



AMABEL-SAUBLE DRINKING WATER SYSTEM
628 D LINE, SOUTH BRUCE PENINSULA, ON, N0H 2G0
Inspection Report

System Number: 220007917
Entity: ONTARIO CLEAN WATER
AGENCY
THE CORPORATION OF THE
TOWN OF SOUTH BRUCE
PENINSULA
Inspection Start Date: 12/08/2022
Inspection End Date: 12/29/2022
Inspected By: Robert Graham
Badge #: 1667



(signature)

NON-COMPLIANCE/NON-CONFORMANCE ITEMS

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

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

INSPECTION DETAILS

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

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

Question ID	MRDW1001001	Question Type	Information
Question:			
What was the scope of this inspection?			
Legislative Requirement	Not Applicable		
Observation			
<p>The primary focus of this inspection is to confirm compliance with Ministry of the Environment, Conservation and Parks (MECP) legislation as well as evaluating conformance with ministry drinking water policies and guidelines during the inspection period. The ministry utilizes a comprehensive, multi-barrier approach in the inspection of water systems that focuses on the source, treatment, and distribution components as well as management practices.</p> <p>This drinking water system is subject to the legislative requirements of the Safe Drinking Water Act, 2002 (SDWA) and regulations made therein, including Ontario Regulation 170/03, "Drinking Water Systems" (O. Reg. 170/03). This inspection has been conducted pursuant to Section 81 of the SDWA.</p> <p>This inspection report does not suggest that all applicable legislation and regulations were evaluated. It remains the responsibility of the owner to ensure compliance with all applicable legislative and regulatory requirements.</p> <p>On December 8, 2022, Ministry of the Environment, Conservation and Parks (MECP) Provincial Officer Bob Graham conducted an announced focused inspection of the Amabel-Sauble Drinking Water System (DWS). The Amabel-Sauble DWS is a Large Municipal Residential DWS (serves a major residential development and serves more than 100 private residences) owned by the Town of South Bruce Peninsula (Owner) and operated by the Ontario Clean Water Agency (OCWA - Operating Authority - OA). Assistance with the inspection was provided by Leo-Paul Frigault, OCWA Senior Operations Manager, James Learn, OCWA Overall Responsible Operator (ORO), Karla Young, OCWA Process & Compliance Technician and Cole Hutchinson, OCWA Operator in Training. During the inspection review period, from November 26, 2021, the day following the previous inspection, to the date of inspection on December 8, 2022, there were no Adverse Water Quality Incidents (AWQIs) reported to the MECP Spills Action Centre (SAC).</p> <p>The Amabel-Sauble DWS consists of three (3) drilled wells (Wells PW1, PW2 and the Winburk well) which have steel well casings sealed with locked vermin proof well caps. Well</p>			

casings are extended at least 40 cm above ground and surface drainage does not collect or pond in the vicinity of the wells due to mounding around the well casings. All three wells supplying the Amabel-Sauble DWS are considered ground water under the direct influence of surface water (GUDI). Wells PW1 and PW2 are the primary water sources for the DWS. The Winburk well is used as a standby source for the DWS.

The current Municipal Drinking Water Licence (MDWL) No. 094-101, Issue No. 4 and Drinking Water Works Permit (DWWP) No. 094-201, Issue No. 5 were issued on March 6, 2020 for the Amabel-Sauble DWS.

Question ID	MRDW1000001	Question Type	Information
Question: Does this drinking water system provide primary disinfection?			
Legislative Requirement	Not Applicable		
Observation			
This Drinking Water System provides for both primary and secondary disinfection and distribution of water.			

Question ID	MRDW1018001	Question Type	Legislative
Question: Has the owner ensured that all equipment is installed in accordance with Schedule A and Schedule C of the Drinking Water Works Permit?			
Legislative Requirement	SDWA 31 (1);		
Observation			
The owner had ensured that all equipment was installed in accordance with Schedule A and Schedule C of the Drinking Water Works Permit.			
The equipment installed at the Amabel-Sauble DWS plant compares favourably to the equipment listed in the DWWP issued for the Amabel-Sauble DWS. The process flow diagram included in Schedule D of the Permit also appears to be accurate. All equipment described in the Permit appeared to be installed and operating on the date of this inspection.			
There were two (2) reported alterations undertaken during this inspection review period which required a Form 2 – Record of Modification or Replacement document to be prepared. The alterations included a new online chlorine analyzer and a new filter turbidity analyzer.			

