

**Ministry of the Environment,
Conservation and Parks**

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**Ministère de l'Environnement, de la Protection de
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July 25, 2022

Nicky Kunkel
Clerk

The Corporation of the Village of Burk's Falls
172 Ontario Street
Burk's Falls, Ontario, POA 1CO

Dear Ms. Kunkel:

Re: Inspection Report for the Burk's Falls Drinking Water System

Attached is the Drinking Water System Inspection Report resulting from an announced inspection conducted at the above-mentioned facility by Lori Duquette of the North Bay office of the Ministry of the Environment, Conservation, and Parks, on June 22, 2022.

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

Attached in Appendix A is a document entitled "DWS Components Information" and in Appendix B is a document titled "Key Reference and Guidance Material for Municipal Residential Drinking Water Systems". Note: Ministry audit sample results will also be sent separately as they were not available when the report was finalized.

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 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 www.ontario.ca/drinkingwater

Copies of the inspection report have been sent to OCWA as the operating authority for the treatment system, and to municipal public works staff. Copies have also been sent to the North Bay Parry Sound District Health Unit, and the Ministry of Natural Resources and Forestry in accordance with the Ministry's Municipal Drinking Water Inspection Protocol.

If you have any questions concerning the inspection report or you wish to arrange a meeting to discuss the findings of this report. please do not hesitate to contact me at (705) 845-1917.

Yours truly,



Lori Duquette
Water Inspector/Provincial Officer
Ministry of the Environment, Conservation and Parks
Drinking Water and Environmental Compliance Division
North Bay Area Office

Cc: Don Michaud, Operator with Overall Responsibility, OCWA
Josh Gravelle, Process and Compliance Technician, OCWA
Paul Dyrda, Operations Manager, OCWA
Derek Smith, Operator, Village of Burk's Falls
Sherry Ilersich, Water Compliance Supervisor, Safe Drinking Water Branch – Timmins/North Bay, MECP
Robert A'Muhong, Program Manager, North Bay - Parry Sound and District Health Unit
Mitch Baldwin, Ministry of Natural Resources, District Manager of North Bay District Office



BURK'S FALLS DRINKING WATER SYSTEM (WELLS 2 & 3)
HIGH ST AND GEORGE ST, BURK'S FALLS, ON, P0A 1C0
Inspection Report

System Number: 220000567
Entity: MUNICIPALITY OF THE VILLAGE
OF BURKS FALLS
ONTARIO CLEAN WATER
AGENCY

Inspection Start Date: 06/22/2022
Inspection End Date: 07/14/2022
Inspected By: Lori Duquette
Badge #: 812



(signature)

NON-COMPLIANCE/NON-CONFORMANCE ITEMS

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

Question Group: Other Inspection Findings

Question ID	MRDW1116001	Question Type	BMP
Question: Were the inspection questions sufficient to address other identified best practice issues?			
Legislative Requirement	Not Applicable		
Observation/Corrective Action(s)			
<p>The following issues were also noted during the inspection:</p> <p>At the time of the inspection, it was indicated that the ORO for the system visits the community weekly to discuss the operation of the DWS, however, facility logs did not include information of the visit. It was indicated that an email summary of information discussed is sent weekly to both the OCWA PCT and the municipal operator.</p> <p>It is recommended that going forward the emails summarizing the weekly ORO visits are kept as part of the logs for the DWS.</p> <p>Additionally, it is also recommended that if the ORO visits any of the drinking water system components during a weekly visit that the logs note the site visit.</p>			

INSPECTION DETAILS

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

Ministry Program: DRINKING WATER | **Regulated Activity:**

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>Ministry of the Environment, Conservation and Parks Water Inspector Lori Duquette was accompanied during the inspection of the Burk's Falls Drinking Water System (DWS) by Joshua Gravelle, Process Compliance Technician (PCT) with Ontario Clean Water Agency (OCWA) and municipal operators Derek Smith, Trevor Hall, and Chris Cowling.</p> <p>The drinking-water system inspection included a physical assessment of the treatment works on June 22, 2022, and a document review for the period from June 30, 2021, to June 22, 2022. This period is referred to as the "inspection period" in this report. All DWS components were visited on June 22, 2022, as part of this inspection, including;</p> <ul style="list-style-type: none"> - Well 3 pumphouse and treatment building - Well 2 pumphouse - Water tower 			

Question ID	MRDW1000001	Question Type	Information
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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.			

