

Ministry of the Environment, Conservation and Parks

Ministère de l'Environnement, de la Protection de la nature et des Parcs

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February 1, 2023

Sent by Email: swatson@brockton.ca

Municipality of Brockton 100 Scott Street, Box 68 Walkerton, Ontario N0G 2V0

Attention: Ms. Watson, CAO

2022/2023 Inspection Report 1-110936174

Walkerton Drinking Water System Drinking Water Licence 081-103 Issue 3

Drinking Water Works Permit 081-203, Issue 3

The enclosed report documents findings of the inspection that was performed on January 13, 2023.

The first section of the report, namely "Non-Compliance/Non-Conformance Items", specify due dates for the submission of information or plans to my attention. Please note that "Non-Compliance Items" are linked to incidents of non-compliance with regulatory requirements contained within an Act, a Regulation, or site-specific approvals, orders or instructions; "Non-Conformance Items" convey information that the owner or operating authority should consider implementing in order to conform with existing and emerging industry standards.

The report includes an Inspection Summary Rating Record as an appendix, which will be forwarded to you in the near future. This record forms part of the ministry's comprehensive, riskbased inspection process. The rating provides a quantitative measure of the inspection results for this specific drinking water system for the reporting year. An inspection rating that is less than 100 per cent does not mean that the drinking water from the system is unsafe. The primary goals of this assessment are to encourage ongoing improvement of drinking water systems and to measure this progress from year to year.

I would like to remind you that Section 19 of the Safe Drinking Water Act, 2002 (Standard of Care) creates a number of obligations for individuals who exercise decision-making authority over municipal drinking water systems, including members of municipal councils. "Taking Care of Your Drinking Water: A guide for members of municipal council", a publication found on the <u>Drinking Water Ontario website</u> (http://www.ontario.ca/environment-and-energy/municipal-drinking-water-systems-licencing-registration-and-permits), provides further information about these obligations.

Should you have any questions regarding the content of the enclosed report, please do not hesitate to contact me.

Yours truly,

Rhonda Shannon

Rhonda Shannon

Water Compliance Inspector Phone: 226-668-5873

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Enclosure

ec: Dr. Ian Arra, Medical Officer of Health, Grey-Bruce Health Unit
Nicholas Schnurr, Director of Operations, Municipality of Brockton
Nancy Guest, Administrative Assistant, Source Protection Program Branch
Scott Gowan, Project Manager/ORO, Veolia
John Ritchie, District Manager, Ministry of Environment, Conservation and Parks

c: File SI-BR-BR-BR-540 (2022/23)





WALKERTON DRINKING WATER SYSTEM 1244 BRUCE RD 3, BROCKTON, ON, NOG 2V0 Inspection Report

System Number: 220002690

Entity: THE CORPORATION OF THE

MUNICIPALITY OF BROCKTON VEOLIA WATER CANADA INC.

Inspection Start Date: 01/20/2023 Inspection End Date: 02/01/2023

Inspected By: Rhonda Shannon

Badge #: 1237



NON-COMPLIANCE/NON-CONFORMANCE ITEMS

This should not be construed as a confirmation of full compliance with all potential applicable legal requirement and BMPs. These inspection findings are limited to the components and/or activities that were assessed, and the legislative framework(s) that were applied. It remains the responsibility of the owner to ensure compliance with all applicable legislative and regulatory requirements.

If you have any questions related to this inspection, please contact the signed Provincial Officer.

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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 | MRDW1001001 | Question Type | Information |
|--|-------------|---------------|-------------|
| Question: | | | |
| What was the scope of this inspection? | | | |
| Legislative Requirement Not Applicable | | | |
| Observation | | | |

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. 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 practices.

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.

A drinking water inspection was conducted on January 13, 2023 at the Walkerton drinking water facility to assess compliance with Ministry legislation and guidelines.

The Municipality of Brockton owns the drinking water system and Veolia Water Canada currently operates the facility, located at 1244 Bruce Road #3, Walkerton Ontario. The system currently has approximately 2358 meters connected with an approximate population of 4,724 served by these facilities, according to the 2021 census data.

This inspection covers the time period of November 18, 2021 to January 9, 2023 and includes a review of Ministry files, plant operating data and a detailed assessment of compliance with the terms and conditions of all MECP authorizing documents. The physical inspection included a tour of the facility and was conducted with Steve Rowe, OIC for the system.