Question ID	MRDW1021001	Question Type	Legislative
Question:			
Is the owner/operating authority able to demonstrate that, when required during the inspection period, Form 2 documents were prepared in accordance with their Drinking Water Works Permit?			
Legislative Requirement	SDWA 31 (1);		
Observation			
The owner/operating authority was in compliance with the requirement to prepare Form 2 documents as required by their Drinking Water Works Permit during the inspection period.			
The following Form 2 - Record of Minor Modifications or Replacements to the Drinking Water System were submitted for the DWS during the inspection time period:			
<ul style="list-style-type: none"> - The HF Scientific Turbidity Analyzer for filter effluent was replaced with a HACH TU5300 Turbidity Analyzer. 			

Question ID	MRDW1024001	Question Type	Legislative
Question:			
Do records confirm that the water treatment equipment which provides chlorination or chloramination for secondary disinfection purposes was operated as required?			
Legislative Requirement	SDWA O. Reg. 170/03 1-2 (2);		
Observation			
Records confirmed that the water treatment equipment which provides chlorination or chloramination for secondary disinfection purposes was operated so that at all times and all locations in the distribution system the chlorine residual was never less than 0.05 mg/l free or 0.25 mg/l combined.			
Following completion of the intended chlorine contact time for primary disinfection purposes, free available chlorine residual is maintained out and into the distribution system for secondary disinfection purposes to reduce the potential for microbial re-growth within the distribution system, and in accordance with section 1-2 of Schedule 1, O.Reg.170/03. During the inspection review time period, the free chlorine residual sample test results obtained/recorded by the OA in the distribution system exceeded the minimum distribution system chlorine residual regulatory limit of 0.05 mg/L.			

Question ID	MRDW1038001	Question Type	Legislative
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Question:	
Is continuous monitoring equipment that is being utilized to fulfill O. Reg. 170/03 requirements performing tests for the parameters with at least the minimum frequency specified in the Table in Schedule 6 of O. Reg. 170/03 and recording data with the prescribed format?	
Legislative Requirement	SDWA O. Reg. 170/03 6-5 (1)1-4;
Observation	
Continuous monitoring equipment that was being utilized to fulfill O. Reg. 170/03 requirements was performing tests for the parameters with at least the minimum frequency specified in the Table in Schedule 6 of O. Reg. 170/03 and recording data with the prescribed format.	

Question ID	MRDW1035001	Question Type	Legislative
Question:			
Are operators examining continuous monitoring test results and are they examining the results within 72 hours of the test?			
Legislative Requirement	SDWA O. Reg. 170/03 6-5 (1)1-4; SDWA O. Reg. 170/03 6-5 (1)5-10;		
Observation			
Operators were examining continuous monitoring test results and they were examining the results within 72 hours of the test.			
Operators print off a daily report for review and confirm report reviews by signing and dating the reports. All daily report reviews are available in a binder maintained on site. Additionally, Operators record the daily review in the facility logbook confirming that they have reviewed the DWS data.			

Question ID	MRDW1037001	Question Type	Legislative
Question:			
Are all continuous monitoring equipment utilized for sampling and testing required by O. Reg. 170/03, or MDWL or DWWP or order, equipped with alarms or shut-off mechanisms that satisfy the standards described in Schedule 6?			
Legislative Requirement	SDWA O. Reg. 170/03 6-5 (1)1-4; SDWA O. Reg. 170/03 6-5 (1)5-10; SDWA O. Reg. 170/03 6-5 (1.1);		
Observation			
All continuous monitoring equipment utilized for sampling and testing required by O. Reg. 170/03, or Municipal Drinking Water Licence or Drinking Water Works Permit or order, were			

equipped with alarms or shut-off mechanisms that satisfy the standards described in Schedule 6.

The water treatment plant is equipped with continuous analyzers and alarms for free chlorine and turbidity. The SCADA system low alarm set point for the treated water chlorine analyzer is set at 0.60 mg/L, which, if triggered, activates the trim chlorination system to increase the chlorine concentration. If the chlorine residual lowers to 0.20 mg/L the SCADA system low low alarm is activated, notifies the operator, and locks out the DWS ensuring the system meets CT requirements. The SCADA system turbidity analyzer high alarm set point downstream of the filters is set at 0.30 NTU, which, if triggered, notifies the operator. The SCADA system turbidity analyzer high high alarm set point is set at 0.60 NTU, which, if triggered, notifies the operator and locks out the well pumps ceasing water production and prevents any adverse conditions.

