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July 16, 2018

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

RE: Burk's Falls Well Supply  
Inspection Number: 1-I2DYB  
Attn: Nicky Kunkel, Clerk

Attached is the Drinking Water System Inspection Report resulting from an announced, focused inspection conducted at the above mentioned facility by Scott Hanselman of the North Bay office of the Ministry of the Environment, Conservation, and Parks, on May 30, 2018.

Attached in Appendix A is the 2018-2019 Inspection Rating Record pertaining to this inspection report. Rating records are generated and attached with each annual inspection report.

Attached in Appendix B is a document titled "Key Reference and Guidance Material for Municipal Residential Drinking Water Systems".

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 and District Health Unit, and the Ministry of Natural Resources and Forestry in accordance with the Ministry's Municipal Drinking Water Inspection Protocol.

*Please note that the Ministry of the Environment and Climate Change's name changed to the Ministry of the Environment, Conservation and Parks. However, this name change will take some time to be reflected in all ministry materials and systems.*

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) 497-6937 or toll free at 1(800) 609-5553.

Yours truly,

A handwritten signature in black ink, appearing to read "Scott Hanselman", written over a horizontal line.

Scott Hanselman  
Water Inspector/Provincial Officer  
Ministry of the Environment and Climate Change  
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  
Derek Smith, Operator, Village of Burk's Falls  
Trevor Hall, Operator, Village of Burk's Falls  
Robert A'Muhong, Program Manager, North Bay - Parry Sound and District Health Unit  
Amanda Vincent, Water Resources Coordinator, Ministry of Natural Resources and Forestry





**Ministry of the Environment and Climate Change**

**BURK'S FALLS DRINKING WATER SYSTEM  
Inspection Report**

<b>Site Number:</b>	220000567
<b>Inspection Number:</b>	1-12DYB
<b>Date of Inspection:</b>	May 30, 2018
<b>Inspected By:</b>	Scott Hanselman



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## **APPENDICES**

APPENDIX **A** – Inspection Rating Record

APPENDIX **B** – Key Reference and Guidance Material for Municipal Residential  
Drinking Water Systems

**OWNER INFORMATION:**

<b>Company Name:</b>	BURK'S FALLS, THE CORPORATION OF THE VILLAGE OF	<b>Unit Identifier:</b>	
<b>Street Number:</b>	172		
<b>Street Name:</b>	ONTARIO St		
<b>City:</b>	BURK'S FALLS		
<b>Province:</b>	ON	<b>Postal Code:</b>	P0A 1C0

**CONTACT INFORMATION**

<b>Type:</b>	Owner	<b>Name:</b>	Nicky Kunkel
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<b>Email:</b>	clerk@burksfalls.ca		
<b>Title:</b>	Clerk/Treasurer		
<b>Type:</b>	Operating Authority	<b>Name:</b>	Don Michaud
<b>Phone:</b>	(705) 492-9385	<b>Fax:</b>	(705) 752-5965
<b>Email:</b>	dmichaud@ocwa.com		
<b>Title:</b>	Operator with Overall Responsibility, OCWA		
<b>Type:</b>	Operator	<b>Name:</b>	Derek Smith
<b>Phone:</b>	(705) 382-3138	<b>Fax:</b>	(705) 382-2273
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<b>Title:</b>	Operator, Village of Burk's Falls		
<b>Type:</b>	Operator	<b>Name:</b>	Trevor Hall
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<b>Title:</b>	Operator, Village of Burk's Falls		
<b>Type:</b>	Operating Authority	<b>Name:</b>	Paul Dyrda
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<b>Type:</b>	Operating Authority	<b>Name:</b>	Josh Gravelle
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<b>Title:</b>	Process and Compliance Technician, OCWA North Eastern Ontario Hub		
<b>Type:</b>	Health Unit	<b>Name:</b>	Robert A-Muhong
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<b>Type:</b>	MNRF	<b>Name:</b>	Amanda Vincent
<b>Phone:</b>	(705) 646-5531	<b>Fax:</b>	
<b>Email:</b>	amanda.vincent@ontario.ca		
<b>Title:</b>	IRM Technical Specialist		

**INSPECTION DETAILS:**

**Site Name:** BURK'S FALLS DRINKING WATER SYSTEM  
**Site Address:** HIGH (WELL #2), GEORGE (WELL #3) ST BURKS FALLS P0A 1C0  
**County/District:** Burk'S Falls  
**MOECC District/Area Office:** North Bay Area Office  
**Health Unit:** NORTH BAY PARRY SOUND DISTRICT HEALTH UNIT  
**Conservation Authority:**  
**MNR Office:** Parry Sound Regional Office  
**Category:** Large Municipal Residential  
**Site Number:** 220000567  
**Inspection Type:** Announced  
**Inspection Number:** 1-I2DYB  
**Date of Inspection:** May 30, 2018  
**Date of Previous Inspection:** Nov 28, 2017

**COMPONENTS DESCRIPTION**

**Site (Name):** MOE DWS Mapping  
**Type:** DWS Mapping Point  
**Sub Type:**

**Site (Name):** WELL 3 RAW  
**Type:** Source  
**Sub Type:** Ground

**Comments:**

From the Water Well Record for Well 3:

- 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
  - 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

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.

**Site (Name):** WELL 2 RAW (STANDBY)  
**Type:** Source  
**Sub Type:** Ground

**Comments:**

From the Water Well Record for Well 2:

- it was completed on September 6, 1968
- drilled in overburden to a depth of 62 feet below ground surface (BGS)
- casing
  - 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.



On April 6, 2009, Well 2 was equipped with the old 10 HP submersible pump from Well 3.

