



# *Township of Chapleau Drinking Water System*

# OPERATIONAL PLAN

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for the Drinking Water Distribution System

Revision 2

This Operational Plan defines and documents the Quality Management System (QMS) for the Township of Chapleau. It sets out the policies and procedures with respect to quality management in accordance with the requirements of the Province of Ontario's Drinking Water Quality Management Standard (DWQMS).

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# 1 Quality Management System (QMS)

The Township of Chapleau Quality Management System (QMS) for the Drinking Water Distribution System is structured and documented in this Operational Plan.

# 2 Quality Management System Policy

The Corporation of the Township of Chapleau is committed to maintain and continually improve on the Quality Management System, provide safe drinking water to consumers, and comply with applicable legislation and regulations.

# 3 Commitment & Endorsement of QMS & Operational Plan

The Chief Administrative Officer (CAO) as Top Management of the Operating Authority and the Mayor representing the Owner have approved the QMS for the Chapleau Drinking Water Distribution System as documented in this Operational Plan.

**Owner  
Endorsement & Approval**

\_\_\_\_\_  
Mayor **Andre Byham** \_\_\_\_\_ Date

**Operating Authority  
Endorsement & Approval**

\_\_\_\_\_  
CAO **Allan Pellow** \_\_\_\_\_ Date

## **4 Quality Management System Representative**

All personnel have a role and associated responsibilities within the Township of Chapleau Drinking Water Distribution System's QMS.

The CAO is appointed as QMS Representative.

The QMS Rep is responsible for:

- Administering the QMS by ensuring processes and protocols needed for the QMS are established and maintained,
- Reporting on QMS performance and identifying opportunities for improvement,
- Ensuring that current versions of documents related to the QMS are in use,
- Ensuring personnel are aware of all applicable legislative and regulatory requirements that pertain to their operational duties, and
- Promoting awareness of the QMS to the Drinking Water Distribution System's personnel.

## **5 Document and Records Control**

Refer to Appendix A for QMS Procedure QMSP-01 Document and Records Control.

## 6 Drinking Water System

### Owner and Operating Authority

The Chapleau Drinking Water System serves a population of approximately 2,400. The Water Treatment Plant (WTP) and the Distribution System are owned by the Township of Chapleau represented by the Mayor. The Operating Authority for the Water Treatment Plant is the Ontario Clean Water Agency (OCWA), and the Operating Authority for the Drinking Water Distribution System is the Township of Chapleau through Public Works Department.

### System Description

Details on the raw water supply and the Water Treatment Plant are included in the "Operational Plan for the Chapleau Water Treatment Facility".

Details on the Distribution System are included below.

The Chapleau Distribution System is rated as a Class 1 Distribution System. It 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 Drinking Water Distribution System, as storage is incorporated within the Water Treatment Plant.

As of September 2009 its main characteristics are as follows:

Length of mains	15.2 km
Number of service connections	847
Number of fire hydrants	77
Number of watermain valves	219

Maps of the Distribution System are available at the Municipal Office on the Geographic Information System (GIS) software.

The above-noted Distribution System description is reviewed and updated as required.

## 7 Risk Assessment

Refer to Appendix B for QMS Procedure QMSP-02 Risk Assessment and Risk Assessment Outcomes.

## 8 Risk Assessment Outcomes

Refer to Appendix B for Summary of Risk Assessment Outcomes.

