

Ministry of the Environment,
Conservation & Parks

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

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September 20, 2021

Sent by Email: edance@huronkinloss.com

The Corporation of the Township of Huron-Kinloss
21 Queen Street
P.O. Box 130
Ripley, Ontario
N0G 2R0

Attention: Emily Dance
Clerk

Dear Ms. Dance:

Re: 2021/2022 Inspection Report
Lucknow Drinking Water System
Drinking Water Licence 087-103, Issue #3
Drinking Water Works Permit 087-203, Issue #4

Please find enclosed the Drinking Water System Inspection Report for the South Lucknow Distribution System (DWS# 220002663). This year's announced inspection was conducted remotely, beginning on May 14, 2021. There was no physical inspection conducted at your drinking water system this year.

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 council"* found on the Drinking Water Ontario website at www.ontario.ca/drinkingwater.

In order to measure individual inspection results, the Ministry has established an inspection compliance risk framework based on the principles of the Inspection, Investigation & Enforcement (II&E) Secretariat and advice of internal/external risk experts. The Inspection Summary Rating Record (IRR) provides the Ministry, the system owner and the local Public Health Units with a summarized quantitative measure of the drinking water system's annual inspection and regulated water quality testing performance.

Please note that due to a change in IT systems, the Inspection Rating Report (IRR) cannot be generated at the same time as the inspection report. The IRR will be sent separately and prior to any public release (typically within 1-2 month of the completion of the inspection).

IRR ratings are published (for the previous inspection year) in the Ministry's Chief Drinking Water Inspectors' Annual Report. If you have any questions or concerns regarding the rating, please contact Marc Bechard, Water Compliance Supervisor, at (519) 490-0761.

Likewise, if you have any questions or concerns regarding this report, please call me at (519) 374-0231.

Yours truly,



Heather Lovely
Water Compliance Inspector
Phone: 519-374-0231
e-mail: heather.lovely@ontario.ca

Enclosure

- ec: - Dr. Ian Arra, Medical Officer of Health, Grey-Bruce Health Unit
- Andrew Barton, Environmental Health Manager, Grey-Bruce Health Unit
- Phil Beard, General Manager, Maitland Valley Conservation Authority
- Nancy Mayhew, Overall Responsible Operator, Veolia Water Canada
- Mark Smith, Water Compliance Supervisor, Ministry of the Environment, Conservation & Parks
- c: File SI-BR-HK-HA-540 (2021)

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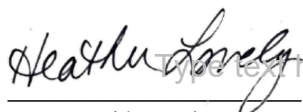
Appendix A: Stakeholder Appendix



LUCKNOW DRINKING WATER SYSTEM (WELLS 4 & 5)
600 HAVELOCK ST, HURON-KINLOSS, ON, N0G 2R0

Inspection Report

| | |
|------------------------|----------------|
| System Number: | 220002663 |
| Inspection Start Date: | 09/20/2021 |
| Inspection End Date: | 09/22/2021 |
| Inspected By: | Heather Lovely |
| Badge #: | 1680 |


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(signature)

NON-COMPLIANCE/NON-CONFORMANCE ITEMS

The following item(s) have been identified as non-compliance/non-conformance, based on a "No" response captured for a legislative or best management practice (BMP) question (s), respectively.

Question Group: Other Inspection Findings

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| Question ID | MRDW1115000 | |
| Question | Question Type | Legislative Requirement |
| In the event that an issue of non-compliance outside the scope of this inspection protocol is identified, a "No" response may be used if further actions are deemed necessary (and approved by the DW Supervisor) to facilitate compliance. | Legislative | Not Applicable |
| Observation/Corrective Action(s) | | |
| <p>The following instance(s) of non-compliance were also noted during the inspection:</p> <p>Standpipe in Disrepair:</p> <p>The standpipe within the distribution of the Lucknow drinking water system needs to be replaced. The elevated standpipe is 90 years old, having been constructed in 1931, and has clearly deteriorated over time with cracks in the concrete foundation visible. The most recent inspection report of the standpipe was in 2007 shows the interior is painted with a "grease paint" which does not meet current AWWA standards for coating material for finished water storage facilities.</p> <p>The owner and operating authority are aware of these issues and have applied for funding to assist the municipality with the costs to replace the standpipe. In addition, the owner hired consulting engineers to assist with the plans and design for the standpipe replacement. The owner applied for, and received, Authorization to Alter the Drinking Water System issued by the Ministry of the Environment and Climate Change (June 20, 2016, DWWP 087-203, Schedule C). Also, the owner has taken steps to protect and improve the current standpipe site by purchasing the adjacent lot and removing a dilapidated building. However, the standpipe is rundown and the "Lucknow Annual and Summary Report – For the 2020 Operating Year", states the following:</p> <p>"The Standpipe is in a state of disrepair but is currently in operable condition. As it is risky to perform aggressive cleaning without compromising its structural integrity and introducing a potential for contamination, the replacement of the Standpipe with a new Elevated Tank is currently in the design phase and is expected to begin in 2021."</p> <p>The owner has applied several times for Ontario Community Infrastructure Fund (OCIF) funding without success and have been informed that drinking water projects are not eligible under the current funding program. Municipal staff have also recently applied for Investing in Canada Infrastructure Program (ICIP) funding as well.</p> <p>Under the Safe Drinking Water Act, 2002 (SDWA) 11(1) 2 ii "every owner of a municipal drinking-water system and, if an operating authority is responsible for the operation of the system, the operating authority for the system shall ensure that, at all times in which it is in service, the drinking-water system, is maintained in a fit state of repair".</p> | | |

Also, under the SDWA, a drinking water system means "a system of works, excluding plumbing, that is established for the purpose of providing users of the system with drinking water and includes, (a) any thing used for the collection, production, treatment, storage, supply or distribution of water".

By October 15, 2021 the owner will provide the author this report a plan to ensure the Lucknow standpipe is maintained in a fit state of repair as per section 11 (1) 2 ii of the Safe Drinking Water Act, 2002.