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**Site (Name):** WELL 3 TREATED

**Type:** Treated Water POE

**Sub Type:** Pumphouse

**Comments:**

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.

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 100 mm diameter pipe and 36 m of 600 mm diameter pipe for chlorine contact is located in the George Street Right-of-Way.

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**Site (Name):** DISTRIBUTION

**Type:** Other

**Sub Type:** Other

**Comments:**

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).

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**Site (Name):** DISTRIBUTION (WATER INSPECTION)

**Type:** Other

**Sub Type:** Reservoir

**Comments:**

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.

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## INSPECTION SUMMARY:

### Introduction

- **The primary focus of this inspection is to confirm compliance with Ministry of the Environment and Climate Change (MOECC) 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.**

**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.**

This announced, detailed inspection by Provincial Officer Scott Hanselman commenced on May 30, 2018, and covers the period from November 28, 2017 (date of the previous MOECC inspection) to May 30, 2018.

Representing the Village of Burk's Falls on May 30, 2018 were municipal operators Derek Smith and Trevor Hall. Representing the Ontario Clean Water Agency (OCWA) was Don Michaud, Operator with Overall Responsibility.

OCWA is the operating authority and provides the Operator with Overall Responsibility for the Burk's Falls Drinking Water System. However, day to day operations are primarily performed by municipal operators.

### Source

- **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.**

WELL 3 (the primary water source)

- Well 3 is located within a roofed well house that has a concrete floor. Also, the well is vented with a screened vent. As a result the risk of surface water or other foreign materials entering the well is low.

- As noted in the previous inspection, the concrete floor of the well house was constructed with a rectangular opening which is filled with gravel, and the wellhead is located within this opening. Therefore, the top part of the wells annular seal appears to have been removed (a violation of s.20 of O. Reg. 903), or was never installed (a violation of s.14 of O. Reg. 903). Since there is no other floor drain in the well house, drainage from a leak inside the well house will be directed to the well head. The owner is in the process of installing a floor drain to direct water away from the well head and sealing the opening in the floor of the well house.

- The owner has established a down-hole well inspection frequency of 10 years. Down-hole camera inspections of Well 3 have been completed on March 30, 2009 and May 14, 2018 by International Water Supply Ltd. (IWS). In conjunction with the 2018 inspection, the casing and screen were wire-brushed, then inspected again, as recommended. The resulting report was not yet available at the time of the inspection. However, images provided by IWS indicate the screen to be in good condition.

WELL 2 (the emergency/standby well)

- WELL 2 is located within a roofed well house that has a concrete floor. Also, the well is vented with a screened

### Source

vent. As a result the risk of surface water or other foreign materials entering the well is low.

- The owner has established a down-hole well inspection frequency of 10 years. The last down-hole camera inspection of Well 2 was completed on March 30, 2009 by IWS. The resulting "Report of Inspections and Upgrades to Drinking Water System Wells No. 2 & 3", dated June 12, 2009, found the wells to be in good structural condition. However, it could not be verified if all joints in the casing were sealed because not all casing joints were visible due to moderate to heavy iron build up on casing of both wells.

It is important to observe the integrity of the casing joints during a well inspection. With the next down-hole inspection planned for 2019, the owner shall make plans to ensure any build-up is removed from the inside of the well casing so that the integrity of the casing joints can be assessed.

It should be noted that the report by IWS also recommended rehabilitation of both wells to attempt to restore the wells' performance, including a combination of mechanical and chemical methods. Further, that the wells "should be wire brushed and pumped to remove the deposits observed in the video."

\*Please note that the work described in both items above requires the services of an appropriately licensed well technician.

- **The owner was maintaining the municipal wells not being used as a raw water supply in a manner to prevent the entry of surface water and other foreign materials.**

Well 2 is maintained for use as an emergency/standby well.

- **Trends in source water quality were being monitored.**

### Permit To Take Water

- **The owner was in compliance with all conditions of the PTTW.**

Well 3

PTTW No. 3685-A9SQM9 limits the maximum water taking from Well #3 to 840 m<sup>3</sup>/day and 585 L/min.

Information provided at the time of the inspection indicated that the maximum flow day for Well #3 was 621 m<sup>3</sup> which occurred on April 19, 2018. The maximum instantaneous flow was 583 L/minute, which occurred on \*February 15TH and February 17th, 2018.

\*It should be noted that there were issues with measurement and recording of flow beginning on February 15, 2018, upon the installation of a new treated water flow meter. The cause of erratic flow readings could not immediately be determined. However, upon the failure and replacement of the submersible pump in Well 3 in May 2018, flow readings stabilized, suggesting the issue may have been related to the former submersible well pump.

Well 2

PTTW No. 3685-A9SQM9 limits the maximum water takings from Well 2 to 517 m<sup>3</sup>/day and 360 L/min.

Information provided at the time of the inspection indicated that the maximum flow day for Well #2 was 482 m<sup>3</sup> which occurred on May 21, 2018. The maximum instantaneous flow was \*484 L/minute, which occurred on May 1, 2018.

\*While the maximum instantaneous flow rate for May 1, 2018 is in excess of what is permitted in the PTTW, it occurred upon during the initiation of Well 2 and operators throttled the flow to a permitted flow rate within

### Permit To Take Water

approximately six minutes in accordance with the standard operating procedure for bringing Well 2 into service. No further action is required.

Section 3.3 of the PTTW stipulates that water only be taken from Well 2 in cases of emergency and shall be used as a back-up supply to Well 3.

Well 2 was required for water production from May 1, 2018 to June 5, 2018 as a result of the failure of Well 3.