Question ID	MRDW1040000	Question Type	Legislative
Question:			
Are all continuous analysers calibrated, maintained, and operated, in accordance with the manufacturer's instructions or the regulation?			
Legislative Requirement	SDWA O. Reg. 170/03 6-5 (1)1-4; SDWA O. Reg. 170/03 6-5 (1)5-10;		
Observation			
All continuous analysers were calibrated, maintained, and operated, in accordance with the manufacturer's instructions or the regulation.			
Routine analyzer maintenance, accuracy verification checks and calibrations are conducted by the operator(s) which are recorded in facility log books and monthly process and compliance status reports. Annual analyzer accuracy verification checks and calibrations were performed by HACH Service Plus in April 2022. Annual flow meters accuracy verification checks and calibrations were performed by IndusControl Incorporated in June 2022.			

Question ID	MRDW1108001	Question Type	Legislative
Question:			
Where continuous monitoring equipment used for the monitoring of free chlorine residual, total chlorine residual, combined chlorine residual or turbidity, required by O. Reg. 170/03, an Order, MDWL, or DWWP issued under Part V, SDWA, has triggered an alarm or an automatic shut-off, did a qualified person respond in a timely manner and take appropriate actions?			
Legislative Requirement	SDWA O. Reg. 170/03 6-5 (1)1-4; SDWA O. Reg. 170/03 6-5 (1)5-10; SDWA O. Reg. 170/03 6-5 (1.1);		

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

Question ID	MRDW1033001	Question Type	Legislative
Question:			
Is the secondary disinfectant residual measured as required for the large municipal residential distribution system?			
Legislative Requirement	SDWA O. Reg. 170/03 7-2 (3); SDWA O. Reg. 170/03 7-2 (4);		
Observation			
The secondary disinfectant residual was measured as required for the large municipal residential distribution system.			
Subsections 7-2 (3) of Schedule 7, O.Reg.170/03 requires the Owner and OA of a large municipal residential system that provides secondary disinfection to ensure that at least seven distribution system samples are taken each week and tested immediately for free chlorine residual. Where secondary disinfection monitoring is not being done on a daily basis, Subsection 7-2(4) of Schedule 7. Reg.170/03 requires that at least four of the seven required tests be taken on one day of the week at least 48 hours after the last samples were taken the week previous; while the remaining three tests are required to be collected within the same week and at least 48 hours after the initial four. Records provided by OCWA and reviewed during the inspection indicate that the owner complied with these requirements.			

Question ID	MRDW1099001	Question Type	Information
Question:			
Do records show that all water sample results taken during the inspection review period did not exceed the values of tables 1, 2 and 3 of the Ontario Drinking Water Quality Standards (O. Reg. 169/03)?			
Legislative Requirement	Not Applicable		
Observation			
Records showed that all water sample results taken during the inspection review period did not exceed the values of tables 1, 2 and 3 of the Ontario Drinking Water Quality Standards (O. Reg. 169/03).			

Question ID	MRDW1081001	Question Type	Legislative
Question: For LMR systems, are all microbiological water quality monitoring requirements for distribution samples being met?			
Legislative Requirement	SDWA O. Reg. 170/03 10-2 (1); SDWA O. Reg. 170/03 10-2 (2); SDWA O. Reg. 170/03 10-2 (3);		
Observation			
All microbiological water quality monitoring requirements prescribed by legislation for distribution samples in a large municipal residential system were being met. Section 10-2 of Schedule 10, O. Reg. 170/03, requires the Owner of a drinking-water system and the operating authority for the system shall ensure that, if the system serves 100,000 people or less, at least eight distribution samples, plus one additional distribution sample for every 1,000 people served by the system, are taken every month, with at least one of the samples being taken in each week and tested for Escherichia coli and total coliforms, with at least 25 per cent of the samples required to be taken are tested for general bacteria population expressed as colony counts on a heterotrophic plate count (HPC). This requirement has been met.			

Question ID	MRDW1096001	Question Type	Legislative
Question: Do records confirm that chlorine residual tests are being conducted at the same time and at the same location that microbiological samples are obtained?			
Legislative Requirement	SDWA O. Reg. 170/03 6-3 (1);		
Observation			
Records confirmed that chlorine residual tests were being conducted at the same time and at the same location that microbiological samples were obtained.			

