



**The Municipality of Brockton  
/ Veolia North America**

**Drinking Water Quality Management System**

# **Operational Plan / QMS Manual**

**MUNICIPALITY OF BROCKTON  
DRINKING WATER SYSTEMS**

**CHEPSTOW DRINKING WATER SYSTEM  
LAKE ROSALIND DRINKING WATER SYSTEM  
WALKERTON DRINKING WATER SYSTEM**

**The Municipality of Brockton  
100 Scott St. PO Box 68  
Walkerton, Ontario  
N0G 2V0**

**REVISION 9  
July 2023**

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## Glossary of Terms

<b>ANSI</b>	American National Standards Institute - standard that essential suppliers of water treatment related materials and chemicals must adhere to for certain products
<b>Audit</b>	a systematic and documented verification process that involves objectively obtaining and evaluating documents and processes to determine whether a quality management system conforms to the requirements of the DWQMS
<b>Authority</b>	official permission or approval to carry out a responsibility or task
<b>Competence</b>	a combination of observable and measurable knowledge, skills and abilities which are required for a person to carry out assigned responsibilities.
<b>Compliance</b>	the fulfillment of a regulatory requirement
<b>Conformance</b>	the fulfillment of a DWQMS requirement
<b>Consumer</b>	the drinking water end user
<b>Contingency Plan</b>	Operating Authority's procedures to mitigate or control emergency situations beyond the Standard Operating Procedures.
<b>Control Measure</b>	includes any processes, physical steps, or other contingencies that have been put in place to prevent or reduce a hazard before it occurs.
<b>Contact Time (CT)</b>	This value is called "Chlorine Contact Time" or CT. To calculate CT, multiply the free chlorine residual concentration (C) , in mg/l, by the contact time (T), in minutes, CT measures the effectiveness of a disinfection process.
<b>Critical Control Limit (CCL)</b>	the point at which a critical control point response procedure is initiated.

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## Glossary of Terms

- Critical Control Point (CCP)** an essential step or point in the subject system at which control can be applied by the operating authority to prevent or eliminate a drinking water health hazard or to reduce it to an acceptable level.
- Document** includes a sound recording, video tape, film, photograph, chart, graph, map, plan, survey, book of account, and information recorded or stored by means of any device.
- Drinking Water Health Hazard** means, in respect of a drinking water system,
- a condition of the system or a condition associated with the system's waters, including any thing found in the waters that adversely affects, or is likely to adversely affect, the health of the users of the system, that deters or hinders, or is likely to deter or hinder, the prevention or suppression of disease, or that endangers or is likely to endanger public health,
  - a prescribed condition of the drinking water system or,
  - a prescribed condition associated with the system's waters or the presence of a prescribed thing in the waters.
- Drinking Water Quality Management Standard (DWQMS)** means the quality management standard approved by the Minister in accordance with section 21 of the SDWA.
- Drinking Water System** means a system of works, excluding plumbing, that is established for the purpose of providing users of the system with drinking water and that includes,
- any thing used for the collection, production, treatment, storage, supply or distribution of water,
  - any thing related to the management of residue from the treatment process or the management of the discharge of a substance into the natural environment from the treatment system, and
  - a well or intake that serves as the source or entry point of raw water supply for the system.
- Emergency** a potential situation or service interruption that may result in the loss of the ability to maintain a supply of safe drinking water to consumers

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## Glossary of Terms

<b>Emergency Response</b>	the effort to mitigate the impact of an emergency on consumers
<b>Emergency Response Plan (ERP)</b>	Municipal Plan or documentation of emergency response procedures
<b>Gap Analysis</b>	the process of determining and evaluating the variance between the requirements of the DWQMS, and the methods and documents in place in your drinking water system
<b>Hazard</b>	a source of danger or a property that may cause drinking water to be unsafe for human consumption; hazard may be biological, chemical, physical or radiological in nature.
<b>Hazardous Events</b>	an incident or situation that can lead to the presence of a hazard
<b>Implementation Action Plan</b>	the product of a gap analysis which identifies the tasks required for implementing a QMS. The implementation action plan should include tasks, target dates, and people assigned to task duties.
<b>Infrastructure</b>	the set of interconnected structural elements that provide the framework for supporting the operation of the drinking water system, including buildings, workspace, process equipment, hardware and software, and supporting services, such as transportation or communication.
<b>Monitoring</b>	includes any checks or systems that are available to detect hazards or the potential for hazards.
<b>Municipal Drinking Water System</b>	means a drinking water system or part of a drinking water system, a) that is owned by a municipality or by a municipal service board established under section 195 of the <i>Municipal Act, 2001</i> , b) that is owned by a corporation established under section 203 of the <i>Municipal Act, 2001</i> , c) from which a municipality obtains or will obtain water under the terms of a contract between the municipality and the owner of the system, or

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## Glossary of Terms

d) that is in a prescribed class.

**Municipal Residential Drinking Water System** means a large municipal residential system or a small municipal residential system as defined in O. Reg. 170/03.

**Non-Compliance** a failure under the *Safe Drinking Water Act, 2002*, the *Ontario Water Resources Act*, or any regulations or instruments under these Acts which are associated with drinking water.

**NSF** National Sanitary Foundation – standard that essential suppliers of water treatment related materials and chemicals must adhere to for certain products

**Non-Conformance** the non-fulfillment of a DWQMS requirement

**Operating Authority** means, in respect of a subject system, the person or entity that is given responsibility by the owner for the operation, management, maintenance or alteration of the subject system

**Operational Plan** means, in respect of a subject system, the operational plan required by the Director's Direction.

**Owner** includes, in respect of a drinking water system, every person who is a legal or beneficial owner of all or part of the system.

**Permit To Take Water (PTTW)** Authorizes the withdrawal of water in accordance with the Permit granted to the system.

**PLC** Programmable Logic Controller or Programmable Controller is a digital computer used for automation of electromechanical processes, such as control of equipment

**Public** subject system consumers and stakeholders

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## Glossary of Terms

<b>Quality Management System (QMS)</b>	a system to: <ul style="list-style-type: none"> <li>a) establish policy and objectives, and to achieve those objectives, and</li> <li>b) direct and control an organization with regard to quality.</li> </ul>
<b>Record</b>	a document stating results achieved or providing proof of activities performed.
<b>Resources</b>	tangible inputs that are required to deliver safe drinking water
<b>Responsibility</b>	a charge, trust, or duty for which one is responsible
<b>Retrievable</b>	For documents, “retrievable” means the documents must be readily available for personnel to refer to, especially in emergency situations, or in areas where operational procedures would need to be promptly referenced. For example, sampling procedures should be available for reference where sampling activities are performed. For records, “retrievable” is a slightly more flexible term. Usually, a record is considered to be retrievable if it can be produced on request by the end of the business day. This definition stems from audits and inspections – if a record can be provided by the end of the audit, it is usually considered to be retrievable.
<b>Risk</b>	the probability of identified hazards causing harm, including the magnitude of that harm or its consequences.
<b>Risk Assessment</b>	an orderly methodology of identifying hazards or hazardous events that may affect the safety of drinking water and evaluating their significance
<b>SCADA</b>	the abbreviation for Supervisory Control And Data Acquisition. It generally refers to an industrial control system: a computer system monitoring and controlling a process.
<b>Standard Operating Procedures (SOP)</b>	standardized operating procedures compiled in an Operations Manual