Question Group: Treatment Processes

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| Question ID | MRDW1033000 | | |
| Question | Question Type | Legislative Requirement | |
| Is the secondary disinfectant residual measured as required for the large municipal residential distribution system? | Legislative | SDWA O. Reg. 170/03 7-2 (3),SDWA O. Reg. 170/03 7-2 (4) | |
| Observation/Corrective Action(s) | | | |
| <p>The secondary disinfectant residual was not measured as required for the distribution system.</p> <p>Section 7-2 (3) of O. Reg. 170/03, requires that the free chlorine residual is measured from at least seven samples from the distribution system each week. During the inspection review period the Operating Authority measured the free chlorine residual from the distribution system each day, however, the December 2020 records were lost, except for the records retained with the microbiological sampling (Chain of Custody forms) for that month.</p> <p>The Operating Authority was not able to demonstrate that the secondary disinfectant residual was measured as required for the distribution system during December 2020. However, it should be noted that the Operating Authority proactively notified the ministry about the missing records.</p> <p>Subsequent to this incident the Operating Authority has undertaken a procedural change and the ORO provided the following statement concerning this issue:</p> <p>"To prevent this from happening again, the operators came up with a chain of custody signoff format - all logbooks, logsheets, and distribution sheets are signed off on a sheet by the person turning them in and the person receiving them."</p> <p>No further action is required.</p> | | | |

INSPECTION DETAILS

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

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

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| Question ID | MRDW1001000 | | |
| Question | Question Type | Legislative Requirement | |
| What was the scope of this inspection? | Information | Not Applicable | |
| Observation | | | |
| <p>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.</p> <p>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.</p> <p>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.</p> <p>This drinking water inspection was initiated remotely on May 14, 2021 as per the Inspection Alert: "Inspections during COVID-19 Emergency Order", (DW1128). Operating Authority staff provided specified time-stamped photos, e.g. free chlorine monitor, within the requested time frame.</p> <p>The inspection of the Lucknow Drinking Water System (DWS) was conducted concurrently with South Lucknow Distribution System (DS).</p> <p>The Lucknow DWS is located in the Municipality of Huron-Kinloss and Veolia Water Canada is the Operating Authority of the drinking water system on behalf of the municipality (owner).</p> <p>The inspection period for this report is from the date of the last inspection, August 12, 2020 to the date of the current inspection, May 14, 2021.</p> <p>Note: A new MDWL (087-103 Issue 3) and DWWP (241-201, Issue 4) were issued on April 29, 2021.</p> <p>As per the new ministry inspection procedure, an operator was asked to provide date stamped photos for Friday, May 14, 2021, from each pump house of the following:</p> <p>1) Free chlorine residual monitor reading</p> | | | |

- 2) Turbidity monitor reading
 - 3) Logbook entry
 - 4) Chemical storage tank (sodium hypochlorite)
 - 5) Metering pumps (duty & spare)
 - 6) Flow meter
 - 7) Wellhead
 - 8) Overview of the pump house
 - 9) Any new equipment installed since August 12, 2020
- In addition,
- 10) Standpipe – height and width on both sides (n=4)

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| Question ID | MRDW1000000 | |
| Question | Question Type | Legislative Requirement |
| Does this drinking water system provide primary disinfection? | Information | Not Applicable |
| Observation | | |
| This Drinking Water System provides for both primary and secondary disinfection and distribution of water. | | |
| This DWS has two pump houses (Wells 4 & 5) that use sodium hypochlorite to provide primary disinfection of groundwater. | | |

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| Question ID | MRDW1007000 | |
| Question | Question Type | Legislative Requirement |
| 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 | SDWA O. Reg. 170/03 1-2 (1) |
| Observation | | |
| 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. | | |
| The Lucknow DWS source wells (4 and 5) are located within the respective pump houses. Although Water Well Records (Well #4 - 1401878, and Well #5 - 1401880) do not include documentation on the annular seal, a review of over 11 years (January 2010 to May 2021) of raw water test results does not indicate these wells are under influence from surface water. Of the 2380 samples taken during that time frame, there were only four (4) instances of the presence of total coliform detected in October 2011, September 2017, October 2017 and April 2021. In all instances the result was 1 cfu/100 mL for total coliforms and there were no instances of E. coli detected in the raw water of the production wells. | | |

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| Question ID | MRDW1009000 | |
| Question | Question | Legislative |

| | Type | Requirement |
|---|-------------|-----------------|
| 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 | SDWA 31 (1) |
| Observation | | |
| <p>Measures were in place to protect the groundwater and/or GUDI source in accordance with any the Municipal Drinking Water Licence and Drinking Water Works Permit issued under Part V of the SDWA.</p> <p>Conditions 16.2.8, 16.2.9 and 16.2.10 of Schedule B of Municipal Drinking Water Licence 087-103, Issue 3 prescribe that the Lucknow DWS Operations and Maintenance Manual must include a well inspection and maintenance program that includes the following:</p> <ul style="list-style-type: none"> • An inspection schedule for all wells associated with the drinking water system, including all production wells, stand-by wells, test wells and monitoring wells; • Well inspection and maintenance procedures for the entire well structure of each well including all above and below grade well components; and • Remedial action plans for situations where an inspection indicates non-compliance with respect to regulatory requirements and/or risk to raw well water quality. <p>These requirements are met within section L-OM-18 "Well Inspection and Maintenance Plan" of the Lucknow DWS Operations and Maintenance Manual. This procedure specifies the following:</p> <p>"Above Ground</p> <p>A quick visual inspection of the area around all the wells should be conducted at every visit. This includes making sure the area around the well casings is sanitary, that the well caps/well heads are securely in place, and ensuring that all potential contamination sources are kept away from the wells.</p> <p>Below Ground</p> <p>A formal inspection of the production wells should occur every time a pump is to be pulled from the well." [Summary report criteria specified.]</p> <p>In addition, the procedure stipulates remedial action plans. The raw water (quality and quantity) trend data and well pump performance will be reviewed each year and a Licenced Well Contractor will be contacted to examine the well if a deterioration is noted (>25% compared to the historic average). This data was included in the "Lucknow Annual and Summary Report – For the 2020 Operating Year", that was prepared by the ORO and presented to the owner.</p> | | |

| Question ID | MRDW1014000 | |
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| Question | Question Type | Legislative Requirement |
| Is there sufficient monitoring of flow as required by the MDWL or DWWP issued under Part V of the SDWA? | Legislative | 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.

