance. The Town follows their GIS Update Procedure, which requires the GIS system to be updated at least every 12 months by the GIS specialist.

Operators have access to the most updated versions via field laptops and electronically stored files.

Also, drawings for the Connell Booster Station and Simcoe Landing Booster Pumping Station were available on-site at their locations.

Question ID	DWMR1060000	Question Type	Legislative
		, ————————————————————————————————————	,

Legislative Requirement(s):

SDWA | 31 | (1);

Question:

Do the operations and maintenance manuals meet the requirements of the DWWP and MDWL issued under Part V of the SDWA?

Compliance Response(s)/Corrective Action(s)/Observation(s):

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.

Condition 16.0 of Schedule B of the MDWL lists the items to be included in the operations and maintenance manual.

Question ID	DWMR1061000	Question Type	Legislative		
Legislative Requ	Legislative Requirement(s):				
SDWA [O. Reg. 128/04 27 (1); SDWA O. Reg. 128/04 27 (2); SDWA O. Reg. 128/04					
	O. Reg. 128/04 27 (4); SDWA (
128/04 27 (6);	SDWA O. Reg. 128/04 27 (7);		,		

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Question:

Are logbooks properly maintained and contain the required information?

Compliance Response(s)/Corrective Action(s)/Observation(s):

Logbooks were properly maintained and contained the required information.

Logbooks were reviewed at the Waterworks Facility and at the two (2) pumping stations. There was an entry in the Connell Booster Pumping Station that only had the day recorded. This entry date was determined to be October 4th, 2023, by looking at the date prior and the date after this entry.

Please refer to Question ID DWMR1116000 for recommendations.

·			
Question ID	DWMR1062000	Question Type	Legislative

Legislative Requirement(s):

SDWA | O. Reg. 170/03 | 7-5;

Question:

Do records or other record keeping mechanisms confirm that operational testing not performed by continuous monitoring equipment is being done by a certified operator, water quality analyst, or person who meets the requirements of O. Reg. 170/03 7-5?

Compliance Response(s)/Corrective Action(s)/Observation(s):

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.

Question ID	DWMR1063000	Question Type	Legislative		
1					

Legislative Requirement(s):

SDWA | O. Reg. 170/03 | 6-10 | (1);

Question:

For every required operational test and for every required sample, is a record made of the date, time, location, name of the person conducting the test and result of the test?

Compliance Response(s)/Corrective Action(s)/Observation(s):

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.

There was a flushing record for November 28, 2023, that had the chlorine residual recorded incorrectly. It was recorded as 0.184 mg/L rather than 1.84 mg/L.

Please refer to Question ID DWMR1116000 for recommendations.

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 Question ID
 DWMR1065000
 Question Type
 Legislative

Legislative Requirement(s):

SDWA | O. Reg. 128/04 | 27 | (6);

Question:

Are logs and other record keeping mechanisms available for at least five (5) years?

Compliance Response(s)/Corrective Action(s)/Observation(s):

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

Logbooks are to be stored at the Waterworks Facility and/or at the booster pumping stations for at least 5 years, as per the Town's Documents and Records Control Procedure, dated December 2023.

Question ID DWMR1066000 Question Type BMP

Legislative Requirement(s):

Not Applicable

Question:

Is spill containment provided for process chemicals and standby power generator fuel?

Compliance Response(s)/Corrective Action(s)/Observation(s):

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

Question ID DWMR1067000 Question Type BMP

Legislative Requirement(s):

Not Applicable

Question:

Are clean-up equipment and materials in place for the clean up of spills?

Compliance Response(s)/Corrective Action(s)/Observation(s):

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

Question ID DWMR1068000 Question Type BMP

Legislative Requirement(s):

Not Applicable

Question:

If available, are standby power generators tested under normal load conditions?

Compliance Response(s)/Corrective Action(s)/Observation(s):

Standby power generators were tested under normal load conditions.

The maintenance records show that monthly tests are performed on the standby generators at

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the two (2) booster pumping stations. Also, the generators are inspected annually by an outside contractor.

Question ID DWMR1071000 Question Type BMP

Legislative Requirement(s):

Not Applicable

Question:

Has the owner provided security measures to protect components of the drinking water system?

Compliance Response(s)/Corrective Action(s)/Observation(s):

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

Booster pumping stations are locked and alarmed. When an alarm is activated, the on-call operator is notified via the Supervisory Control and Data Acquisition (SCADA) system (Win911) and receives a phone call through an auto-dialer through cellular with a landline backup. If the on-call operator does not acknowledge the alarm, the auto-dialer will call the Overall Responsible Operator. The notifications continue until someone responds to them. The Win911 system is tested daily. There is a schedule to routinely visit the stations at least weekly.

Backflow devices are installed at the bulk filling station located at the waterworks facility and the Public Fill Stations at 6531 Black River Road and 48 Hawkins Street in Sutton. Backflow devices are tested annually by a qualified contractor.

