

Ministry of the Environment,  
Conservation and Parks  
Drinking Water and Environmental  
Compliance Division  
West Central Region  
Guelph District Office

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Ministère de l'Environnement de la  
Protection de la nature et des Parcs  
Division de la conformité en matière  
d'eau potable et d'environnement  
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Aug 26<sup>th</sup>, 2024

Ms. Brooke Lambert  
Director of Public Works  
The Township of Wellington North  
PO Box 125  
7490 Sideroad 7W  
Kenilworth, Ontario  
N0G 2E0

Dear Ms. Lambert,

**SUBJECT : 2024 MECP Inspection Report – Arthur Well Supply (DWS # 220000040)**

Please find enclosed the Ministry of the Environment, Conservation and Parks ('MECP' or the 'Ministry') Inspection Report for the inspection of the Arthur WS, which was recently conducted.

Enclosed is a copy of the inspection report prepared for the Arthur Well Supply system under the Ministry's focused inspection protocol to assess compliance with the Safe Drinking Water Act legislation. The report is based on conditions encountered at the time of inspection and subsequent follow-up.

Any items under the heading "Non-Compliance with Regulatory Requirements and Actions Required" are linked to incidents of non-compliance with regulatory requirements contained within the Act, a Regulation, or site-specific Approvals, Licences, Permits, Orders or instructions.

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

<http://www.ontario.ca/environment-and-energy/taking-care-your-drinking-water-guide-members-municipal-councils>.

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.

... 2.

**2024 Arthur Inspection Report**  
**Page 2.**

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

If you have any questions regarding any other aspects of this report, please feel free to contact myself or the Drinking Water Supervisor (Lisa Williamson) at this office at (519) 826-4255.

Thankyou.

Yours truly,

A handwritten signature in black ink, appearing to read 'Rick Neubrand', written in a cursive style.

**Rick Neubrand**  
**Senior Environmental Officer / Inspector**  
Ministry of the Environment, Conservation and Parks  
Drinking Water and Environmental Compliance Division  
Guelph District Office

Encl: Reports (1)

CC : Shari Dahmer - GRCA  
: Paul.Medeiros - WDGHU  
: Corey Schmidt - TWN  
: Sara McDougal - TWN  
: Lisa Williamson - MECP



ARTHUR DRINKING WATER SYSTEM  
Physical Address: 109 WELLS ST, , WELLINGTON  
NORTH, ON N0G 1A0

## INSPECTION REPORT

System Number: 220000040  
Entity: THE CORPORATION OF THE  
TOWNSHIP OF WELLINGTON  
NORTH  
Inspection Start Date: July 10, 2024  
Site Inspection Date: July 30, 2024  
Inspection End Date: August 14, 2024  
Inspected By: Rick Neubrand  
Badge #: 773



(signature)

## INTRODUCTION

### Purpose

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

### Scope

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

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

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

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

### Facility Contacts and Dates

This drinking water system (DWS) is owned and operated by; The Township of Wellington North.

The system serves an estimated population of 2628 people and is categorized as a Large Municipal Residential (LMR) drinking water system (DWS). Information reviewed for this inspection covered the time period of August 3rd, 2023 to July 30th, 2024.

### Systems/Components

All locations associated with primary disinfection were visited as part of this inspection. The following sites were visited as part of the inspection of the drinking water system:

- Pumphouse # 7 with Well 7B
- Pumphouse # 8 with Wells 8A and 8B
- North Water Tower

### **Permissions/Approvals**

This drinking water system is classified as a 'water distribution and supply subsystem class 2'. It was subject to specific conditions contained within the following permissions and/or approvals (please note this list is not exhaustive) at the time of the inspection in addition to the requirements of the SDWA and its regulations:

- Municipal Drinking Water Licence (DWL) # 113-201, Issue #3.
- Municipal Drinking Water Works Permit (DWWP) #113-101, Issue # 3.
- Permit To Take Water (PTTW) # 8202-9DNKD3.

## **NON-COMPLIANCE**

This should not be construed as a confirmation of full compliance with all potential applicable legal requirements. 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.

No issues of non-compliance were identified during this inspection.

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

## RECOMMENDATIONS

This should not be construed as a confirmation of full conformance with all potential applicable 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.

No BMPs were identified for this inspection.

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

### INSPECTION DETAILS

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

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

Question ID	DWMR1006001	Question Type	Information
<b>Legislative Requirement(s):</b> Not Applicable			
<b>Question:</b> Is the owner planning to add a new drinking water source or to make changes to their current source(s)?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> The owner is planning to add a new drinking water source or to make changes to their current source(s).  The Township of Wellington North (TWN) has released a "Notice of Commencement, Schedule 'B', Municipal Class Environmental Assessment (Class EA) for the Arthur Water System Supply Redundancy and Storage, Arthur, Ontario". This is done in their efforts to expand the water system, as demand increases. The Township is continuing to work with their consultant on the current Class Environmental Assessment (EA) in progress.  As well, two new test wells were drilled in November 2021 as part of the Arthur well exploration program. A report was released in January 2023 which indicates that one of the wells appears to be a good source of water that should be considered as a new source well for the DWS.			

Question ID	DWMR1007001	Question Type	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   1-2   (1)1;			
<b>Question:</b> Was the owner maintaining the production well(s) in a manner sufficient to prevent entry into the well of surface water and other foreign materials?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> 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.  In assessing all wells during this inspection, no significant erosion or maintenance issues were found to be present.  According to Water Well Record #6712921, the annular space for Well 7B was filled with cement grout and bentonite from ground level to a depth of 40 feet. According to Water Well			



Records #6714775 and 6714776, the annular spaces for Well 8A and Well 8B were each filled with cement grout from ground level to a depth of 183 feet.