Flow measurement conditions 2.1.1 and 2.1.2 (Schedule C) of the MDWL (087-103) state flow rate and volume of water into the treatment subsystem and the distribution subsystem must be recorded daily. Each pump house has one flow meter to measure the flow rate of raw water into the treatment system from each of the production wells. There is no treated water flow meter, however, the raw water flow meters reflect the amount of water entering the distribution system.

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| Question ID | MRDW1016000 | | |
| Question | Question Type | Legislative Requirement | |
| 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 | 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 DWWP (087-203, Issues 4) does not stipulate a maximum flow rate, however, the MDWL (087-103, Issue 3) specifies the rated capacity for Well 4 as 1245 m3/day and Well 5 as 3276 m3/day. There were no exceedances of the rated capacities within the inspection period. The maximum volume taken during the inspection period was 713.94 m3/day and 617.48 m3/day for Lucknow 4 and Lucknow 5 respectively. | | | |

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| Question ID | MRDW1030000 | | |
| Question | Question Type | Legislative Requirement | |
| Is primary disinfection chlorine monitoring being conducted at a location approved by MDWL and/or DWWP issued under Part V of the SDWA, or at/near a location where the intended CT has just been achieved? | Legislative | SDWA O. Reg. 170/03 7-2 (1), SDWA O. Reg. 170/03 7-2 (2) | |
| Observation | | | |
| Primary disinfection chlorine monitoring was conducted at a location approved by Municipal Drinking Water Licence and/or Drinking Water Works Permit issued under Part V of the SDWA, or at/near a location where the intended CT has just been achieved. | | | |

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| Question ID | MRDW1033000 | | |
| Question | Question Type | Legislative Requirement | |
| Is the secondary disinfectant residual measured as required for the large municipal residential distribution system? | Legislative | SDWA O. Reg. 170/03 7-2 (3), SDWA O. Reg. 170/03 7-2 (4) | |
| Observation | | | |

The secondary disinfectant residual was not measured as required for the distribution system.

Section 7-2 (3) of O. Reg. 170/03, requires that the free chlorine residual is measured from at least seven samples from the distribution system each week. During the inspection review period the Operating Authority measured the free chlorine residual from the distribution system each day, however, the December 2020 records were lost, except for the records retained with the microbiological sampling (Chain of Custody forms) for that month.

The Operating Authority was not able to demonstrate that the secondary disinfectant residual was measured as required for the distribution system during December 2020. However, it should be noted that the Operating Authority proactively notified the ministry about the missing records.

Subsequent to this incident the Operating Authority has undertaken a procedural change and the ORO provided the following statement concerning this issue:

"To prevent this from happening again, the operators came up with a chain of custody signoff format - all logbooks, logsheets, and distribution sheets are signed off on a sheet by the person turning them in and the person receiving them."

No further action is required.

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| Question ID | MRDW1037000 | | |
| Question | Question Type | Legislative Requirement | |
| 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? | Legislative | 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 Lucknow 4 chlorine monitor was set to alarm if the free chlorine residual falls to 0.6 mg/L and would lockout the DWS at 0.5 mg/L. The alarm set point meets legislative requirements and was above the free chlorine residual threshold to meet CT requirements, which is 0.26 mg/L under maximum flow conditions. | | | |
| The Lucknow 5 chlorine monitor was set to alarm if the free chlorine residual falls to 0.7 mg/L and would lockout the DWS at 0.5 mg/L. The alarm set point meets the legislative requirements and was above the free chlorine residual threshold to meet CT requirements, which is 0.27 mg/L under maximum flow conditions. | | | |
| In addition, the pre-contact chlorine monitor alarm set point is 0.9 mg/L with lockout at 0.8 mg/L. | | | |

This continuous monitor is not legislatively required but is helpful to ensuring improperly disinfected water is not directed to consumers.

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| Question ID | MRDW1038000 | |
| Question | Question Type | Legislative Requirement |
| 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? | Legislative | SDWA O. Reg. 170/03 6-5 (1) 1-4 |
| 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. | | |
| Continuous monitoring of free chlorine to achieve primary disinfection is recorded at a frequency of once every 2.5 minutes, which is more frequently than legislatively required at 5 minute intervals. | | |

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| Question ID | MRDW1035000 | |
| Question | Question Type | Legislative Requirement |
| Are operators examining continuous monitoring test results and are they examining the results within 72 hours of the test? | Legislative | SDWA O. Reg. 170/03 6-5 (1) 1-4,SDWA O. Reg. 170/03 6-5 (1)5-10 |
| Observation | | |
| Operators were examining continuous monitoring test results and they were examining the results within 72 hours of the test. Typically, operators review all of the SCADA trend information generated for drinking water systems operated by Veolia each weekday and note any anomalies in the SCADA Daily Operating Logs. A review of the SCADA login information (Excel file format) documents that an operator reviewed Huron-Kinloss SCADA trend information remotely on a regular basis. Records demonstrate that the SCADA trend data review interval was less than 72 hours throughout the inspection time frame. | | |

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

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| | | Reg. 170/03 6-5 (1)5-10 |
| Observation | | |
| <p>All continuous analysers were calibrated, maintained, and operated, in accordance with the manufacturer's instructions or the regulation.</p> <p>The continuous analyzers are checked daily, calibrated weekly and cleaned monthly as per manufacturer's instructions (Operations Manual document: L-OM-13).</p> | | |

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| Question ID | MRDW1108000 | |
| Question | Question Type | Legislative Requirement |
| Where continuous monitoring equipment used for the monitoring of free chlorine residual, total chlorine residual, combined chlorine residual or turbidity, required by Regulation 170, 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 | 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 | | |
| <p>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.</p> <p>The ORO provided a database export Excel file of the alarm history for each month of the inspection period. The alarm history review included examination of each alarm for the Lucknow DWS, plus the corresponding SCADA log-in information as well as the pump house and after-hours logbooks. If required additional SCADA information, e.g. free chlorine residual trend data, was reviewed.</p> <p>Operators responded to alarms in an appropriate and timely manner.</p> | | |