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| Question ID | MRDW1000001 | Question Type | Information | |
|---|-------------|---------------|-------------|--|
| Question: | | | | |
| Does this drinking water system provide primary disinfection? | | | | |
| Legislative Requirement Not Applicable | | | | |
| Observation | | | | |

Observation

This Drinking Water System provides for both primary and secondary disinfection and distribution of water.

Primary disinfection remains to be achieved through UV disinfection to meet a 2-log inactivation of viruses for this facility, as required in Schedule E of License #081-101, Issue No. 3. Chlorine gas is added downstream of the UV units to provide for secondary disinfection throughout the distribution system.

| Question ID | MRDW1018001 | Question Type | Legislative |
|---|------------------|---------------|-------------|
| Question: | | | |
| Has the owner ensured that all equipment is installed in accordance with Schedule A and Schedule C of the Drinking Water Works Permit? | | | |
| Legislative Requirement | SDWA 31 (1); | | |
| Observation | | | |
| The owner had ensured that all equipment was installed in accordance with Schedule A and Schedule C of the Drinking Water Works Permit. | | | |

| Question ID | MRDW1020001 | Question Type | Legislative | | | |
|---|-------------|---------------|-------------|--|--|--|
| Question: | 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? | | | | | | |
| Legislative Requirement SDWA 31 (1); | | | | | | |
| Observation | | | | | | |

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 two (2) Form 1's completed during the time period reviewed. One was for the replacement of watermains under the Saugeen River within the Durham Street right-of-way, along with a gate valve at Durham and William Street. This Form was dated November 28, 2022.

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The second was for the installation of a new watermain in the East Ridge Business Park Development phase dated July 12, 2022.

| Question ID | MRDW1022001 | Question Type | Legislative |
|-------------|-------------|---------------|-------------|
| | | | |

Question:

Is the owner/operating authority able to demonstrate that, when required during the inspection period, Form 3 and associated condition 5.7 requirements were prepared in accordance with their Drinking Water Works Permit?

| Legislative Requirement | SDWA 31 (1); |
|-------------------------|------------------|
|-------------------------|------------------|

Observation

The owner/operating authority was in compliance with the requirement to prepare Form 3 and associated documents as required by their Drinking Water Works Permit during the inspection period.

One (1) Form 3 was signed on May 25, 2022 for the installation of an emergency standby diesel generator (100kW) at the new Walker West Booster Pumping Station.

| Question ID | MRDW1025001 | Question Type | Legislative |
|-------------|-------------|---------------|-------------|
|-------------|-------------|---------------|-------------|

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?

| Legislative Requirement | SDWA 3 | 31 (1); |
|-------------------------|----------|-----------|
|-------------------------|----------|-----------|

Observation

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

| Question ID | MRDW1024001 | Question Type | Legislative | | |
|---|-------------|---------------|-------------|--|--|
| Question: | | | | | |
| Do records confirm that the water treatment equipment which provides chlorination or chloramination for secondary disinfection purposes was operated as required? | | | | | |
| Legislative Requirement SDWA O. Reg. 170/03 1-2 (2); | | | | | |
| Observation | | | | | |
| Records confirmed that the water treatment equipment which provides chlorination or | | | | | |

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chloramination for secondary disinfection purposes was operated so that at all times and all locations in the distribution system the chlorine residual was never less than 0.05 mg/l free or 0.25 mg/l combined.

| Question ID | MRDW1038001 | Question Type | Legislative |
|-------------|-------------|---------------|-------------|
|-------------|-------------|---------------|-------------|

Question:

Is continuous monitoring equipment that is being utilized to fulfill O. Reg. 170/03 requirements performing tests for the parameters with at least the minimum frequency specified in the Table in Schedule 6 of O. Reg. 170/03 and recording data with the prescribed format?

Observation

Continuous monitoring equipment that was being utilized to fulfill O. Reg. 170/03 requirements was performing tests for the parameters with at least the minimum frequency specified in the Table in Schedule 6 of O. Reg. 170/03 and recording data with the prescribed format.

| Question ID | MRDW1035001 | Question Type | Legislative | |
|--|-------------|---------------|---------------|--|
| Question: | | | | |
| Are operators examining continuous monitoring test results and are they examining the results within 72 hours of the test? | | | | |
| Legislative Requirement SDWA O. Reg. 170/03 6-5 (1)1-4; SDWA O. Reg. 170/03 6-5 (1)5-10; | | | DWA O. Reg. | |

Observation

Operators were examining continuous monitoring test results and they were examining the results within 72 hours of the test.