Sections 16.2.7 - 16.2.9 of Schedule B in the MDWL requires that an inspection schedule for all wells associated with the drinking water system be included in the operations and maintenance manual. There must be inspection and maintenance procedures for the entire well structure of each well including all above and below grade 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.

The Township of Wellington North has established a well inspection program that includes inspections of the production wells on an annual basis. Also, a detailed assessment of the wells, including below grade components, is set to be scheduled approximately every 10 years, if feasible.

With respect to below grade (video) inspections, they were last completed as follows:

- Well 7b was last completed in 2019 (the owner will be looking to schedule the next inspection by 2029).
- Well 8a was last completed in 2013 (the owner will be looking to schedule the next inspection in 2025).

Well 8b was last completed in 2013 (the owner will be looking to schedule the next inspection in 2026).

No significant concerns were noted.

Question ID	DWMR1009001	Question Type	Legislative
<p><b>Legislative Requirement(s):</b> SDWA   31   (1);</p>			
<p><b>Question:</b> Were measures in place to protect the groundwater and/or GUDI source in accordance with the Municipal Drinking Water Licence and Drinking Water Works Permit?</p>			
<p><b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> Measures were in place to protect the groundwater and/or GUDI source.</p> <p>During the course of this inspection, the owner reported that the inspections completed by the Risk Management Official (RMO - for the Township of Wellington North) indicated that there was no nutrient spreading activities on the agricultural land/crops close to the Arthur Well 7 or Well 8 pumphouses in 2023, or to date in 2024.</p> <p>During a previous inspection, the owner reported that an adjacent landowner had applied commercial fertilizer and treated corn seed within 100 m of wells 8A and 8B. This is within the WHPA-A groundwater protection zone for the wells and is contrary to the Nutrient Management Act. The owner also provided documentation which indicated that the local</p>			

Ministry Agricultural Compliance Officer had followed up with the adjacent farmer and stopped the action.

During this inspection, crops were noted just north of the Well 7 pumphouse. Although, the owner was unaware of any fertilizer or nutrient application activities in this area, the RMO has previously advised that fertilizer application is not a significant drinking water threat for Well 7B and therefore is not subject to a prohibition like manure spreading. The RMO conducts inspections to enforce the manure prohibition in place within 100 metres of this well. Based on these inspections, there was no evidence of manure spreading in 2023 or to date in 2024 at the property just north of the Well 7 pumphouse.

It is recommended that the owner continue to monitor agricultural activities on lands adjacent to their wells, and report any improper land applications to the Ministry.

For reporting purposes, the Township of Wellington North is subject to two Source Protection Plans (based on watershed or Conservation Authority boundaries): Grand River Plan and the Saugeen Valley, Grey Sauble, Northern Bruce Peninsula Plan (Saugeen Valley). Although the Ausable Bayfield Maitland Valley (ABMV - Maitland Valley) Plan also encompasses part of the municipality, there are no reporting requirements associated with that Plan for the Township. In 2023 and 2024, all Source Protection Plans were in effect. Updates to the Grand River Source Protection Plan started in the fall of 2023

On page 5 of the 2019 Annual Report of the PTTW, it is stated that: "The O'Donnell domestic well responds significantly to operation of well 7B but it is located south of the Arthur well 7B wellhead protection area. We would expect the wellhead protection area to include this area. Monitoring well WN - MW1/00 (DO) responds significantly to the operation of Wells 8A and 8B but is shown in the capture area for Well 7B. Similarly we would expect that the wellhead protection area for wells 8A and 8B would include this area." It is recommended this be considered the next time the source protection plans are revised.

Question ID	DWMR1014001	Question Type	Legislative
<b>Legislative Requirement(s):</b> SDWA   31   (1);			
<b>Question:</b> Was flow monitoring performed as required by the Municipal Drinking Water Licence or Drinking Water Works Permit?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> Flow monitoring was performed as required.  Section 2.1 of Schedule C in the Municipal Drinking Water Licence (MDWL) outlines the requirements for flow measurement and recording. For this system, continuous flow measurement and recording shall be undertaken for the flow rate (L/s) and daily volume (m <sup>3</sup> /day) of treated water that flows from the treatment subsystem into the distribution system, as well as water that flows into the treatment subsystem. For this system, each well is equipped with a flow meter that in essence serves as a treated flow meter due to the			

treatment occurring within contact piping rather than a reservoir.

Question ID	DWMR1016001	Question Type	Legislative
<b>Legislative Requirement(s):</b> SDWA   31   (1);			
<b>Question:</b> Was the owner in compliance with the conditions associated with maximum flow rate or the rated/operational capacity in the Municipal Drinking Water Licence?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> The owner was in compliance with the conditions associated with maximum flow rate and/or the rated/operational capacity conditions.  Schedule C, Section 1.1 of the MDWL dictates a rated capacity of 1,961 m <sup>3</sup> /day for Well Pumphouse 7, and 2,255 m <sup>3</sup> /day for Well Pumphouse 8. Records provided indicate that the maximum daily flow volumes for the 2023/2024 inspection period were; <ul style="list-style-type: none"> <li>- Well 7 was 905 m3 in August 2023, which is 46.1% of that well's approved volume.</li> <li>- Wells 8a was 1003 m3 in July 2023, which is 44.5% of that well's approved volume.</li> <li>- Well 8b was 1005 m3 in July 2023, which is 44.6% of that well's approved volume.</li> </ul> Flow rates for these wells were not exceeded during the inspection review period, except for minor periods involving maintenance of the DWS or short term anomalies. From January 1st to December 31st, 2023, a total of 379,115.4 cubic meters of water was treated and pumped to the drinking water system. This represents a 4.96% increase compared to the same time period in 2022 and 3.59 % increase from 2021.			