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| Question ID | MRDW1018000 | |
| Question | Question Type | Legislative Requirement |
| Has the owner ensured that all equipment is installed in accordance with Schedule A and Schedule C of the Drinking Water Works Permit? | Legislative | SDWA 31 (1) |
| Observation | | |
| <p>The owner had ensured that all equipment was installed in accordance with Schedule A and Schedule C of the Drinking Water Works Permit.</p> <p>Note: The new Drinking Water Works Permit (087-203, Issue 4) that was issued on April 29, 2021 lists the pre-contact chlorine residual analyzer installed at the Lucknow Well 5 pump house under the components of Schedule A.</p> | | |

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| Question ID | MRDW1023000 | |
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| Question | Question Type | Legislative Requirement |
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| 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? | Legislative | 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 Ontario Regulation 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. There was one Adverse Water Quality Incident (AWQI) within the inspection time frame that involved detection of total coliform (1 cfu/100mL), however, the corresponding free chlorine residual for that sample was 1.81 mg/L. Records demonstrate the free chlorine residual was consistently above the required concentration to ensure proper disinfection. | | |

| Question ID | MRDW1024000 | |
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| Question | Question Type | Legislative Requirement |
| Do records confirm that the water treatment equipment which provides chlorination or 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? | Legislative | SDWA O. Reg. 170/03 1-2 (2) |
| Observation | | |
| Records confirmed that the water treatment equipment which provides chlorination or 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 | MRDW1025000 | |
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| Question | Question Type | Legislative Requirement |
| 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 | SDWA 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. Procedure No. L-OM-09 of the Lucknow Operations and Maintenance Manual refers to the ministry's Watermain Disinfection Procedure and AWWA disinfection standards (section 14). Note: The new DWWP (087-203, Issue 4), condition 2.3, Schedule B states that as of November | | |

6, 2021, the ministry's Watermain Disinfection Procedure, dated August 1, 2020 is applicable.

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| Question ID | MRDW1062000 | |
| Question | Question Type | Legislative Requirement |
| 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 | 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. | | |

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| Question ID | MRDW1060000 | |
| Question | Question Type | Legislative Requirement |
| Do the operations and maintenance manuals meet the requirements of the DWWP and MDWL issued under Part V of the SDWA? | Legislative | 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. The Lucknow Operations and Maintenance Manual fulfills the requirements stipulated in the DWWP. | | |

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| Question ID | MRDW1071000 | |
| Question | Question Type | Legislative Requirement |
| Has the owner provided security measures to protect components of the drinking water system? | BMP | Not Applicable |
| Observation | | |
| The owner had provided security measures to protect components of the drinking water system. The pump houses (4 and 5) are visited daily by an operator and each site, including the standpipe, has signage, metal screens on the windows and keyed lock entry. In addition, the PLC panels alarm when opened. | | |

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| Question ID | MRDW1073000 | |
| Question | Question Type | Legislative Requirement |
| Has the overall responsible operator been designated for all | Legislative | SDWA O. Reg. |

| | | |
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| subsystems which comprise the drinking water system? | | 128/04 23 (1) |
| Observation | | |
| The overall responsible operator has been designated for each subsystem. | | |
| The Overall Responsible Operator during the inspection period was Nancy Mayhew with Veolia Water Canada. John Graham fulfills ORO duties when Nancy is unavailable. The ORO for each day is noted in the pump house logbooks. | | |

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| Question ID | MRDW1074000 | |
| Question | Question Type | Legislative Requirement |
| Have operators in charge been designated for all subsystems for which comprise the drinking water system? | Legislative | SDWA O. Reg. 128/04 25 (1) |
| Observation | | |
| Operators-in-charge had been designated for all subsystems which comprised the drinking water system. | | |
| The Operator-In-Charge (OIC) is designated and documented each day in the pump house logbooks. | | |

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| Question ID | MRDW1075000 | |
| Question | Question Type | Legislative Requirement |
| Do all operators possess the required certification? | Legislative | SDWA O. Reg. 128/04 22 |
| Observation | | |
| All operators possessed the required certification. The Lucknow DWS is classified as a Class 2 Water Distribution and Supply Subsystem. Persons making operational adjustments to the Lucknow DWS are required to hold, or be deemed to hold, a valid Class 2 Water Distribution and Supply (WD&S) operator's certificate. | | |
| Therefore, during the inspection period, there were primarily six (6) operators who did most of the operational checks and sampling for the Lucknow DWS. All of these operators had adequate and current certification for the inspection period, including an operator with Operator in Training (OIT) certificate for Water Treatment Subsystem who worked under the direction of a certified operator. | | |

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| Question ID | MRDW1076000 | |
| Question | Question Type | Legislative Requirement |
| Do only certified operators make adjustments to the treatment equipment? | Legislative | SDWA O. Reg. 170/03 1-2 (2) |
| Observation | | |

Only certified operators made adjustments to the treatment equipment.

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| Question ID | MRDW1099000 | |
| Question | Question Type | Legislative Requirement |
| 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)? | Information | Not Applicable |
| Observation | | |
| 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). | | |
| There were two (2) exceedances of the Ontario Drinking Water Quality Standards (ODWQS) during the inspection period from samples taken from the pump houses of the drinking water system. | | |
| A sample taken on March 23, 2021 from the Lucknow 5 pump house had a result of 1 cfu/100mL total coliforms, which is exceedance of the O. Reg. 169/03 threshold of 0 cfu/100mL (Schedule 1). | | |
| A sample taken from Lucknow 4 on May 3, 2021 had an arsenic result of 0.0983 mg/L, which is an exceedance of the O. Reg. 169/03 arsenic threshold of 0.01 mg/L (Schedule 2). | | |

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| Question ID | MRDW1093000 | |
| Question | Question Type | Legislative Requirement |
| 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 | 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 that increased monitoring was conducted. | | |
| Schedule 13-5. (1) states that if a test result obtained under section 13-2 or 13-4 for a parameter exceeds half of the standard prescribed for the parameter in Schedule 2 of the Ontario Drinking-Water Quality Standards, the frequency of sampling for that parameter shall be increased to every three months until there are two consecutive three-month periods in which the results do not exceed half of the prescribed standard (for ground water sources). | | |
| Under Schedule 2 of O. Reg. 169\02, the Ontario Drinking Water Quality Standard for arsenic is | | |

0.01 mg/L. Samples taken from Lucknow 5 on February 10, 2020 and May 11, 2020 had arsenic results greater than 50% of the MAC, and quarterly sampling of arsenic was implemented. The next two consecutive three-month intervals had arsenic results below 50% MAC, and therefore, quarterly sampling for arsenic was not required during this inspection period.