Question ID	MRDW1086001	Question Type	Legislative
Question: Are all haloacetic acid water quality monitoring requirements prescribed by legislation conducted within the required frequency and at the required location?			
Legislative Requirement	SDWA O. Reg. 170/03 13-6.1 (1); SDWA O. Reg. 170/03 13-6.1 (2); SDWA O. Reg. 170/03 13-6.1 (3); SDWA O. Reg. 170/03 13-6.1 (4); SDWA O. Reg. 170/03 13-6.1 (5); SDWA O. Reg. 170/03 13-6.1 (6);		
Observation			

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

Section 13-6.1 (1) of Schedule 13, O.Reg.170/03 requires the Owner and the Operating Authority to ensure that at least one distribution sample is taken every 3 months from a point in the drinking water system's distribution system that is connected to the drinking water system, that is likely to have an elevated potential for the formation of Haloacetic Acids (HAAs), and tested for HAAs. Section 6-1.1 of Schedule 6, O.Reg.170/03 requires that these samples be taken at least 60 days, and not more than 120 days, after a sample was taken for that purpose in the previous three month period. The standard for HAAs is expressed as a Running Annual Average (RAA), where the RAA is defined as the average for quarterly HAAs results for a DWS. HAAs will generally form at the beginning of the distribution system. Sampling for the inspection period occurred on January 4 (8.1 ug/L), April 4 (7.2 ug/L) and July 4 (<5.3 ug/L) and October 13 2022 (<5.3 ug/L). The inspection review period RAA concentration for HAAs in the Amabel-Sauble DWS is 6.47 ug/L. The Ontario Drinking Water Quality Standard is a RAA concentration of 80 ug/L.

Question ID	MRDW1087001	Question Type	Legislative
Question:			
Have all trihalomethane water quality monitoring requirements prescribed by legislation been conducted within the required frequency and at the required location?			
Legislative Requirement	SDWA O. Reg. 170/03 13-6 (1); SDWA O. Reg. 170/03 13-6 (2); SDWA O. Reg. 170/03 13-6 (3); SDWA O. Reg. 170/03 13-6 (4); SDWA O. Reg. 170/03 13-6 (5); SDWA O. Reg. 170/03 13-6 (6);		
Observation			
All trihalomethane water quality monitoring requirements prescribed by legislation were conducted within the required frequency and at the required location.			
Section 13-6 of Schedule 13, O.Reg.170/03 requires the Owner and the Operating Authority to ensure that at least one distribution sample is taken every 3 months from a point in the DWS distribution system, or in plumbing that is connected to the DWS, that is likely to have an elevated potential for the formation of Trihalomethanes (THMs), and tested for THMs. Section 6-1.1 of Schedule 6, O.Reg.170/03 requires that these samples be taken at least 60 days, and not more than 120 days, after a sample was taken for that purpose in the previous three month period. Sampling for the inspection period occurred on January 4 (31 ug/L), April 4 (30 ug/L), July 4 (27 ug/L) and October 3, 2022 (41 ug/L). The inspection review period RAA concentration for THMs in the Amabel-Sauble DWS is 32.25 ug/L. The Ontario Drinking Water Quality Standard is a RAA concentration of 100 ug/L.			

Question ID	MRDW1094001	Question Type	Legislative
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Question:	
Are all water quality monitoring requirements imposed by the MDWL and DWWP being met?	
Legislative Requirement	SDWA 31 (1);
Observation	
All water quality monitoring requirements imposed by the MDWL or DWWP issued under Part V of the SDWA were being met.	
Wastewater from the backwash process for the iron and manganese filter system is discharged to a wastewater holding tank where suspended solids are permitted to settle. MDWL Schedule C, Table 3 identifies that the annual average concentration of Backwash Wastewater Facility Suspended Solids discharged from the holding tank shall not exceed 25 mg/L and the annual average concentration of total chlorine residual shall not exceed 0.02 mg/L. Table 7 identifies that Backwash Wastewater Suspended Solids and total chlorine residual parameters shall be comprised of manual composite samples taken monthly at the point of discharge from the filter backwash tank. During the inspection review period this requirement has been met. The reported annual average concentration of Backwash Wastewater Suspended Solids during the inspection time period did not exceed 25 mg/L and the annual average concentration of total chlorine residual did not exceed 0.02 mg/L.	

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

Question ID	MRDW1060000	Question Type	Legislative
Question:			
Do the operations and maintenance manuals meet the requirements of the DWWP and MDWL issued under Part V of the SDWA?			
Legislative Requirement	SDWA 31 (1);		
Observation			

The operations and maintenance manuals met the requirements of the Drinking Water Works Permit and Municipal Drinking Water Licence issued under Part V of the SDWA.