### Capacity Assessment

- **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 Licence Number 256-101 requires the owner to install a sufficient number of flow measuring devices to permit the continuous measurement and recording of:

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.

- **The flow measuring devices were calibrated or verified in accordance with the requirements of the Municipal Drinking Water Licence issued under Part V of the SDWA.**

The flow meter for Well 3 is checked and calibrated once every year in accordance with section 3.2 of Schedule C of the Municipal Drinking Water Licence. The last treated water flow meter calibration was performed on August 14, 2017.

A new, factory-calibrated, treated water flow meter was installed on February 15, 2018. However, there were issues with erratic flow readings upon installation, the cause of which could not immediately be determined. However, upon the failure and replacement of the submersible pump in Well 3 in May 2018, flow readings stabilized, suggesting the issue may have been related to the former submersible well pump.

- **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.**

Licence Number 256-101 identifies the rated capacity for the Burk's Falls Drinking Water System as 972 m<sup>3</sup>/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. According to information provided by the operating authority, the maximum daily flow into the distribution system during the inspection period was 621 m<sup>3</sup> on April 19, 2018, which is 64% of the rated capacity.

The 2017 average daily flow is reported in the 2017 summary report as 382 m<sup>3</sup>/day.

- **Appropriate records of flows and any capacity exceedances were made in accordance with the Municipal Drinking Water Licence issued under Part V of the SDWA.**

## Capacity Assessment

### Treatment Processes

- **The owner had ensured that all equipment was installed in accordance with Schedule A and Schedule C of the Drinking Water Works Permit.**

- **The owner had evidence that all required Director Notifications under Condition 2.4 of Schedule B of the Drinking Water Works Permit were made during the inspection period.**

Since the inspection, on June 6, 2018, the operating authority submitted a Director Notification for the replacement of the 15 HP submersible well pump capable of 454 L/min.

- **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.**

Form 2 documents were prepared;

- On March 28, 2018, for the replacement of 3" flow meter piping with 4" flow meter piping, and
- On May 2, 2018, for the replacement of the well pump for Well 3.

- **Records indicated that the treatment equipment was operated in a manner that achieved the design capabilities required under Ontario Regulation 170/03 or a Drinking Water Works Permit and/or Municipal Drinking Water Licence issued under Part V of the SDWA at all times that water was being supplied to consumers.**

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 ( $6 \text{ mg.min/L} \div 15 \text{ min}$ ).

\*On February 16, 2018, the operating authority and MOECC agreed to increase the minimum required free chlorine residual from 0.4 mg/L to 0.85 mg/L due to the lack of flow measurement, which lasted until May 1, 2018.

On May 15, 2018, while relying on the back-up well supply (Well 2), improperly disinfected (unchlorinated) water was directed to the water tower for approximately 12 minutes. After back-flushing the pipe between the well house and the water tower, it was anticipated that the unchlorinated water was flushed from the system and did not reach the water tower. This was supported by free chlorine residual readings taken during back-flushing. The incident was reported to the MOECC Spills Action Centre and the health unit as AWQI #139319.

- **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.**

### Treatment Processes

- The owner had evidence indicating that all chemicals and materials that come in contact with water within the drinking water system met the AWWA and ANSI standards in accordance with the Municipal Drinking Water Licence and Drinking Water Works Permit issued under Part V of the SDWA.
- Up-to-date plans for the drinking-water system were kept in a place, or made available in such a manner, that they could be readily viewed by all persons responsible for all or part of the operation of the drinking water system in accordance with the Drinking Water Works Permit and Municipal Drinking Water Licence issued under Part V of the SDWA.

### Treatment Process Monitoring

- 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.
- Operators were aware of the operational criteria necessary to achieve primary disinfection within the drinking water system.
- The secondary disinfectant residual was measured as required for the distribution system.

Operators test free chlorine residual daily in the distribution system at the Village Shop. End-of-line residuals are checked during weekly bacteriological sampling. During warmer months, free chlorine residual is also tested daily at a public water fountain that is only operational during that time.

- Operators were examining continuous monitoring test results and they were examining the results within 72 hours of the test.

Municipal operators review continuous monitoring test results daily and record is made of this check.

Furthermore, OCWA operators review continuous monitoring data remotely on weekdays.

- Samples for chlorine residual analysis were tested using an acceptable portable device.
- 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 monitoring system is equipped with a low free chlorine residual alarm which is activated at 0.9 mg/L, with continuous primary disinfection assured at free chlorine residuals of 0.4 mg/L or greater according to the standard operating procedure. 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.

Furthermore, the control system is programmed so that the well pump shuts down at a free chlorine residual below 1.0 mg/L in water entering the distribution system.

\*On February 16, 2018, the operating authority and MOECC agreed to increase the minimum required free chlorine residual from 0.4 mg/L to 0.85 mg/L due to flow measurement, which lasted until May 1, 2018.

- 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.

### Treatment Process Monitoring

- **All continuous analysers were calibrated, maintained, and operated, in accordance with the manufacturer's instructions or the regulation.**

The continuous free chlorine residual analyzer at the Burk's Falls WTP is a Dulcometer D1C. The manufacturer's instructions do not specify a calibration frequency, therefore, the owner and operating authority must calibrate this analyzer as often as necessary to ensure the analyzer is accurate to the specifications prescribed in Schedule 6-5 (10) of O. Reg.170/03.

Operational staff conducted daily comparative tests using their pocket colorimeter and made adjustments to the continuous analyzer when the difference was greater than 0.05 mg/L for two or three consecutive days. The pocket colorimeters are factory calibrated annually (last completed on November 7, 2017).