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## Glossary of Terms

<b>Supplier</b>	an organization or person that provides a product or service that affects drinking water quality.
<b>SDWA</b>	means <i>Safe Drinking Water Act, 2002, S.O. 2002, c. 32</i> , as amended.
<b>Top Management</b>	a person, persons or a group of people at the highest management level within an operating authority that makes decisions about the QMS and makes recommendations to the owner about the subject system or subject systems
<b>Water Treatment Plant (WTP)</b>	Operating Authority's treatment system location

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## **ELEMENT 1**

# **Quality Management System**

BROCKTON DWQMS  
OPERATIONAL PLAN



## 1 Quality Management System

The Drinking Water Quality Management Standard (DWQMS) requires an Operating Authority to establish a Quality Management System (QMS) for each system that it operates.

The Operating Authority (Veolia Water Canada Inc.), must develop a QMS to conform to the requirements that are laid out in the Drinking Water Quality Management Standards. Accomplishing this will help reduce or eliminate negative situations that may occur as a result of non-conformance.

A QMS is a system to establish policies and objectives, and achieve those objectives, and assist in the direction and control of the organization with regard to quality.

An Operational Plan is a document or series of documents that outlines the policies, processes and procedures for the overall quality management of the drinking water system, and is the documentation of the QMS.

The QMS is documented in this Operational Plan as part of the effort to ensure clean, safe, and reliable drinking water is supplied to all customers served.

- Chepstow – 21 Properties (as displayed on the [Municipality of Brockton](#)'s website)
- Lake Rosalind – 60 Properties (as displayed on the [Municipality of Brockton](#)'s website)
- Walkerton – 2,100 Properties (as displayed on the [Municipality of Brockton](#)'s website)

The QMS shall be reviewed annually to ensure that the procedures are correct and current. The review will include the QMS Representative, Owner, Operating Authority and Operators of the system.

The complete DWQMS can be found in the following locations:

<b>HARD COPY</b>	2 Copies located at the Veolia Water Canada Inc. main office Walkerton 1 Copy located at the Municipal Office
<b>ELECTRONIC</b>	1 Copy within the Veolia Google Shared Drive 1 Copy on the Municipal Website

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Rev. 4	Aug 25, 2021	Updated number of properties & DWQMS locations	B. McGarrity - QMS Rep.	S. Gowan - Veolia PM



## **ELEMENT 2**

# **Quality Management System Policy**

BROCKTON DWQMS  
OPERATIONAL PLAN





## 2 Quality Management System Policy


The Municipality of Brockton (Owner) utilizes the services of Veolia Water Canada (Operating Authority) to operate and maintain the water supply and distribution system.


Together the Municipality of Brockton and Veolia are committed to:

- Providing the consumer with a consistent supply of clean, safe drinking water
- Complying with all applicable legislative and regulatory requirements
- Managing and operating the water supply system in a responsible manner in accordance with documented Quality Management System (QMS) policies and procedures
- Maintaining and continually improving its Quality Management System (QMS)

This Policy and the QMS is communicated to the *Operating Authority* during the yearly training session, to the *Owner* during Management Reviews, and to the *Public* via the Municipal Website and Municipal Office.

Veolia Water Canada – Operating Authority Representatives

 March 31, 2022  
 date  
**Marco Fontana Giusti**  
 VP Municipal Water  
 Veolia North America, Canada

 March 30, 2022  
 date  
**Scott Gowan**  
 Project Manager  
 Veolia North America, Canada

File: Google Drive \ QMS Rep. - Files and Documents \ DWQMS \ Operational Plan \ Brockton \ Element 2 - Quality Management System Policy

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Note: To be reviewed annually or when a QMS change occurs.

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## **ELEMENT 3**

### **Commitment and Endorsement**

BROCKTON DWQMS  
OPERATIONAL PLAN





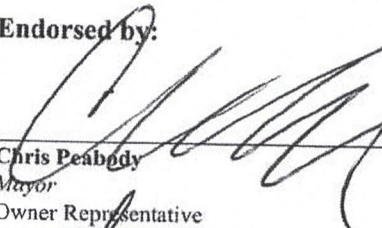



### 3 Commitment and Endorsement

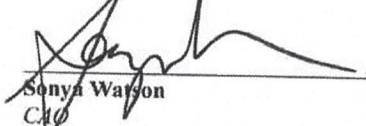
The system owner, the Municipality of Brockton, and the Operating Authority, Veolia Water Canada Inc., support the implementation, maintenance, and continual improvement of a drinking water Quality Management System (QMS) for the Municipality of Brockton Water Supply System, as documented in the Operational Plan. Top Management shall also ensure that the Operating Authority is aware of all applicable Legislative and Regulatory requirements.


Endorsement by the Owner - the Municipality of Brockton and the Operating Authority - Veolia Water Canada Inc., acknowledges the need for, and supports the provision of sufficient resources to implement, maintain, and continually improve the Quality Management System (QMS). This Commitment and Endorsement is communicated to the Director of Operations on a yearly basis at the Management Review and then communicated to the Owner, through the Director of Operations when there is a new Council. A signed copy of the Commitment and Endorsement is kept within the Operational Plan at the Veolia Main Office and Google Shared Drives (Veolia Brockton & South Bruce Shared → Brockton Files → Brockton DWQMS 2019).