Question ID	MRDW1061001	Question Type	Legislative
Question: Are logbooks properly maintained and contain the required information?			
Legislative Requirement	SDWA O. Reg. 128/04 27 (1); SDWA O. Reg. 128/04 27 (2); SDWA O. Reg. 128/04 27 (3); SDWA O. Reg. 128/04 27 (4); SDWA O. Reg. 128/04 27 (5); SDWA O. Reg. 128/04 27 (6); SDWA O. Reg. 128/04 27 (7);		
Observation Logbooks were properly maintained and contained the required information.			

Question ID	MRDW1062001	Question Type	Legislative
Question: Do records or other record keeping mechanisms confirm that operational testing not performed by continuous monitoring equipment is being done by a certified operator, water quality analyst, or person who meets the requirements of O. Reg. 170/03 7-5?			
Legislative Requirement	SDWA O. Reg. 170/03 7-5;		
Observation Records or other record keeping mechanisms confirmed that operational testing not performed by continuous monitoring equipment was being done by a certified operator, water quality analyst, or person who suffices the requirements of O. Reg. 170/03 7-5.			

Question ID	MRDW1071000	Question Type	BMP
Question: Has the owner provided security measures to protect components of the drinking water system?			
Legislative Requirement	Not Applicable		
Observation The owner had provided security measures to protect components of the drinking water system. Perimeter fencing with a lockable access gate surrounds the pump house and treatment			

facility which has lockable doors and is equipped with an intruder alarm and signage restricting access to the site. Wells PW1 and PW2 are locked and have perimeter fencing and lockable access gates restricting access to the wells. The Winburk well, although not fenced, is locked. At the time of inspection there was no reported unauthorized access, vandalism and/or cyber security issues impacting the DWS.

Question ID	MRDW1073001	Question Type	Legislative
Question: Has the overall responsible operator been designated for all subsystems which comprise the drinking water system?			
Legislative Requirement	SDWA O. Reg. 128/04 23 (1);		
Observation			
The overall responsible operator had been designated for each subsystem.			
The ORO for the Amabel-Sauble DWS is James Learn, with back-up being provided by Andrew Bellamy.			

Question ID	MRDW1074001	Question Type	Legislative
Question: Have operators-in-charge been designated for all subsystems for which comprise the drinking water system?			
Legislative Requirement	SDWA O. Reg. 128/04 25 (1);		
Observation			
Operators-in-charge had been designated for all subsystems which comprise the drinking water system.			

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

Operator certification is posted at the water treatment plant where the drinking water subsystems are managed. Operator certification was verified, and all operators were in possession of valid certificates.

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

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

Question ID	MRDW1009001	Question Type	Legislative
Question: Are measures in place to protect the groundwater and/or GUDI source in accordance with any MDWL and DWWP issued under Part V of the SDWA?			
Legislative Requirement	SDWA 31 (1);		
Observation Measures were in place to protect the groundwater and/or GUDI source in accordance with the Municipal Drinking Water Licence and Drinking Water Works Permit issued under Part V of the SDWA. Well inspection and maintenance procedures for the entire well structure including all above and below grade components are required by MDWL Schedule B (Section 16.2.8, 16.2.9 and 16.2.10) for the Amabel-Sauble DWS. Well inspection and maintenance procedures are included in Appendix F of the Operations and Maintenance Manual.			

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Question ID	MRDW1014001	Question Type	Legislative
Question:			
Is there sufficient monitoring of flow as required by the MDWL or DWWP issued under Part V of the SDWA?			
Legislative Requirement	SDWA 31 (1);		
Observation			
There was sufficient monitoring of flow as required by the Municipal Drinking Water Licence or Drinking Water Works Permit issued under Part V of the SDWA.			
MDWL Schedule C Section 2.0 identifies that continuous flow measurement and recording shall be undertaken for water that flows into the treatment subsystem and from the treatment subsystem to the distribution system. Three (3) raw water flow meters are installed and flow rates and volumes are recorded for each well. Two (2) treated water flow meters are installed and flow rates and volumes are recorded for treated water entering the DWS distribution system and the distribution system dedicated solely to the Amabel-Sauble Community School, which is located immediately west and north of the DWS treatment building.			

