

**Ministry of the Environment and
Climate Change**

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**Ministère de l'Environnement et de
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January 11, 2016

The Corporation of the Township of Chapleau
P.O. Box 129
20 Pine Street
Chapleau, Ontario
P0M 1K0

Attn: Allan Pellow, CAO/Administrator

RE: Chapleau Water Treatment Plant Inspection 2015/2016 - DWS No. 220003494

The primary purpose of this inspection was to confirm compliance with Ministry of the Environment and Climate Change's (MOECC) legislation and control documents, as well as conformance with Ontario's drinking water related policies.

No regulatory issues or concerns were identified during the inspection. One best management issue was identified, as you may be aware most of the major treatment equipment dates to the facility's construction in 1976. Although the facility has been well maintained, there are noticeable areas of rust and/or flaking/bubbled paint on some of the piping, tanks and other painted metal parts. It is our understanding that a plan has been approved to address this issue.

Also included in this email is an Inspection Summary Rating Record (IRR), this document provides the Ministry, the system owner and the local Public Health Units with a summarized quantitative measure of the drinking water system's annual inspection and regulated water quality testing performance. IRR ratings are published (for the previous inspection year) in the Ministry's Chief Drinking Water Inspector's Annual Report.

If you have any questions regarding the inspection report please contact me at any time.

Yours truly,



Stephen Rouleau, Senior Environmental Officer
Drinking Water Inspection Program

cc: Chad Byce, Ontario Clean Water Agency, cbyce@ocwa.com
Paul Bernier, Ministry of the Natural Resources, paul.bernier@ontario.ca
Burgess Hawkins, Manager, Sudbury District Health Unit, hawkinsb@sdhu.com,



Ministry of the Environment and Climate Change

**CHAPLEAU DRINKING WATER SYSTEM
Inspection Report**

Site Number:	220003494
Inspection Number:	1-C2MAZ
Date of Inspection:	Dec 16, 2015
Inspected By:	Stephen Rouleau

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APPENDICES

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OWNER INFORMATION:

Company Name: CHAPLEAU, THE CORPORATION OF THE TOWNSHIP OF
Street Number: 20 **Unit Identifier:**
Street Name: PINE St
City: CHAPLEAU
Province: ON **Postal Code:** P0M 1K0

CONTACT INFORMATION

Type: Owner **Name:** Allan Pellow
Phone: (705) 864-1330 **Fax:** (705) 864-1824
Email: apellow@township.chapleau.on.ca
Title: Chief Administrative Officer - Chapleau

Type: Operator **Name:** Chad Byce
Phone: (705) 864-0105 **Fax:** (705) 864-0964
Email: cbyce@ocwa.com
Title: Chief Operator - Chapleau Water Treatment Plant

Type: Other - specify **Name:** Burgess Hawkins
Phone: (705) 860-9200 **Fax:**
Email: hawkinsb@sdhu.com
Title: Manager - Sudbury and District Health Unit

Type: Other - specify **Name:** Paul Bernier
Phone: (705) 864-3122 **Fax:**
Email: paul.bernier@ontario.ca
Title: Manager - Chapleau District MNR

INSPECTION DETAILS:

Site Name: CHAPLEAU DRINKING WATER SYSTEM
Site Address: 1 WATER PLANT RD CHAPLEAU ON P0M 1K0
County/District: Chapleau
MOECC District/Area Office: Sudbury District
Health Unit: SUDBURY AND DISTRICT HEALTH UNIT
Conservation Authority: N/A
MNR Office: Chapleau Regional Office
Category: Large Municipal Residential

Site Number: 220003494
Inspection Type: Announced
Inspection Number: 1-C2MAZ
Date of Inspection: Dec 16, 2015
Date of Previous Inspection:

COMPONENTS DESCRIPTION

Site (Name): SYSTEM CLASSIFICATION

Type: Other **Sub Type:**

Comments:

The Chapleau DWS serves a population of approximately 2,400 and is comprised of a Class 2 Water Treatment system and a Class 1 Water Distribution system. Both subsystems are owned by the Township of Chapleau. The treatment plant is operated by the Ontario Clean Water Agency, and the distribution system is operated by the Township of Chapleau.