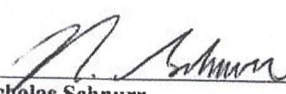
**Endorsed by:**

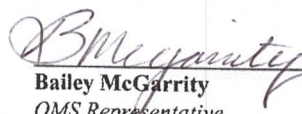
  
\_\_\_\_\_  
Chris Peabody  
Mayor  
Owner Representative  
Municipality of Brockton  
Dec 8, 2022  
date

  
\_\_\_\_\_  
Marco Fontana Giusti  
VP Municipal Water  
Operating Authority Representative  
Veolia North America, Canada  
Dec 15, 2022  
date

  
\_\_\_\_\_  
Sonya Watson  
CIO  
Owner Representative  
Municipality of Brockton  
Dec 8, 2022  
date

  
\_\_\_\_\_  
Scott Gowan  
Project Manager  
Operating Authority Representative  
Veolia North America, Canada  
Dec. 9/22  
date

  
\_\_\_\_\_  
Nicholas Schnurr  
Director of Operations  
Owner Representative  
Municipality of Brockton  
Dec 8, 2022  
date

  
\_\_\_\_\_  
Bailey McGarrity  
QMS Representative  
Operating Authority Representative  
Veolia North America, Canada  
Dec. 9/22  
date

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Rev. 8	Nov. 30, 2022	Updated Director of Operations	B. McGarrity - QMS Rep.	S. Gowan - Veolia PM

Note: To be reviewed annually or when a QMS change occurs.

### 3 Commitment and Endorsement Procedure

As a requirement of the DWQMS (Drinking Water Quality Management Standard) 2.0, released February 2017 by the Ministry of Environment, Conservations and Parks (MOECP), the Operating Authority must ensure that a **Commitment and Endorsement** form is reviewed and signed by the appropriate personnel. The Commitment and Endorsement is in place to ensure that both the Operating Authority and the Owners are aware of their duties and responsibilities in regards to the Brockton Quality Management System (QMS) to ensure potable water to the consumer.

#### Owner (Mayor and Council)

The Owner of the Brockton Drinking Water System is the Municipality of Brockton, and it is required that the Mayor and Council review the QMS every four years after a new Council has taken Office (the timeframe may vary, to allow council members to adjust to their new roles). If there is a council member turnover between elections, then that individual member will have a training session in regards to their role and responsibility with the DWQMS. This is completed by the Operating Authority (QMS Rep. or Project Manager) through a presentation of the QMS, whether that be in person or a video conference. Once the QMS has been reviewed with the Owner, and they agree to their responsibility to ensure potable water - mainly to certify that the needs to ensure safe drinking water to the consumer will be met (financially, or providing the required resources), the Mayor may then sign-off on the **Commitment and Endorsement** form, located in Element 3 of the Operational Plan.

#### Owner Representatives (CAO and Director of Operations)

The CAO and Director of Operations take part in a Management Review on an annual basis with the QMS Rep. and Project Manager. During this meeting, the duties and responsibilities of the CAO and Director of Operations to provide clean, safe drinking water is reviewed as well.

#### Operating Authority (OA) Representatives (Area Manager, Project Manager and QMS Rep.)

The OA Reps. discuss their duties and responsibilities with the Owner Reps. on an annual basis during the Management Review, as indicated above. The OA Reps. also partake in an annual DWQMS Training session provided by the QMS Rep.

All meetings indicated above are conducted through in-person or video conferences, presented by the QMS Rep. A sign-off sheet for Management Reviews are filed within the Google Shared Drive (Brockton Management Reviews), as well as emailed to all personnel involved. Evidence of the presentation to Council is kept on Council Meeting Records.

For both the Owner Representatives and the Operating Authority Representatives, it is not required to sign the **Commitment and Endorsement** form annually, only if there is a change in personnel, as Management Review sign-off is sufficient proof that their duties and responsibilities were reviewed.

Page 1 of 1

File: Google Drive \ QMS Rep. - Files and Documents \ DWQMS \ Operational Plan \ Brockton \ Element 3 - Commitment & Endorsement

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## **ELEMENT 4**

# **Quality Management System Representative**

BROCKTON DWQMS  
OPERATIONAL PLAN





## 4 Quality Management System Representative

The QMS Representative, in conjunction with the Project Manager, will establish, implement, and maintain the policies, processes, and procedures required for the DWQMS. In addition, the QMS Representative will report on the performance of the QMS and any need for improvement to Top Management (see **Communication Protocol** below).

The responsibilities of the QMS Representative are listed in the Responsibilities Table in Appendix E, as part of Element 9, Organizational Structure, Roles, Responsibilities, and Authorities.

### COMMUNICATION PROTOCOL

As it is the responsibility of the QMS Rep. to communicate all MAJOR changes (system change, personal change, new elements added, etc.) of the DWQMS to Top Management, and Owner Representative(s), the following steps should be taken depending whom the information is for.

- a. When there is a Mayor or Council turnover, or the Director of Operations changes, an overview of the Operational Plan, and corresponding responsibilities are presented to these members during a Council Meeting, or Virtual training.
- b. On an annual basis, refresher training is delivered to the Director of Operations - who will then relay the necessary information to the Mayor and Council Members. If the Mayors and Council Members wish for more information, the QMS Rep. may provide such information to those asking.
- c. When immediate changes occur with the Operational Plan that the Owner and Top Management are required to know, the QMS Rep. will relay such changes to the Project Manager, who will then relay the information to the Owner and Top Management during monthly meetings.

### APPENDIX E

APPENDIX E1: Organization Chart – Veolia Water Canada

APPENDIX E2: Responsibilities Table – Veolia Water Canada

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Note: To be reviewed annually or when a QMS change occurs.



## **ELEMENT 5**

# **Documents and Records Control**

BROCKTON DWQMS  
OPERATIONAL PLAN



## 5 Documents and Records Control

A process is in place for the control and management of the documents and records required by the Quality Management System (QMS).

This process is to ensure that documents are kept up to date with applicable legislation and regulations, and changes in operations. The process also ensures that documents and records are legible, are properly stored, and can be easily located and identified. Retention times and disposal methods are listed in the Document and Records Control Table.

The procedure for Document and Records control can be found in Appendix A.

### Appendix A

APPENDIX A1: Procedure for Document and Records Control

APPENDIX A2: Document and Records Control Table

APPENDIX A3: Document Approval – Change Form

APPENDIX A4: Contingency Plan Template  
Standard Operating Procedure Template

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**ELEMENT 6**  
**Drinking Water System**

BROCKTON DWQMS  
OPERATIONAL PLAN





## 6 Drinking Water System

### System Descriptions

Please see the appropriate Appendix section tab at the back of this document for details on the individual systems for the Municipality of Brockton.

The Systems included are:

Chepstow Drinking Water System Tab (C-6)

Lake Rosalind Drinking Water System Tab (R-6)

Walkerton Drinking Water System Tab (W-6)

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Note: To be reviewed annually or when a QMS change occurs.



## **ELEMENT 7**

### **Risk Assessment**

BROCKTON DWQMS  
OPERATIONAL PLAN



## 7 Risk Assessment

A Risk Assessment Procedure has been established and implemented to determine the potential hazards and critical control points that exist in the water treatment system.

A Risk Assessment Table has been developed to list potential hazards and their effects, and the associated monitoring and control measures. Critical Control Points (CCP) and Critical Control Limits (CCL) are identified using a Risk Priority Number system described in the risk assessment procedure.