## 9 Organizational Structure, Roles, Responsibilities and Authorities

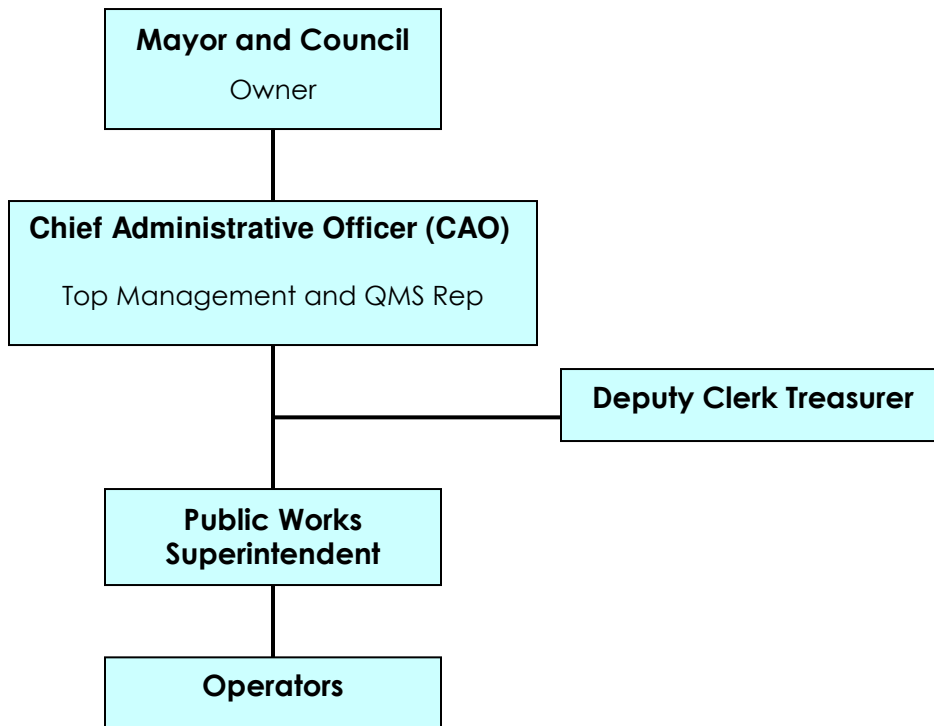
### Owner and Operating Authority

The Owner of the Chapleau Drinking Water System is the Township of Chapleau, represented by the Mayor.

The Operating Authority for the Distribution System is the Township of Chapleau represented by the CAO and the Deputy Clerk Treasurer.

### Organizational Structure

The organizational structure for the Corporation of the Township of Chapleau Drinking Water Distribution System is as follows:



## QMS Roles, Responsibilities and Authorities

Responsibilities for implementing and maintaining individual elements of the QMS are outlined in the QMS Procedures referenced throughout this Operational Plan.

Specific QMS-related roles, responsibilities and authorities of the Owner and the Operating Authority personnel are summarized in the table below.

Position	Roles, Responsibilities and Authorities
Owner - Mayor and Council	<ul style="list-style-type: none"> <li>• Meet and discuss with the CAO regarding all QMS-related functions</li> <li>• Provide approval when required</li> </ul>
Operating Authority - Chief Administration Officer (Top Management, and QMS Rep)	<ul style="list-style-type: none"> <li>• Reports to Mayor and Council</li> <li>• Performs all statutory, operational and advisory functions according to legislation and enabling by-laws</li> <li>• Develops, implements and maintains the municipal emergency management program</li> <li>• Works closely with OCWA in the operation of the Township's water and wastewater treatment facilities and administers contractual matters</li> <li>• Has the responsibilities of Top Management and QMS Representative</li> <li>• Has the responsibility to undertake the Management Review</li> </ul>
Operating Authority - Deputy Clerk Treasurer	<ul style="list-style-type: none"> <li>• Assist the CAO with any activities as required</li> </ul>
Operating Authority - Public Works Superintendent	<ul style="list-style-type: none"> <li>• Reports to the CAO</li> <li>• Ensure the Drinking Water Distribution System is running accordingly</li> <li>• Authority to manage the Water Distribution System operations</li> <li>• Provides advice and guidance to Council on the development of plans, priorities and policies</li> <li>• Plans, organizes and assigns work of crews and discusses plans and priorities with crew members</li> <li>• Manages Public Works section within approved budgets</li> <li>• Manages inventory of equipment, supplies and materials required for maintenance and construction programs</li> <li>• Has the responsibility of Overall Responsible Operator (ORO) and Operator-In-Charge (OIC)</li> </ul>
Operating Authority - Operators	<ul style="list-style-type: none"> <li>• Perform day-to-day activities to maintain the integrity of the Drinking Water Distribution System</li> </ul>



# 10 Competencies

## Required competencies

Under SDWA, 2002 the regulation O. Reg. 128/04 outlines the requirement for the certification of Water Treatment and Water Distribution Operators.

The competencies required for personnel whose work directly affects drinking water quality are presented below:

Position	Required Competencies
CAO / QMS Rep / Top Management	<ul style="list-style-type: none"> <li>• Valid Driving Licence</li> <li>• First Aid/CPR</li> <li>• WHMIS</li> </ul>
Deputy Clerk Treasurer	<ul style="list-style-type: none"> <li>• Valid Driving Licence</li> <li>• First Aid/CPR</li> <li>• WHMIS</li> </ul>
Public Works Superintendent	<ul style="list-style-type: none"> <li>• Level 1 Certification</li> <li>• Confined Space Training</li> <li>• Valid Driving Licence</li> <li>• First Aid/CPR</li> <li>• WHMIS</li> </ul>
Operator	<ul style="list-style-type: none"> <li>• Level 1 Certification (at least one operator)</li> <li>• Confined Space Training</li> <li>• Valid Driving Licence</li> <li>• First Aid/CPR</li> <li>• WHMIS</li> </ul>

### Activities to develop and maintain these competencies

The Public Works Superintendent is responsible for ensuring each operator has a current Level 1 Certification. In addition, certification expiry dates are monitored by the Public Works Superintendent.