Question ID DWMR1072000 Question Type BMP

Legislative Requirement(s):

Not Applicable

Question:

Has the owner and/or operating authority undertaken efforts to promote water conservation and reduce water losses in their system?

Compliance Response(s)/Corrective Action(s)/Observation(s):

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

The Region has a Long-Term Water Conservation Strategy and a number of water conservation programs such as incentives for businesses and supporting local municipalities in managing system water loss.

The Town's By-Law 2002-0088(PWO-3) sets out outdoor water use restrictions. The Town also completes annual water audits.

Question IDDWMR1073000Question TypeLegislativeLegislative Requirement(s):SDWA | O. Reg. 128/04 | 23 | (1);

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Question:

Has the overall responsible operator been designated for all subsystems which comprise the drinking water system?

Compliance Response(s)/Corrective Action(s)/Observation(s):

The overall responsible operator had been designated for each subsystem.

Question ID	DWMR1078000	Question Type	Legislative
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Legislative Requirement(s):

SDWA | O. Reg. 128/04 | 23 | (1); SDWA | O. Reg. 128/04 | 23 | (2); SDWA | O. Reg. 128/04 | 23 | (4); SDWA | O. Reg. 128/04 | 23 | (6); SDWA | O. Reg. 128/04 | 23 | (7);

Question:

In instances where the overall responsible operator was unable to act, was an adequately certified operator designated to act in place of the overall responsible operator?

Compliance Response(s)/Corrective Action(s)/Observation(s):

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

Question ID	DWMR1074000	Question Type	Legislative

Legislative Requirement(s):

SDWA | O. Reg. 128/04 | 25 | (1);

Question:

Have operators-in-charge been designated for all subsystems which comprise the drinking water system?

Compliance Response(s)/Corrective Action(s)/Observation(s):

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

Question ID DWMR1075000 Question Type Legislative

Legislative Requirement(s):

SDWA | O. Reg. 128/04 | 22;

Question:

Do all operators possess the required certification?

Compliance Response(s)/Corrective Action(s)/Observation(s):

All operators possessed the required certification.

	Question Typ	BMP
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Legislative Requirement(s):

Not Applicable

Question:

Were the inspection questions sufficient to address other identified best practice issues?

Compliance Response(s)/Corrective Action(s)/Observation(s):

The following issues were also noted during the inspection:

- 1. The Connell Booster pumping station logbook was reviewed as part of the inspection. The October 4, 2023 entry only had the day recorded. The full date was determined by looking at the dates prior to and after this entry.
- 2. There was a flushing record for November 28, 2023, that had the chlorine residual recorded incorrectly. It was recorded as 0.184 mg/L rather than 1.84 mg/L.
- 3. A total coliform adverse was reported on Friday July 28, 2023. A sample was collected at the original location of the adverse on the day the adverse was reported, but samples were not collected upstream or downstream of the location of the adverse, as required. A proper resample was collected on Monday July 31, 2023. The Town completed an After Action Review following this event.
- 4. Samples collected for lead were also analyzed for sodium which resulted in four (4) elevated sodium adverse water quality incidents. Guidance on corrective actions was provided by the Ministry for these adverse results.

Recommendations

- 1. It is recommended that the Town develop a procedure for checking logbooks and operational records for abnormalities.
- 2. The undersigned officer supports the action items from the Town's After Action Review, including the update of the W/WW Adverse Water Quality Reporting Procedure. It is also recommended that the Town include actions required for all possible adverse results, including sodium, organics, and inorganics, in this procedure.
- 3. Another action item from the After Action Review is to train operators on a yearly basis on the W/WW Adverse Water Quality Reporting Procedure. It is recommended that proper records of the training be kept, which include the names of those that attended with a sign-off that they understand the information.

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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 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/page/drinking-water



Click on the publication below to access it

- Drinking Water System Profile Information Form 012-2149E
- Laboratory Services Notification Form 012-2148E
- Adverse Test Result Notification Form 012-4444E
- Taking Care of Your Drinking Water: A Guide for Members of Municipal Councils
- Procedure for Disinfection of Drinking Water in Ontario
- Strategies for Minimizing the Disinfection Products Trihalomethanes and Haloacetic Acids
- Filtration Processes Technical Bulletin
- Ultraviolet Disinfection Technical Bulletin
- Guide for Applying for Drinking Water Works Permit Amendments, & License Amendments
- Certification Guide for Operators and Water Quality Analysts
- Training Requirements for Drinking Water Operator
- Community Sampling and Testing for Lead: Standard and Reduced Sampling and Eligibility for Exemption
- Drinking Water System Contact List 7128E01
- Ontario's Drinking Water Quality Management Standard Pocket Guide
- 2020 Watermain Disinfection Procedure
- List of Licensed Laboratories





APPENDIX B INSPECTION RATING RECORD

Ministry of the Environment, Conservation and Parks - Inspection Summary Rating Record (Reporting Year - 2023-24)