### Distribution System

- **There is a backflow prevention program, policy and/or bylaw in place.**

The owner requires a water and sewer developer agreement on all new connections. The agreement contains a condition that the "Works" include a backflow preventer.

Backflow prevention has also been installed at the arena, laundromat, hospital, and Lofthouse Brass.

- **The owner had a program or maintained a schedule for routine cleanout, inspection and maintenance of reservoirs and elevated storage tanks within the distribution system.**

The owner indicated the inside of the water tower, commissioned on May 6, 2017, will be inspected every five years.

- **Existing parts of the distribution system that are taken out of service for inspection, repair or other activities that may lead to contamination, and all new parts of the distribution system that come in contact with drinking water, were disinfected in accordance with Schedule B, Condition 2.3 of the Drinking Water Works Permit, or an equivalent procedure (i.e. the Watermain Disinfection Procedure).**

Work in the distribution system is tracked using a Distribution Repair and Maintenance Form provided by the operating authority. The requirements of the Watermain Disinfection Procedure have been incorporated into the form.

- **The owner had implemented a program for the flushing of watermains as per industry standards.**

Directional flushing of the watermains is completed annually in the fall.

- **Records confirmed that disinfectant residuals were routinely checked at the extremities and "dead ends" of the distribution system.**

Operators test free chlorine residual daily in the distribution system at the Village Shop. End-of-line residuals are checked during weekly bacteriological sampling. During warmer months, free chlorine residual is also tested daily at a public water fountain that is only operational during that time.

- **A program for inspecting and exercising valves did not exist.**

Operators indicated there is no program in place for inspecting and exercising valves, but were aware of a number of inoperable valves in the distribution system.

Please refer to the "SUMMARY OF RECOMMENDATIONS AND BEST PRACTICE ISSUES" section of this inspection report.

### Distribution System

- **There was a program in place for inspecting and operating hydrants.**

Hydrants are inspected and operated each fall in conjunction with the flushing program.

- **There was a by-law or policy in place limiting access to hydrants.**

Operators indicated there is a policy in place that, apart from the fire department, only a municipal operator is permitted to provide a connection to a municipal fire hydrant.

- **The owner was able to maintain proper pressures in the distribution system and pressure was monitored to alert the operator of conditions which may lead to loss of pressure below the value under which the system is designed to operate.**

System pressures are maintained by water tower levels, which are continuously monitored and alarmed.

Static pressure readings are measured at fire hydrants each fall during flushing.

In the event of a fire, the fire department activates a fire-fighting booster pump. A second booster pump will then activate automatically upon system pressure reaching a low pressure setpoint.

### Operations Manuals

- **Operators and maintenance personnel had ready access to operations and maintenance manuals.**
- **The operations and maintenance manuals contained plans, drawings and process descriptions sufficient for the safe and efficient operation of the system.**
- **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.**

### Logbooks

- **Logbooks were properly maintained and contained the required information.**
- **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.**
- **For every required operational test and every required sample, a record was made of the date, time, location, name of the person conducting the test and result of the test.**
- **The operator-in-charge ensured that records were maintained of all adjustments made to the processes within his or her responsibility.**
- **Logs or other record keeping mechanisms were available for at least five (5) years.**

### Contingency/Emergency Planning

- **Spill containment was provided for process chemicals and/or standby power generator fuel.**
- **Clean-up equipment and materials were in place for the clean up of spills.**



### Contingency/Emergency Planning

- **Standby power generators were tested under normal load conditions.**

The generator is tested monthly under normal load conditions.

### Security

- **All storage facilities were completely covered and secure.**
- **Air vents and overflows associated with reservoirs and elevated storage structures were equipped with screens.**  
The air vent for the water tower is screened. The overflow for the water tower has a duckbill check valve.
- **The owner had provided security measures to protect components of the drinking water system.**

### Consumer Relations

- **The owner and/or operating authority undertook efforts to promote water conservation and reduce water losses in their system.**

The owner has implemented a lawn-watering bylaw to restrict lawn-watering to every other day.

In past years, the owner delivered a Canadian Mortgage and Housing Corporation (CHMC) publication titled, Household Guide to Water Efficiency, to each residence to educate the public on using water efficiently and to promote water conservation. The guide shows how to test for and repair leaks, make the most efficient use of water when doing daily chores, and plan residential landscapes with water efficiency in mind. The owner should consider repeating this effort and it has been a number of years since last carried out.

Other than water that is taken from fire hydrants and from the fire hall, authorized water use is fully metered. The owner should calculate the difference between flows entering the distribution system and the volume of authorized water use (through water metering) to determine if there is a need to identify and reduce sources of apparent water loss.

### Certification and Training

- **The overall responsible operator had been designated for each subsystem.**  
Don Michaud, OCWA, is designated as the overall responsible operator for the drinking water system and he is adequately licensed to do so.
- **Operators in charge had been designated for all subsystems which comprised the drinking-water system.**  
There are three drinking water operators, two of whom act as an Operator-in-Charge. The third operator is an Operator-in-Training and is, therefore, not permitted to act as Operator-in-Charge.
- **All activities that were undertaken by uncertified persons in the DW subsystems were overseen by persons having the prescribed qualifications.**
- **All operators possessed the required certification.**
- **Only certified operators made adjustments to the treatment equipment.**

### Certification and Training

- **An adequately licenced operator was designated to act in place of the overall responsible operator when the overall responsible operator was unable to act.**

On February 16, 2018, back-up overall responsible operator, Darren Aljoe, responded to flow meter issues at the well house.

