



Township of Ashfield-Colborne-Wawanosh



DWQMS Operational Plan  
A-C-W

**The Corporation of  
the Township of Ashfield-Colborne-Wawanosh / Veolia Water  
Canada**

**Drinking Water Quality Management System**

**MASTER  
Operational Plan /  
QMS Manual**

**ASHFIELD-COLBORNE-WAWANOSH  
WATER SYSTEMS**

**Benmiller Drinking Water System**

**Century Heights Subdivision Drinking Water System**

**Courtney Subdivision Distribution System**

**Dungannon Drinking Water System**

**Huron Sands Drinking Water System**

**South Lucknow Distribution System**

**The Corporation of the  
Township of Ashfield-Colborne-Wawanosh  
82133 Council Line., R.R. # 5  
Goderich, Ontario N7A 3Y2**

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Rev. Level:	Date:	Change:	By:	Approved By:
Initial Release	Apr. 30, 2009	Release -	DC Scott -QMS Rep.	Laurie Cox - Veolia Project Manager
Rev. 1	Mar. 28, 2011	Revise System names	DC Scott -QMS Rep.	Laurie Cox - Veolia Project Manager

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

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Township of Ashfield-Colborne-Wawanosh



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Rev. 1	Mar. 28, 2011	Revise System names	DC Scott –QMS Rep.	Laurie Cox - Veolia Project Manager
Rev. 2	May 30, 2018	Added Appendix N	C Good – QMS Rep.	John Graham – Veolia PM

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**Operational Plan Change History Summary**

<b>OPERATIONAL PLAN CHANGE HISTORY:</b>					
<b>Procedure Description</b>	<b>Release / Revision No.</b>	<b>Date</b>	<b>Revision Description</b>	<b>Written By</b>	<b>Approved By</b>
Operational Plan / QMS Manual	Release	Apr. 30, 2009	Initial Release	DCS / L. Cox	L. Cox

<b>Management Review:</b>		
<b>Section(s) Reviewed:</b>	<b>Reviewed by:</b>	<b>Date:</b>

<b>Operational Plan Controlled Copy Locations:</b>		
<b>Location:</b>	<b>Distributed / Updated by:</b>	<b>Date:</b>
Veolia Water – Goderich		
A-C-W Municipal Office		

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Initial Release	Apr. 30, 2009	Release	DC Scott –QMS Rep.	Laurie Cox - Veolia Project Manager

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**DOCUMENT APPROVAL - CHANGE FORM**

<b>CHANGE INFORMATION:</b>	<b>NEW:</b>	
	<b>NEW REVISION LEVEL:</b>	
	<b>OBSOLETE:</b>	
<b>ORIGINATOR:</b>		
<b>DOCUMENT TITLE:</b>		
<b>DOCUMENT NUMBER:</b>		
<b>ELECTRONIC ADDRESS:</b>		
<b>WRITTEN / REVISED BY:</b>		
<b>PURPOSE OF DOCUMENT:</b>		
<b>DESCRIBE REVISION:</b>		
<b>DO ANY OTHER DOCUMENTS REQUIRE REVISION AS A RESULT OF THIS CHANGE ?</b>		
<b>HAVE ALL PERSONNEL AFFECTED BY THIS CHANGE BEEN ADVISED?</b>	Employees to sign and date here as advised:	
<b>APPROVED BY: (name &amp; date &amp; comments)</b>		

File: C:\DWQMS\ACW\ - 1 -d- Operational Plan Change History Summary

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**Glossary of Terms**

**Annual** – a period of one year beginning and ending with the dates conventionally accepted as marking the beginning and end of a year (January 1<sup>st</sup> to December 31<sup>st</sup>)

**Audit** – 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

**Authority** – official permission or approval to carry out a responsibility or task

**Competence** – a combination of observable and measurable knowledge, skills and abilities which are required for a person to carry out assigned responsibilities.

**Compliance** – the fulfillment of a regulatory requirement

**Conformance** – the fulfillment of a DWQMS requirement

**Consumer** – the drinking water end user

**Contingency Plan** – Operating Authority’s procedures to mitigate or control emergency situations beyond the Standard Operating Procedures.