Continuous monitoring trends for both flows and UV intensities continue to be reviewed and recorded daily in a dedicated logbook at the Walkerton STP. SCADA trending is reviewed and anomalies are identified.

| Question ID | MRDW1037001 | Question Type | Legislative |
|-------------|-------------|---------------|-------------|
|-------------|-------------|---------------|-------------|

Question:

Are all continuous monitoring equipment utilized for sampling and testing required by O. Reg. 170/03, or MDWL or DWWP or order, equipped with alarms or shut-off mechanisms that satisfy the standards described in Schedule 6?

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| Legislative Requirement | SDWA O. Reg. 170/03 6-5 (1)1-4; SDWA O. Reg. |
|-------------------------|--|
| | 170/03 6-5 (1)5-10; SDWA O. Reg. 170/03 6-5 (1.1); |

Observation

All continuous monitoring equipment utilized for sampling and testing required by O. Reg. 170/03, or Municipal Drinking Water Licence or Drinking Water Works Permit or order, were equipped with alarms or shut-off mechanisms that satisfy the standards described in Schedule 6.

The UV major alarm set point remains at 40 mJ/cm2; below 40 mJ/cm2 there is an automatic shut-off of water being directed to the distribution system. The secondary disinfection low level alarm for chlorine on the continuous chlorine monitors at the pump house remains at 0.5 mg/L. Low level alarms at both towers are set at 0.6 mg/L.

| Question ID | MRDW1040000 | Question Type | Legislative | |
|--|-------------|---------------|-------------|--|
| Question: | | | | |
| Are all continuous analysers calibrated, maintained, and operated, in accordance with the manufacturer's instructions or the regulation? | | | | |
| Legislative Requirement SDWA O. Reg. 170/03 6-5 (1)1-4; SDWA O. Reg. 170/03 6-5 (1)5-10; | | | | |
| | | | | |

Observation

Observation

All continuous analysers were calibrated, maintained, and operated, in accordance with the manufacturer's instructions or the regulation.

Verification of the online chlorine analyzer continues to be completed on weekdays with a hand-held Hach colorimeter and at least monthly for the online turbidimeter. Tolerance ranges of greater than 5% for chlorine were found to be re-calibrated in most instances as well as to 10% for the handheld turbidimeter.

| Question ID | MRDW1108001 | Question Type | Legislative |
|--|--|---------------|-------------|
| Question: | | | |
| Where continuous monitoring equipment used for the monitoring of free chlorine residual, total chlorine residual, combined chlorine residual or turbidity, required by O. Reg. 170/03, an Order, MDWL, or DWWP issued under Part V, SDWA, has triggered an alarm or an automatic shut-off, did a qualified person respond in a timely manner and take appropriate actions? | | | |
| Legislative Requirement | SDWA O. Reg. 170/ 170/03 6-5 (1)5-10; | | |

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Where required continuous monitoring equipment used for the monitoring of chlorine residual and/or turbidity triggered an alarm or an automatic shut-off, a qualified person responded in a timely manner and took appropriate actions.

A review of logbook entries for this inspection time period indicates that appropriate actions and timelines were followed.

| Question ID | MRDW1033001 | Question Type | Legislative |
|---|---|---------------|-------------|
| Question: | | | |
| Is the secondary disinfectant residual measured as required for the large municipal residential distribution system? | | | |
| Legislative Requirement | SDWA O. Reg. 170/03 7-2 (3); SDWA O. Reg. 170/03 7-2 (4); | | |
| Observation | | | |
| The secondary disinfectant residual was measured as required for the large municipal residential distribution system. | | | |

| Question ID | MRDW1099001 | Question Type | Information |
|-------------|-------------|----------------------|-------------|
| | | | |

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)?

| (O. Reg. 169/03)? | |
|-------------------------|----------------|
| Legislative Requirement | Not Applicable |

Observation

Records showed 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).

| Question ID | MRDW1081001 | Question Type | Legislative | |
|--|---|---------------|-------------|--|
| Question: | | | | |
| For LMR systems, are all microbiological water quality monitoring requirements for distribution samples being met? | | | | |
| Legislative Requirement | SDWA O. Reg. 170/ 10-2 (2); SDWA C | | | |
| Observation | | | | |



All microbiological water quality monitoring requirements prescribed by legislation for distribution samples in a large municipal residential system were being met.