Question ID	DWMR1018001	Question Type	Legislative
<b>Legislative Requirement(s):</b> SDWA   31   (1);			
<b>Question:</b> Did the owner ensure that equipment was installed in accordance with Schedule A and Schedule C of the Drinking Water Works Permit?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> The owner ensured that equipment was installed as required.  No significant changes in treatment equipment have occurred since the last inspection.			

Question ID	DWMR1020001	Question Type	Legislative
<b>Legislative Requirement(s):</b> SDWA   31   (1);			
<b>Question:</b> Were Form 1 documents prepared as required?			

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

Form 1 documents were prepared as required.

One form 1 was produced for the inspection period, being for the Forest View Estates Subdivision Project. The details to this project are as follows;

Location: Arthur, Township of Wellington North Project Scope: Installation of approximately 406.0m(l) of 150mm PVC DR18 watermain, including two (2) fire hydrant c/w SOV, and three (3) additional SOVs. Work also includes the installation of services for ten (10) single detached homes, eight (8) semi detached homes, eight (8) row townhouse units and a 150mm capped stub for a future apartment block.

<b>Question ID</b>	DWMMR1025001	<b>Question Type</b>	Legislative
<b>Legislative Requirement(s):</b> SDWA   31   (1);			
<b>Question:</b> Were all parts of the drinking water system that came in contact with drinking water disinfected in accordance with a procedure listed in Schedule B of the Drinking Water Works Permit?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> All parts of the drinking water system were disinfected as required.			

<b>Question ID</b>	DWMMR1023001	<b>Question Type</b>	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   1-2   (2);			
<b>Question:</b> Did records indicate that the treatment equipment was operated in a manner that achieved the design capabilities prescribed by O. Reg. 170/03, Drinking Water Works Permit and/or Municipal Drinking Water Licence at all times that water was being supplied to consumers?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> Records indicated that the treatment equipment was operated in a manner that achieved the design capabilities prescribed.  The Arthur Drinking Water System obtains water from ground water sources. The treatment system consists of disinfection using sodium hypochlorite and is capable of achieving an overall performance that provides, at a minimum, 2-log (99%) removal or inactivation of viruses prior to the first consumer.  The minimum required CT value for this system has been determined to be 4 mg/L-min, and a free chlorine residual of 0.50 mg/L has been deemed to be the minimum level required to achieve the required CT at both the 7B and 8A/8B pumphouses.			

Records provided for the inspection period indicate that proper disinfection was achieved when water was being supplied to consumers.

<b>Question ID</b>	DWMR1024001	<b>Question Type</b>	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   1-2   (2);			
<b>Question:</b> Did records confirm that the water treatment equipment which provides chlorination or chloramination for secondary disinfection was operated as required?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> Records confirmed that the water treatment equipment which provides chlorination or chloramination for secondary disinfection was operated as required.  The owner checks distribution system FCRs daily by grab sample.			

<b>Question ID</b>	DWMR1033001	<b>Question Type</b>	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   7-2   (3); SDWA   O. Reg. 170/03   7-2   (4);			
<b>Question:</b> Was secondary disinfectant residual tested as required for the large municipal residential distribution system?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> Secondary disinfectant residual was tested as required.  Distribution system chlorine residuals were measured on a daily basis (grab samples) during the inspection review period.			

<b>Question ID</b>	DWMR1030001	<b>Question Type</b>	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   7-2   (1); SDWA   O. Reg. 170/03   7-2   (2);			
<b>Question:</b> Was primary disinfection chlorine monitoring being conducted at a location approved by Municipal Drinking Water Licence and/or Drinking Water Works Permit or at/near a location where the intended CT had just been achieved?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> Primary disinfection chlorine monitoring was conducted as required.  Both pumphouses have both a pre-contact time (process) FCR analyzer and post-contact time (legislative) continuous FCR analyzer. The post-contact time chlorination analyzers take water for sampling at the ends of the contact mains.			

<b>Question ID</b>	DWMR1035001	<b>Question Type</b>	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   6-5   (1)1-4;			
<b>Question:</b> Were operators examining continuous monitoring test results and did they examine the results within 72 hours of the test?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> Operators were examining continuous monitoring test results as required.			

<b>Question ID</b>	DWMR1038001	<b>Question Type</b>	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   6-5   (1)1-4;			
<b>Question:</b> Was continuous monitoring equipment that was being utilized to fulfill O. Reg. 170/03 requirements performing tests for the parameters with at least the minimum frequency and recording data with the prescribed format?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> 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 and recording data with the prescribed format.  In reviewing the site's Supervisory Control and Data Acquisition (SCADA) data, the owner provided backup data from on-site historians for any omissions from broadcast channel data as well. Regular SCADA data was provided in 5 minute intervals.			