However, the Operating Authority conducted arsenic sampling within the distribution system in Dec 2020 and Jan 2021 with results below 50% MAC. Treated water was sampled from the pump houses in February and May 2021 with an arsenic result of 0.0983 mg/L from Lucknow 4, or 983% of the MAC. Therefore, quarterly sampling will need to be implemented for at least the next two three-month periods.

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| Question ID | MRDW1096000 | |
| Question | Question Type | Legislative Requirement |
| 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 | 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. | | |

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| Question ID | MRDW1081000 | |
| Question | Question Type | Legislative Requirement |
| Are all microbiological water quality monitoring requirements for distribution samples being met? | Legislative | SDWA O. Reg. 170/03 10-2 (1),SDWA O. Reg. 170/03 10-2 (2),SDWA O. Reg. 170/03 10-2 (3) |
| Observation | | |
| All microbiological water quality monitoring requirements for distribution samples were being met. | | |
| Based on a population of 1,100 residents, the Lucknow DWS is required to take nine (8+1) microbiological distribution samples per month, with at least one taken each week. Usually three (3) distribution samples were taken each week and tested for E. coli and total coliforms, therefore more distribution sampling than legislatively required. (This sampling was consistently conducted with 7 days between sampling events during the inspection period. | | |
| All samples within the inspection period resulted in no detection of E. coli or total coliforms. Typically, two-thirds of these samples (average = 67%) were tested for microbial Heterotrophic Plate Count (HPC) with results ranging from 0 to 14 c.f.u./1mL (average = 6.7 c.f.u./1mL). | | |

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| Question ID | MRDW1083000 | |
| Question | Question Type | Legislative Requirement |
| Are all microbiological water quality monitoring requirements for treated samples being met? | Legislative | SDWA O. Reg. 170/03 10-3 |
| Observation | | |
| All microbiological water quality monitoring requirements for treated samples were being met. E. coli and total coliforms were sampled weekly from the treated water at each pump house, with the greatest period between sampling events of 7 days. All samples resulted in no detection of E. coli (n=79). One sample resulted in a total coliform result of 1 cfu/100 mL and subsequently resampling was immediately conducted. HPC was also measured for 100% of the required samples and results ranged from 0 to 10 cfu/1mL. | | |

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| Question ID | MRDW1084000 | |
| Question | Question Type | Legislative Requirement |
| Are all inorganic water quality monitoring requirements prescribed by legislation conducted within the required frequency? | Legislative | SDWA O. Reg. 170/03 13-2 |
| Observation | | |
| All inorganic water quality monitoring requirements prescribed by legislation were conducted within the required frequency. | | |
| The Operating Authority sampled all of the O. Reg 170/03 Schedule 23 inorganic parameters from each pump house on June 4, 2018 with no exceedances. There were also 27 arsenic samples (treated and distribution) taken since June 2018 due to exceeding half of the Maximum Allowable Concentration (MAC) threshold, including an exceedance of the reportable threshold (0.01 mg/L) on May 3, 2021 with a result of 0.983 mg/L. All other Schedule 23 results from June 2018 were below the reportable threshold (0-57% maximum allowable concentration). | | |
| The Lucknow DWS is categorized as a large municipal residential system with a ground water source, therefore, as per O. Reg. 170/03 Schedule 13-3, inorganic parameters stipulated in O. Reg. 170/03 Schedule 23 parameters are due to be sampled again in 36 months, or in June 2021. Arsenic sampling needs to be sampled quarterly until the results from two consecutive three-month periods are below half of the standard (i.e., less than 0.005 mg/L). | | |

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| Question ID | MRDW1085000 | |
| Question | Question Type | Legislative Requirement |
| Are all organic water quality monitoring requirements prescribed by legislation conducted within the required frequency? | Legislative | SDWA O. Reg. 170/03 13-4 (1),SDWA O. Reg. 170/03 13-4 (2),SDWA O. |

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| | | Reg. 170/03 13-4 (3) |
| Observation | | |
| All organic water quality monitoring requirements prescribed by legislation were conducted within the required frequency. | | |
| The Operating Authority sampled all of the O. Reg 170/03 Schedule 24 organic parameters (n = 2 X 44 = 88) on June 4, 2018 at both pump houses with no exceedances. All results were below the reportable threshold (0-40% maximum allowable concentration). | | |
| The Lucknow DWS is categorized as a large municipal residential system with a ground water source, therefore, as per O. Reg. 170/03 Schedule 13-4, organic parameters stipulated in O. Reg. 170/03 Schedule 24 are due to be sampled again in 36 months, or in June 2021. | | |

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| Question ID | MRDW1086000 | |
| Question | Question Type | Legislative Requirement |
| Are all haloacetic acid water quality monitoring requirements prescribed by legislation conducted within the required frequency and at the required location? | Legislative | 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 are being conducted within the required frequency and at the required location. | | |
| Total Haloacetic Acids (HAAs) were sampled quarterly throughout the inspection review period with sampling events occurring between 70 and 98 days. This is within the legislative requirements (60-120 days). Typically, HAAs were sampled close to the pump houses, as per the requirement to sample where there is a higher likelihood of elevated HAAs. HAAs generally form at the beginning of the distribution system or may be found just past the chlorination point if the right humic acids are present. | | |
| There were six (6) samples taken on three (3) dates with results ranging from 5.3 to 6.6 ug/L. The standard for Haloacetic Acids (80 ug/L) came into effect until January 1, 2020 and it is expressed as a Running Annual Average (RAA). The RAA for this facility at the time of the inspection was 5.66 ug/L. | | |

Sampling for HAAs will be due again in the next quarter, i.e. within the July to September 2021 time frame.