Based on the population (2021 Census data = 4,724 total), 12 distribution samples are required monthly to meet the requirements outlined in O.Reg. 170/03. A minimum of 14 samples remain taken monthly and analyzed for the required total coliforms and E.coli. At least 25% of samples were also analyzed for heterotrophic plate count.

| Question ID | MRDW1096001 | Question Type | Legislative | | | |
|--|-------------|---------------|-------------|--|--|--|
| Question: | 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? | | | | | | |
| Legislative Requirement SDWA O. Reg. 170/03 6-3 (1); | | | | | | |
| Observation | | | | | | |
| | | | | | | |

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 | MRDW1086001 | Question Type | Legislative |
|---|---|---------------|-------------|
| Question: | | | |
| Are all haloacetic acid water quality monitoring requirements prescribed by legislation conducted within the required frequency and at the required location? | | | |
| Legislative Requirement | 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); | | |
| | | | |

Observation

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

Haloacetic acid (HAA) monitoring is being conducted in conjunction with THM sampling; the following were the sample dates within this time period reviewed.

- October 12, 2021 (5.3 ug/L),
- January 11, 2022 (5.3 ug/L),
- April 12, 2022 (5.3 ug/L),
- July 12, 2022 (5.3 ug/L), and
- October 11, 2022 (5.3 ug/L).

The Ontario Drinking Water Quality Standard (ODWQS) for haloacetic acids is expressed

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as a running average of quarterly results. The current rolling average is 5.3 ug/L (the method detection limit), which is well below the ODWQS of 80 ug/L.

| Question ID | MRDW1087001 | Question Type | Legislative |
|--|---|---------------|-------------|
| Question: | | | |
| Have all trihalomethane water quality monitoring requirements prescribed by legislation been conducted within the required frequency and at the required location? | | | |
| Legislative Requirement | 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); | | |
| Observation | | | |

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

Trihalomethanes were sampled on the following dates within the time period reviewed:

- October 12, 2021 (8.6 ug/L),
- January 11, 2022 (5.0 ug/L),
- April 12, 2022 (4.8 ug/L),
- July 12, 2022 (4.0 ug/L), and
- October 11, 2022 (9.9 ug/L).

The current rolling average is 5.925 ug/L, which is well below the ODWQS of 100 ug/L. All samples continue to be collected from a number of different locations in the distribution system which are likely to have an elevated potential for THM formation.

| Question ID | MRDW1094001 | Question Type | Legislative |
|---|------------------|---------------|-------------|
| Question: | | | |
| Are all water quality monitoring requirements imposed by the MDWL and DWWP being met? | | | |
| Legislative Requirement | SDWA 31 (1); | | |
| Observation | | | |
| All water quality monitoring requirements imposed by the MDWL or DWWP issued under Part V of the SDWA were being met. | | | |

| Question ID | MRDW1060000 | Question Type | Legislative |
|-------------|-------------|---------------|-------------|
|-------------|-------------|---------------|-------------|

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Question:

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

Legislative Requirement | SDWA | 31 | (1);

Observation

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.

| Question ID | MRDW1062001 | Question Type | Legislative |
|-------------|-------------|---------------|-------------|
| | | | |

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?

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

Observation

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 | MRDW1071000 | Question Type | ВМР |
|-------------|-------------|---------------|-----|
|-------------|-------------|---------------|-----|

Question:

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

Legislative Requirement Not Applicable

Observation

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

Well #7 and the drinking water treatment equipment remain located within a signed brick pump house complete with an intruder alarm and keyed lock entry. Chlorine gas is housed in a separate room, also with locked entry. Well #9 is located in a locked and fenced compound approximately 100 metres from the pump house.

Monitoring well #1-86 is located immediately adjacent to the pump house and is checked daily by an Operator. The Multi-monitoring wells at Well #6 are housed in a brick pump housed with keyed locked entry as well.

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The North and South Towers are signed, well-lit and locked with security key access; the North Tower is also fenced.

Question:

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

Legislative Requirement | SDWA | O. Reg. 128/04 | 23 | (1);

Observation

The overall responsible operator had been designated for each subsystem.