<b>Question ID</b>	DWMR1037001	<b>Question Type</b>	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   6-5   (1)5-10; SDWA   O. Reg. 170/03   6-5   (1.1);			
<b>Question:</b> Were 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, equipped with alarms or shut-off mechanisms that satisfied the standards described in Schedule 6?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> All required continuous monitoring equipment utilized for sampling and testing were equipped with alarms or shut-off mechanisms that satisfied the standards  Alarms are set for FCR levels (well ahead of minimum limits of 0.5 mg/L - CT proper disinfection) on both the pre-contact piping (operational analyzers) and post-contact piping (legislative analyzers), for optimum response ability. The well pumps are set to lock out if the			

free chlorine residual levels drop below the low-low setpoint level of 0.65 mg/L at the post-contact chlorine analyzers.  
During the inspection, both pumphouses were tested for low FCR alarms. Both alarmed out to the on-call operator during these tests.

<b>Question ID</b>	DWMR1040001	<b>Question Type</b>	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   6-5   (1)1-4; SDWA   O. Reg. 170/03   6-5   (1)5-10;			
<b>Question:</b> Were all continuous analysers calibrated, maintained, and operated, in accordance with the manufacturer's instructions or the regulation?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> All continuous analysers were calibrated, maintained, and operated as required.  Portable colourimeters are used to calibrate the continuous FCR analyzers. Portable colourimeters are professionally calibrated annually and were last calibrated on March 7, 2024. The online analyzers were last professionally checked on February 6, 2024. Certificates were provided for all these assessments.			

<b>Question ID</b>	DWMR1108001	<b>Question Type</b>	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   6-5   (1)5-10; SDWA   O. Reg. 170/03   6-5   (1.1);			
<b>Question:</b> 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, Municipal Drinking Water Licence, Drinking Water Works Permit, or order triggered an alarm or an automatic shut-off, did a qualified person respond as required and take appropriate actions?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> A qualified person responded as required and took appropriate actions.			

<b>Question ID</b>	DWMR1099001	<b>Question Type</b>	Information
<b>Legislative Requirement(s):</b> Not Applicable			
<b>Question:</b> Do records show that water provided by the drinking water system met the Ontario Drinking Water Quality Standards?			

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

Records showed that all water sample results met the Ontario Drinking Water Quality Standards.

One AWQI occurred on July 24, 2024 with a Total Coliform (TC) exceedance =1 (Limit is 0 ). A resample occurred in which no TC were found.

<b>Question ID</b>	DWMR1083001	<b>Question Type</b>	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   10-3;			
<b>Question:</b> Were treated microbiological sampling requirements prescribed by Schedule 10-3 of O. Reg. 170/03 for large municipal residential systems met?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> Treated microbiological sampling requirements were met.			

<b>Question ID</b>	DWMR1081001	<b>Question Type</b>	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   10-2   (1); SDWA   O. Reg. 170/03   10-2   (2); SDWA   O. Reg. 170/03   10-2   (3);			
<b>Question:</b> Were distribution microbiological sampling requirements prescribed by Schedule 10-2 of O. Reg. 170/03 for large municipal residential systems met?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> Distribution microbiological sampling requirements were met.			

<b>Question ID</b>	DWMR1096001	<b>Question Type</b>	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   6-3   (1);			
<b>Question:</b> Did records confirm that chlorine residual tests were conducted at the same time and location as microbiological samples?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> Records confirmed that chlorine residual tests were conducted as required.			



<b>Question ID</b>	DWMR1084001	<b>Question Type</b>	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   13-2;			
<b>Question:</b> Were inorganic parameter sampling requirements prescribed by Schedule 13-2 of O. Reg. 170/03 met?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> Inorganic parameter sampling requirements were met.  Inorganics were sampled for on August 8, 2018 for Pumphouse 7, and November 16, 2020 for Pumphouse 8. Sampling for these parameters were undertaken again at both pumphouses on Aug 23, 2021 to get a common sampling date for both pumphouses. These sample parameters are required to be sampled every 36 months and were not yet completed in 2024, at the time of inspection.			

<b>Question ID</b>	DWMR1085001	<b>Question Type</b>	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   13-4   (1); SDWA   O. Reg. 170/03   13-4   (2); SDWA   O. Reg. 170/03   13-4   (3);			
<b>Question:</b> Were organic parameter sampling requirements prescribed by Schedule 13-4 of O. Reg. 170/03 met?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> Organic parameter sampling requirements were met.  Organics were sampled for on August 8, 2018 for Pumphouse 7, and November 16, 2020 for Pumphouse 8. Sampling for these parameters were undertaken again at both pumphouses on Aug 23, 2021 to get a common sampling date for both pumphouses. These sample parameters are required to be sampled every 36 months and were not yet completed in 2024, at the time of inspection.			

<b>Question ID</b>	DWMR1086001	<b>Question Type</b>	Legislative
<b>Legislative Requirement(s):</b> 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);			
<b>Question:</b> Were haloacetic acid sampling requirements prescribed by Schedule 13-6 of O. Reg. 170/03 met?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> Haloacetic acid sampling requirements were met.			

HAA's were sampled in the distribution system on the following dates:

- August 14, 2023
- November 6, 2023
- February 12, 2024

and

May 13, 2024.

There were no exceedances of this parameter. This sample parameter is required to be sampled quarterly.

Question ID	DWMR1087001	Question Type	Legislative
<b>Legislative Requirement(s):</b> 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);			
<b>Question:</b> Were trihalomethane sampling requirements prescribed by Schedule 13-6 of O. Reg. 170/03 met?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> Trihalomethane sampling requirements were met.  THMs were sampled in the distribution system on the following dates: - August 14, 2023 - November 6, 2023 - February 12, 2024 and May 13, 2024. There were no exceedances of this parameter. This sample parameter is required to be sampled once every three months. The Annual Running Average (ARA) was last calculated to be 23.00 ug/L. The limit is 100.			