Question ID	MRDW1025001	Question Type	Legislative
Question: Were all parts of the drinking water system that came in contact with drinking water (added, modified, replaced or extended) disinfected in accordance with a procedure listed in Schedule B of the Drinking Water Works Permit?			
Legislative Requirement	SDWA 31 (1);		
Observation			
All parts of the drinking water system were disinfected in accordance with a procedure listed in Schedule B of the Drinking Water Works Permit.			

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

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

Question ID	MRDW1038001	Question Type	Legislative
Question:			
Is continuous monitoring equipment that is being utilized to fulfill O. Reg. 170/03 requirements performing tests for the parameters with at least the minimum frequency specified in the Table in Schedule 6 of O. Reg. 170/03 and recording data with the prescribed format?			
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.			
At the time of the inspection, it was indicated that the free chlorine analyzer tests the residual every second and sends the information instantaneously to the circular chart and OCWA Wonderware program. OCWA also uploads information from Wonderware to WISKI every 2 minutes.			

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.			
OCWA operators review online continuous monitoring data remotely on weekdays.			
Municipal operators also review monitoring trends daily using the circular chart recorder in the well house at Well 3.			

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. At the time of the inspection, it was indicated that the monitoring system is equipped with a low free chlorine residual alarm which triggers both a call out and well pump shutdown at 1.0 mg/L. In the event of an alarm event, a call-out system cycles through a list of operators and municipal staff until the call is answered.			

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.			

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.			
<p>Subsection 7-2(3) of Schedule 7 to O. Reg. 170/03 required the owner and operating authority for the system to ensure at least seven (7) water samples were collected weekly from locations in the distribution system and tested for free chlorine residual. Additionally, the required sampling must be conducted in accordance with the rules prescribed by subsection 7-2(4) of Schedule 7 of O. Reg. 170/03. The rules stipulate the following:</p> <ul style="list-style-type: none"> - At least four (4) of the samples must be taken on one day of the week, at least 48 hours after the last sample was taken in the previous week. - At least three (3) of the samples must be taken on a second day of the week, at least 48 hours after the last sample taken on the day noted above. - When more than one sample is taken on the same day of the week under the paragraphs noted above, each sample must be taken from a different location. <p>For the duration of this inspection period the above noted requirements were met. For the period from June 2021 until April 2022, daily free chlorine residual monitoring was conducted by the operators typically testing at the public works and at a water fountain during the warm months with end of line residuals checked during weekly bacteriological sampling. As of March 2022, secondary disinfection monitoring switched from daily to the option permitted under subsection 7-2(4) (i.e. four (4) free chlorine residual samples on one day then three (3) free chlorine residual samples on a second day).</p>			

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.			
Based on an estimated population of fewer than 1000, section 10-2 of Schedule 10 to O. Reg. 170/03 requires the owner and operating authority for the system to ensure at least 8 water samples are collected monthly from distribution system sites and tested for E. coli and total coliforms, with 25% of those samples tested for general bacteria population expressed as colony counts on a heterotrophic plate count (HPC).			
Throughout the inspection period, a minimum of three distribution samples were collected weekly. All samples are submitted to an accredited laboratory for total coliform and E. coli analysis. One of the distribution samples is also submitted for heterotrophic plate count (HPC) analysis each week, meeting the requirement to ensure 25% of distribution system samples are analyzed for general bacteria population expressed as colony counts on a heterotrophic plate count.			
Note: At the time of the inspection, it was indicated that the population of Burk's Falls is 950.			

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 of Schedule 13 of O. Reg. 170/03 requires the owner and operating authority for the system to ensure that at least one distribution sample is taken in each calendar quarter, from a point in the drinking water system's distribution system, or plumbing that is connected to the drinking water system, that is likely to have an elevated potential for the formation of haloacetic acids (HAAs)			
HAA samples were collected from the distribution system on July 19, 2021, October 26, 2021, January 24, 2022 and April 20, 2022. The HAA running annual average (RAA) in April 2022 was 11 ug/L.			
All samples were collected at 140 Dimsdale Street.			

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 of O. Reg. 170/03 requires the owner and operating authority for the system to ensure that at least one distribution sample is taken in each calendar quarter, from a point in the drinking water system's distribution system, or plumbing that is connected to the drinking water system, that is likely to have an elevated potential for the formation of trihalomethanes (THMs).

THM samples were collected from the distribution system on July 19, 2021, October 26, 2021, January 24, 2022 and April 20, 2022. The THM RAA in April 2022 was 25 ug/L.

All samples were collected at 567 High Street.