Question ID	MRDW1016001	Question Type	Legislative
Question:			
Is the owner in compliance with the conditions associated with maximum flow rate or the rated capacity conditions in the MDWL issued under Part V of the SDWA?			
Legislative Requirement	SDWA 31 (1);		
Observation			
The owner was in compliance with the conditions associated with maximum flow rate or the rated capacity conditions in the Municipal Drinking Water Licence issued under Part V of the SDWA.			
MDWL Schedule C, Table 1 identifies that the maximum daily volume of treated water that flows from the treatment subsystem to the distribution system of the Amabel-Sauble DWS is 687 cubic meters/day. Permit To Take Water Number 8444-AKMQCN (PTTW) was issued to the Owner on May 5, 2017. Table A of the PTTW identifies that the holder of the PTTW shall only take water as follows:			
* Well PW1: 477 L/min and 687,000 L/day;			
*Well PW2: 477 L/min and 687,000 L/day;			
*Well Winburk : 364 L/min and 262,080 L/day max hours of taking 12 hours per day.			
Note PTTW Section 3.3 identifies that:			

Notwithstanding Table A, the maximum total taking from any combination of Well PW1 and/or Well PW2 shall not exceed 687,000 litres per day. This maximum rate of withdrawal shall not occur on more than 120 days per year. On all other days of the year, the maximum total taking from any combination of Well PW1 and/or Well PW2 shall not exceed 535,680 litres per day. Based upon the records provided, during the inspection review time period, the maximum daily volume of treated water that flows from the treatment subsystem to the distribution system was not exceeded.

Question ID	MRDW1023001	Question Type	Legislative
Question:			
Do records indicate that the treatment equipment was operated in a manner that achieved the design capabilities required under Ontario Regulation 170/03 or a DWWP and/or MDWL issued under Part V of the SDWA at all times that water was being supplied to consumers?			
Legislative Requirement	SDWA O. Reg. 170/03 1-2 (2);		
Observation			
Records indicated that the treatment equipment was operated in a manner that achieved the design capabilities required under O. Reg. 170/03 or a Drinking Water Works Permit and/or Municipal Drinking Water Licence issued under Part V of the SDWA at all times that water was being supplied to consumers.			
Treatment for a GUDI water source is required to achieve 2-log removal or inactivation of <i>Cryptosporidium</i> oocysts, a 3-log removal or inactivation of <i>Giardia</i> cysts and a 4-log removal or inactivation of viruses. These requirements are reportedly met by UV disinfection followed by chlorination using sodium hypochlorite for both primary and secondary disinfection purposes. According to Schedule E of the MDWL, the UV disinfection process is credited with 3 log <i>Giardia</i> cyst removal, 2 log <i>Cryptosporidium</i> oocyst removal and 2 log virus removal credits, with the UV disinfection process being fully operational and the applicable log removal/inactivation credit assignment criteria being met. The Chlorination disinfection process is credited with 2+ Virus log removal/inactivation credits, if the chlorination process meets MDWL Schedule E chlorination treatment criteria. Records reviewed indicate that the Amabel-Sauble Water Treatment Plant was operated to achieve the necessary CT requirements and performance criteria for primary disinfection purposes during the inspection time period.			

Question ID	MRDW1026001	Question Type	Legislative
Question:			
If primary disinfection equipment that does not use chlorination or chloramination is provided, is the equipment equipped with alarms or shut-off mechanisms that satisfy the standards described in Section 1-6 (1) of Schedule 1 of Ontario Regulation 170/03?			

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

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

Question ID	MRDW1032001	Question Type	Legislative
Question:			
If the drinking water system obtains water from a surface water source and provides filtration, is continuous monitoring of each filter effluent line being performed for turbidity?			
Legislative Requirement	SDWA O. Reg. 170/03 7-3 (2);		
Observation			
Continuous monitoring of each filter effluent line was being performed for turbidity.			
For large municipal residential systems that use surface water or GUDI as the source and are required to provide filtration, Reg.170/03, Schedule 7 section 7(3)(2) requires continuous monitoring equipment of each filter effluent line. The Amabel-Sauble DWS has two (2) pressure filtration vessels (one duty and one standby) each rated at 8.2 L/s containing approximately 300 mm deep layer of anthracite and 600 mm deep layer of catalytic media used in conjunction with chlorine oxidation which is used for iron and manganese oxidation and one (1) cartridge filter housing with 3 filters rated at 10 micron or smaller (1 micron filters installed) for pretreatment of the ultraviolet disinfection system. Continuous monitoring of turbidity is measured via one analyzer located downstream of the cartridge filters and prior to the Trojan Ultra Violet (UV) treatment units.			