Site (Name): RAW WATER

Type: Source **Sub Type:** Surface

Comments:

The source water for the Chapleau DWS is the Kebsquasheshing River (also known as the Chapleau River). The treatment plant is situated downstream from a wood products industry and a co-generation plant.

Site (Name): TREATED WATER

Type: Treated Water POE **Sub Type:**

Comments:

The Chapleau water treatment plant was commissioned in 1976. It is a conventional surface water treatment facility with raw water coarse screening, pre-contact mixing with alum and polymer, two upflow clarifiers with settling tubes, with filtration provided by two dual media filter units. Following filtration the water is chlorinated and then flows through three in-house reservoirs and three clear wells. Additional water conditioning is provided by the addition of soda ash for alkalinity and corrosion control.

Chlorination is used for primary disinfection, while chloramination is used for secondary disinfection. The water is sent to the distribution system at 82 to 85 psi.

Site (Name): DISTRIBUTION

Type: Other **Sub Type:**

Comments:

The distribution system is constructed primarily of ductile iron and provides fire protection to the Town as well as drinking water. There are no water storage facilities in the distribution system, as storage is incorporated within the treatment plant.

Site (Name): MOE DWS Mapping

Type: DWS Mapping Point **Sub Type:** Treatment Facility

Comments:

UTM Coordinates

Easting 0319700

Northing 5301668

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 related 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 report is based on a "focused" inspection of the system. Although the inspection involved fewer activities than those normally undertaken in a detailed inspection, it contained critical elements required to assess key compliance issues. This system was chosen for a focused inspection because the system's performance met the ministry's criteria, most importantly that there were no deficiencies as identified in O.Reg. 172/03 over the past 3 years. The undertaking of a focused inspection at this drinking water system does not ensure that a similar type of inspection will be conducted at any point in the future.

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.

CAPACITY ASSESSMENT

- * There was sufficient monitoring of flow as required by the Permit and Licence or Approval issued under Part V of the SDWA
- * The owner was in compliance with the conditions associated with maximum flow rate or the rated capacity conditions in the Permit and Licence or Approval issued under Part V of the SDWA.

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/operating authority was in compliance with the requirement to prepare Form 1 documents as required by their Drinking Water Works Permit during the inspection period.
- * 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.

TREATMENT PROCESSES

- * The owner/operating authority was in compliance with the requirement to prepare Form 3 and associated documents as required by their Drinking Water Works Permit during the inspection period.
- * Records indicated that the treatment equipment was operated in a manner that achieved the design capabilities required under Ontario Regulation 170/03 or a Permit, Licence or Approval issued under Part V of the SDWA at all times that water was being supplied to consumers.
- * 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.
- * The Operator-in-Charge had ensured that all equipment used in the processes was monitored, inspected, and evaluated.

TREATMENT PROCESS MONITORING

- * Primary disinfection chlorine monitoring was being conducted at a location approved by Permit, Licence or Approval issued under Part V of the SDWA, or at/near a location where the intended CT had just been achieved.
- * Continuous monitoring of each filter effluent line was being performed for turbidity.
- * The secondary disinfectant residual was measured as required for the distribution system.
- * Operators were examining continuous monitoring test results and they were examining the results within 72 hours of the test.
- * All continuous monitoring equipment utilized for sampling and testing required by O. Reg. 170/03, or approval or order, were equipped with alarms or shut-off mechanisms that satisfied the standards described in Schedule 6.
- * 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.
- * All continuous analysers were calibrated, maintained, and operated, in accordance with the manufacturer's instructions or the regulation.

OPERATIONS 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 did meet the requirements of the Permit and Licence or Approval issued under Part V of the SDWA.

LOGBOOKS

- * 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.

SECURITY

- * The owner had provided security measures to protect components of the drinking-water system.

CERTIFICATION AND TRAINING

- * The overall responsible operator had been designated for each subsystem.
- * Operators in charge had been designated for all subsystems which comprised the drinking-water system.
- * Only certified operators made adjustments to the treatment equipment.

WATER QUALITY MONITORING

- * All microbiological water quality monitoring requirements for distribution samples were being met.
- * All microbiological water quality monitoring requirements for treated samples were being met.
- * All inorganic water quality monitoring requirements prescribed by legislation were conducted within the required frequency.
- * All organic water quality monitoring requirements prescribed by legislation were conducted within the required frequency.
- * All trihalomethanes water quality monitoring requirements prescribed by legislation were conducted within the required frequency.

