

The Corporation of the TOWNSHIP OF ST. CLAIR



Quality Management System
OPERATIONAL PLAN
for the:
St. Clair Water Distribution
System No. 260006464
Certificate No. 3260

Revision 2, Jan-11-11



OPERATIONAL PLAN

Table of Contents

DISCLAIMER STATEMENTA

OPERATIONAL PLAN – FACILITY & OWNER/OPERATOR.....B

OPERATIONAL PLAN - REVISION HISTORYC

ELEMENT 1: THE CORPORATION OF THE TOWNSHIP OF ST. CLAIR’S QUALITY MANAGEMENT SYSTEM (QMS)..... 1

ELEMENT 2: QUALITY MANAGEMENT SYSTEM (QMS) POLICY 1

ELEMENT 3: COMMITMENT & ENDORSEMENT 1

ELEMENT 4: QUALITY MANAGEMENT SYSTEM REPRESENTATIVE 2

ELEMENT 5: DOCUMENTS AND RECORDS CONTROL..... 2

ELEMENT 6: DRINKING-WATER SYSTEM 2

ELEMENT 7: RISK ASSESSMENTS 3

ELEMENT 8: RISK ASSESSMENT OUTCOMES 3

ELEMENT 9: ORGANIZATIONAL STRUCTURE, ROLES, RESPONSIBILITIES, AND AUTHORITIES 4

ELEMENT 10: COMPETENCIES 4

ELEMENT 11: PERSONNEL COVERAGE 4





OPERATIONAL PLAN

ELEMENT 12: COMMUNICATIONS	5
ELEMENT 13: ESSENTIAL SUPPLIES AND SERVICES	5
ELEMENT 14: REVIEW AND PROVISION OF INFRASTRUCTURE	5
ELEMENT 15: INFRASTRUCTURE MAINTENANCE, REHABILITATION AND RENEWAL	5
ELEMENT 16: SAMPLING, TESTING AND MONITORING.....	6
ELEMENT 17: MEASUREMENT AND RECORDING EQUIPMENT CALIBRATION AND MAINTENANCE	6
ELEMENT 18: EMERGENCY MANAGEMENT	6
ELEMENT 19: INTERNAL AUDITS.....	6
ELEMENT 20: MANAGEMENT REVIEW.....	6
ELEMENT 21: CONTINUAL IMPROVEMENT	7





OPERATIONAL PLAN

DISCLAIMER STATEMENT

This Operational Plan is for the exclusive use of **The Corporation of the Township of St. Clair.**

This Operational Plan has been developed with OCWA's assistance.

Any use which a third party makes of this Operational Plan, or any part thereof, or any reliance on or decisions made based on information within it, is the responsibility of such third parties. OCWA and The Municipality accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions taken based on this Operational Plan or any part thereof.



The Corporation of the Township of St. Clair
St. Clair Water Distribution System No. 260006464



OPERATIONAL PLAN

OPERATIONAL PLAN – FACILITY & OWNER/OPERATOR

This Operational Plan defines and documents the Quality Management System (QMS) for the **St. Clair Water Distribution System No. 260006464**, owned and operated by **the Corporation of the Township of St. Clair**. It sets out the Corporation of the Township of St. Clair's 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).

Throughout this document where the “Municipality” is referenced, it shall mean “the Corporation of the Township of St. Clair”.



The Corporation of the Township of St. Clair
St. Clair Water Distribution System No. 260006464



OPERATIONAL PLAN

OPERATIONAL PLAN - REVISION HISTORY

Date	Revision	Description of Revision
Feb-02-2009	0	Operational Plan Issued
Oct-12-2010	1	Audit Review-CGSB
Jan-11-2011	2	Element clarification





OPERATIONAL PLAN

ELEMENT 1: THE CORPORATION OF THE TOWNSHIP OF ST. CLAIR'S QUALITY MANAGEMENT SYSTEM (QMS)

The Corporation of the Township of St. Clair is the Owner and Operating Authority for the St. Clair Water Distribution System No. 260006464.

This document is to establish and maintain the Quality Management System (QMS) in accordance to the DWQMS and the policies and procedures documented in this Operational Plan, for the distribution of safe drinking water to the customers of the **St. Clair Water Distribution System No. 260006464.**

Water is supplied to the Municipality by the Lambton Area Water Supply System (LAWSS).

The Municipality distributes safe drinking water to the customers of the **St. Clair Water Distribution System No. 260006464.**

ELEMENT 2: QUALITY MANAGEMENT SYSTEM (QMS) POLICY

- The Municipality is committed to the reliable distribution of safe drinking water to our customers.
- The Municipality is committed to comply with applicable legislative and regulatory requirements associated with safe drinking water.
- The Municipality is committed to maintaining and continually improving its QMS through a commitment to training, education and communication with staff, clients and stakeholders.
- The Municipality is committed to protecting public health by performing audit and risk assessment reviews to maintain and improve its policies and practices.