Question ID	DWMR1088001	Question Type	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   13-7;			
<b>Question:</b> Were nitrate/nitrite sampling requirements prescribed by Schedule 13-7 of O. Reg. 170/03 met?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> Nitrate/nitrite sampling requirements were met.  Nitrates and Nitrites were sampled at the treated water entry points (both pumphouses) on the following dates: - August 14, 2023 - November 6, 2023			

- February 12, 2024

and

May 13, 2024.

There were no exceedances of this parameter. This sample parameter is required to be sampled every three months.

<b>Question ID</b>	DWMR1089001	<b>Question Type</b>	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   13-8;			
<b>Question:</b> Were sodium sampling requirements prescribed by Schedule 13-8 of O. Reg. 170/03 met?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> Sodium sampling requirements were met.  Sodium sampling was conducted for Pumphouse 7 on September 11, 2023 and results exceeded the 20 mg/L reportable limit at 36.6 mg/L. An adverse water quality incident (AWQI) was reported (#163466), with resampling results of Sept 18, 2018 confirming the levels were greater than 20 mg/L (also 36.5 mg/L). Sodium sampling for Pumphouse 8 was also conducted on September 11, 2023 (results of 21.5 mg/L) and a resample on September 18, 2023 was taken resulting in a level of 21.6 mg/L. This was also reported as an AWQI under AWQI #163467. This sample parameter is required to be sampled every 60 months.			

<b>Question ID</b>	DWMR1090001	<b>Question Type</b>	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   13-9;			
<b>Question:</b> Where fluoridation is not practiced, were fluoride sampling requirements prescribed by Schedule 13-9 of O. Reg. 170/03 met?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> Fluoride sampling requirements were met.  Sampling for fluoride at Pumphouse 7 was last conducted on September 11, 2023. Test results were 1.32 mg/L. Sampling for fluoride at Pumphouse 8 was last conducted on September 11, 2023 at 0.35 mg/L. The established drinking water standard for fluoride is 1.5 mg/L. This sample parameter is required to be sampled every 60 months.			

<b>Question ID</b>	DWMR1104001	<b>Question Type</b>	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   16-6   (1); SDWA   O. Reg. 170/03   16-6   (2); SDWA   O. Reg. 170/03   16-6   (3); SDWA   O. Reg. 170/03   16-6   (3.1); SDWA   O. Reg. 170/03   16-6   (3.2); SDWA   O. Reg. 170/03   16-6   (4); SDWA   O. Reg. 170/03   16-6   (5); SDWA   O. Reg. 170/03   16-6   (6);			

<b>Question:</b> Were immediate verbal notification requirements for adverse water quality incidents met?
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> Immediate verbal notification requirements for adverse water quality incidents were met.

<b>Question ID</b>	DWMR1101001	<b>Question Type</b>	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   17-1; SDWA   O. Reg. 170/03   17-10   (1); SDWA   O. Reg. 170/03   17-11; SDWA   O. Reg. 170/03   17-12; SDWA   O. Reg. 170/03   17-13; SDWA   O. Reg. 170/03   17-14; SDWA   O. Reg. 170/03   17-2; SDWA   O. Reg. 170/03   17-3; SDWA   O. Reg. 170/03   17-4; SDWA   O. Reg. 170/03   17-5; SDWA   O. Reg. 170/03   17-6; SDWA   O. Reg. 170/03   17-9;			
<b>Question:</b> For large municipal residential systems, were corrective actions, including any steps directed by the Medical Officer of Health, taken to address adverse conditions?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> Corrective actions were taken to address adverse conditions.			

<b>Question ID</b>	DWMR1113001	<b>Question Type</b>	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   10.1   (3);			
<b>Question:</b> Were changes to the system registration information provided to the ministry within ten (10) days of the change?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> Changes to the system registration information were provided as required.			

<b>Question ID</b>	DWMR1114001	<b>Question Type</b>	Legislative
<b>Legislative Requirement(s):</b> SDWA   31   (1);			
<b>Question:</b> Did the owner have evidence that, when required, all legal owners associated with the drinking water system were notified of the requirements of the Municipal Drinking Water Licence and Drinking Water Works Permit?			

**Compliance Response(s)/Corrective Action(s)/Observation(s):**  
 The owner had evidence that the required notifications were made.

There are three new subdivisions in Arthur that have not yet been assumed by the Municipality (Cachet, Eastridge Phase 3 & 4 and Forest View Estates).

The owner has advised that all engineers/developers must comply with the Township's Municipal Servicing Standards, which states the following under section E2: "Developer's Engineer must comply with the requirements of the Ontario Safe Drinking Water Act (SDWA) and all applicable regulations made in accordance to the act, including but not limited to the Drinking Water Works Permit (DWWP) and the Municipal Drinking Water Licence (MWDL). DWWP and MWDL are available from the Township's Environmental Services Department and it is the responsibility of the developer's engineer to obtain copies as necessary."

The owner provided a link to the Township of Wellington North Municipal Servicing Standards on the township website.

<https://www.wellington-north.com/sites/default/files/2023-02/WN%20Municipal%20Standards-2023%20Update-Final.pdf>

<b>Question ID</b>	DWMR1045001	<b>Question Type</b>	Legislative
<b>Legislative Requirement(s):</b> SDWA   31   (1);			
<b>Question:</b> Did the owner update the document describing the distribution components within 12 months of completion of alterations to the system in accordance with the Drinking Water Works Permit?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> The owner had up-to-date documents describing the distribution components.			