The ORO for this facility continues to be designated as Scott Gowan and backup ORO as Steve Rowe.

| Question ID | MRDW1074001 | Question Type | Legislative |
|-------------|-------------|---------------|-------------|
|-------------|-------------|---------------|-------------|

Question:

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

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

Observation

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

The OIC continues to be designated and recorded daily in the logbook.

| Question ID | MRDW1075001 | Question Type | Legislative | |
|--|-------------|---------------|-------------|--|
| Question: | | | | |
| Do all operators possess the required certification? | | | | |
| Legislative Requirement SDWA O. Reg. 128/04 22; | | | | |
| Observation | | | | |

All operators possessed the required certification.

The Operating Authority is reminded that a few licenses expire in early in 2023.

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| Question ID | MRDW1076001 | Question Type | Legislative | |
|---|------------------------------------|-------------------|-------------|--|
| Question: | | | | |
| Do only certified operators ma | ake adjustments to the | treatment equipme | ent? | |
| Legislative Requirement | SDWA O. Reg. 170/03 1-2 (2); | | | |
| Observation | | | | |
| Only certified operators made adjustments to the treatment equipment. | | | | |

| Question ID | MRDW1007001 | Question Type | Legislative |
|---|-------------|---------------|-------------|
| Question: | | | |
| Is the owner maintaining the production well(s) in a manner sufficient to prevent entry into the well of surface water and other foreign materials? | | | |
| Legislative Requirement SDWA O. Reg. 170/03 1-2 (1); | | | |
| Observation | | | |

V of the SDWA.

The owner was maintaining the production well(s) in a manner sufficient to prevent entry into the well of surface water and other foreign materials.

Trending since 2010 has shown a periodic total coliform presence, typically of 1 cfu/100mL, in the raw water supply. For the time period reviewed there were no instances of total coliform detection from Well #7 but two (2) instances of total coliforms from Well #9 (1 - 15 cfu/100 mL). There were no instances of E.Coli found in either well.

This trending should continue to be monitored to ensure that treatment remains adequate for the quality of the source water.

| Question ID | MRDW1009001 | Question Type | Legislative | | |
|--|------------------|---------------|-------------|--|--|
| Question: | Question: | | | | |
| Are measures in place to protect the groundwater and/or GUDI source in accordance with any MDWL and DWWP issued under Part V of the SDWA? | | | | | |
| Legislative Requirement | SDWA 31 (1); | | | | |
| Observation | | | | | |
| Measures were in place to protect the groundwater and/or GUDI source in accordance with the Municipal Drinking Water Licence and Drinking Water Works Permit issued under Part | | | | | |

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Previously outlined policies and procedures were confirmed to remain in effect to provide protection of the groundwater source.

| Question ID | MRDW1014001 | Question Type | Legislative |
|-------------|-------------|---------------|-------------|
| <u> </u> | | | |

Question:

Is there sufficient monitoring of flow as required by the MDWL or DWWP issued under Part V of the SDWA?

Legislative Requirement | SDWA | 31 | (1);

Observation

There was sufficient monitoring of flow as required by the Municipal Drinking Water Licence or Drinking Water Works Permit issued under Part V of the SDWA.

| Question ID | MRDW1016001 | Question Type | Legislative |
|-------------|-------------|---------------|-------------|
|-------------|-------------|---------------|-------------|

Question:

Is the owner in compliance with the conditions associated with maximum flow rate or the rated capacity conditions in the MDWL issued under Part V of the SDWA?

Legislative Requirement SDWA | 31 | (1);

Observation

The owner was in compliance with the conditions associated with maximum flow rate or the rated capacity conditions in the Municipal Drinking Water Licence issued under Part V of the SDWA.

The rated capacity for this system is 7139 m3/day, as authorized under the DWS Licence No. 081-103, Issue 3 and PTTW #1128-9U4JGC.

There were no flow exceedances nor flow monitoring anomalies found in the data reviewed. The maximum flow rated occurred in September 2022 with 2504 cubic metres of water used, which represents approximately 35% of the rated capacity allowed in the Licence. This is considerably less than during the previous inspection period (62%).

| Question ID MRDW1023001 | Question Type | Legislative |
|-------------------------|---------------|-------------|
|-------------------------|---------------|-------------|

Question:

Do records indicate that the treatment equipment was operated in a manner that achieved the design capabilities required under Ontario Regulation 170/03 or a DWWP and/or MDWL issued under Part V of the SDWA at all times that water was being supplied to consumers?