ELEMENT 3: COMMITMENT & ENDORSEMENT

Upper Management and the Owner of the Municipality has approved the QMS for St. Clair Water Distribution System No. 260006464 as documented in this Operational Plan.

Refer to **Annex A – Commitment & Endorsement**





OPERATIONAL PLAN

ELEMENT 4: QUALITY MANAGEMENT SYSTEM REPRESENTATIVE

The Coordinator of Operations - Water/Wastewater / ORO is ultimately responsible for activities related to the operation of the water distribution system and for establishing and maintaining processes and procedures required for the overall administration of the facility's QMS.

The QMS Representative shall be the Coordinator of Operations - Water/Wastewater / Overall Responsible Operator (ORO), or the individual designated by the Coordinator of Operations - Water/Wastewater, as appointed by Upper Management.

The QMS Representative's responsibilities include;

- Promoting awareness of the QMS to all facility personnel.
- Conducting Risk Assessment and Internal Audits.
- 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.

ELEMENT 5: DOCUMENTS AND RECORDS CONTROL

Procedure to describe the methods for identification, storage, protection, retrieval, retention time and disposition of records.

Refer to **QMS Procedure - 702.01 Documents and Records Control**

ELEMENT 6: DRINKING-WATER SYSTEM

Owner/Operating Authority

The Corporation of the Township of St. Clair is the Owner and Operating Authority for the St. Clair Water Distribution System No. 260006464.

Source Description

Water is supplied to The Municipality by the Lambton Area Water Supply System (LAWSS) which is situated in the City of Sarnia on the southern tip of Lake Huron at the headwaters of the St. Clair River. LAWSS is owned by the Lambton Area Water Supply Joint Management Board whose municipal members include the Corporation of City of Sarnia, the Corporation of Township of St. Clair, Corporation of Town of Plympton/Wyoming, Corporation of Village of Point Edward, Corporation of Township of Warwick and the Corporation of the Municipality of Lambton Shores.



The Corporation of the Township of St. Clair
St. Clair Water Distribution System No. 260006464



OPERATIONAL PLAN

LAWSS is a direct filtration surface water treatment facility with a total design capacity of 181,844 m3 per day. LAWSS supplies sufficient disinfection to meet the regulatory requirements within the distribution systems. Supplemental rechlorination is practiced at the East Lambton Station which supplies water to the Corporation of the Township of Warwick, Corporation of the Town of Plympton-Wyoming, Corporation of the Municipality of Brooke-Alvinston and the Municipality of Lambton Shores. The West Lambton Booster Station rechlorinates as required to supply secondary disinfection for the Corporation of the City of Sarnia and the Corporation of the Township of St. Clair distribution networks.

System Description

Treated Water is supplied by LAWSS and distributed to the customers of the St. Clair Water Distribution System 260006464. The system has one rechlorination point at the Brigden Elevated Water Tower, and has emergency interconnections with adjoining Municipalities. A SCADA system monitors pressure, flow, and chlorine residual at the Brigden Elevated Water Tower. Distribution system sampling is conducted to monitor for chlorine residual. Distribution System sampling requirements as per O. Reg. 170/03 are conducted by OCWA. Customers are metered for water usage. Replacement of aging infrastructure is performed under Capital Projects.

The St. Clair Water Distribution System 260006464 is the sole supplier of water to the customers of the North Wallaceburg (St. Clair Parkway) System 260051662, owned by the Municipality of Chatham-Kent and operated by the Chatham-Kent PUC. North Wallaceburg (St. Clair Parkway) System 260051662 is not connected to any other distribution system.

Refer to **Annex B Schematic; Annex I Brigden Tower System Description; Annex J Distribution System**

Processes outside of our control, include the Port Lambton Water Tower, which is owned and operated by LAWSS.

During sampling and flushing procedures which could affect individual customer water pressure, notification is given to those who have requested special notification prior to performing the activity.

ELEMENT 7: RISK ASSESSMENTS

Procedure to define the process for conducting a safe drinking water risk assessment and for documenting and reviewing the results of the assessment at the facility level.

Refer to **QMS Procedure - 702.02 Risk Assessment & Outcomes**

ELEMENT 8: RISK ASSESSMENT OUTCOMES

Outcomes of the Risk Assessment.

Refer to **Annex C - Risk Assessment & Outcomes Table**





OPERATIONAL PLAN

ELEMENT 9: ORGANIZATIONAL STRUCTURE, ROLES, RESPONSIBILITIES, AND AUTHORITIES

The QMS Representative will update changes to the Organizational Structure, Roles, Responsibilities, and Authorities and will communicate this information to the Owner and Operating Authority.