<b>Question ID</b>	DWMR1060001	<b>Question Type</b>	Legislative
<b>Legislative Requirement(s):</b> SDWA   31   (1);			

<p><b>Question:</b> Did the operations and maintenance manual(s) meet the requirements of the Municipal Drinking Water Licence?</p>
<p><b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> The operations and maintenance manual(s) met the requirements of the Municipal Drinking Water Licence.  This was checked in previous inspections. There were no significant changes to the drinking water system (DWS) or these manuals since last inspection.</p>

<b>Question ID</b>	DWMR1062001	<b>Question Type</b>	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   7-5;			
<p><b>Question:</b> Did records or other record keeping mechanisms confirm that operational testing not performed by continuous monitoring equipment was done by a certified operator, water quality analyst, or person who met the requirements of Schedule 7-5 of O. Reg. 170/03?</p>			
<p><b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> Records or other record keeping mechanisms confirmed that operational testing not performed by continuous monitoring equipment was done by a certified operator, water quality analyst, or person who met the requirements of Schedule 7-5 of O. Reg. 170/03.</p>			

<b>Question ID</b>	DWMR1071001	<b>Question Type</b>	BMP
<b>Legislative Requirement(s):</b> Not Applicable			
<p><b>Question:</b> Did the owner provide security measures to protect components of the drinking water system?</p>			
<p><b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> The owner provided security measures to protect components of the drinking water system.  Pumphouses are well lit and have remote notification security systems in place. Operators make routine visits to pumphouses at differing times, which adds to better security measures. New security fencing has been installed around pumphouses and wells since the last inspection. All pumphouses also connect to the main SCADA system through fixed fibre optics lines as well, and not through radio tower transmissions any longer.</p>			

<b>Question ID</b>	DWMR1073001	<b>Question Type</b>	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 128/04   23   (1);			
<b>Question:</b> Was an overall responsible operator designated for all subsystems which comprise the drinking water system?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> An overall responsible operator was designated for all subsystem.  The Manager, Environmental & Development Services is permanently designated as the ORO for the Township's Drinking Water Systems. Other Operators may be required to act in the absence of the Manager and a memo is sent out to notify staff.			

<b>Question ID</b>	DWMR1074001	<b>Question Type</b>	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 128/04   25   (1);			
<b>Question:</b> Were operators-in-charge designated for all subsystems which comprise the drinking water system?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> Operators-in-charge were designated for all subsystems.  The operator that completes the daily well check is designated the Operator-In-Charge (OIC) for that facility during regular working hours. The on-call operator is designated the OIC after regular working hours and on weekends. Operators are on-call for one week on a rotational basis.			

<b>Question ID</b>	DWMR1075001	<b>Question Type</b>	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 128/04   22;			
<b>Question:</b> Were all operators certified as required?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> All operators were certified as required.			

Question ID	DWMR1076001	Question Type	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   1-2   (2);			
<b>Question:</b> Were adjustments to the treatment equipment only made by certified operators?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> Adjustments to the treatment equipment were only made by certified operators.			



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**DWS – Stakeholder Guidance Material Reference Sheet**

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# 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](mailto:waterforms@ontario.ca).

For more information on Ontario's drinking water visit [www.ontario.ca/drinkingwater](http://www.ontario.ca/drinkingwater)



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

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

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

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

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**DWS – DWS Inspection Rating Report and Risk Methodology statement**

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Ministry of the Environment, Conservation and Parks - Inspection Summary Rating Record (Reporting Year - 2024-25)

<b>DWS Name:</b> ARTHUR DRINKING WATER SYSTEM
<b>DWS Number:</b> 220000040
<b>DWS Owner:</b> THE CORPORATION OF THE TOWNSHIP OF WELLINGTON NORTH
<b>Municipal Location:</b> WELLINGTON NORTH
<b>Regulation:</b> O.REG. 170/03
<b>DWS Category:</b> DW Municipal Residential
<b>Type of Inspection:</b> Focused
<b>Compliance Assessment Start Date:</b> Jul-10-2024
<b>Ministry Office:</b> Guelph District Office

Maximum Risk Rating: 497

Inspection Module	Non Compliance Risk (X out of Y)
Capacity Assessment	0/30
Certification and Training	0/42
Distribution System	0/4
Logbooks	0/14
Operations Manuals	0/14
Reporting & Corrective Actions	0/74
Source	0/14
Treatment Processes	0/193
Water Quality Monitoring	0/112
<b>Overall - Calculated</b>	<b>0/497</b>

Inspection Risk Rating:	0.00%
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Final Inspection Rating:	100.00%
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Ministry of the Environment, Conservation and Parks - Detailed Inspection Rating Record (Reporting Year - 2024-25)

<b>DWS Name:</b>	ARTHUR DRINKING WATER SYSTEM
<b>DWS Number:</b>	220000040
<b>DWS Owner Name:</b>	THE CORPORATION OF THE TOWNSHIP OF WELLINGTON NORTH
<b>Municipal Location:</b>	WELLINGTON NORTH
<b>Regulation:</b>	O.REG. 170/03
<b>DWS Category:</b>	DW Municipal Residential
<b>Type of Inspection:</b>	Focused
<b>Compliance Assessment Start Date:</b>	Jul-10-2024
<b>Ministry Office:</b>	Guelph District Office

*All legislative requirements were met. No detailed rating scores.*

Maximum Question Rating: 497

Inspection Risk Rating:	0.00%
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<b>FINAL INSPECTION RATING:</b>	<b>100.00%</b>
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# APPLICATION OF THE RISK METHODOLOGY USED FOR MEASURING MUNICIPAL RESIDENTIAL DRINKING WATER SYSTEM INSPECTION RESULTS



The Ministry of the Environment (MOE) has a rigorous and comprehensive inspection program for municipal residential drinking water systems (MRDWS). Its objective is to determine the compliance of MRDWS with requirements under the Safe Drinking Water Act and associated regulations. It is the responsibility of the municipal residential drinking water system owner to ensure their drinking water systems are in compliance with all applicable legal requirements.

