

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

West Central Region

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**Ministère de l'Environnement de  
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Parcs**  
*Division de la conformité en matière  
potable et d'environnement*

Direction régionale du Centre-  
Ouest

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April 7, 2025

**\*\*Sent via email\*\***

Township of  
East Garafraxa  
0653371 Dufferin Road 3, Unit #2  
East Garafraxa, ON  
L9W 7J8

Attention: Mr. Peter Avgoustis, CAO

Re: Marsville Drinking Water System Inspection Report  
Waterworks #210002183, Our File: SI DU EG GR 540

On January 30, 2025, the Marsville Drinking Water System was inspected by the Ministry of the Environment, Conservation and Parks. The inspection followed the detailed 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. Please find attached a copy of the Inspection Report #1-379237047.

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, licenses, permits, orders or instructions.

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), included as part of the inspection report, 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. 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 Lisa Williamson, Water Compliance Supervisor, at 226-979-8468.

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 Ministry of the Environment, Conservation and Parks website at [www.ontario.ca](http://www.ontario.ca).

If you wish to discuss the results of the inspection in more detail, please feel free to contact me at (519) 837-7457.

Yours truly,

Signature: (Provincial Officer)  


Carola Serwotka  
Provincial Officer  
Drinking Water and Environmental Compliance Division  
Guelph District Office  
West Central Region

c.c.

Joe Miedema, Dufferin Water Co. Ltd. (email)  
Paul Medeiros, Manager, Health Protection Division, Wellington, Dufferin, Guelph Health Unit (email)  
Lisa Williamson, Water Compliance Supervisor, MECP  
Guelph District Office File: SI DU EG GR 540, Marsville DWS  
Electronic Binder



**MARSVILLE SUBDIVISION DRINKING WATER SYSTEM**

Physical Address: LOT:5, CONCESSION:13,  
GEOTOWNSHIP:GARAFRAXA, ,  
EAST GARAFRAXA, ON

**INSPECTION REPORT**

System Number: 210002183

Entity: DUFFERIN WATER CO LTD  
TOWNSHIP OF EAST  
GARAFRAXA

Inspection Start Date: January 30, 2025

Site Inspection Date: January 30, 2025

Inspection End Date: April 04, 2025

Inspected By: Carola Serwotka

Badge #: 808

Signature: (Provincial Officer)



(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

The Marsville Drinking Water System (DWS #220002183) is a small drinking water system and is owned by the Township of Amaranth and operated by Dufferin Water Co. Ltd.

The Marsville Drinking Water System is a Class 2 Water Distribution and Supply Subsystem (WDSS) with certificate #25, and was issued on May 13, 1992. Marsville is located 10 km north of Hillsburgh, Ontario.

The unannounced, focused inspection began on January 30, 2025 at the Marsville Water Treatment Plant with the attendance of the ORO. The inspection period for this inspection was February 22, 2024 to January 30, 2025.

### 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:

- The Marsville Treatment plant building
- Wells #1 and #2

### **Permissions/Approvals**

This drinking water system was subject to specific conditions contained within the following permissions and/or approvals at the time of the inspection in addition to the requirements of the SDWA and its regulations:

Municipal Drinking Water Licence Number 243-101 (Issue Number 4) and Drinking Water Works Permit Number 243-201 (Issue Number 5) were both issued on December 1, 2020.

Permit To Take Water (PTTW) 8328-BQNRXE was issued on July 3, 2020 with an expiry of May 31, 2030.

### **Background and Compliance**

The last inspection was February 22, 2024.

## **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.

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.

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	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.  There are 2 drilled wells, both were secure at the time of the inspection. The second well requires a well pump to be put into service. The wells are inspected bi-annually where the well cap, vent, seal, security and drainage are visually checked.			

Question ID	DWMR1009001	Question Type	Legislative
<b>Legislative Requirement(s):</b> SDWA   31   (1);			
<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?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> Measures were in place to protect the groundwater and/or GUDI source.  The wells are inspected bi-annually.			

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.			



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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.  Flow data provided was reviewed and summarized as a per cent capacity of the limit for average and maximum daily flowrates: 2024 Average flow - 22.1 m3/d or 12% 2024 Maximum flow - 49 m3/d or 27%			

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.  There were no changes to the system since the last inspection.			

Question ID	DWMR1025001	Question Type	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.			

Question ID	DWMR1023001	Question Type	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 lowest measured free chlorine residual of the treated water was 0.73 mg/L where the minimum required was 0.162 mg/L based on 2-log removal of viruses.			

Question ID	DWMR1024001	Question Type	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.			

Question ID	DWMR1034001	Question Type	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   7-2   (5); SDWA   O. Reg. 170/03   7-2   (6);			
<b>Question:</b> Was secondary disinfectant residual tested as required for the small municipal residential distribution system?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> Secondary disinfectant residual was tested as required.  Daily free chlorine residuals are sampled, tested and recorded.			

Question ID	DWMR1030001	Question Type	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   7-2   (1); SDWA   O. Reg. 170/03   7-2   (2);			

**Question:**

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?

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

Primary disinfection chlorine monitoring was conducted as required.