### Water Quality Monitoring

- **All microbiological water quality monitoring requirements for raw water samples were being met.**

Section 10-4 of Schedule 10 of O. Reg. 170/03 requires the owner of a drinking water system and the operating authority for the system to ensure that a water sample is taken at least once every week from the drinking water system's raw water, before any treatment is applied to the water, and that the sample is tested for,  
(a) Escherichia coli; and  
(b) total coliforms.

A review of the microbiological sample data indicated that the owner and operating authority have complied with the raw water sampling requirements.

It should be noted that Well#2 is used only as an emergency back-up source and weekly sampling of Well 2 is only required by O. Reg. 170/03 if the well is placed in service, as was the case from May 1, 2018 to June 5, 2018 as a result of the failure of Well 3. Records indicate Well 2 was sampled weekly during this time.

For the remainder of the inspection period, the owner and operating authority continued to sample Well 2 on a monthly basis in accordance with guidance from the North Bay Parry Sound District Health Unit.

- **All microbiological water quality monitoring requirements for distribution samples 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 review 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.

- **All microbiological water quality monitoring requirements 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 coliforms and HPC.

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

- **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

### Water Quality Monitoring

Schedule 23 (Inorganics).

Records reviewed indicate samples for Schedule 23 (Inorganic) parameters were collected on February 18, 2009, February 22, 2012, February 3, 2015, and January 24, 2018.

- **All organic water quality monitoring requirements prescribed by legislation were not 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).

Records reviewed indicate samples for Schedule 24 (Organic) parameters were collected on February 18, 2009, February 22, 2012, February 3, 2015, and January 24, 2018.

However, during sampling on January 24, 2018, two vials that were provided by the lab for Schedule 24 parameters in treated water were instead used to sample THMs in the distribution system. This resulted in eight required organic parameters being missed. This issue had not been previously identified and it is now beyond 36 months + 60 days since samples were last sampled and tested for the following parameters;

- Benzene
- Carbon tetrachloride
- 1,2-Dichlorobenzene
- 1,4-Dichlorobenzene
- Monochlorobenzene
- Tetrachloroethylene (perchloroethylene)
- Trichloroethylene
- Vinyl Chloride

This is a violation of section 13-4 of Schedule 13 to O. Reg. 170/03.

It should also be noted that the operating authority has indicated that;

- the labels on the vials in question indicated 'THM' rather than 'Schedule 24', and
- the laboratory has indicated the vials will be labelled to indicate they are for Schedule 24 parameters in the future.

Please refer to the "NON-COMPLIANCE WITH REGULATORY REQUIREMENTS AND ACTIONS REQUIRED" section of this report.

- **All haloacetic acid water quality monitoring requirements prescribed by legislation are being 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 have been collected at the required frequency.

HAAs concentrations are found to be higher in the distribution system, usually just after the chlorination process. Health Canada studies performed in 2002 and 2003 indicated that concentration of HAAs peaked in the distribution system closer to the chlorine addition point and decreased in the extremities of the system. Furthermore, the location of peak HAA values in a distribution system tends to change throughout the year, it is likely to be closer to the chlorine addition point in the summer and fall and further away from the point in the winter and spring. Precipitation and runoff events can also affect DBPs.

## Water Quality Monitoring

### Sampling Points for HAAs

The ministry has recognized that more than one sampling location may be needed to characterize the HAAs levels throughout a municipal distribution system. HAA concentrations can vary within and between distribution systems and so monitoring samples should be taken at points in the "middle" of the distribution system (i.e. an average water age, post re-chlorination).

In light of the recently introduced HAAs standard of 80 ug/L, which will come in to force on January 1, 2020, the ministry has provided additional guidance on developing a monitoring program.

Please refer to the "OTHER INSPECTION FINDINGS" section of this inspection report.

- **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 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 on October 31, 2017, January 24, 2018, and April 24, 2018. All samples were collected at 140 Dimsdale.

### THM Sample Location

During the previous inspection, it was identified that 140 Dimsdale may not be the most suitable place to sample THMs for compliance with section 13-6 of Schedule 13 of O. Reg. 170/03. Please refer to the "Other Inspection Findings" section of this report.

- **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 and tested for nitrate/nitrite.

For this inspection period, nitrate/nitrite samples were collected on October 31, 2017, January 24, 2018, and April 24, 2018.

- **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.

Treated water samples for sodium analysis were collected on February 18, 2009 (24 mg/L), March 18, 2009 (26 mg/L), February 22, 2012 (24 mg/L), February 3, 2015 (24 mg/L), and January 24, 2018 (25 mg/L).

Drinking water systems owners are required report sodium levels exceeding 20 mg/L to the health unit and MOECC Spills Action Centre (if a report hasn't been made in the preceding 57 months). This information is made available to local physicians in order to help persons on sodium-restricted diets control their sodium intake. Sodium levels above 20 mg/L were last reported on April 14, 2014.

- **All fluoride water quality monitoring requirements prescribed by legislation were conducted within the**

### Water Quality Monitoring

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.

A treated water sample for fluoride analysis was collected on February 7, 2006, February 11, 2008, March 9, 2011, and February 3, 2015.

- **The owner ensured that water samples were taken at the prescribed location.**
- **All sampling requirements for lead prescribed by schedule 15.1 of O. Reg. 170/03 were being met.**

As of October 2011, the drinking water system qualified for an exemption from sampling plumbing for lead. As required, operators continue to sample the required number (2) of distribution system locations as follows;

- Sample for pH and alkalinity every "winter" and "summer" period each year; and
- Sample for lead once every three years, both "winter" and "summer" periods.