This document describes the risk rating methodology, which has been applied to the findings of the Ministry's MRDWS inspection

results since fiscal year 2008-09. The primary goals of this assessment are to encourage ongoing improvement of these systems and to establish a way to measure this progress.

MOE reviews the risk rating methodology every three years.

The Ministry's Municipal Residential Drinking Water Inspection Protocol contains 15 inspection modules consisting of approximately 100 regulatory questions. Those protocol questions are also linked to definitive guidance that ministry inspectors use when conducting MRDWS inspections.

[ontario.ca/drinkingwater](http://ontario.ca/drinkingwater)

The questions address a wide range of regulatory issues, from administrative procedures to drinking water quality monitoring. The inspection protocol also contains a number of non-regulatory questions.

A team of drinking water specialists in the ministry assessed each of the inspection protocol regulatory questions to determine the risk (not complying with the regulation) to the delivery of safe drinking water. This assessment was based on established provincial risk assessment principles, with each question receiving a risk rating referred to as the Question Risk Rating. Based on the number of areas where a system is deemed to be non-compliant during the inspection, and the significance of these areas to administrative, environmental, and health consequences, a risk-based inspection rating is calculated by the ministry for each drinking water system.

It is important to be aware that an inspection rating less than 100 per cent does not mean the drinking water from the system is unsafe. It shows areas where a system's operation can improve. The ministry works with owners and operators of systems to make sure they know what they need to do to achieve full compliance.

The inspection rating reflects the inspection results of the specific drinking water system for the reporting year. Since the methodology is applied consistently over a period of years, it serves as a comparative measure both provincially and in relation to the individual system. Both the drinking water system and the public are able to track the performance over time, which encourages continuous improvement and allows systems to identify specific areas requiring attention.

The ministry's annual inspection program is an important aspect of our drinking water safety net. The ministry and its partners share a common commitment to excellence and we continue to work toward the goal of 100 per cent regulatory compliance.

## Determining Potential to Compromise the Delivery of Safe Water

The risk management approach used for MRDWS is aligned with the Government of Ontario's Risk Management Framework. Risk management is a systematic approach to identifying potential hazards, understanding the likelihood and consequences of the hazards, and taking steps to reduce their risk if necessary and as appropriate.

The Risk Management Framework provides a formula to be used in the determination of risk:

$$\text{RISK} = \text{LIKELIHOOD} \times \text{CONSEQUENCE}$$

(of the consequence)

Every regulatory question in the inspection protocol possesses a likelihood value (L) for an assigned consequence value (C) as described in **Table 1** and **Table 2**.

**TABLE 1:**

Likelihood of Consequence Occurring	Likelihood Value
0% - 0.99% (Possible but Highly Unlikely)	L = 0
1 - 10% (Unlikely)	L = 1
11 - 49% (Possible)	L = 2
50 - 89% (Likely)	L = 3
90 - 100% (Almost Certain)	L = 4

**TABLE 2:**

Consequence	Consequence Value
Medium Administrative Consequence	C = 1
Major Administrative Consequence	C = 2
Minor Environmental Consequence	C = 3
Minor Health Consequence	C = 4
Medium Environmental Consequence	C = 5
Major Environmental Consequence	C = 6
Medium Health Consequence	C = 7
Major Health Consequence	C = 8



The consequence values (0 through 8) are selected to align with other risk-based programs and projects currently under development or in use within the ministry as outlined in **Table 2**.

The Question Risk Rating for each regulatory inspection question is derived from an evaluation of every identified consequence and its corresponding likelihood of occurrence:

- All levels of consequence are evaluated for their potential to occur
- Greatest of all the combinations is selected.

The Question Risk Rating quantifies the risk of non-compliance of each question relative to the others. Questions with higher values are those with a potentially more significant impact on drinking water safety and a higher likelihood of occurrence. The highest possible value would be 32 (4×8) and the lowest would be 0 (0×1).

**Table 3** presents a sample question showing the risk rating determination process.

TABLE 3:							
Does the Operator in Charge ensure that the equipment and processes are monitored, inspected and evaluated?							
Risk = Likelihood × Consequence							
C=1	C=2	C=3	C=4	C=5	C=6	C=7	C=8
Medium Administrative Consequence	Major Administrative Consequence	Minor Environmental Consequence	Minor Health Consequence	Medium Environmental Consequence	Major Environmental Consequence	Medium Health Consequence	Major Health Consequence
L=4 (Almost Certain)	L=1 (Unlikely)	L=2 (Possible)	L=3 (Likely)	L=3 (Likely)	L=1 (Unlikely)	L=3 (Likely)	L=2 (Possible)
R=4	R=2	R=6	R=12	R=15	R=6	R=21	R=16

## Application of the Methodology to Inspection Results

Based on the results of a MRDWS inspection, an overall inspection risk rating is calculated. During an inspection, inspectors answer the questions related to regulatory compliance and input their “yes”, “no” or “not applicable” responses into the Ministry’s Laboratory and Waterworks Inspection System (LWIS) database. A “no” response indicates non-compliance. The maximum number of regulatory questions asked by an inspector varies by: system (i.e., distribution, stand-alone); type of inspection (i.e., focused, detailed); and source type (i.e., groundwater, surface water).