For emergency situations or hazardous events outside the regular monitoring and control process, a Contingency Plan is available for response to deviations from Critical Control Limits (CCL).

An Operational Plan binder and Contingency Plan are readily available for employee's reference at the Water Treatment Plant Main Office.

Procedures are implemented for reporting and recording deviations from Critical Control Limits (CCL).

An annual Management Review, as described in Element 20, takes place to ensure the system is current and the risk assessment procedure and outcomes are reviewed and maintained.

A full updated Risk Assessment is to be conducted once every 36 months in addition to reviews held once every calendar year (unless a 36 month review has been completed within that year).

The current year Risk Assessment or Risk Review can be located in the Operational Plan (Chepstow → C-B2, Lake Rosalind → R-B2, Walkerton → W-B2), as well as online (see location below). All previous year Annual Reviews and 36 Month Risk Assessments can be found on the Google Shared Drive (DWQMS Requirements → Risk Assessments-Reviews → Brockton → then sorted by year)

### Appendix B

APPENDIX B1: Risk Assessment Procedure

APPENDIX B2: Risk Assessment Table

Rev. Level:	Date:	Change:	By:	Approved By:
Initial Release	Aug. 15, 2012	Release	DC Scott -QMS Rep.	S. Gowan - Veolia PM
Rev. 3	Nov. 12, 2019	Updated location of Risk Assessments/Reviews	B. McGarrity - QMS Rep.	S. Gowan - Veolia PM





## **ELEMENT 8**

### **Risk Assessment Outcomes**

BROCKTON DWQMS  
OPERATIONAL PLAN





## 8 Risk Assessment Outcomes

Please see the appropriate section tab at the back of this document for details on the individual systems for the Municipality of Brockton.

### The Systems included are:

*Chepstow Drinking Water System* Tab (C-8)

*Lake Rosalind Drinking Water System* Tab (R-8)

*Walkerton Drinking Water System* Tab (W-8)

Rev. Level:	Date:	Change:	By:	Approved By:
Initial Release	Aug. 15, 2012	Release	DC Scott –QMS Rep.	S. Gowan - Veolia PM
Rev. 2	Nov. 12, 2019	Updated to correct tabs	B. McGarrity - QMS Rep.	S. Gowan - Veolia PM

Note: To be reviewed annually or when a QMS change occurs.



## **ELEMENT 9**

# **Organizational Structure, Roles, Responsibilities and Authorities**

BROCKTON DWQMS  
OPERATIONAL PLAN





## 9 Organizational Structure, Roles, Responsibilities and Authorities

The system Owner (The Municipality of Brockton), and the Operating Authority (Veolia Water Canada), have an organizational structure in place to ensure the management of safe drinking water. Only qualified Operators (those who have received the proper training and certification) are granted permission to access to treat the drinking water for Walkerton, Chepstow and Lake Rosalind.

Though the Owner Representatives are not the direct Operational Staff, it is required that they have the appropriate knowledge on all three Systems. This is completed when position changeover occurs, through a council meeting as a refresher to the Mayor, Deputy Mayor and Council Members (these council meetings are also open to the public). Once every calendar year, a Management Review is also required.

The following individuals are to be present during this review (whether in-person, video, or if unavailable, a conclusion email will be sent):

- Area Manager (Operating Authority)
- Project Manager (Operating Authority)
- QMS Rep. (Operating Authority)
- Director of Operations (Owner Representative)

Job descriptions are created for each Operating Authority and Owner position, and are outlined in the Responsibilities Table, showing title, responsibilities and authorities. Organizational Charts show the relationship of roles in the structure. These can be found in Appendix E.

### Appendix E

APPENDIX E 1: Organizational Chart - Veolia

APPENDIX E 2: Responsibilities Table - Veolia

APPENDIX E 3: Organizational Chart - Municipality of Brockton

APPENDIX E 4: Responsibilities Table - Municipality of Brockton

APPENDIX E 5: Job Descriptions

Rev. Level:	Date:	Change:	By:	Approved By:
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Rev. 3	May 27, 2019	New Brockton logo	B. McGarrity - QMS Rep.	S. Gowan - Veolia PM



## **ELEMENT 10**

### **Competencies**

BROCKTON DWQMS  
OPERATIONAL PLAN



## 10 Competencies

All personnel performing duties directly affecting drinking water quality must have adequate training and be competent in their position. This relates to legislative as well as DWQMS requirements.

### Legislative Requirements:

The Water Treatment Plant Operator-In-Charge (OIC) shall, at a minimum, maintain the following classification certifications per O. Reg. 128/04, (with exceptions for relief periods as specified in the legislation):

Chepstow - Water Distribution and Supply Class I  
 - Water Treatment Class I

Lake Rosalind - Water Distribution and Supply Class I  
 - Water Treatment Class I

Walkerton - Water Distribution and Supply Class II

Additionally, annual training is provided to ensure that personnel meet or exceed minimum standards for annual training hours and continuing education hours as established in O. Reg. 128/04.

Veolia is required to provide competent operators to maintain effective water treatment. It is required as part of the operator's responsibility to monitor and ensure he / she receives adequate annual training hours to maintain his / her operator certification for the operation of the Water Treatment Plant.

An annual review (more frequently as required) of training records and certifications is made by the Administrative Assistant to ensure classifications are current and competency is maintained. Operators are advised by the Project Manager of upcoming requirements.

The Project Manager may also recommend training courses and approves training registration requests as appropriate. The Project Manager assists in course arrangements and maintains and monitors the employee training matrix.

Effectiveness of outside training is evaluated by the Project Manager, after completion, by discussions with the employee. Certifications from the training, when provided, are filed with the employee training records, and added to the Training Matrix.

Rev. Level:	Date:	Change:	By:	Approved By:
Initial Release	Aug. 15, 2012	Release	DC Scott –QMS Rep.	S. Gowan - Veolia PM
Rev. 3	Nov. 15, 2021	Added in mention of Reminder Google Sheet	B. McGarrity - QMS Rep.	S. Gowan - Veolia PM

## 10 Competencies

To ensure Operator Certificates/Licences/Required Training is kept current, a reminder schedule is now in-place that will email the Project Manager, QMS Rep. and the Operator (who's licence/certificate is coming due) reminds every six months, three months and one month prior to expirations. With this new program established, important certificates, licences and training should not become expired, as there will be enough time for renewal procedures.

### In-House Training Requirements

In-house training such as new employee orientation, internal systems (SCADA etc.), refresher training is provided by the Project Manager / Overall Responsible Operator or designate.

Training session records are to be noted by the employee, signed by the trainer and trainee, and forwarded to the Administrative Assistant for filing and entering in the Training Matrix.