**Control Measure** – includes any processes, physical steps, or other contingencies that have been put in place to prevent or reduce a hazard before it occurs.

**Contact Time (CT)** - This value is called “Chlorine Contact Time” or CT. The CT Value is numerical value of (Chlorine Residual) x (Chlorine Contact Time) (mg/l-minutes).

CT disinfection is a measure of the effectiveness of disinfection or pathogen inactivation while the disinfectant (free chlorine) and water are in contact. If the CT value is not met, there is the the potential for chemical or biological contamination and an adverse water quality situation.

File: C:\DWQMS\ACW\ - 1 -e- Glossary of Terms

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Rev. 1	Mar. 28, 2011	Add CT units	DC Scott –QMS Rep.	Laurie Cox - Veolia Project Manager
Rev. 2	May 30, 2018	Added Definitions	C Good – QMS Rep.	John Graham – Veolia PM

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**Corrective Action** – action to eliminate the cause of a detected nonconformity of the QMS within the requirements of the DWQMS or other undesirable situation

**Critical Control Limit (CCL)** – the point at which a critical control point response procedure is initiated.

**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) 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,
- b) a prescribed condition of the drinking water system or,
- c) 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 purposes of providing users of the system with drinking water and that includes,

- a) any thing used for the collection, production, treatment, storage, supply or distribution of water,
- b) 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

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- c) 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

**Emergency Response** – the effort to mitigate the impact of an emergency on consumers

**Emergency Response Plan (ERP)** – Municipal Plan or documentation of emergency response procedures

**Gap Analysis** – 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

**Hazard** – 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.

**Hazardous Events** – an incident or situation that can lead to the presence of a hazard

**Implementation Action Plan** – 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.

**Infrastructure** – 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.

**Monitoring** – includes any checks or systems that are available to detect hazards or the potential for hazards.

**Municipal Drinking Water System** – means a drinking water system or part of a drinking water system,

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- a) that is owned by a municipality or by a municipal service board established under section 195 of the *Municipal Act, 2001*,
- b) that is owned by a corporation established under section 203 of the *Municipal Act, 2001*,
- 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
- 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.

**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.

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

**Public** – subject system consumers and stakeholders

**Quality Management System (QMS)** – a system to:

File: C:\DWQMS\ACW\ - 1 -e- Glossary of Terms

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## DWQMS Operational Plan A-C-W

- a) establish policy and objectives, and to achieve those objectives, and
- b) direct and control an organization with regard to quality.

**Record** – a document stating results achieved or providing proof of activities performed.

**Resources** – tangible inputs that are required to deliver safe drinking water

**Responsibility** – a charge, trust, or duty for which one is responsible

**Retrievable** – 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.

**Risk** – the probability of identified hazards causing harm, including the magnitude of that harm or its consequences.

**Risk Assessment** – an orderly methodology of identifying hazards or hazardous events that may affect the safety of drinking water and evaluating their significance

**Risk Priority Number (RPN)** – in the risk assessment hazards or hazardous event are assigned a numeric value ranging from 1 to 5 in three different categories: likelihood, severity or consequence, and detectability then added to determine the overall risk value or Risk Priority Number (RPN).

**SCADA** - the abbreviation for Supervisory Control And Data Acquisition. It generally refers to an industrial control system: a computer system monitoring and controlling a process.

File: C:\DWQMS\ACW\1 -e- Glossary of Terms

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**Standard Operating Procedures (SOP)** – standardized operating procedures compiled in an Operations Manual

**Supplier** – an organization or person that provides a product or service that affects drinking water quality.

**SDWA** – means *Safe Drinking Water Act, 2002, S.O. 2002, c. 32*, as amended.

**Top Management** – 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

**Water Treatment Plant (WTP)** – Operating Authority’s treatment system location

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Rev. 2	May 30, 2018	Added Definitions	C Good – QMS Rep.	John Graham – Veolia PM

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Township of Ashfield-Colborne-Wawanosh



## DWQMS Operational Plan A-C-W

### 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.

A QMS is a system to establish policies and objectives, 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.