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| Question ID | MRDW1087000 | |
| Question | Question Type | Legislative Requirement |
| Have all trihalomethane water quality monitoring requirements prescribed by legislation been conducted within the required frequency and at the required location? | Legislative | SDWA O. Reg. 170/03 13-6 (1) |
| Observation | | |
| <p>All trihalomethane water quality monitoring requirements prescribed by legislation were conducted within the required frequency and at the required location.</p> <p>Trihalomethanes (THMs) were sampled quarterly throughout the inspection review period with sampling events occurring between 70 and 98 days. This is within the legislative requirements (60-120 days).</p> <p>There were nine (9) samples taken on three (3) dates with results ranging from 4 to 18 ug/L and a Running Annual Average of 9.1 ug/L, less than the Ontario Drinking Water Quality Standard (ODWQS) of 100 ug/L.</p> <p>THM sampling occurred at a variety of sites that are located at the farthest extremities of the distribution system, i.e. at sites where there is a higher likelihood for elevated THM levels.</p> <p>Sampling for THMs will be due again in the next quarter, i.e. within the July to September 2021 time frame.</p> | | |

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| Question ID | MRDW1088000 | |
| Question | Question Type | Legislative Requirement |
| Are all nitrate/nitrite water quality monitoring requirements prescribed by legislation conducted within the required frequency for the DWS? | Legislative | SDWA O. Reg. 170/03 13-7 |
| Observation | | |
| <p>All nitrate/nitrite water quality monitoring requirements prescribed by legislation were conducted within the required frequency for the DWS.</p> <p>Nitrates and nitrites are required to be sampled every three months. Nitrates and nitrites were sampled throughout the inspection review period with sampling events occurring between 70 and 98 days. This is within the legislative requirements (60-120 days).</p> <p>All results were below each respective reportable threshold and a fraction of the Maximum Allowable Concentration (0.06-0.3% MAC). The results for Nitrate + Nitrite (as Nitrogen) were consistently 0.006 mg/L during the inspection time frame, lower than the ODWQS of 10.0 mg/L.</p> | | |

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| Question ID | MRDW1089000 | |
| Question | Question Type | Legislative Requirement |
| Are all sodium water quality monitoring requirements prescribed by legislation conducted within the required frequency? | Legislative | SDWA O. Reg. 170/03 13-8 |
| Observation | | |
| <p>All sodium water quality monitoring requirements prescribed by legislation were conducted within the required frequency.</p> <p>Sodium is required to be taken and tested once every 5 years or 60 months. Lucknow DWS was most recently sampled for sodium on June 21, 2016, with results of 12.8 and 10.8 mg/L. These sodium concentrations are below the reportable threshold of 20 mg/L. (Sodium has an aesthetic standard of 200 mg/L although a result exceeding 20 mg/L must be reported as this level may impact people on sodium reduced diets.)</p> <p>Samples taken on January 7, 2020 from two sites within the distribution system had sodium results of 117 and 118 mg/L, which are greater than the reportable threshold of 20 mg/L. These samples were taken as part of additional metal analysis and not part of the standard sodium sampling of the treated water, i.e. from the pump house. The resample results also had elevated sodium concentrations of 114 and 119 mg/L. Other distribution sites and the pump houses had sodium results less than 20 mg/L.</p> | | |

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| Question ID | MRDW1090000 | |
| Question | Question Type | Legislative Requirement |
| Where fluoridation is not practiced, are all fluoride water quality monitoring requirements prescribed by legislation conducted within the required frequency? | Legislative | SDWA O. Reg. 170/03 13-9 |
| Observation | | |
| <p>All fluoride water quality monitoring requirements prescribed by legislation were conducted within the required frequency.</p> <p>Fluoride is required to be sampled once every 5 years or 60 months and was most recently sampled from treated water at each pump house on August 15, 2017 with results of 1.75 and 1.78 mg/L. These results were in exceedance of the ODQWS of 1.5 mg/L and the subsequent resample results were ranged from 1.72 to 1.74 mg/L (n=4), with two samples taken at each pump house. The Grey Bruce Health Unit is aware of the relatively high fluoride levels which are naturally occurring in this area. The municipality provides this information to consumers through bi-annual newsletters sent out with tax notices. Fluoride is next due to be sampled by August 2022.</p> | | |

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| Question ID | MRDW1100000 | |
| Question | Question | Legislative |

| | Type | Requirement |
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| Did any reportable adverse/exceedance conditions occur during the inspection period? | Information | Not Applicable |
| Observation | | |
| There were reportable adverse/exceedances during the inspection period. | | |
| There were three (3) reportable samples during the inspection period | | |
| A sample taken on March 23, 2021 from the Lucknow 5 pump house had a result of 1 cfu/100mL total coliforms, which is exceedance of the O. Reg. 169/03 threshold of 0 cfu/100mL. | | |
| A sample taken from Lucknow 4 on May 3, 2021 had an arsenic result of 0.0983 mg/L, which is an exceedance of the O. Reg. 169/03 arsenic threshold of 0.01 mg/L. | | |
| Two samples taken from the sites in the distribution system had sodium results of 117 and 118 mg/L, which are greater than the reportable threshold of 20 mg/L. | | |

| Question ID | MRDW1102000 | |
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| Question | Question Type | Legislative Requirement |
| Have corrective actions (as per Schedule 18) been taken to address adverse conditions, including any other steps as directed by the Medical Officer of Health? | Legislative | SDWA O. Reg. 170/03 18-10 (1),SDWA O. Reg. 170/03 18-11,SDWA O. Reg. 170/03 18-12,SDWA O. Reg. 170/03 18-13,SDWA O. Reg. 170/03 18-14,SDWA O. Reg. 170/03 18-2,SDWA O. Reg. 170/03 18-3,SDWA O. Reg. 170/03 18-4,SDWA O. Reg. 170/03 18-5,SDWA O. Reg. 170/03 18-6,SDWA O. Reg. 170/03 18-9 |
| Observation | | |
| Corrective actions (as per Schedule 18) had been taken to address adverse conditions, including any other steps that were directed by the Medical Officer of Health. There were three (3) Adverse | | |

Water Quality Incidents (AWQIs) during the inspection review period and the required corrective actions were followed including those assigned by the local Medical Officer of Health.