The operating authority performed the required lead, pH, and alkalinity sampling of the distribution system on;  
- April 8, 2014 (winter) and July 22, 2014 (summer), and  
- April 10, 2017 and October 3, 2017.

The operating authority performed the pH and alkalinity sampling of the distribution system on;  
- April 8, 2014 (winter) and July 22, 2014 (summer),  
- April 13, 2015 and July 29, 2015,  
- April 11, 2016 and October 11, 2016,  
- April 10, 2017 and October 3, 2017, and  
- April 10, 2018.

- **Records confirmed that chlorine residual tests were being conducted at the same time and at the same location that microbiological samples were obtained.**
- **Turbidity was being tested at least once every month from each well that is supplying water to the system.**
- **The drinking water system owner submitted written notices to the Director that identified the laboratories that were conducting tests for parameters required by legislation, Order, Drinking Water Works Permit or Municipal Drinking Water Licence.**
- **The owner indicated that the required records are kept and will be kept for the required time period.**

### Water Quality Assessment

- **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).**

### Reporting & Corrective Actions

- **Corrective actions (as per Schedule 17) had been taken to address adverse conditions, including any other steps that were directed by the Medical Officer of Health.**

AWQI #139319

On May 15, 2018, while being supplied by the Well 2 (emergency back-up well), water was directed to the water

### Reporting & Corrective Actions

tower system without chlorine injection for 12 minutes at approximately 4.72 L/s. Upon discovery of the issue, the well pump was turned off and the unchlorinated water was back-flushed at the well house until a free chlorine residual of 1.97 mg/L was measured in the flushed water. No further actions were required by the health unit.

The actions taken by operators satisfy the requirements section 17-2 of Schedule 17 of O. Reg. 170/03.

- **All required notifications of adverse water quality incidents were immediately provided as per O. Reg. 170/03 16-6.**

AWQI #139319, described above, was immediately reported to the MOECC Spills Action Centre and the North Bay – Parry Sound and District Health Unit in accordance with section 16-4 of Schedule 16 of O. Reg. 170/03.

- **All required written notices of adverse water quality incidents were provided as per O. Reg. 170/03 16-7.**

Section 16-7 of Schedule 16 of O. Reg. 170/03 requires that, following the immediate verbal report an adverse water quality incident, a person shall also provide written notice within 24 hours after the immediate verbal report is given.

The required written notification for AWQI #139319 was provided on May 15, 2018 (the day of the adverse water quality incident)

Written notification was provided to the MOECC Spills Actions Centre. This inspection did not include a review of documentation submitted to the medical officer of health.

- **In instances where written notice of issue resolution was required by regulation, the notice was provided as per O. Reg. 170/03 16-9.**

Upon resolution of the incident, section 16-9 of Schedule 16 of O. Reg. 170/03 requires a written notice summarizing the action taken and the results achieved within seven days after the issue is resolved.

The required notice of issue resolution was provided on May 22, 2018; within seven days of the issue being resolved.

Written notification was provided to the MOECC Spills Actions Centre. This inspection did not include a review of documentation submitted to the medical officer of health.

- **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.**
- **The Annual Report containing the required information was prepared by February 28th of the following year.**  
The 2017 Annual Report contains the required information and was provided to the owner on January 30, 2018.
- **Summary Reports for municipal council were completed on time, included the required content, and were distributed in accordance with the regulatory requirements.**

### Other Inspection Findings

- **The following issues were also noted during the inspection:**

1) Water Conservation

### Other Inspection Findings

In past years, the owner delivered a Canadian Mortgage and Housing Corporation (CHMC) publication titled, Household Guide to Water Efficiency, to each residence to educate the public on using water efficiently and to promote water conservation. The guide shows how to test for and repair leaks, make the most efficient use of water when doing daily chores, and plan residential landscapes with water efficiency in mind. The owner should consider repeating this effort and it has been a number of years since last carried out.

#### 2) Water Loss

Other than water that is taken from fire hydrants and from the fire hall, authorized water use is fully metered. The owner should calculate the difference between flows entering the distribution system and the volume of authorized water use (through water metering) to determine if there is a need to identify and reduce sources of apparent water loss.

#### 3) THM Sample Location

During the previous inspection, it was identified that 140 Dimsdale may not be the most suitable place to sample THMs for compliance with section 13-6 of Schedule 13 of O. Reg. 170/03. Although the location is a dead-end, it is not an extremity of the system. It is recommended that the owner undertake a review the distribution system to determine if a more suitable location exists (e.g. 500 Ontario Street, 567 High Street, Other).

#### 4) HAA Monitoring Guidance

The ministry has recognized that more than one sampling location may be needed to characterize the HAAs levels throughout a municipal distribution system. HAA concentrations can vary within and between distribution systems and so monitoring samples should be taken at points in the "middle" of the distribution system (i.e. an average water age, post re-chlorination).

In light of the recently introduced HAAs standard of 80 ug/L, which will come in to force on January 1, 2020, the following guidance should be used in developing your monitoring program:

- a. As a general rule, all samples described below should be obtained from a sampling point where the free (combined) chlorine residual concentration is maintained over 0.2 mg/L (1.0 mg/L) respectively.
- b. First year of sampling: A system's established THM sampling point may be appropriate provided the chlorine concentrations are as described in item 1. If the residual is below the concentrations listed, use a nearby sampling point that meets the recommended residual.
- c. Second year of sampling (recommended order of selection):
  - i. Where a system re-chlorinates via a booster station, samples should be obtained in the distribution system after the booster station.
  - ii. If the system does not have booster stations, but has storage facilities where rechlorination occurs, the sampling should be at points after the storage facilities.
  - iii. If the system does not re-chlorinate, but has storage the sampling should be at points after the storage facilities.
  - iv. If the system does not re-chlorinate nor have storage, obtain the sample from another point in the distribution system.
- d. Third year of sampling:
  - i. If neither of the running annual averages for HAAs calculated (after year one and two) were higher than one-half of the standard (40 I-19/L), the sampling point used in the first year of sampling can be used for compliance in future years.
  - ii. If one of the running annual averages is over 40 I-19/L, the municipality is required to choose a third sampling point using the same criteria as the second year, and obtain samples from this sampling point for the third year. The municipality will then be required to sample from the point which had the highest individual sample result for future years.

