

Overview of Drinking Water Quality Management Standard (DWQMS)

Committee of The Whole
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Background

- October 2006, the MECP informed Municipalities of its intent to move forward with changes to the approval process for Municipal Drinking Water Systems
- Part II of The Walkerton Inquiry, Justice O'Connor recommended that Municipalities adopt a new approvals framework for their drinking water systems
- Further recommended a quality management standard specifically designed for water systems be developed and implemented in Ontario, leading to the creation of the DWQMS
- This Standard is mandated through the *Safe Drinking Water Act, 2002* (SDWA)



Who Does DWQMS Impact?

- Anyone responsible and/or involved in the delivery of safe drinking water from a Municipal Residential Drinking Water System
- This includes the Mayor, Councilors, CAO, Clerk, Directors, Managers and Operators



Implementing DWQMS

- Comprised of (21) Twenty-one elements
- Based on the PLAN, DO, CHECK, IMPROVE methodology of 21 elements
- PLAN – establish the objectives, policy and procedures necessary to deliver the results
- DO – implement the procedures
- CHECK – monitor and measure procedures and report the results
- IMPROVE – take action to continually improve performance



Element # 1: Quality Management System

- The Operating Authority shall document (in the form of an Operational Plan), implement and maintain and a Quality Management System that meets the requirements of the DWQMS
- The Operational Plan itself



Element # 2: Quality Management System Policy

- The Town of The Blue Mountains, consistent with its current policy of providing the public safe drinking water, reaffirms its commitment to supplying safe, consistent drinking water while maintaining and improving the Quality Management System (QMS) meeting regulatory requirements. The Town will continue to achieve these goals through the implementation of a Quality Management System comprised of policies and procedures through risk assessment evaluations, staff competencies, open communication, workplace safety and emergency contingency plans.



Element # 3: Commitment and Endorsement

- The Operational Plan shall contain a written endorsement of its contents by Top Management and the Owner
- The Town of The Blue Mountains' Council commits to support the DWQMS and acknowledges Top Management will be responsible for the provisions of this document. Endorsement by the Owner and Top Management acknowledges and supports the provision of sufficient resources to maintain and continually improve the Town's QMS.



Element # 4: QMS Representative

- Operational Plan must identify a QMS Representative who is responsible for:
 - Ensuring processes and procedures needed for the QMS are established and maintained
 - Reports to Top Management on the performance of the QMS and any need for improvement
 - Document control
 - Ensures personnel are aware of all applicable legislation and regulatory requirements
 - Promotes awareness of the QMS



Element # 5: Document & Records Control

- Establishing processes to manage and control documents required by QMS
- Ensuring only current documents pertaining to operations, maintenance and applicable legislation are in use and in circulation



Element # 6: Drinking Water System

- Description of the drinking water system
- Description of source, key processes and descriptions of related water treatment, storage and distribution system



Element # 7: Risk Assessment

- Identifies potential hazardous events and associated risks within the system
- Considers reliability and redundancy of equipment
- Currency and validity of information must be reviewed annually
- Risk assessment must be completed every 36 months



Element # 8: Risk Assessment Outcomes

- Assess the risk associated with the hazards identified in Element # 7
- Ranks the hazardous events identified using a scoring matrix
 - Likelihood
 - Consequence
 - Detectability
- Identifies control measures to mitigate the hazardous events



Element # 9: Organizational Structure, Roles & Responsibilities

- Describes the Organizational Structure
- Identifies person(s) responsible for undertaking the Management Review
- Identifies “Owner” of the system and their responsibilities
- Identifies “Operating Authority” and their responsibilities
- Identifies “Top Management” and their responsibilities



Element # 10: Competencies

- Document the required education, skills and experience required by the Operating Authority
- Describe the method used to maintain knowledge and skill levels of employees
- Operating Authority must ensure personnel remain competent through training and awareness of duties



Element # 11: Personnel Coverage

- Ensure sufficient personnel with identified competencies are available for duties directly affecting water quality



Element # 12: Communications

- Describe how relevant aspects of the QMS are communicated between Top Management and:
 - the Owner
 - Operating Authority Personnel
 - Suppliers that have been identified as essential under Element # 13
 - the Public



Element # 13: Essential Supplies and Services

- Identifies and documents all supplies and services that are essential for the production and delivery of safe drinking water
- For each essential supply or service, identifies the means to ensure its procurement



Element # 14: Review and Provision of Infrastructure

- Documented procedure for annual review of Infrastructure
- Considers the outcomes of the risk assessment under Element 8
- Ensures the adequacy of infrastructure necessary to operate and maintain the system is reviewed at least once every Calendar Year



Element # 15: Infrastructure Maintenance, Rehabilitation and Renewal

- Document a summary of the infrastructure maintenance, rehabilitation and renewal systems; and
- Long term forecast of major infrastructure maintenance, rehabilitation and renewal activities
- Long term forecast must be reviewed at least once every Calendar Year
- Monitor the effectiveness of the maintenance program and communicate to the Owner



Element # 16: Sampling, Testing and Monitoring

- Procedures required for sampling, testing and monitoring for process control and finished water quality including requirements for sampling, testing and monitoring in most challenging conditions
- Description of relevant sampling, testing and monitoring activities that take place upstream
- Document how results are shared between Operating Authority and the Owner



Element # 17: Measurement & Recording Equipment Calibration & Maintenance

- Procedure for calibration and maintenance of measurement and recording equipment



Element # 18: Emergency Management

- Documented procedure for maintaining a state of emergency preparedness that includes:
 - List of potential emergency situations
 - Activities for emergency response and recovery
 - Training and testing requirements
 - Owner and Operating Authority responsibilities



Element # 19: Internal Audit

- Procedure for internal audits that evaluates the conformity of the QMS with the requirements of the Standard
- Considers previous internal and audit results
- Describes how the QMS corrective actions are identified and initiated
- Must be conducted at least once every Calendar Year



Element # 20: Management Review

- Procedure for Management Review that evaluates the continuing suitability, adequacy and effectiveness of the QMS
- Considers the results of previous management reviews and identifies deficiencies and actions taken to address
- Results of Management Review must be reported to Owner
- Management Review is conducted at least once every Calendar Year



Element # 21: Continual Improvement

- Procedure for tracking and measuring continual improvement
- Includes reviewing and considering Best Management Practices published by MECP
- Documenting process for identification and management of Corrective Actions
- Reviewing potential non-conformities
- Documenting outcome of review
- Reviewing actions to prevent non-conformities



Next Steps

- Review the Town's Operational Plan
- Mayor, Deputy Mayor and Top Management to sign Commitment and Endorsement Statement



Questions?