Question ID	MRDW1101001	Question Type	Legislative
<p>Question: For LMR Systems, have corrective actions (as per Schedule 17 of O. Reg. 170/03) been taken to address adverse conditions, including any other steps as directed by the Medical Officer of Health?</p>			
<p>Legislative Requirement</p>	<p>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;</p>		
<p>Observation</p>			
<p>Corrective actions (as per Schedule 17), including any other steps that were directed by the Medical Officer of Health, had been taken to address adverse conditions.</p> <p>In August 2021, an incident occurred where a water-based graphite lubricant used at a local manufacturing company got into the plumbing of the building. It was later determined that the material then entered the distribution system adjacent to the facility when the drinking water system water pressure was overtaken by the pressure in the plumbing at the facility.</p> <p>The incident was reported as an adverse water quality incident (AWQI) on August 16, 2021, and corrective actions required by MECP and the health unit were followed. Monitoring and flushing in the distribution system was conducted and monitoring confirmed that free chlorine residual in the distribution system in that area was not impacted.</p> <p>As part of the actions taken by the municipality the manufacturing company replaced the</p>			

backflow preventer which had failed and are required to conduct annual inspections of the backflow prevention device and provide a copy of the invoice or report to the municipality.

The health unit and MECP were satisfied with actions taken and monitoring data collected from the distribution system. The incident was considered resolved on December 16, 2021.

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

Question ID	MRDW1113000	Question Type	Legislative
Question: Have all changes to the system registration information been provided to the Ministry within ten (10) days of the change?			
Legislative Requirement	SDWA O. Reg. 170/03 10.1 (3);		
Observation			
All changes to the system registration information were provided within ten (10) days of the change.			

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	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.			
Current security measures provided at the Burk's Falls DWS included the following:			
<ul style="list-style-type: none"> - locked doors on all buildings; - intruder alarm installed at well # 3 pumphouse, and - frequent visits by an operator to well # 3 pumphouse. 			

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.

At the time of the inspection, it was indicated that Don Michaud, OCWA operator is the overall responsible operator (ORO) for the Burk's Falls DWS.

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.			

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	MRDW1116001	Question Type	BMP
Question: Were the inspection questions sufficient to address other identified best practice issues?			

Legislative Requirement	Not Applicable
Observation	
<p>The following issues were also noted during the inspection:</p> <p>At the time of the inspection, it was indicated that the ORO for the system visits the community weekly to discuss the operation of the DWS, however, facility logs did not include information of the visit. It was indicated that an email summary of information discussed is sent weekly to both the OCWA PCT and the municipal operator.</p> <p>It is recommended that going forward the emails summarizing the weekly ORO visits are kept as part of the logs for the DWS.</p> <p>Additionally, it is also recommended that if the ORO visits any of the drinking water system components during a weekly visit that the logs note the site visit.</p>	

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			
<p>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.</p> <p>During the previous inspection conducted on June 30, 2021, it was noted that attempts to seal and grade the area immediately adjacent to the well # 3 casing with bentonite had resulted in a surface that is deeply cracked. It was recommended that the owner continue efforts to seal the cracks and grade area immediately adjacent to the well casing. On November 22, 2021, the municipality confirmed that concrete was installed around well #3 and has filled all the cracks.</p>			

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.

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.			
Section 2.0 of Schedule C of Municipal Drinking Water Licence (MDWL) Number 256-101 issue No. 3 requires the owner to install a sufficient number of flow measuring devices to permit the continuous measurement and recording of:			
<ol style="list-style-type: none"> 1. the flow rate and daily volume of water conveyed from the treatment system to the distribution system; and 2. the flow rate and daily volume of water conveyed into the treatment system. 			
There is a magnetic flow meter that monitors the flow rate and volume of water taken from Well 3 and supplied to the distribution system. This same flow meter also monitors any flows from well # 2, as long as well # 3 is not running.			
This is deemed to be acceptable so long as well # 2 would only be used to supply water to the system if well # 3 was not supplying water to the system.			
If well # 2 were ever to be reinstated as a production well, an acceptable flow measuring device capable of measuring and recording instantaneous and total flow would need to be installed to meet the requirements of the Municipal Drinking Water Licence.			

Question ID	MRDW1016001	Question Type	Legislative
Question:			
Is the owner in compliance with the conditions associated with maximum flow rate or the rated capacity conditions in the MDWL issued under Part V of the SDWA?			
Legislative Requirement	SDWA 31 (1);		
Observation			
The owner was in compliance with the conditions associated with maximum flow rate or the rated capacity conditions in the Municipal Drinking Water Licence issued under Part V of			

the SDWA.

The MDWL identifies the rated capacity for the Burk's Falls Drinking Water System as 972 m³/day of total flow into the distribution system on any given calendar day.