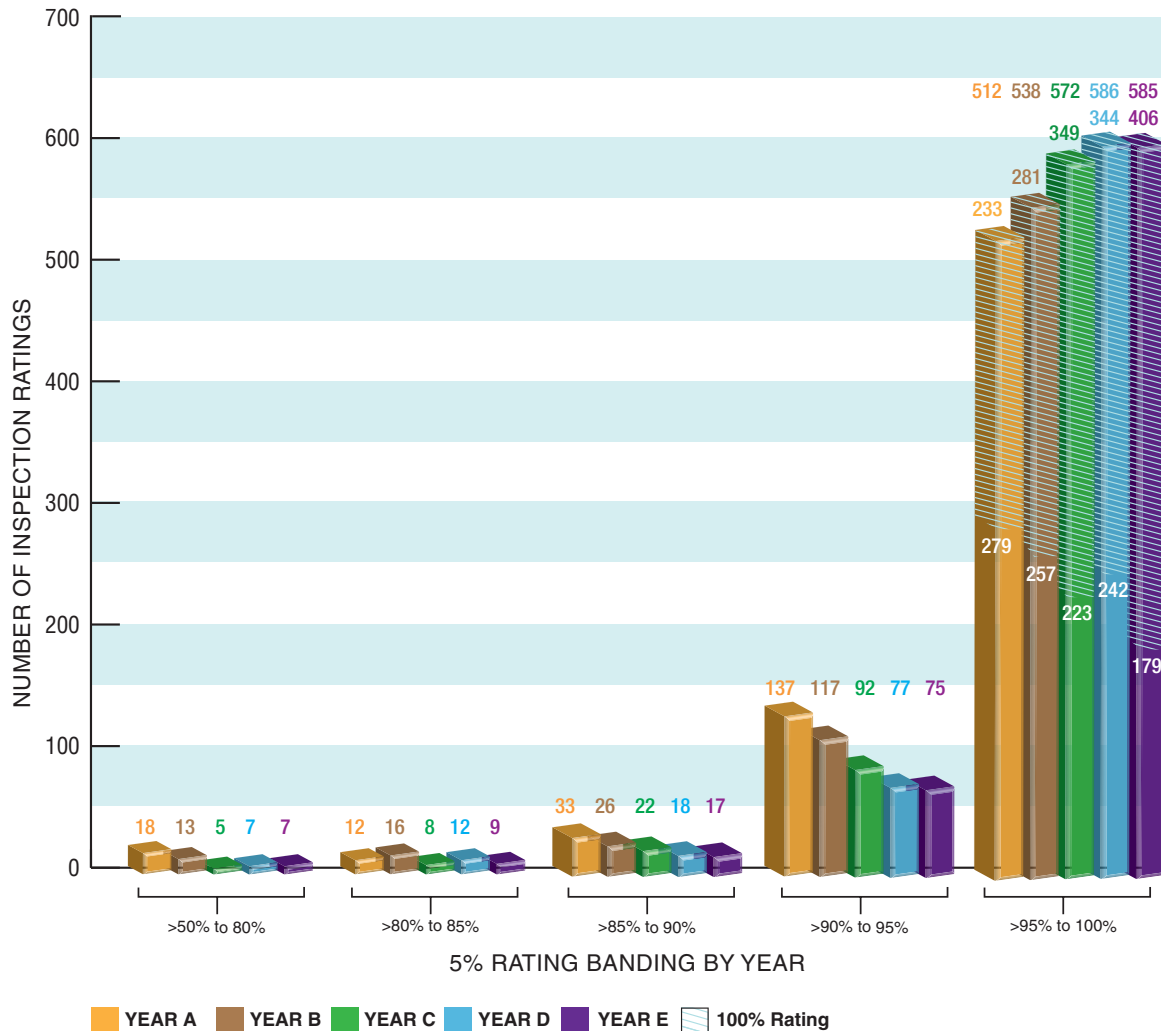
The risk ratings of all non-compliant answers are summed and divided by the sum of the risk ratings of all questions asked (maximum question rating). The resulting inspection risk rating (as a percentage) is subtracted from 100 per cent to arrive at the final inspection rating.

## Application of the Methodology for Public Reporting

The individual MRDWS Total Inspection Ratings are published with the ministry's Chief Drinking Water Inspector's Annual Report.

**Figure 1** presents the distribution of MRDWS ratings for a sample of annual inspections. Individual drinking water systems can compare against all the other inspected facilities over a period of inspection years.

**Figure 1: Year Over Year Distribution of MRDWS Ratings**



## Reporting Results to MRDWS Owners/Operators

A summary of inspection findings for each system is generated in the form of an Inspection Rating Record (IRR). The findings are grouped into the 15 possible modules of the inspection protocol,

which would provide the system owner/operator with information on the areas where they need to improve. The 15 modules are:

- |                         |                                 |  |  |
|-------------------------|---------------------------------|--|--|
| 1. Source               | 5. Treatment Process Monitoring | 9. Logbooks                            | 13. Water Quality Monitoring                       |
| 2. Permit to Take Water | 6. Process Wastewater           | 10. Contingency and Emergency Planning | 14. Reporting, Notification and Corrective Actions |
| 3. Capacity Assessment  | 7. Distribution System          | 11. Consumer Relations                 | 15. Other Inspection Findings                      |
| 4. Treatment Processes  | 8. Operations Manuals           | 12. Certification and Training         |  |

For further information, please visit [www.ontario.ca/drinkingwater](http://www.ontario.ca/drinkingwater)