### QMS Awareness Training Requirements

All personnel must be aware of the Quality Management System and their requirements under the QMS, especially those pertaining to their specific roles.

The QMS Operational Plan, and any changes to procedures affecting personnel, will be reviewed with employees by the Project Manager and / or QMS Representative at least prior to the accreditation audit, and as appropriate throughout the development of the Operational Plan (Document and Records Control, Risk Assessment, for example) and when changes may be made to the Operational Plan.

### Appendix F

APPENDIX F1: Competency Requirements Table

APPENDIX F2: Training Matrix

Rev. Level:	Date:	Change:	By:	Approved By:
Initial Release	Aug. 15, 2012	Release	DC Scott –QMS Rep.	S. Gowan - Veolia PM
Rev. 3	Nov. 15, 2021	Added in mention of Reminder Google Sheet	B. McGarrity - QMS Rep.	S. Gowan - Veolia PM



## **ELEMENT 11**

### **Personnel Coverage**

BROCKTON DWQMS  
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## 11 Personnel Coverage

The Operating Authority shall implement and conform to the following procedure:

The Brockton Facilities are staffed from Monday to Friday from 7:30 a.m. until 4:00 p.m. and are attended to on weekends for normal daily rounds.

The Project Manager, or delegate, is the primary Overall-Responsible-Operator (ORO).

There is an assigned on-call water Operator during off-hours. The schedule is posted in the office of the Operating Authority, as well as on Google Drive for easy access for all Operators.

The on-call Operator conducts a physical verification of conditions at the pumphouse once per day during weekends and statutory holidays.

The normal on-call schedule for water system Operators shall be from start time on Thursday to start time the following Thursday. The Project Manager establishes and maintains the on-call schedule.

At all times the pumphouses are monitored by SCADA. The SCADA system has an auto-dialer that has been programmed to contact personnel whenever conditions warrant.

The on-call Operator is the designated Operator-In-Charge (OIC) and will respond to, and investigate all alarms within 60 minutes. After evaluating the situation, the Operator will correct the problem or will call the ORO who will then provide help, whether that means by himself/herself or calling another Operator at his/her discretion based on the situation.

The ORO is available by cell phone when not physically at the pumphouse.

Veolia Water Canada is a non-unionized operation, and labour disputes are unlikely. Management Personnel are trained in operations if backup Operators are required.

In the event that the required number of competent, trained personnel are unavailable for any reason, appropriate action must be taken. For further detail and procedure regarding the resolve of this particular situation, please refer to Contingency Plan *Short-Staff* (Chepstow OMB-CWS-L-19, Walkerton OMB-WWS-K-17, Lake Rosalind OMB-LRWS-K-19).

### APPENDIX G1: After Hours Dispatch and Response to Auto-Dialer Alarm Procedure

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Rev. 5	Nov. 15, 2021	Updated CP Locations, removal of data logger)	B. McGarrity - QMS Rep.	S. Gowan - Veolia PM

Note: To be reviewed annually or when a QMS change occurs.



## **ELEMENT 12**

### **Communications**

BROCKTON DWQMS  
OPERATIONAL PLAN





## 12 Communications

The Project Manager or QMS Rep. shall ensure that the Owner is provided a current copy of the Operational Plan. The Owner shall also be advised of any changes to the Quality Management System, following revisions, and a status update shall be communicated following Management Reviews. This communication may take place during the regular annual report to Council by the liaison, or separate meetings arranged as necessary.

In addition to the Operational Plan, potential changes and Management Reviews, other relevant information could include audit reviews, risk assessment changes, and provision for infrastructure information. The procedure for this information to be communicated to the Owner is that the Project Manager will communicate to the Owner, through the Owner's liaison, the Director of Operations. This can take place at Council Meetings, or Committee Meetings, as applicable.

Operating Authority Personnel will be informed of the QMS and any changes or updates through staff meetings with the Project Manager and/or the QMS Representative following the original implementation. The QMS Policy is posted at all Pumphouses. In addition to the QMS Policy, the Operational Plan is kept on Google Drive, to ensure Operators have easy and quick access to all current documents (Contingency Plans and Standard Operating Procedures), that are needed at the time.

Essential Suppliers shall receive information regarding the QMS from the Operating Authority as required for purchasing as described in Element 13.

The Owner shall make the Operational Plan available for viewing by the public at accessible locations in the geographical area, served by the subject system. Consumers or the General Public will have access to the QMS policy and the complete Operational Plan at the Operating Authority and the Municipality Offices. As well, a refined copy of the Operational Plan is located on the Municipal Website.

File: Google Drive \ QMS Rep. - Files and Documents \ DWQMS \ Operational Plan \ Brockton \ Element 12 - Communications

Rev. Level:	Date:	Change:	By:	Approved By:
Initial Release	Aug. 15, 2012	Release	DC Scott -QMS Rep.	S. Gowan - Veolia PM
Rev. 4	Nov. 15, 2021	Updated location of Operational Plan	B. McGarrity - QMS Rep.	S. Gowan - Veolia PM

Note: To be reviewed annually or when a QMS change occurs.



## **ELEMENT 13**

### **Essential Supplies and Services**

BROCKTON DWQMS  
OPERATIONAL PLAN





### 13 Essential Supplies and Services

All essential Chemical, Material, Equipment, and Part Suppliers, and Service Providers must meet the Quality and Performance standards suitable for the production and delivery of safe drinking water to the customer.

Essential suppliers of chemicals and materials must meet NSF / ANSI (National Sanitary Foundation / American National Standards Institute) standards.

Ontario legislation requires that Laboratories performing drinking water testing must be accredited for the parameters being tested, and Operating Authorities must use accredited labs as required for testing.

Documentation on quality and other supplier requirements are provided to all essential suppliers and service providers indicated in Appendix HI: Essential Suppliers and Services Table, via letter. These *Supplier Letters* are distributed once a supplier or service becomes essential to help guarantee that safe drinking water is constantly provided to the consumer. Refresher letters are also distributed on a five-year rotation, to ensure that all essential suppliers and services continue to meet Veolia requirement (view appendix H2 for Supplier Distribution List)

The QMS Representative reviews the requirements annually, or more frequently as may be required for changes. The suppliers are then informed by the Project Manager, QMS Representative, Administrative Assistant, or designate.

Meetings are held with contractors and service providers prior to work being carried out on water treatment equipment. They are accompanied by a Water Operator to ensure water plant and distribution system requirements are understood and met prior to performing their task.

On receipt of goods and services, materials and packing slips are checked against the Purchase Order or invoice by appropriate Personnel with knowledge of the goods, services, materials or parts to ensure requirements are met. If an issue is noted the supplier is contacted by the appropriate person. Operators are sufficiently trained and knowledgeable to ensure the proper materials are received and available.