A review of plant records for this inspection period indicated that the rated capacity was not exceeded. The maximum daily flow into the distribution system during the inspection period occurred in April 2022 and was 727.7 m³, which is 75% of the rated capacity.

The 2021 average daily flow is reported in the annual report was reported as 384 m³/day, which is 39.5% of the rated capacity.

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.			
In accordance with Section 1-2(2)3 of Schedule 1 of O. Reg. 170/03, the owner of a drinking water system that obtains water from a raw water supply that is ground water shall ensure water treatment equipment capable of achieving primary disinfection in accordance with the Ministry's Procedure for Disinfection of Drinking Water in Ontario is operated in a manner that achieves the required design capabilities.			
The Procedure for Disinfection of Drinking Water in Ontario states, "Where the drinking-water system obtains water from a raw water supply which is ground water, the treatment process must, as a minimum, consist of disinfection and must be credited with achieving an overall performance that provides, at a minimum 2-log (99%) removal or inactivation of viruses before the water is delivered to the first consumer."			
The Burk's Falls Drinking Water System satisfies the above criteria using free chlorine and CT disinfection to achieve primary disinfection. For groundwater sources with a pH between 6 and 9 and a temperature of 0.5 degrees C (worst case scenario), the Procedure for Disinfection of Drinking Water in Ontario requires a CT value of 6 mg.min/L for primary disinfection. The Burk's Falls treatment system is designed to achieve 15 minutes of			

chlorine contact time at a flow of 675 L/min (maximum flow). Therefore, the minimum chlorine residual required under the worst-case conditions is 0.4 mg/L (6 mg.min/L ÷ 15 min).

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.			
Subsection 7-2(1) of Schedule 7 to O.Reg.170/03 requires that the owner of a drinking water system that provides chlorination for primary disinfection shall ensure that sampling and testing for free chlorine residual is carried out by continuous monitoring equipment in the treatment process at or near a location where the intended contact time has just been completed in accordance with the Ministry's Procedure for Disinfection of Drinking Water in Ontario.			
In the Burk's Falls DWS, a treated water sample line draws water from the end of the contact pipe, back into the well house for well # 3. Free chlorine residual is continuously monitored using the treated water sample line.			

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 to O. Reg. 170/03 requires the owner and operating authority for the system to ensure at least one sample of treated water is collected weekly and tested			

for E. coli, total coliform and HPC.

A review of the microbiological sample data indicated that the owner and operating authority have complied with the treated water sampling requirements of Schedule 10 of O. Reg. 170/03 during the inspection period.

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.			
Schedule 13-2 of O. Reg. 170/03 requires the owner and operating authority for the system to ensure at least one sample of treated water is collected every 36 months (+/- 60 days) and tested for every parameter set out in Schedule 23 (Inorganics).			
Treated water sampling for Schedule 23 (Inorganic) parameters was conducted on February 3, 2015, January 24, 2018, and January 19, 2021. The next set of samples are due in January 2024.			

Question ID	MRDW1088000	Question Type	Legislative
Question:			
Are all nitrate/nitrite water quality monitoring requirements prescribed by legislation conducted within the required frequency for the DWS?			
Legislative Requirement	SDWA O. Reg. 170/03 13-7;		
Observation			
All nitrate/nitrite water quality monitoring requirements prescribed by legislation were conducted within the required frequency for the DWS.			
Section 13-7 of Schedule 13 of O. Reg. 170/03 requires the owner and the operating authority for the system to ensure that at least one water sample is collected every three months from the point at which water enters the drinking water systems' distribution system.			
For this inspection period, nitrate/nitrite samples of treated water were collected on July 19,			

2021, October 26, 2021, January 24, 2022 and April 20, 2022.

Question ID	MRDW1089000	Question Type	Legislative
Question:			
Are all sodium water quality monitoring requirements prescribed by legislation conducted within the required frequency?			
Legislative Requirement	SDWA O. Reg. 170/03 13-8;		
Observation			
All sodium water quality monitoring requirements prescribed by legislation were conducted within the required frequency.			
Schedule 13-8 of O. Reg. 170/03 requires the owner and operating authority for the system to ensure at least one treated water sample is collected every 60 months (+/- 90 days) and tested for sodium.			
Sampling of treated water for sodium was last conducted on January 15, 2019 (21.8 mg/L), with a resample collected on January 22, 2019 (25 mg/L).			
There has been a long-term drinking water advisory in place for the Burk's Falls Drinking Water System because sodium concentrations are above 20 mg/L. The municipality advises users by posting notices at public buildings, the public fountain, and in an annual newsletter to residents.			