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| Legislative Requirement | SDWA O. Reg. 170/03 1-2 (2); |
|-------------------------|------------------------------------|
|-------------------------|------------------------------------|

Observation

Records indicated that the treatment equipment was operated in a manner that achieved the design capabilities required under O. Reg. 170/03 or a Drinking Water Works Permit and/or Municipal Drinking Water Licence issued under Part V of the SDWA at all times that water was being supplied to consumers.

As specified in MDWL 081-103 Issue 3, the UV equipment must provide a minimum dosage of 40 mJ/cm2 at 244 L/min to meet primary disinfection requirements.

Based on the records reviewed, this facility met current primary treatment requirements at all times during this inspection period.

| Question ID | MRDW1026001 | Question Type | Legislative |
|-------------|-------------|---------------|-------------|
|-------------|-------------|---------------|-------------|

Question:

If primary disinfection equipment that does not use chlorination or chloramination is provided, is the equipment equipped with alarms or shut-off mechanisms that satisfy the standards described in Section 1-6 (1) of Schedule 1 of Ontario Regulation 170/03?

Observation

The primary disinfection equipment was equipped with alarms or shut-off mechanisms that satisfied the standards described in Section 1-6 (1) of Schedule 1 of O. Reg. 170/03.

The UV major alarm set point remains at 40 mJ/cm2; below 40 mJ/cm2 there is an automatic shut-off of water being directed to the distribution system.

| Question ID MRDW1039000 Question Type Legislative | |
|---|-------------|
|---|-------------|

Question:

If primary disinfection equipment that does not use chlorination or chloramination is provided, has the owner and operating authority ensured that the equipment has a recording device that continuously records the performance of the disinfection equipment?

Observation

The owner and operating authority ensured that the primary disinfection equipment had a recording device that continuously recorded the performance of the disinfection equipment.

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Bulb intensity, UV transmittance and UV dosage continue to be recorded on log sheets daily.

Question:

If the system uses equipment for primary disinfection other than chlorination or chloramination and the equipment has malfunctioned, lost power or ceased to provide the appropriate level of disinfection, causing an alarm or an automatic shut-off, did a qualified person respond in a timely manner and take appropriate actions?

Observation

When failure(s) of primary disinfection equipment, other than that used for chlorination or chloramination, caused an alarm to sound or an automatic shut-off to occur, a certified operator responded in a timely manner and took appropriate actions.

A review of logbook entries for this inspection time period indicates that appropriate actions and timelines were followed.

Question:

If UV disinfection is used were duty sensors and reference UV sensors checked and calibrated as per the requirements of Schedule E of the MDWL or at a frequency as otherwise recommended by the UV equipment manufacturer?

| Legislative Requirement | SDWA 31 (1); |
|-------------------------|------------------|
|-------------------------|------------------|

Observation

All UV sensors were checked and calibrated as required.

UV reference sensor checks were found to occur monthly during the time period reviewed. The reference sensor assembly was recalibrated in July 2022.

| Question ID | MRDW1083001 | Question Type | Legislative |
|---|---------------------|---------------|-------------|
| Question: | | | |
| For LMR systems, are all microbiological water quality monitoring requirements for treated samples being met? | | | |
| Legislative Requirement | SDWA O. Reg. 170/ | 03 10-3; | |

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Observation

All microbiological water quality monitoring requirements prescribed by legislation for treated samples were being met.

| Question ID | MRDW1084001 | Question Type | Legislative |
|-------------|-------------|---------------|-------------|
|-------------|-------------|---------------|-------------|

Question:

Are all inorganic water quality monitoring requirements prescribed by legislation conducted within the required frequency?

| Legislative Requirement | SDWA O. Reg. 170/03 13-2; |
|-------------------------|-------------------------------|
|-------------------------|-------------------------------|

Observation

All inorganic water quality monitoring requirements prescribed by legislation were conducted within the required frequency.

The most current sample event occurred on December 21, 2021 for Well #9 and December 29, 2021 for Well #7. All sample results were within the prescribed limits.