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**Other Inspection Findings**

The outlined sampling plan is intended to be flexible and recognizes that municipalities have been sampling for HAAs since 2017.

Please refer to the "SUMMARY OF RECOMMENDATIONS AND BEST PRACTICE ISSUES" section of this inspection report.



## NON-COMPLIANCE WITH REGULATORY REQUIREMENTS AND ACTIONS REQUIRED

This section provides a summary of all non-compliance with regulatory requirements identified during the inspection period, as well as actions required to address these issues. Further details pertaining to these items can be found in the body of the inspection report.

**1. All organic water quality monitoring requirements prescribed by legislation were not conducted within the required frequency.**

During sampling for Schedule 24 (organic) parameters on January 24, 2018, two vials that were provided by the lab for Schedule 24 parameters in treated water were instead used to sample THMs in the distribution system. This resulted in eight required organic parameters being missed.

**Action(s) Required:**

As soon as reasonable possible, the owner and operating authority shall ensure treated water samples are collected and submitted for analysis of;

- Benzene
- Carbon tetrachloride
- 1,2-Dichlorobenzene
- 1,4-Dichlorobenzene
- Monochlorobenzene
- Tetrachloroethylene (perchloroethylene)
- Trichloroethylene
- Vinyl Chloride

Once available, the owner shall provide the sample results to Scott Hanselman, Provincial Officer, Ministry of the Environment and Climate Change, North Bay Office at [scott.hanselman@ontario.ca](mailto:scott.hanselman@ontario.ca).

## SUMMARY OF RECOMMENDATIONS AND BEST PRACTICE ISSUES

This section provides a summary of all recommendations and best practice issues identified during the inspection period. Details pertaining to these items can be found in the body of the inspection report. In the interest of continuous improvement in the interim, it is recommended that owners and operators develop an awareness of the following issues and consider measures to address them.

### 1. A program for inspecting and exercising valves did not exist.

Operators indicated there is no program in place for inspecting and exercising valves, but were aware of a number of inoperable valves in the distribution system.

#### Recommendation:

The owner should adopt and implement a formal program for inspecting and exercising valves.

For reference, the owner can refer to AWWA Standard G200-09, Distribution System Operation and Management, Section 4.2.5 (Valve exercising and replacement). This standard identifies the following minimum requirements for a valve exercising program:

- A goal for the number of transmission valves to be exercised annually based on the percentage of the total valves in the system.
- A goal for the number of distribution valves to be exercised annually.
- Measures to verify that the goals are met and written procedures for action if the goals are not attained.
- Critical valves in the distribution system shall be identified for exercising on a regular basis.
- Potential quality and isolation concerns shall be recognized.
- The program shall track the annual results and set goals to reduce the percent of inoperable valves.

### 2. The following issues were also noted during the inspection:

#### 1) Water Conservation

In past years, the owner delivered a Canadian Mortgage and Housing Corporation (CHMC) publication titled, Household Guide to Water Efficiency, to each residence to educate the public on using water efficiently and to promote water conservation. The guide shows how to test for and repair leaks, make the most efficient use of water when doing daily chores, and plan residential landscapes with water efficiency in mind.

#### 2) Water Loss

Although authorized water-use is fully metered, the owner has not undertaken efforts to estimate apparent water loss in the water distribution system.

#### 3) THM Sample Location

During the previous inspection, it was identified that 140 Dimsdale may not be the most suitable place to sample THMs for compliance with section 13-6 of Schedule 13 of O. Reg. 170/03. Although the location is a dead-end, it is not an extremity of the system.

#### 4) HAA Monitoring Guidance

In light of the recently introduced HAAs standard of 80 ug/L, which will come in to force on January 1, 2020, the ministry has provided guidance that can be used in developing a monitoring program for HAA's.

#### Recommendation:

##### 1) Water Conservation

The owner should consider renewing steps to educate the public on using water efficiently and to promote water conservation (e.g. door-to-door delivery of the "Household Guide to Water Efficiency" (CMHC).

#### 2) Water Loss

The owner should calculate the difference between flows entering the distribution system and the volume of authorized water use (through water metering) to determine if there is a need to identify and reduce sources of apparent water loss.

#### 3) THM Sample Location

It is recommended that the owner undertake a review the distribution system to determine if a more suitable location exists (e.g. 500 Ontario Street, 567 High Street, Other).

#### 4) HAA Monitoring Guidance

The owner should consider using guidance provided by the ministry to develop a monitoring program for HAA's. The guidance, initially provided on May 9, 2018, is available on page 18 of this report.

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**SIGNATURES**

Inspected By:

Scott Hanselman

Signature: (Provincial Officer)



Reviewed &amp; Approved By:

Sherry Ilersich

Signature: (Supervisor)



Review &amp; Approval Date:

July 16, 2018

Note: This inspection does not in any way suggest that there is or has been compliance with applicable legislation and regulations as they apply or may apply to this facility. It is, and remains, the responsibility of the owner and/or operating authority to ensure compliance with all applicable legislative and regulatory requirements.