Question ID	MRDW1039000	Question Type	Legislative
Question: If primary disinfection equipment that does not use chlorination or chloramination is provided, has the owner and operating authority ensured that the equipment has a recording device that continuously records the performance of the disinfection equipment?			
Legislative Requirement	SDWA O. Reg. 170/03 1-6 (3);		
Observation			
The owner and operating authority ensured that the primary disinfection equipment had a recording device that continuously recorded the performance of the disinfection equipment.			

Question ID	MRDW1109001	Question Type	Legislative
Question: If the system uses equipment for primary disinfection other than chlorination or chloramination and the equipment has malfunctioned, lost power or ceased to provide the appropriate level of disinfection, causing an alarm or an automatic shut-off, did a qualified person respond in a timely manner and take appropriate actions?			
Legislative Requirement	SDWA O. Reg. 170/03 1-6 (1);		
Observation			
When failure(s) of primary disinfection equipment, other than that used for chlorination or chloramination, caused an alarm to sound or an automatic shut-off to occur, a certified operator responded in a timely manner and took appropriate actions.			

Question ID	MRDW1042001	Question Type	Legislative
Question: If UV disinfection is used were duty sensors and reference UV sensors checked and calibrated as per the requirements of Schedule E of the MDWL or at a frequency as otherwise recommended by the UV equipment manufacturer?			
Legislative Requirement	SDWA 31 (1);		
Observation			
All UV sensors were checked and calibrated as required.			
Records provided by OCWA identify that duty UV sensors were checked monthly against a reference UV sensor, with the calibration ratio (intensity measured with the duty sensor/intensity measured with the reference UV sensor) documented to be less than or equal to 1.2, in compliance with Schedule E of the MDWL. Reference UV sensors shall be checked against a Master Reference Assembly at a minimum frequency of once every			

three years or on a more frequent basis depending upon the recommendations of the equipment manufacturer.

Question ID	MRDW1083001	Question Type	Legislative
Question: For LMR systems, are all microbiological water quality monitoring requirements for treated samples being met?			
Legislative Requirement	SDWA O. Reg. 170/03 10-3;		
Observation			
All microbiological water quality monitoring requirements prescribed by legislation for treated samples were being met.			
Section 10-3 of Schedule 10, O.Reg.170/03 requires the Owner and the Operating Authority ensure samples are collected at least once every week from the system's treated water at the point of entry into the distribution system. The samples collected are required to be tested for E.Coli and total coliform,and general bacteria populations expressed as colony counts on a heterotrophic plate count. This requirement has been met.			

Question ID	MRDW1084001	Question Type	Legislative
Question: Are all inorganic water quality monitoring requirements prescribed by legislation conducted within the required frequency?			
Legislative Requirement	SDWA O. Reg. 170/03 13-2;		
Observation			
All inorganic water quality monitoring requirements prescribed by legislation were conducted within the required frequency.			
Sampling and testing for inorganic parameters has been conducted for the drinking water system in accordance with Schedule 13-2 of Ontario Regulation 170/03. The regulation requires that samples are to be collected every 12 months and tested for each parameter listed in Schedule 23; this requirement has been met. The most recent samples were collected on January 4, 2022 and there were no concerns identified from the results.			

Question ID	MRDW1088000	Question Type	Legislative
Question: Are all nitrate/nitrite water quality monitoring requirements prescribed by legislation			

conducted within the required frequency for the DWS?	
Legislative Requirement	SDWA O. Reg. 170/03 13-7;
Observation	
<p>All nitrate/nitrite water quality monitoring requirements prescribed by legislation were conducted within the required frequency for the DWS.</p> <p>Section 13-7 of Schedule 13, O.Reg.170/03 requires the Owner and Operating authority to ensure that at least one water sample is taken every three months and tested for nitrates and nitrites. Section 6-1.1 of Schedule 6, O.Reg.170/03 requires that these samples be taken at least 60 days, and not more than 120 days, after a sample was taken for that purpose in the previous three month period. The Owner complied with these requirements when they conducted the required monitoring on January 4, April 4, July 4 and October 3, 2022. There were no concerns identified from the results.</p>	

Question ID	MRDW1089000	Question Type	Legislative
Question:			
Are all sodium water quality monitoring requirements prescribed by legislation conducted within the required frequency?			
Legislative Requirement	SDWA O. Reg. 170/03 13-8;		
Observation			
<p>All sodium water quality monitoring requirements prescribed by legislation were conducted within the required frequency.</p> <p>Section 13-8 of Schedule 13, O.Reg.170/03 requires that the Owner and the Operating Authority ensure that a treated water sample is taken every 60 months and is tested for sodium. The last sodium sample occurred on January 6, 2020 with a result of 14.3 mg\L. The next sodium sample is due in January 2025.</p>			

Question ID	MRDW1090000	Question Type	Legislative
Question:			
Where fluoridation is not practiced, are all fluoride water quality monitoring requirements prescribed by legislation conducted within the required frequency?			
Legislative Requirement	SDWA O. Reg. 170/03 13-9;		
Observation			
All fluoride water quality monitoring requirements prescribed by legislation were conducted within the required frequency.			