The Operating Authority is reminded that inorganic sampling for parameters of Schedule 23, O.Reg. 170 is required every thirty-six (36) months.

| Question ID | MRDW1093001 | Question Type | Legislative |
|-------------|-------------|---------------|-------------|
|-------------|-------------|---------------|-------------|

Question:

If the owner is required to conduct sampling under Schedule 13 of O. Reg. 170/03, have they increased the frequency of monitoring for any Schedule 13-2 or 13-4 parameter(s) as a result of having exceeded half the value of an applicable ODWQS?

| Legislative Requirement | SDWA O. Reg. 170/03 13-5 (1); SDWA O. Reg. 170/03 |
|-------------------------|---|
| | 13-5 (2); |

Observation

The owner was required to increase frequency of monitoring as a result of having exceeded half the value of an applicable ODWQS of a Schedule 13-2 or 13-4 parameter(s) and the increased monitoring was conducted.

Both selenium and uranium continue to be tested quarterly in this drinking water system. All results continue to be below the ODWQS half-MAC for selenium of 0.025 mg/L. Uranium results continued to be slightly greater than the half-MAC, ranging from 0.00967 to 0.0169 mg/L, but are still less than the ODWQS limit of 0.02 mg/L.

During this inspection period both selenium and uranium samples were taken on January 11, April 12, July 12 and October 11, 2022.

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| Question ID | MRDW1088000 | Question Type | Legislative |
|-------------|-------------|---------------|-------------|
|-------------|-------------|---------------|-------------|

Question:

Are all nitrate/nitrite water quality monitoring requirements prescribed by legislation conducted within the required frequency for the DWS?

Legislative Requirement | SDWA | O. Reg. 170/03 | 13-7;

Observation

All nitrate/nitrite water quality monitoring requirements prescribed by legislation were conducted within the required frequency for the DWS.

Nitrate and nitrite samples were found to be taken every three (3) months from each well. The sample dates were as follows:

- October 12, 2021,
- January 11, 2022,
- April 12, 2022,
- July 12, 2022, and
- October 11, 2022.

| Question ID | MRDW1089000 | Question Type | Legislative |
|-------------|-------------|---------------|-------------|
|-------------|-------------|---------------|-------------|

Question:

Are all sodium water quality monitoring requirements prescribed by legislation conducted within the required frequency?

Legislative Requirement SDWA | O. Reg. 170/03 | 13-8;

Observation

All sodium water quality monitoring requirements prescribed by legislation were conducted within the required frequency.

The most current sodium sample date was on October 19, 2021 with results of 7.06 mg/L (Well #7) and 11.05 mg/L (Well #9), well within the O.Reg. 170/03 reporting limit of 20.0 mg/L.

The Operating Authority is reminded that sodium sampling is required every sixty (60) months.

| Question ID | MRDW1090000 | Question Type | Legislative |
|-------------|-------------|---------------|-------------|
|-------------|-------------|---------------|-------------|

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Question:

Where fluoridation is not practiced, are all fluoride water quality monitoring requirements prescribed by legislation conducted within the required frequency?

Legislative Requirement | SDWA | O. Reg. 170/03 | 13-9;

Observation

All fluoride water quality monitoring requirements prescribed by legislation were conducted within the required frequency.

The most current fluoride sample date was on October 19, 2021 with results of 0.65 mg/L (Well #7) and 0.58 mg/L (Well #9), well within the ODWQS of 1.5 mg/L.

The Operating Authority is reminded that fluoride sampling is required every sixty (60) months.

| Question ID | MRDW1085001 | Question Type | Legislative |
|--|---------------------|----------------------|---------------------|
| Question: | | | |
| Are all organic water quality monitoring requirements prescribed by legislation conducted within the required frequency? | | | |
| Legislative Requirement | SDWA O. Reg. 170/ | 03 13-4 (1); SDV | VA O. Reg. 170/03 |

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

Observation

All organic water quality monitoring requirements prescribed by legislation were conducted within the required frequency.

The most current sample event occurred on December 21, 2021 for Well #9 and December 29, 2021 for Well #7. All sample results were within the prescribed limits.

The Operating Authority is reminded that organic sampling for parameters of Schedule 24, O.Reg. 170 is required every thirty-six (36) months.

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APPENDIX A

STAKEHOLDERS

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 | 012-2149E |
| Laboratory Services Notification | 012-2148E |
| Adverse Test Result Notification | 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 cidessous 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 portable 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 |





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APPENDIX B

INSPECTION SUMMARY RATING RECORD (to follow)