Refer to **Annex D - Organizational Structure**

Refer to **Annex E – Roles, Responsibilities & Authorities Table**

ELEMENT 10: COMPETENCIES

The Competency Requirements Table illustrates the competencies required by personnel whose duties directly affect safe drinking water quality.

Refer to **Annex F - Competency Requirements Table**

The competencies required by personnel, whose duties directly affect safe drinking water quality, are addressed by various means, including:

- All employees will provide evidence of certification and other “required” competencies. All MOE required certificates or copies thereof are posted at the Moore Operations Centre.
- All employees undergo training to perform their duties, including a review of the QMS Operational Plan
- Competency is monitored through job performance reviews.
- All employees shall complete training which meets or exceeds the requirements of O. Reg.128/04.
- Changes to the Distribution System and/or to the QMS are communicated, as necessary.

All employees shall provide records of training to be maintained as proof that the required training has been successfully completed. The Coordinator of Operations - Water/Wastewater / ORO is responsible for monitoring the completion of all identified training.

ELEMENT 11: PERSONNEL COVERAGE

Procedure for ensuring that sufficient and competent personnel are available for duties that directly affect safe drinking water quality.

Refer to **QMS Procedure - 702.03 Personnel Coverage**





OPERATIONAL PLAN

ELEMENT 12: COMMUNICATIONS

Procedure to describe QMS-related communications between Upper Management and the Owner, the Operating Authority personnel, Suppliers and the Public.

Refer to **QMS Procedure - 702.04 Communications**

ELEMENT 13: ESSENTIAL SUPPLIES AND SERVICES

Procedure for procurement and for ensuring the quality of essential supplies and services.

Refer to **QMS Procedure - 702.05 Essential Supplies and Services**

Refer to **Annex G - Essential Supplies and Services Table**

ELEMENT 14: REVIEW AND PROVISION OF INFRASTRUCTURE

Procedure for the review of the adequacy of the infrastructure.

Refer to **QMS Procedure - 702.06 Review and Provision of Infrastructure**

ELEMENT 15: INFRASTRUCTURE MAINTENANCE, REHABILITATION AND RENEWAL

The Coordinator of Operations - Water/Wastewater / ORO plans and authorizes all Infrastructure Maintenance. Inspection and maintenance plans are developed according to a combination of: manufacturer's instructions, regulatory requirements, industry standards, risk based assessments, equipment operating history and/or client requirements.

Infrastructure inspection and maintenance is performed through programs including valve exercising, watermain flushing, hydrant maintenance, chlorine residual sampling and meter calibration. Infrastructure Maintenance is scheduled through Work Orders, and documented on Work Orders and record sheets. Planned Infrastructure Maintenance is communicated by monthly reports to the Owner.

The ORO or Operator In Charge (OIC) authorizes all unplanned infrastructure maintenance in a timely manner. Unplanned Infrastructure Maintenance is scheduled through Work Orders and documented on Work Orders and record sheets. Unplanned Infrastructure Maintenance is communicated by monthly reports to the Owner.





OPERATIONAL PLAN

Work order history, record sheets, inspection reports and regulatory standards are reviewed for Infrastructure Renewal and Rehabilitation needs and is communicated, by the Coordinator of Operations - Water/Wastewater / ORO to the Owner, annually with the Capital Budget Plan.

Refer to **Annex K – Provision of Infrastructure**

ELEMENT 16: SAMPLING, TESTING AND MONITORING

Procedure to describe sampling, testing and monitoring of the St. Clair Water Distribution System No. 260006464.

Refer to **QMS Procedure - 702.07 Sampling, Testing and Monitoring**

ELEMENT 17: MEASUREMENT AND RECORDING EQUIPMENT CALIBRATION AND MAINTENANCE

Procedure to describe the calibration and maintenance of measurement and recording equipment.

Refer to **QMS Procedure - 702.08 Measurement and Recording Equipment Calibration and Maintenance**

ELEMENT 18: EMERGENCY MANAGEMENT

Procedure for maintaining a state of emergency preparedness.

Refer to **QMS Procedure - 702.09 Emergency Management**

Refer to **Annex H – Emergency Contact List**

ELEMENT 19: INTERNAL AUDITS

Procedure to conduct an internal audit process.

Refer to **QMS Procedure -702.10 Internal Audits**

ELEMENT 20: MANAGEMENT REVIEW

Procedure to document the management review process that evaluates the continuing suitability, adequacy and effectiveness of the QMS.

Refer to **QMS Procedure -702.11 Management Review**





OPERATIONAL PLAN

ELEMENT 21: CONTINUAL IMPROVEMENT

The Municipality shall strive to continually improve the effectiveness of its QMS through the use of corrective actions from annual audits, staff suggestions, and management reviews.





OPERATIONAL PLAN