Rev. Level:	Date:	Change:	By:	Approved By:
Initial Release	Aug. 15, 2012	Release	DC Scott –QMS Rep.	S. Gowan - Veolia PM
Rev. 3	Feb. 22, 2018	Updated supplier letter freq. and added Appendix H2	B. McGarrity - QMS Rep.	S. Gowan - Veolia PM

Note: To be reviewed annually or when a QMS change occurs.



## 13 Essential Supplies and Services

Appendix H lists the Essential Suppliers and Services, Procurement information, and Quality expectations.

### Appendix H

APPENDIX H1: Essential Supplies and Services Table

APPENDIX H2: Essential Supplier and Service Letter - Distribution Frequency

Rev. Level:	Date:	Change:	By:	Approved By:
Initial Release	Aug. 15, 2012	Release	DC Scott -QMS Rep.	S. Gowan - Veolia PM
Rev. 3	Feb. 22, 2018	Updated supplier letter freq. and added Appendix H2	B. McGarrity - QMS Rep.	S. Gowan - Veolia PM

Note: To be reviewed annually or when a QMS change occurs.



## **ELEMENT 14**

# **Review and Revision of Infrastructure**

BROCKTON DWQMS  
OPERATIONAL PLAN



## 14 Review and Revision of Infrastructure

On an annual basis a summary of the Water Treatment System is prepared by the Operating Authority’s Project Manager / Overall Responsible Operator and is submitted to the Owner. Included in the Summary Report is a review and updates on the Operating Authority’s infrastructure and related programs.

The procedure will be for the Project Manager / Overall Responsible Operator to compile information received from the Operators throughout the year based on work orders and observations relating to the infrastructure of the water treatment system. This information will be summarized in the Infrastructure section of the annual summary report and presented to the Owner on an annual basis. The Annual Summary is required to be submitted to the MECP by March 1<sup>st</sup>, and to the Owner by March 30<sup>th</sup> of each year.

The report shall cover the infrastructure in place - the water system infrastructure necessary to operate and maintain the system includes buildings, workspace, associated utilities, process equipment, supporting services, vehicles, distribution system and elevated storage. The report will advise on the adequacy or condition of the infrastructure, with recommendations were warranted.

An Infrastructure Review is carried out as part of the DWQMS requirements, at least once every calendar year. An *Infrastructure Review Documented* form will be completed during the review process as a means to document and record when and what topics were covered during the review. These completed forms are kept in the Infrastructure Reviews folder (Google Shared Drive → DWQMS Requirements → Infrastructure Reviews → Brockton). For further information, review Appendix O1 - Infrastructure Review Procedure.

### Appendices

Appendix O1 - Infrastructure Review Procedure

Appendix O1.A - Form 14-01 - Infrastructure Review Documented

Rev. Level:	Date:	Change:	By:	Approved By:
Initial Release	Aug. 15, 2012	Release	DC Scott –QMS Rep.	S. Gowan - Veolia PM
Rev. 4	July 26, 2023	Updated MOECC to MECP	B. McGarrity - QMS Rep.	S. Gowan - Veolia PM





## **ELEMENT 15**

# **Infrastructure Maintenance Rehabilitation and Renewal**

BROCKTON DWQMS  
OPERATIONAL PLAN





## 15 Infrastructure Maintenance Rehabilitation and Renewal

The Operating Authority maintains a documented summary of the Operating Authority’s infrastructure maintenance, rehabilitation, and renewal programs for the water treatment and distribution system (view a summary of programs on page 2). This assists in ensuring the infrastructure required is in place and is adequately maintained, or plans for improvement are in place for continued safe drinking water to be provided to the customer.

The summary, along with the long term forecast of major infrastructure maintenance, rehabilitation and renewal activities are kept current, and is communicated to the Owner Representative (who will then communicate to the Owner), at least once every Calendar Year. Please review form O1.A *Documented Infrastructure Review* (Operational Plan → Appendix O → Form O1.A) for the summary and long term forecast discussion.

Monitoring of the effectiveness of the maintenance, rehabilitation, and renewal programs is a requirement of the DWQMS, and is carried out by monitoring the maintenance work order system and assessing the amount of planned (preventive action) versus unplanned (corrective action) maintenance activity.

**Corrective Action** - action to *eliminate the cause* of a detected nonconformity of the QMS with the requirements of the DWQMS or other undesirable situation.

**Preventative Action** - action to *prevent the occurrence* of nonconformity of the QMS with the requirements of the DWQMS or other undesirable situation.

A Computerized Maintenance system (Jobs Plus) generates work orders for routine equipment servicing and preventive maintenance for designated equipment in the water treatment and distribution system. Preventative Maintenance can also be entered into the Jobs Plus system by the Project Manager or Operator as proof completed maintenance work.

A summary of key infrastructure material and equipment from (the Computerized Maintenance Management System - CMMS or Jobs Plus, etc) is generated by the Project Manager / ORO and also added to the annual infrastructure summary.

Rev. Level:	Date:	Change:	By:	Approved By:
Initial Release	Aug. 15, 2012	Release	DC Scott –QMS Rep.	S. Gowan - Veolia PM
Rev. 5	July 26, 2023	Updated Summary table	B. McGarrity - QMS Rep.	S. Gowan - Veolia PM

## 15 Infrastructure Maintenance Rehabilitation and Renewal

### Summary of Veolia Water Canada's Infrastructure Maintenance, Rehabilitation and Renewal Program

PROGRAM	FREQUENCY
Generator Test Run	<i>Chepstow</i> - monthly <i>Lake Rosalind</i> - monthly <i>Walkerton</i> - monthly
Generator Inspection (outside company)	<i>Chepstow</i> - biannual <i>Lake Rosalind</i> - biannual <i>Walkerton</i> - biannual
Flushing - Hydrant / Blow Offs	<i>Chepstow</i> - biannual <i>Lake Rosalind</i> - biannual <i>Walkerton</i> - annual
Valve Operation	<i>Chepstow</i> - NA <i>Lake Rosalind</i> - NA <i>Walkerton</i> - Biennial (Eastside - even years, Westside - odd years)
Chlorine Injection Point - Cleaning	<i>Chepstow</i> - Monthly <i>Lake Rosalind</i> - Monthly <i>Walkerton</i> - NA
UV Sensor Calibration	<i>Chepstow</i> - Monthly inhouse calibration <i>Lake Rosalind</i> - NA <i>Walkerton</i> - Monthly inhouse calibration
UV Reference Sensor Calibration (outside company)	<i>Chepstow</i> - 3 years <i>Lake Rosalind</i> - NA <i>Walkerton</i> - 3 years
UV Service (outside company)	<i>Chepstow</i> - 6 months <i>Lake Rosalind</i> - NA <i>Walkerton</i> - 6 months
UV Transmitter Bulb Change	<i>Chepstow</i> - Annual <i>Lake Rosalind</i> - NA <i>Walkerton</i> - Annual
Flow Meter Calibration	<i>Chepstow</i> - Annual third-party calibration <i>Lake Rosalind</i> - Annual third-party calibration <i>Walkerton</i> - Annual third-party calibration
Standpipe Inspection	<i>Chepstow</i> - NA <i>Lake Rosalind</i> - NA <i>Walkerton North Tower</i> - 5 years <i>Walkerton South Tower</i> - 5 years