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 to O. Reg. 170/03 requires the owner and operating authority for the system to ensure at least one treated water sample is collected every 60 months (+/- 90 days) and tested for fluoride.			
Treated water sampling for fluoride analysis was conducted on March 9, 2011, February 3, 2015, and January 21, 2020.			

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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.			
Section 13-4 of Schedule 13 to O. Reg. 170/03 requires the owner and operating authority for the system to ensure at least one sample of treated water is collected every 36 months (+/- 60 days) and tested for every parameter set out in Schedule 24 (Organics).			
Treated water sampling for Schedule 24 (Organic) parameters was conducted on February 3, 2015, January 24, 2018, and January 19, 2021.			

APPENDIX A

Components Description

DWS Component Information Report for 220000567

as of 24-JUL-2022

Drinking Water System Profile Information

DWS #	220000567
MOE Assigned Name	Burk'S Falls Drinking Water System
Category	LMRS
Regulation	O.REG 170/03
DWS Type	Well Supply
Source Type	Ground Water
Address	
Region	Northern Region
District	North Bay Area Office
Municipality	Burk'S Falls
Public Health Unit	North Bay Parry Sound District Health Unit

Other -- Other

LWIS Component Name	LWIS Component Type	LWIS Component Sub-Type	Component Address	Comments
Distribution	Other	Other		The Burk's Falls water distribution system is comprised mostly of a combination of 4", 6" and 8" cast iron pipe, as well as 4" and 6" PVC piping. Service connections are generally 3/4", 1" and 1 1/2" plastic, copper and galvanized lines. The drinking water system serves a population of approximately 848 residents (source: 2008 Municipal Directory).

Other -- Reservoir

LWIS Component Name	LWIS Component Type	LWIS Component Sub-Type	Component Address	Comments
Distribution (Water Inspection)	Other	Reservoir		A steel water tower (standpipe) with a storage capacity of 1588 m3 is located near the corner of High St. and Main St. at 409 High St. This water tower was commissioned on May 6, 2017.

Source -- Ground

LWIS Component Name	LWIS Component Type	LWIS Component Sub-Type	Component Address	Comments
Well 2 Raw (Standby)	Source	Ground		<p>From the Water Well Record for Well 2:</p> <ul style="list-style-type: none"> • it was completed on September 6, 1968 • drilled in overburden to a depth of 62 feet below ground surface (BGS) • casing <ul style="list-style-type: none"> - ten-inch I.D. steel casing to a depth of 49 feet BGS - ten-inch stainless steel well screen from 49 to 59 feet BGS • recommended pumping rate of 110 GPM at 40 feet BGS. <p>On April 6, 2009, Well 2 was equipped with the old 10 HP submersible pump from Well 3.</p>
Well 3 Raw	Source	Ground		<p>From the Water Well Record for Well 3:</p> <ul style="list-style-type: none"> • completed on August 30, 1995 • drilled in to a depth of 70.3 feet below ground surface (BGS) • Red granite was encountered at around 68 feet BGS • casing <ul style="list-style-type: none"> - eight-inch steel casing from top of well to 57 feet BGS - eight-inch stainless steel screen from 58 to 68 feet BGS • bentonite seal installed from 0 to 40 feet BGS. • recommended pump rate of 150 GPM with pump set at 52.5 feet BGS

DWS Component Information Report for 220000567

as of 24-JUL-2022

LWIS Component Name	LWIS Component Type	LWIS Component Sub-Type	Component Address	Comments
				Well 3 is housed within the drinking water treatment facility located on the George Street road allowance. A new 15 HP submersible pump was installed on May 22, 2018.

Treated Water Poe -- Pumphouse

LWIS Component Name	LWIS Component Type	LWIS Component Sub-Type	Component Address	Comments
Well 3 Treated	Treated Water Poe	Pumphouse		<p>The treatment processes for the Burk's Falls Drinking Water System takes place at Well 3. Water is pumped from either Well 2 (emergency only) or Well 3 and is injected with 12% sodium hypochlorite.</p> <p>The well house at Well 3 is equipped with one sodium hypochlorite tank with spill containment and two metering pumps. The injection point is at the discharge header. There is a static mixer located on the discharge header downstream of the sodium hypochlorite injection point. Oversized watermain consisting of 5.5 m of 300 mm diameter pipe and 36 m of 600 mm diameter pipe for chlorine contact is located in the George Street Right-of-Way.</p>

APPENDIX B

Key Reference and Guidance Material for Municipal Residential Drinking Water Systems

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