Free chlorine residuals are taken after the CT underground pipe, daily.

Question ID	DWMR1035001	Question Type	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.  Operators download continuous monitoring data Monday, Wednesday and Friday.			

Question ID	DWMR1038001	Question Type	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.			

Question ID	DWMR1037001	Question Type	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?

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

All required continuous monitoring equipment utilized for sampling and testing were equipped with alarms or shut-off mechanisms that satisfied the standards

Question ID	DWMR1040001	Question Type	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.			

Question ID	DWMR1108001	Question Type	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.  At the time of the inspection, alarms were tested and operated as required.			

Question ID	DWMR1099001	Question Type	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.

Question ID	DWMR1082001	Question Type	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   11-2   (1); SDWA   O. Reg. 170/03   11-2   (2); SDWA   O. Reg. 170/03   11-2   (6);			
<b>Question:</b> Were distribution microbiological sampling requirements prescribed by Schedule 11-2 of O. Reg. 170/03 for small municipal residential systems met?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> Distribution microbiological sampling requirements were met.  Distribution samples are sampled and tested weekly.			

Question ID	DWMR1096001	Question Type	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.			

Question ID	DWMR1084001	Question Type	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.  The last set of inorganic sampling occurred in October, 2022 and next set is required in October, 2027.			

Question ID	DWMR1085001	Question Type	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.  The last set of organic sampling occurred in October, 2022 and next set is required in October, 2027.			

Question ID	DWMR1086001	Question Type	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.  HAAs are sampled and tested quarterly. HAAs were measured below 5 ug/L where the limit is 80 ug/L.			

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 are sampled and tested quarterly. THMs were measured below 10 ug/L where the annual average limit is 100 ug/L.			

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/nitrites are sampled and tested quarterly. Nitrates/nitrites were measured below the limit of 10 mg/L.			

Question ID	DWMR1089001	Question Type	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 was last sampled on October 13, 2022 and is required to be reported every 5 years. Sodium was measured as 6.3 mg/L where the reportable limit was 20 mg/L.			

Question ID	DWMR1090001	Question Type	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.  Fluoride was last sampled on October 13, 2022 and is required to be reported every 5 years. Fluoride was measured as 0.56 mg/L where the limit was 1.5 mg/L.			

Question ID	DWMR1114001	Question Type	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.

Question ID	DWMR1045001	Question Type	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.			

Question ID	DWMR1060001	Question Type	Legislative
<b>Legislative Requirement(s):</b> SDWA   31   (1);			
<b>Question:</b> Did the operations and maintenance manual(s) meet the requirements of the Municipal Drinking Water Licence?			
<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.			

Question ID	DWMR1062001	Question Type	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   7-5;			
<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?			
<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.

Question ID	DWMR1071001	Question Type	BMP
<b>Legislative Requirement(s):</b> Not Applicable			
<b>Question:</b> Did the owner provide security measures to protect components of the drinking water system?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> The owner provided security measures to protect components of the drinking water system.  The wells and the building are locked at all times.			

Question ID	DWMR1073001	Question Type	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.			

Question ID	DWMR1074001	Question Type	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.			

Question ID	DWMR1075001	Question Type	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.  There are 2 operators that alternate operating the drinking water system.			

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.			

## Appendix A

### Stakeholder Appendix

# Key Reference and Guidance Material for Municipal Residential Drinking Water Systems

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

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

For more information on Ontario's drinking water visit [www.ontario.ca/drinkingwater](http://www.ontario.ca/drinkingwater) and email [drinking.water@ontario.ca](mailto:drinking.water@ontario.ca) to subscribe to drinking water news.



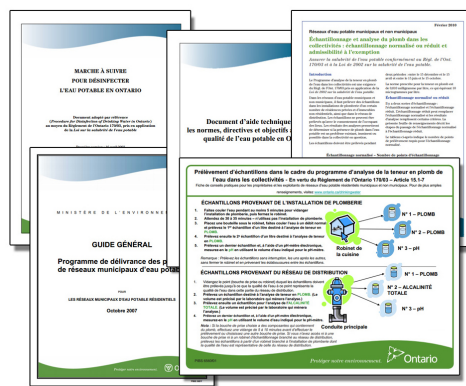
PUBLICATION TITLE	PUBLICATION NUMBER
Taking Care of Your Drinking Water: A Guide for Members of Municipal Councils	7889e01
FORMS: Drinking Water System Profile Information, Laboratory Services Notification, Adverse Test Result Notification Form	7419e, 5387e, 4444e
Procedure for Disinfection of Drinking 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](http://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](mailto: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](http://www.ontario.ca/eaupotable) ou envoyez un courriel à [drinking.water@ontario.ca](mailto: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