Rev. Level:	Date:	Change:	By:	Approved By:
Initial Release	Aug. 15, 2012	Release	DC Scott - QMS Rep.	S. Gowan - Veolia PM
Rev. 5	July 26, 2023	Updated Summary table	B. McGarrity - QMS Rep.	S. Gowan - Veolia PM



## **ELEMENT 16**

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

BROCKTON DWQMS  
OPERATIONAL PLAN



## 16 Sampling, Testing and Monitoring

The Operating Authority maintains a sampling, testing, and monitoring process as required by the Ontario Regulation 170/03, including under conditions challenging to the system, as shown in the Table in each *System Tab*.

Specific sampling and monitoring procedures are established for operating the water facilities, and are listed in the Operations Manual. The non-routine sample schedule is located in the Main Office, above the filing cabinet for Operators to refer to.

Test results are reported to the Operating Authority by the Accredited Lab and Operator Test results are recorded in the logbook in the pump houses by the Operator.

All sampling and test records from the SCADA and data logger systems, laboratories, and Operators are recorded, properly filed and maintained according to procedures as outlined in the Document and Records Control Procedures, and the Operations Manual.

The procedure is for test results to be provided to the Owner on a monthly basis by the Operating Authority, who compiles the data and forwards the results to the Owner, The accredited Lab also forwards test results to the owner on a monthly basis, unless otherwise requested by the Owner to forward the results to the Operating Authority only.

A summary of the sampling and monitoring requirements of the various pump house process steps, including frequency, location, quality targets, challenging conditions, and records, is shown in the appropriate system section tab at the back of this document.

### The Systems included are:

Chepstow Drinking Water System Tab (C-I1)

Lake Rosalind Drinking Water System Tab (R-I1)

Walkerton Drinking Water System Tab (W-I1)

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Initial Release	Aug. 15, 2012	Release	DC Scott –QMS Rep.	S. Gowan - Veolia PM
Rev. 5	Jan. 26, 2023	Included the location of the non-routine sample schedule	B. McGarrity - QMS Rep.	S. Gowan - Veolia PM



## **ELEMENT 17**

# **Measuring and Recording Equipment Calibrations**

BROCKTON DWQMS  
OPERATIONAL PLAN





## 17 Measuring and Recording Equipment Calibration

The Operating Authority maintains a calibration and maintenance process, as required for the measurement and recording equipment used in the water systems. Procedures are established for calibration and maintenance of this equipment, and are listed in the Operations Manual.

Specific equipment procedures are available in the Equipment Manufacturer's Manuals and Users Manuals are available for Operators as required.

Certified sub-contractor's are used as required for maintenance and calibration of flow meters, and records maintained.

All calibration and maintenance records are properly filed and maintained according to procedures as outlined in the Document and Records Control Procedures, and the Water Systems Operations Manual.

A summary of the calibration and maintenance requirements, for the pump house measurement and recording instruments, including method, frequency, and records is shown in Appendix J - Measurement and Recording Equipment Calibration Table. The Table is maintained by the Operating Authority as revisions are required.

### Appendix J

#### APPENDIX J1: Measurement and Recording Equipment Calibration Table

Rev. Level:	Date:	Change:	By:	Approved By:
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Rev. 1	Jan. 11, 2018	Updated so format connects with both Word and Docs	B. McGarrity - QMS Rep.	S. Gowan - Veolia PM



## **ELEMENT 18**

# **Emergency Management**

BROCKTON DWQMS  
OPERATIONAL PLAN





## 18 Emergency Management

An emergency, with regard to drinking water, is a potential situation or service interruption that may result in the loss of the ability to maintain a supply of safe drinking water to consumers.

Some emergency situations that could occur include chemical, biological, or radiological contamination, major distribution line or watermain breaks, interruptions in pressure, or loss of power. The Risk Assessment Outcomes, and Risk Assessment Table in each *Drinking Water System Tab* (Chepstow **C-8** and **C-B2**, Lake Rosalind **R-8** and **R-B2**, and Walkerton **R-8** and **R-B2**) reference potential emergency situations. Procedures or Contingency Plans related to potential emergency situations can be found in the Operations Manual or Contingency Plan.

A Contingency Plan (Emergency Response Plan) for the Operating Authority is available at the Water Pumphouses listing potential emergencies (also refer to page 2) and the appropriate measures for response, contacts, and how to restore the system to normal operation. Water System Operators and staff are kept up to date with annual reviews of the Operations Manual and Contingency Plan, or as required if changes occur.

It is the responsibility of the Project Manager to ensure that employees are aware of the Contingency Plan and are trained in their responsibilities with regard to emergency preparedness.

During an emergency situation, it is the responsibility of the Municipality of Brockton (Owner) to keep the public and media informed (when deemed necessary) of current situations. There may be certain situations that do not require such actions from the Municipality. This discretion is left to that of the Municipality.

A list of emergency contacts and essential suppliers and services is kept with the Contingency Plan. The Contingency Plan can be found in the following locations:

1. Pumphouse
2. Operations and Maintenance Manual for each Drinking Water System (QMS Rep. desk)
3. Google Shared Drive (Veolia Brockton & South Bruce Shared → Brockton Files → SOPs\_Contingency Plans)

In addition to the above, the Owner has an Emergency Response Plan, in accordance with current legislation and regulations, at the municipal office that provides information and contact information in the case of a water related emergency situation.

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Rev. 3	Nov. 13, 2019	Made changes in accordance with the Internal Audit	B. McGarrity - QMS Rep.	S. Gowan - Veolia PM

## 18 Emergency Management

Emergency Response Testing is accomplished by review of one or more Contingency Plan procedures on a regular basis (minimum annually) in the form of a meeting with Operators and employees to ensure awareness of the procedures and allow discussion and input on situations that could arise as an emergency situation.