WATER QUALITY MONITORING

- * All nitrate/nitrite water quality monitoring requirements prescribed by legislation were conducted within the required frequency for the DWS.
- * All sodium water quality monitoring requirements prescribed by legislation were conducted within the required frequency.
- * All fluoride water quality monitoring requirements prescribed by legislation were conducted within the required frequency.
- * All sampling requirements for lead prescribed by schedule 15.1 of O. Reg. 170/03 were being met.
- * Records confirmed that chlorine residual tests were being conducted at the same time and at the same location that microbiological samples were obtained.

WATER QUALITY ASSESSMENT

- * Records show that all water sample results taken during the review period met 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.
- * Corrective actions as directed by the Medical Officer of Health had been taken by the owner and operating authority to address exceedances of the lead standard.
- * All required notifications of adverse water quality incidents were immediately provided as per O. Reg. 170/03 16-6.
- * All reporting requirements for lead sampling were complied with as per schedule 15.1-9 of O. Reg. 170/03.
- * 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.

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.

Not Applicable

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.

Not Applicable

SIGNATURES

Inspected By:

Stephen Rouleau



Signature: (Provincial Officer):

Reviewed & Approved By:

Marnie Managhan



Signature: (Supervisor):

Review & Approval Date:

Jan 11/16

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

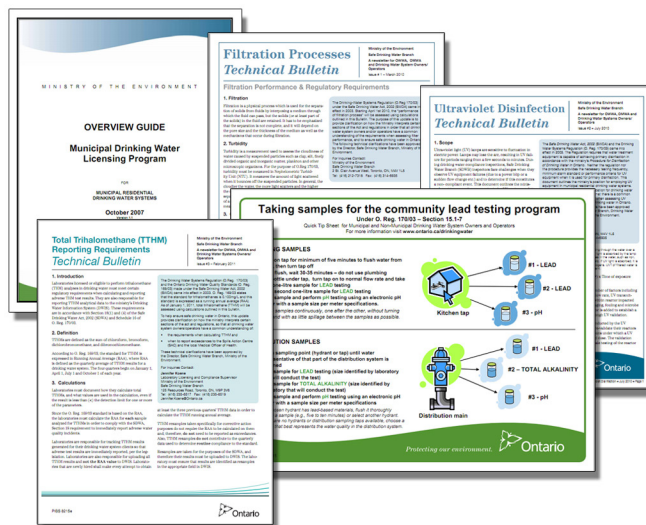
Stakeholder Appendix

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 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.



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

Appendix B

Inspection Rating Record

Ministry of the Environment - Inspection Summary Rating Record (Reporting Year - 2015-2016)

DWS Name:	CHAPLEAU DRINKING WATER SYSTEM
DWS Number:	220003494
DWS Owner:	Chapleau, The Corporation Of The Township Of
Municipal Location:	Chapleau

Regulation: O.REG 170/03
Category: Large Municipal Residential System
Type Of Inspection: Focused
Inspection Date: December 16, 2015
Ministry Office: Sudbury District

Maximum Question Rating: 522

Inspection Module	Non-Compliance Rating
Capacity Assessment	0 / 30
Treatment Processes	0 / 89
Operations Manuals	0 / 28
Logbooks	0 / 14
Certification and Training	0 / 28
Water Quality Monitoring	0 / 112
Reporting & Corrective Actions	0 / 88
Treatment Process Monitoring	0 / 133
TOTAL	0 / 522

Inspection Risk Rating	0.00%
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FINAL INSPECTION RATING:	100.00%
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Ministry of the Environment - Detailed Inspection Rating Record (Reporting Year - 2015-2016)

DWS Name: CHAPLEAU DRINKING WATER SYSTEM
DWS Number: 220003494
DWS Owner: Chapleau, The Corporation Of The Township Of
Municipal Location: Chapleau

Regulation: O.REG 170/03
Category: Large Municipal Residential System
Type Of Inspection: Focused
Inspection Date: December 16, 2015
Ministry Office: Sudbury District

Maximum Question Rating: 522

Inspection Risk Rating | 0.00%

FINAL INSPECTION RATING: | 100.00%