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## Appendix B

### Inspection Rating Record (IRR)

# 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:

**RISK = LIKELIHOOD × 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).

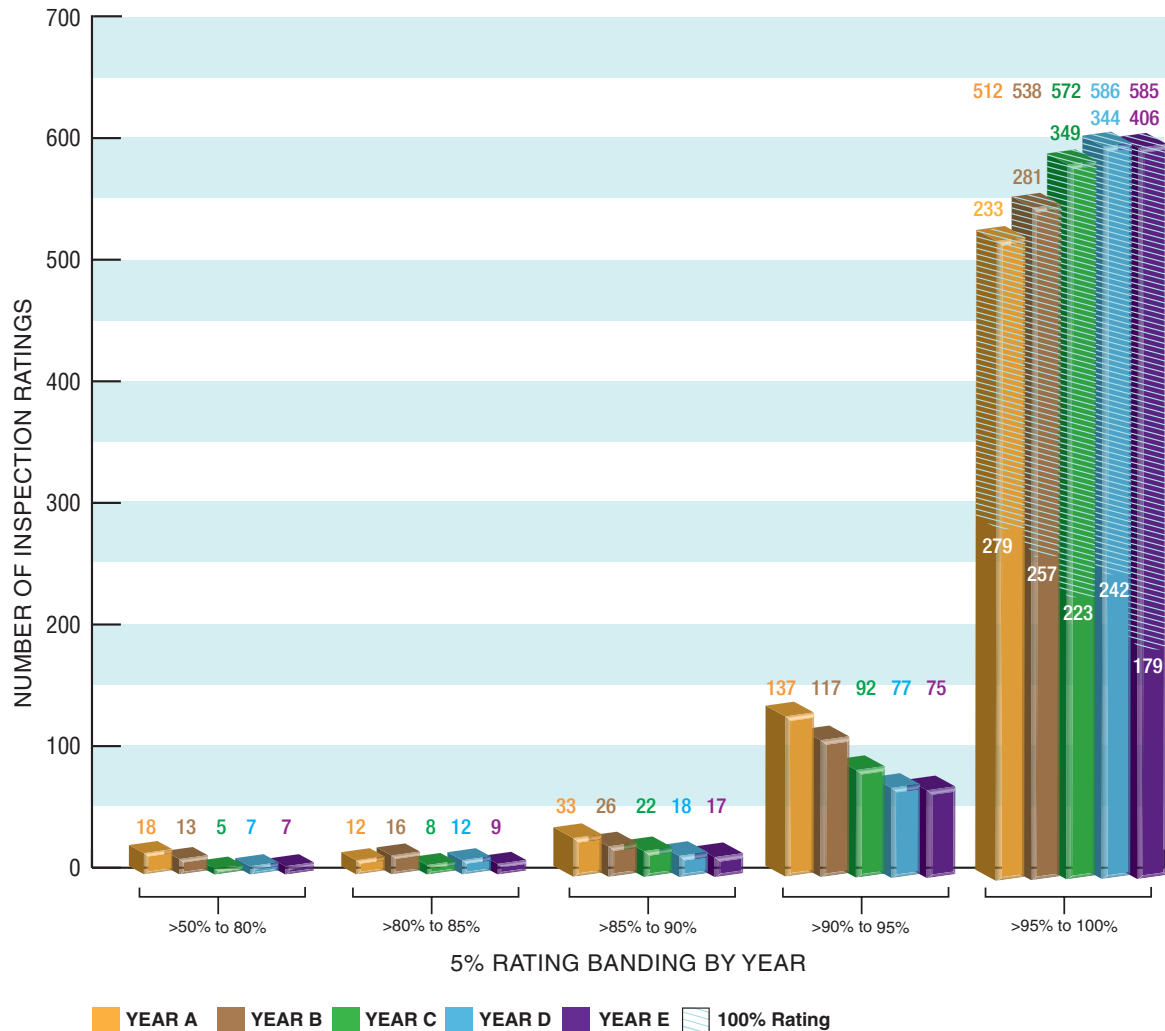
The risk ratings of all non-compliant answers are summed and divided by the sum of the risk ratings of all questions asked (maximum question rating). The resulting inspection risk rating (as a percentage) is subtracted from 100 per cent to arrive at the final inspection rating.

# 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)

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

**DWS Name:** MARSVILLE SUBDIVISION DRINKING WATER SYSTEM

**DWS Number:** 210002183

**DWS Owner:** TOWNSHIP OF EAST GARAFRAXA

**Municipal Location:** EAST GARAFRAXA

Regulation: O.REG. 170/03

**DWS Category:** DW Municipal Residential

**Type of Inspection:** Focused

**Compliance Assessment Start Date:** Jan-30-2025

**Ministry Office:** Guelph District Office

**Maximum Risk Rating: 423**

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	0/25
Source	0/14
Treatment Processes	0/189
Water Quality Monitoring	0/91
<b>Overall - Calculated</b>	<b>0/423</b>

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

**DWS Name:** MARSVILLE SUBDIVISION DRINKING WATER SYSTEM  
**DWS Number:** 210002183  
**DWS Owner Name:** TOWNSHIP OF EAST GARAFRAXA  
**Municipal Location:** EAST GARAFRAXA

**Regulation:** O.REG. 170/03  
**DWS Category:** DW Municipal Residential  
**Type of Inspection:** Focused  
**Compliance Assessment Start Date:** Jan-30-2025  
**Ministry Office:** Guelph District Office

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

Maximum Question Rating: 423

Inspection Risk Rating: 0.00%

FINAL INSPECTION RATING: 100.00%