## **APPENDIX A**

### Inspection Rating Record



**Ministry of the Environment and Climate Change  
Drinking Water System Inspection Report**

Ministry of the Environment - Inspection Summary Rating Record (Reporting Year - 2018-2019)

DWS Name:	BURK'S FALLS DRINKING WATER SYSTEM
DWS Number:	220000567
DWS Owner:	Burk'S Falls, The Corporation Of The Village Of
Municipal Location:	Burk'S Falls

Regulation: O.REG 170/03  
 Category: Large Municipal Residential System  
 Type Of Inspection: Detailed  
 Inspection Date: May 30, 2018  
 Ministry Office: North Bay Area Office

Maximum Question Rating: 658

Inspection Module	Non-Compliance Rating
Source	0 / 26
Permit To Take Water	0 / 12
Capacity Assessment	0 / 42
Treatment Processes	0 / 76
Distribution System	0 / 21
Operations Manuals	0 / 42
Logbooks	0 / 30
Certification and Training	0 / 57
Water Quality Monitoring	8 / 148
Reporting & Corrective Actions	0 / 84
Treatment Process Monitoring	0 / 120
TOTAL	8 / 658

Inspection Risk Rating	1.22%
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<b>FINAL INSPECTION RATING:</b>	<b>98.78%</b>
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Ministry of the Environment - Detailed Inspection Rating Record (Reporting Year - 2018-2019)

DWS Name:	BURK'S FALLS DRINKING WATER SYSTEM
DWS Number:	220000567
DWS Owner:	Burk'S Falls, The Corporation Of The Village Of
Municipal Location:	Burk'S Falls
Regulation:	O.REG 170/03
Category:	Large Municipal Residential System
Type Of Inspection:	Detailed
Inspection Date:	May 30, 2018
Ministry Office:	North Bay Area Office

Non-compliant Question(s)	Question Rating
<b>Water Quality Monitoring</b>	
Are all organic water quality monitoring requirements prescribed by legislation conducted within the required frequency?	8
<b>TOTAL QUESTION RATING</b>	<b>8</b>

Maximum Question Rating: 658

Inspection Risk Rating	1.22%
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<b>FINAL INSPECTION RATING:</b>	<b>98.78%</b>
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## **APPENDIX B**

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



**Ministry of the Environment and Climate Change  
Drinking Water System Inspection Report**

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

Many useful materials are posted on the Ministry of the Environment's **Drinking Water Ontario** website at [www.ontario.ca/drinkingwater](http://www.ontario.ca/drinkingwater) to help in the operation of your drinking water system.

Below is a list of key materials frequently used by owners and operators of municipal drinking water systems. To read or download these materials, go to **Drinking Water Ontario** and search in the **Resources** section by **Publication Number**.

Visit **Drinking Water Ontario** for more useful materials. 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).



PUBLICATION NUMBER	PUBLICATION TITLE
4448e01	Procedure for Disinfection of Drinking Water in Ontario
7152e	Strategies for Minimizing the Disinfection Products Trihalomethanes and Haloacetic Acids
7467	Filtration Processes Technical Bulletin
7685	Ultraviolet Disinfection Technical Bulletin
8215	Total Trihalomethane (TTHM) Reporting Requirements Technical Bulletin (February 2011)
2601e	Overview Guide: Municipal Drinking Water Licensing Program
0000	Municipal Drinking Water Licensing Program Bulletin, Issue 1, January 2011
0000	Certification Guide for Operators and Water Quality Analysts
6560e	Taking Samples for the Community Lead Testing Program
7423e	Community Sampling and Testing for Lead: Standard and Reduced Sampling and Eligibility for Exemption
7128e	Drinking Water System Contact List
4449e01	Technical Support Document for Ontario Drinking Water Quality Standards

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

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

Beaucoup de documentation sur le fonctionnement d'un réseau d'eau potable se trouve sur le site Web du [ministère de l'Environnement](http://www.mec.gov.on.ca).

Vous trouverez ci-dessous la liste des principaux documents que les propriétaires et les exploitants de réseaux municipaux d'eau potable utilisent fréquemment. Pour lire ou télécharger ces documents, allez sur le site Web du Ministère, et effectuez une recherche par numéro de publication dans la section RESSOURCES.

Consultez le site d'[Eau potable Ontario](http://eau.potable.ontario.ca) pour obtenir d'autre documentation. Communiquez avec le Centre d'information du 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.

NUMÉRO DE PUBLICATION	TITRE DE LA PUBLICATION
4448f01	Marche à suivre pour désinfecter l'eau potable en Ontario
7152e	Strategies for Minimizing the Disinfection Products Trihalomethanes and Haloacetic Acids (en anglais seulement)
7467	Filtration Processes Technical Bulletin (en anglais seulement)
7685	Ultraviolet Disinfection Technical Bulletin (en anglais seulement)
8215	Total Trihalomethane (TTHM) Reporting Requirements Technical Bulletin (février 2011) (en anglais seulement)
2601f	Guide général - Programme de délivrance des permis de réseaux municipaux d'eau potable
0000	Bulletin du Programme des permis de réseaux municipaux d'eau potable, numéro 1, janvier 2011
0000	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
6560f	Prélèvement d'échantillons dans le cadre du programme d'analyse de la teneur en plomb de l'eau dans les collectivités
7423f	Échantillonnage et analyse du plomb dans les collectivités : échantillonnage normalisé ou réduit et admissibilité à l'exemption
7128f	Liste des personnes-ressources du réseau d'eau potable
4449f01	Document d'aide technique pour les normes, directives et objectifs associés à la qualité de l'eau potable en Ontario

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