DWS Name: KESWICK-SUTTON DISTRIBUTION SYSTEM

DWS Number: 260062686

DWS Owner: TOWN OF GEORGINA

Municipal Location: GEORGINA

Regulation: O.REG. 170/03

DWS Category: DW Municipal Residential

Type of Inspection: Detailed
Inspection Date: Feb-6-2024

Ministry Office: York Durham District Office

Maximum Risk Rating: 325

Inspection Module	Non Compliance Risk (X out of Y)
Certification and Training	0/35
Logbooks	0/26
Operations Manuals	0/42
Reporting & Corrective Actions	8/71
Treatment Processes	0/80
Water Quality Monitoring	0/71
Overall - Calculated	8/325

Inspection Risk Rating: 2.46%

Final Inspection Rating: 97.54%

Ministry of the Environment, Conservation and Parks - Detailed Inspection Rating Record (Reporting Year - 2023-24)

DWS Name: KESWICK-SUTTON DISTRIBUTION SYSTEM

DWS Number: 260062686

DWS Owner Name: TOWN OF GEORGINA

Municipal Location: GEORGINA

Regulation: O.REG. 170/03

DWS Category: DW Municipal Residential

Type of Inspection: Detailed
Inspection Date: Feb-6-2024

Ministry Office: York Durham District Office

Non-Compliance Question(s)	Non Compliance Risk
Reporting & Corrective Actions	
Was an Annual Report containing the required information prepared by February 28 of the following year?	4
Have Summary Reports for municipal council been completed on time, include the required content, and distributed in accordance with the regulatory requirements?	4
Overall - Total	8

Maximum Question Rating: 325

Inspection Risk Rating: 2.46%

FINAL INSPECTION RATING: 97.54%



APPENDIX C Drinking Water System Components

DWS Component Information Report for 260062686

as of 06-FEB-2024

Drinking Water System Profile Information

DWS # 260062686

MECP Assigned Name Keswick-Sutton Distribution System

Category LMRS

RegulationO. REG 170/03 **DWS Type**Distribution System

Source Type Distribution

Address 26557 Civic Road Keswick, Ontario, L4P 3G1, Canada

Region Central Region **District** York-Durham District

Municipality Georgina

Public Health Unit York Region Health Services Department

LWIS	LWIS	LWIS	Component	Comments
Component	Component	Component	Address	Confinence
Name	Туре	Sub-Type	Address	
Keswick- Sutton Distribution System	Other	Surface Water	Distribution System	The Keswick-Sutton Distribution System (The System) is owned and operated by the Corporation of the Town of Georgina (The Town) and serves a population of approximately 39,527. The Town is responsible for operating and maintaining watermains, valves, two booster pumping stations, hydrants, meters, and service connections. The Keswick Distribution System and the Sutton Distribution System connected on November 7, 2005, becoming one system. The piping system includes 236 km of pipe, 1701 hydrants, 13,500 service connections and 1915 valves.
				The System receives treated surface water from the Georgina and Keswick Water Treatment Plants (WTP). The Georgina WTP is a surface water plant which uses membrane microfiltration technology, UV and chlorine disinfection. The Keswick WTP is a surface water plant which uses chemically assisted filtration and chlorine disinfection. The Keswick WTP and the Georgina WTP are operated and maintained by the Regional Municipality of York (The Region) and are inspected separately from the Keswick-Sutton Distribution System.

				Within the Town's water distribution system are two booster-pumping stations that serve local areas that require higher pressure than delivered by York region's treatment and transmission system. York Region also provides and manages storage in the system. The Town's booster stations are Simcoe Landing Booster Pumping Station and Connell Booster Pumping Station.
Distribution System - Simcoe Landing Booster Pumping Station	Other	Surface Water	691 The Queensway South	The Simcoe Landing Booster Station located at 691 The Queesway South is comprised of two 42 L/s booster pumps (1 Duty, 1 Standby), and two 173 L/s Fire pumps (1 Duty, 1 Standby). Pumps are provided with variable frequency drives for speed control, and standby power through a 160 kW diesel generator. Pump control is based on pressure, at low pressure, the duty booster pump starts at low speed and ramps up to provide increased flow until shut off pressure is attained. In the event of fire, water demand will be greater than the available supply from the duty booster pump, and the system shut-off pressure will not be attained. This will trigger the duty fire pump to come on and ramp up to maintain the system pressure. Although the station is designed to operate with one pump, both duty pumps will come on to meet demand up to a maximum of approximately 84 litres/sec, after which the fire flow pump will start in the event of an emergency fire flow condition.
Distribution System - Connell Booster Pumping Station	Other	Surface Water	86 Connell Drive	The Connell Booster Pumping Station, commissioned May 25, 2021, is located at 86 Connell Street. It is comprised of one (1) jockey pump, rated at 11 L/s, two (2) service pumps, each rated at 25 L/s, and two (2) high flow pumps (1 duty, 1 standby), each rated at 166 L/s. Pumps are provided with variable frequency drives for speed control, and standby power through a 300 kW natural gas generator.