### Appendix K

#### APPENDIX K1: Emergency Procedures

#### Potential Emergency Situations

##### *Chepstow*

1. Low Chlorine Residual
2. High Chlorine Residual
3. Low System Pressure
4. Power Outage
5. SCADA/PC System Failure
6. Diesel Generator Failure
7. Chemical or Fuel Spill/Leak
8. Vandalism
9. Failure to Receive Critical Supply of Parts or Chemicals
10. Watermain Break
11. Adverse Water Quality Incident
12. Well Casing Failure / Well Head Damage / Well Pump Failure
13. Discharge Pressure High
14. Agricultural Run-off
15. Backflow from Private Plumbing - Cross Contamination
16. Ultra Violet Disinfection Failure
17. Low System Pressure at the Pumphouse
18. High NTU within the Pumphouse
19. Short Staff

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Rev. 3	Nov. 13, 2019	Made changes in accordance with the Internal Audit	B. McGarrity - QMS Rep.	S. Gowan - Veolia PM

## 18 Emergency Management

### *Lake Rosalind*

1. Low Chlorine Residual
2. High Chlorine Residual
3. Low System Pressure
4. Power Outage
5. SCADA/PC System Failure
6. Diesel Generator Failure
7. Chemical or Fuel Spill/Leak
8. Vandalism
9. Failure to Receive Critical Supply of Parts or Chemicals
10. Watermain Break
11. Adverse Water Quality Incident
12. Well Casing Failure / Well Head Damage / Well Pump Failure
13. Discharge Pressure High
14. Agricultural Run-off
15. Backflow from Private Plumbing - Cross Contamination
16. Low Reservoir Level Alarm
17. High Reservoir Level Alarm
18. High Lift Pump Failure
19. Short Staff

### *Walkerton*

1. Low Chlorine Residual
2. High Chlorine Residual
3. Low System Pressure
4. Power Outage
5. SCADA/PC System Failure
6. Diesel Generator Failure
7. Chemical or Fuel Spill/Leak
8. Vandalism
9. Failure to Receive Critical Supply of Parts or Chemicals
10. Watermain Break
11. Adverse Water Quality Incident
12. Well Casing Failure / Well Head Damage / Well Pump Failure
13. Discharge Pressure High
14. Agricultural Run-off
15. Backflow from Private Plumbing - Cross Contamination
16. Ultra Violet Disinfection Failure
17. Short Staff

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## **ELEMENT 19**

### **Internal Audits**

BROCKTON DWQMS  
OPERATIONAL PLAN





## 19 Internal Audits

An Internal Audit procedure has been established by the Operating Authority to comply with the DWQMS standard. The intent of the procedure is to evaluate conformity of the QMS with the requirements of the Standard.

The Procedure, found in Appendix L1, identifies the internal audit criteria, the frequency recommended for the audit schedule, the scope, method and requirement for documentation of the audits.

The procedure also describes how Corrective Action Reports (CARs) are initiated and addressed to provide irreversible corrective actions to deficiencies found in the audits.

Previous internal and external audit results should be reviewed for consideration when planning the internal audit.

An Internal Audit Checklist is also included as Appendix L2 to assist with the audit.

Internal Audits are required to be completed at least once every Calendar Year.

### Appendix L

APPENDIX L1: Internal Audit Procedure and Schedule

APPENDIX L2: Internal Audit Checklist

Rev. Level:	Date:	Change:	By:	Approved By:
Initial Release	Aug. 15, 2012	Release	DC Scott –QMS Rep.	S. Gowan - Veolia PM
Rev. 2	May 1, 2018	Changed Internal Audit frequency to meet Standard 2.0	B. McGarrity - QMS Rep.	S. Gowan - Veolia PM



## **ELEMENT 20**

### **Management Review**

BROCKTON DWQMS  
OPERATIONAL PLAN



## 20 Management Review

A Management Review procedure has been established by the Operating Authority to comply with the DWQMS standard. The intent of the procedure is to provide a structured mechanism for Top Management to perform a review of prescribed topics covering compliance, consumer, performance, and audit information based on the Quality Management System.

Top Management for the Operating Authority is defined, in Element 9 Organizational Structure, Roles, Responsibilities and Authorities, and Appendix E2, as the Area Manager and Project Manager. A Municipality representative is also included in the management review.

The Procedure, found in Appendix M1, identifies the management review process and specific topics to be assessed.

A Management Review is required to be conducted at least once every Calendar Year (anytime between January - December). A copy of the Management Review can be found on the Google Shared Drive when required (Google Shared Drive → DWQMS Requirements → Management Review → Brockton → Select Year).

A report of the results of the management review is reported to the Owner by the Project Manager on an annual basis. Use Appendix M2: Management Review Template, as a form to complete during Management Reviews as a means to communicate results to the appropriate people.

### Appendix M

APPENDIX M1: [Management Review Procedure](#)

APPENDIX M2: [Management Review Template](#)

Rev. Level:	Date:	Change:	By:	Approved By:
Initial Release	Aug. 15, 2012	Release	DC Scott –QMS Rep.	S. Gowan - Veolia PM
Rev. 4	Nov. 13, 2019	Updated document pathway to completed Mgmt Reviews	B. McGarrity - QMS Rep.	S. Gowan - Veolia PM



**ELEMENT 21**  
**Continual Improvement**

BROCKTON DWQMS  
OPERATIONAL PLAN







## 21 Continual Improvement

The Operating Authority shall strive to continually improve the effectiveness of its Quality Management System through the use of corrective actions.

The review of the Operations Plan by a third party represents the first step in improving the effectiveness of the QMS. Ongoing annual Management Reviews and resulting corrective actions will be the basis for further improvement.

Continual improvement of the DWQMS will be scheduled within the calendar year to concentrate on specific elements each month. Each element within the agenda is subject to change depending on schedule conflicts of the QMS Rep. and those whom may be involved. A sample schedule is provided in the appendix shown below.

At least once every thirty-six months, best management practices must be reviewed, and be implemented as necessary to the Drinking Water System. Appendix N2: Tracking Continual Improvement will be used as a means to assist in the tracking of continual improvement. The previous form will be reviewed at this time as well to ensure that all issues have continually been maintained.

Once Internal and Third-Party Audits have been conducted (scheduled at least once every calendar year), non-conformities and Opportunities for Improvement(OFIs) will be completed within a timely manner, and before the due date. These non-conformities and OFIs will be tracked and reviewed with the method described in Appendix N2: Tracking Continual Improvement.

### Appendix N

APPENDIX N1: DWQMS Review and Revise

APPENDIX N2: Tracking Continual Improvement

Rev. Level:	Date:	Change:	By:	Approved By:
Initial Release	Feb. 11, 2015	Release	DC Scott –QMS Rep.	S. Gowan - Veolia PM
Rev. 4	May 4, 2018	Updated to correspond with the changes in Standard 2.0	B. McGarrity - QMS Rep.	S. Gowan - Veolia PM