The Public Works Superintendent establishes the training needs for personnel to maintain certification. A training program is established and documented. Record of all training and Continuing Education Units (CEU) are kept by the Public Works Superintendent.

### Activities to ensure personnel are aware of the relevance of their duties

In addition to the on-going training, day-to-day and on-call duties on the Drinking Water Distribution System provide operators with hands-on experience of the relevance of their duties. All new staff members are provided orientation.

## **11 Personnel Coverage**

Refer to Appendix C for QMS Procedure QMSP-03 Personnel Coverage.

## **12 Communications**

Refer to Appendix D for QMS Procedure QMSP-04 Communications.

## **13 Essential Supplies and Services**

Refer to Appendix E for QMS Procedure QMSP-05 Essential Supplies and Services.

## **14 Review and Provision of Infrastructure**

Refer to Appendix F for QMS Procedure QMSP-06 Review and Provision of Infrastructure.

## **15 Infrastructure Maintenance, Rehabilitation and Renewal**

The Township of Chapleau maintains a program of scheduled inspection and maintenance of infrastructure.

All activities are recorded. Records are maintained as per QMS Procedure QMSP-01 Document and Records Control (see Appendix A).

A summary of the Distribution System activities is outlined below:

- a. Maintain Chlorine residual: flushing program
- b. Repair of water mains and service connections
- c. Thawing of service connections
- d. Maintenance of fire-hydrants: inspection, repair, repaint
- e. Exercising of valves
- f. Respond to customer inquiries (such as low pressure; taste and/or odor; etc.)

The Public Works Superintendent monitors the effectiveness of these activities on an on-going basis and makes adjustments as required. Once a year, the CAO prepares a summary of the maintenance, rehabilitation and renewal activities. This summary is communicated to the owner as a result of the annual Management Review. The effectiveness of the overall maintenance program is discussed at the Management Review meeting.

## **16 Sampling, Testing and Monitoring**

Refer to Appendix G for QMS Procedure QMSP-07 Sampling, Testing and Monitoring.

## **17 Measurement and Recording Equipment Calibration and Maintenance**

All calibration activities are performed by OCWA as the operating authority for the Water Treatment Plant. The procedure for calibration and maintenance of measurement and recording equipment is part of the Operational Plan for the Chapleau Water Treatment Facility prepared by OCWA. The Distribution System does not include measurement and/or recording equipments that control the quality of the finished drinking water.

## **18 Emergency Management**

Refer to Appendix H for QMS Procedure QMSP-08 Emergency Management.

## **19 Internal Audits**

Refer to Appendix I for QMS Procedure QMSP-09 Internal Audits.

## **20 Management Review**

Refer to Appendix J for QMS Procedure QMSP-10 Management Review.

## **21 Continual Improvement**

In conjunction with the Internal Audit and Management Review processes documented above, the Township of Chapleau uses corrective actions to continuously improve its QMS. Through these processes, areas of concern as well as opportunities for improvement are identified.

## Revision History of the Operational Plan (main body of the text)

Date	Revision	Description of Revision
January 1, 2010	0	Operational Plan issued
June 15, 2011	1	<p>Operational Plan revised following CGSB audit. CGSB issued 8 Corrective Action Records (CARs) on November 15, 2010: #953, 954, 955, 956, 957, 958, 959, 960.</p> <p>Corrective actions were made by December 15, 2010 and approved by CGSB on January 19, 2011.</p> <p>The numbering of the appendices was modified to include the procedure "Sampling, Testing and Monitoring".</p> <p>Several procedures were modified; the changes are detailed in the approved CARs.</p> <p>The entire Operational Plan was updated and consolidated.</p>
November 23, 2012	2	<p>The appendix K "Operational Plan Revision History" was removed, and the revision history table was added to the main body of the text. This reflects the fact that the record of the revision history is kept separately for the main body of the text, and for each individual procedure.</p>