Section 13-9 of Schedule 13, O.Reg.170/03 requires the Owner and the Operating Authority to ensure that at least one water sample is taken every 60 months and tested for Fluoride. The last Fluoride sample occurred on January 6, 2020 with a result of 1.35 mg/L. The next Fluoride sample is due in January 2025.

Question ID	MRDW1085001	Question Type	Legislative
Question:			
Are all organic water quality monitoring requirements prescribed by legislation conducted within the required frequency?			
Legislative Requirement	SDWA O. Reg. 170/03 13-4 (1); SDWA O. Reg. 170/03 13-4 (2); SDWA O. Reg. 170/03 13-4 (3);		
Observation			
All organic water quality monitoring requirements prescribed by legislation were conducted within the required frequency.			
Sampling and testing for organic parameters has been conducted for the drinking water system in accordance with Schedule 13-4 of Ontario Regulation 170/03. The regulation requires that samples are to be collected every 12 months and tested for each parameter listed in Schedule 24; this requirement has been met. The most recent samples were collected on January 4, 2022 and there were no concerns identified from the results.			



**Ministry of the Environment, Conservation and Parks
Drinking Water Inspection Report**

APPENDIX B

REFERENCE GUIDE FOR STAKEHOLDERS

Key Reference and Guidance Material for Municipal Residential Drinking Water Systems

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

To access these materials online click on their titles in the table below or use your web browser to search for their titles. Contact the Ministry if you need assistance or have questions at 1-866-793-2588 or waterforms@ontario.ca.

For more information on Ontario's drinking water visit www.ontario.ca/drinkingwater



PUBLICATION TITLE	PUBLICATION NUMBER
FORMS: Drinking Water System Profile Information 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 si vous avez des questions ou besoin d'aide.



Pour plus de renseignements sur l'eau potable en Ontario, consultez le site www.ontario.ca/eaupotable

TITRE DE LA PUBLICATION	NUMÉRO DE PUBLICATION
Renseignements sur le profil du réseau d'eau potable	012-2149F
Avis de demande de services de laboratoire	012-2148F
Avis de résultats d'analyse insatisfaisants et de règlement des problèmes	012-4444F
Prendre soin de votre eau potable - Un guide destiné aux membres des conseils municipaux	Site Web
Marche à suivre pour désinfecter l'eau 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

Ministry of the Environment, Conservation and Parks - Inspection Summary Rating Record (Reporting Year - 2022-2023)

DWS Name: AMABEL-SAUBLE DRINKING WATER SYSTEM
DWS Number: 220007917
DWS Owner: THE CORPORATION OF THE TOWN OF SOUTH BRUCE PENINSULA
Municipal Location: SOUTH BRUCE PENINSULA

Regulation: O.REG. 170/03
DWS Category: DW Municipal Residential
Type of Inspection: Focused
Inspection Date: Dec-8-2022
Ministry Office: Owen Sound District Office

Maximum Risk Rating: 518

Inspection Module	Non Compliance Rating
Treatment Processes	0 / 39
Operations Manuals	0 / 28
Water Quality Monitoring	0 / 24
Other Inspection Findings	0 / 427
Overall - Calculated	0 / 518

Inspection Risk Rating: 0.00%

Final Inspection Rating: 100.00%

Ministry of the Environment, Conservation and Parks - Detailed Inspection Rating Record (Reporting Year - 2022-2023)

DWS Name: AMABEL-SAUBLE DRINKING WATER SYSTEM
DWS Number: 220007917
DWS Owner Name: THE CORPORATION OF THE TOWN OF SOUTH BRUCE PENINSULA
Municipal Location: SOUTH BRUCE PENINSULA

Regulation: O.REG. 170/03
DWS Category: DW Municipal Residential
Type of Inspection: Focused
Inspection Date: Dec-8-2022
Ministry Office: Owen Sound District Office

All legislative requirements were met. No detailed rating scores.

Maximum Question Rating: 518

Inspection Risk Rating: 0.00%

FINAL INSPECTION RATING: 100.00%