AWQI 153409 – Samples taken on January 7, 2020 from two sites within the distribution system had sodium results of 117 and 118 mg/L, which are greater than the reportable threshold of 20 mg/L. These samples were taken as part of additional metal analysis and not part of the standard sodium sampling of the treated water, i.e. from the pump house. The resample results also had elevated sodium concentrations of 114 and 119 mg/L. Other distribution sites and the pump houses had sodium results less than 20 mg/L. The Grey Bruce Health Unit provided a letter to the owner that included the following statement.

"The Grey Bruce Health Unit requests that you notify the impacted users of (Lucknow Drinking water system) of the elevated levels of sodium in the drinking water system. Persons suffering from hypertension or congestive heart failure may require a sodium restricted diet, in which case the intake of sodium from all sources (including water) must be assessed. "

The owner shares this information with residents with notices included in their tax bills.

AWQI 153753 - A sample taken on March 23, 2021 from the Lucknow 5 pump house had a result of 1 cfu/100mL total coliforms and the Operating Authority conducted the required corrective actions of resampling (upstream, downstream and at AWQI location) on March 25, 2021 right after receiving lab notification. The resample resulted in no detection of E. coli or total coliforms. The Grey Bruce Health Unit did not direct the owner or OA to conduct any additional corrective actions.

AWQI 154037 - A sample taken from Lucknow 4 on May 3, 2021 had an arsenic result of 0.0983 mg/L, which is an exceedance of the O. Reg. 169/03 arsenic threshold of 0.01 mg/L. The Operating Authority conducted the required corrective actions of resampling on May 13, 2021. The resample resulted in an arsenic concentration of 3.9 ug/L. The Grey Bruce Health Unit did not direct the owner or OA to conduct any additional corrective actions.

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| Question ID | MRDW1104000 | |
| Question | Question Type | Legislative Requirement |
| Were all required verbal notifications of adverse water quality incidents immediately provided as per O. Reg. 170/03 16-6? | Legislative | 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. |

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| | | Reg. 170/03 16-6 (5),SDWA O. Reg. 170/03 16-6 (6) |
| Observation | | |
| All required notifications of adverse water quality incidents were immediately provided as per O. Reg. 170/03 16-6. For all Adverse Water Quality Incidents (n=3) the Operating Authority provided verbal notifications within 1 to 2 hours of receiving the verbal notice from the lab. | | |

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| Question ID | MRDW1115000 | |
| Question | Question Type | Legislative Requirement |
| In the event that an issue of non-compliance outside the scope of this inspection protocol is identified, a "No" response may be used if further actions are deemed necessary (and approved by the DW Supervisor) to facilitate compliance. | Legislative | Not Applicable |
| Observation | | |
| <p>The following instance(s) of non-compliance were also noted during the inspection:</p> <p>Standpipe in Disrepair:</p> <p>The standpipe within the distribution of the Lucknow drinking water system needs to be replaced. The elevated standpipe is 90 years old, having been constructed in 1931, and has clearly deteriorated over time with cracks in the concrete foundation visible. The most recent inspection report of the standpipe was in 2007 shows the interior is painted with a "grease paint" which does not meet current AWWA standards for coating material for finished water storage facilities.</p> <p>The owner and operating authority are aware of these issues and have applied for funding to assist the municipality with the costs to replace the standpipe. In addition, the owner hired consulting engineers to assist with the plans and design for the standpipe replacement. The owner applied for, and received, Authorization to Alter the Drinking Water System issued by the Ministry of the Environment and Climate Change (June 20, 2016, DWWP 087-203, Schedule C). Also, the owner has taken steps to protect and improve the current standpipe site by purchasing the adjacent lot and removing a dilapidated building. However, the standpipe is rundown and the "Lucknow Annual and Summary Report – For the 2020 Operating Year", states the following: "The Standpipe is in a state of disrepair but is currently in operable condition. As it is risky to perform aggressive cleaning without compromising its structural integrity and introducing a potential for contamination, the replacement of the Standpipe with a new Elevated Tank is currently in the design phase and is expected to begin in 2021."</p> <p>The owner has applied several times for Ontario Community Infrastructure Fund (OCIF) funding without success and have been informed that drinking water projects are not eligible under the current funding program. Municipal staff have also recently applied for Investing in Canada Infrastructure Program (ICIP) funding as well.</p> <p>Under the Safe Drinking Water Act, 2002 (SDWA) 11(1) 2 ii "every owner of a municipal</p> | | |

drinking-water system and, if an operating authority is responsible for the operation of the system, the operating authority for the system shall ensure that, at all times in which it is in service, the drinking-water system, is maintained in a fit state of repair".

Also, under the SDWA, a drinking water system means "a system of works, excluding plumbing, that is established for the purpose of providing users of the system with drinking water and includes, (a) any thing used for the collection, production, treatment, storage, supply or distribution of water".

By October 15, 2021 the owner will provide the author this report a plan to ensure the Lucknow standpipe is maintained in a fit state of repair as per section 11 (1) 2 ii of the Safe Drinking Water Act, 2002.

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| Question ID | MRDW1054000 | |
| Question | Question Type | Legislative Requirement |
| For stand alone connected distribution systems, if the receiving system is claiming the exemptions to O. Reg. 170/03 available under subsection 5(4), does the agreement with the donor satisfy the requirements prescribed by subsection 5(4)? | Information | Not Applicable |
| Observation | | |
| The receiving system was claiming exemptions to O. Reg. 170/03 available under subsection 5(4), and the agreement with the donor satisfied the requirements prescribed by subsection 5(4). | | |
| There is a water agreement between the Township of Huron-Kinloss (donor) and the Township of Ashfield-Colborne-Wawanosh (ACW) (receiver) that meets the requirements as per O. Reg. 170/03 Section 5(4)iii(A). This Water Agreement is established in ACW By-law 69-2015. | | |

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| Question ID | MRDW1059000 | |
| Question | Question Type | Legislative Requirement |
| Do the operations and maintenance manuals contain plans, drawings and process descriptions sufficient for the safe and efficient operation of the system? | Legislative | SDWA O. Reg. 128/04 28 |
| Observation | | |
| The operations and maintenance manuals contained plans, drawings and process descriptions sufficient for the safe and efficient operation of the system. | | |

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| Question ID | MRDW1061000 | |
| Question | Question Type | Legislative Requirement |
| Are logbooks properly maintained and contain the required information? | Legislative | SDWA O. Reg. 128/04 27 (1), |

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| | | SDWA O. Reg. 128/04 27 (2), SDWA O. Reg. 128/04 27 (3), SDWA O. Reg. 128/04 27 (4), SDWA O. Reg. 128/04 27 (5), SDWA O. Reg. 128/04 27 (6), SDWA O. Reg. 128/04 27 (7) |
| Observation | | |
| <p>Logbooks were properly maintained and contained the required information.</p> <p>Logbooks are properly maintained and include specified daily checks, alarm summary, work order section as well as daily events and observations.</p> | | |



Stakeholder Appendix

Key Reference and Guidance Material for Municipal Residential Drinking Water Systems

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

To access these materials online click on their titles in the table below or use your web browser to search for their titles. Contact the Public Information Centre if you need assistance or have questions at 1-800-565-4923/416-325-4000 or picemail.moe@ontario.ca.

For more information on Ontario's drinking water visit www.ontario.ca/drinkingwater and email drinking.water@ontario.ca to subscribe to drinking water news.



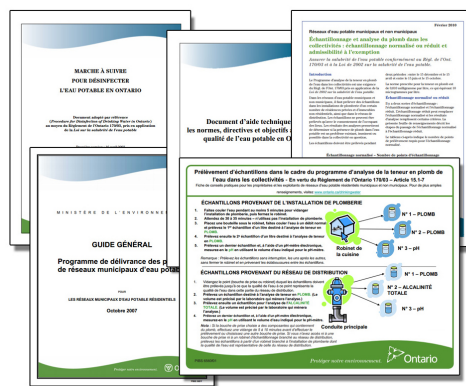
| PUBLICATION TITLE | PUBLICATION NUMBER |
|---|---------------------|
| Taking Care of Your Drinking Water: A Guide for Members of Municipal Councils | 7889e01 |
| FORMS: Drinking Water System Profile Information, Laboratory Services Notification, Adverse Test Result Notification Form | 7419e, 5387e, 4444e |
| Procedure for Disinfection of Drinking Water in Ontario | 4448e01 |
| Strategies for Minimizing the Disinfection Products Trihalomethanes and Haloacetic Acids | 7152e |
| Total Trihalomethane (TTHM) Reporting Requirements Technical Bulletin (February 2011) | 8215e |
| Filtration Processes Technical Bulletin | 7467 |
| Ultraviolet Disinfection Technical Bulletin | 7685 |
| Guide for Applying for Drinking Water Works Permit Amendments, Licence Amendments, Licence Renewals and New System Applications | 7014e01 |
| Certification Guide for Operators and Water Quality Analysts | |
| Guide to Drinking Water Operator Training Requirements | 9802e |
| Taking Samples for the Community Lead Testing Program | 6560e01 |
| Community Sampling and Testing for Lead: Standard and Reduced Sampling and Eligibility for Exemption | 7423e |
| Guide: Requesting Regulatory Relief from Lead Sampling Requirements | 6610 |
| Drinking Water System Contact List | 7128e |
| Technical Support Document for Ontario Drinking Water Quality Standards | 4449e01 |

ontario.ca/drinkingwater

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

De nombreux documents utiles peuvent vous aider à exploiter votre réseau d'eau potable. Vous trouverez ci-après une liste de documents que les propriétaires et exploitants de réseaux résidentiels municipaux d'eau potable utilisent fréquemment.

Pour accéder à ces documents en ligne, cliquez sur leur titre dans le tableau ci-dessous ou faites une recherche à l'aide de votre navigateur Web. Communiquez avec le Centre d'information au public au 1 800 565-4923 ou au 416 325-4000, ou encore à picemail.moe@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 ou envoyez un courriel à drinking.water@ontario.ca pour suivre l'information sur l'eau potable.

| TITRE DE LA PUBLICATION | NUMÉRO DE PUBLICATION |
|--|-----------------------|
| Prendre soin de votre eau potable – Un guide destiné aux membres des conseils municipaux | 7889f01 |
| Renseignements sur le profil du réseau d'eau potable, Avis de demande de services de laboratoire, Formulaire de communication de résultats d'analyse insatisfaisants et du règlement des problèmes | 7419f, 5387f, 4444f |
| Marche à suivre pour désinfecter l'eau potable en Ontario | 4448f01 |
| Strategies for Minimizing the Disinfection Products Trihalomethanes and Haloacetic Acids (en anglais seulement) | 7152e |
| Total Trihalomethane (TTHM) Reporting Requirements: Technical Bulletin (février 2011) (en anglais seulement) | 8215e |
| Filtration Processes Technical Bulletin (en anglais seulement) | 7467 |
| Ultraviolet Disinfection Technical Bulletin (en anglais seulement) | 7685 |
| Guide de présentation d'une demande de modification du permis d'aménagement de station de production d'eau potable, de modification du permis de réseau municipal d'eau potable, de renouvellement du permis de réseau municipal d'eau potable et de permis pour un nouveau réseau | 7014f01 |
| 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 | |
| Guide sur les exigences relatives à la formation des exploitants de réseaux d'eau potable | 9802f |
| Prélèvement d'échantillons dans le cadre du programme d'analyse de la teneur en plomb de l'eau dans les collectivités | 6560f01 |
| Échantillonnage et analyse du plomb dans les collectivités : échantillonnage normalisé ou réduit et admissibilité à l'exemption | 7423f |
| Guide: Requesting Regulatory Relief from Lead Sampling Requirements (en anglais seulement) | 6610 |
| Liste des personnes-ressources du réseau d'eau potable | 7128f |
| Document d'aide technique pour les normes, directives et objectifs associés à la qualité de l'eau potable en Ontario | 4449f01 |

ontario.ca/eaupotable