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.

File: C:\DWQMS\ACW\ - 1- Quality Management System

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





Township of Ashfield-Colborne-Wawanosh



## DWQMS Operational Plan A-C-W

### 2. Quality Management System Policy

The Township of Ashfield-Colborne-Wawanosh (Owner) utilizes the services of Veolia Water Canada to operate and maintain the water supply and distribution system.

Together the Township of Ashfield-Colborne-Wawanosh 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)

Township of Ashfield-Colborne-Wawanosh  
Owner

Veolia Water Canada  
Operating Authority

  
 \_\_\_\_\_  
 Mark Becker  
 Owner Representative  
 Administrator / Clerk-Treasurer

MAY 21 / 15  
 date

  
 \_\_\_\_\_  
 Mark Rüpke  
 Operating Authority Representative  
 Area Manager - Veolia Water Canada

May 20 / 2015  
 date

File: C:\DWQMS\ACW\2- Quality Management System Policy

Rev. Level:	Date:	Change:	By:	Approved By:
Initial Release	Apr. 30, 2009	Release	DC Scott –QMS Rep.	Laurie Cox - Veolia Project Manager
Rev.	May 20, 2015	Update signatures	DC Scott –QMS Rep.	John Graham - Veolia Project Manager

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







Township of Ashfield-Colborne-Wawanosh



Veolia Water Canada


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**3. Commitment and Endorsement**


The system owner, the Township of Ashfield-Colborne-Wawanosh, and the Operating Authority, Veolia Water Canada, support the implementation, maintenance, and continual improvement of a drinking water Quality Management System (QMS) for the Township of Ashfield-Colborne-Wawanosh Water Supply System, as documented in the Operational Plan.

Endorsement by the Owner - the Township of Ashfield-Colborne-Wawanosh 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).

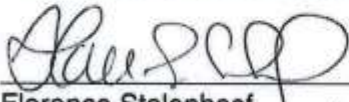
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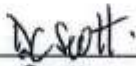
 07/06/16  
date  
Ben Van Diepenbeek  
Owner Representative  
Township of Ashfield-Colborne-Wawanosh  
Reeve

 July 18/2016  
date  
Mark Rupke  
Operating Authority Representative  
Area Manager- Veolia Water Canada

 July 4/16  
date  
Mark Becker  
Owner Representative  
Township of Ashfield-Colborne-Wawanosh  
Administrator / Clerk-Treasurer

 July 18/16  
date  
John Graham  
Operating Authority Representative  
Project Manager-Veolia Water Canada

 July 4/16  
date  
Florence Stalenhoef  
Owner Representative  
Township of Ashfield-Colborne-Wawanosh  
Deputy Clerk

 July 18, 2016  
date  
Don Scott  
Operating Authority Representative  
QMS Representative-Veolia Water Canada

File: C:\DWQMS\ACW\ - 3- Commitment and Endorsement

Rev. Level:	Date:	Change:	By:	Approved By:
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Rev. 1	May 20, 2015	Update signatures	DC Scott -QMS Rep.	John Graham - Veolia Project Manager
Rev. 2	June 27 2016	Update signatures	Courtney Black	John-Graham - Veolia Project Manager

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







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## DWQMS Operational Plan A-C-W

### 4. QMS Representative

The QMS Representative and the Alternate QMS Representative, in conjunction with the Project Manager / Overall Responsible Operator, will establish, implement, and maintain the policies, processes, and procedures required for the QMS. In addition the QMS Representative will report on the performance of the QMS and any need for improvement to Top Management.

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

File: C:\DWQMS\4 – QMS Representative Policy

Rev. Level:	Date:	Change:	By:	Approved By:
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Rev 1	Dec. 7, 2016	Add Notice of Appointment	Courtney Black – QMS Rep.	John Graham – PM
Rev. 2	May 30, 2018	Updated QMS Rep Name	C Good – QMS Rep.	John Graham – PM
Rev. 3	July 10, 2018	Added Alternate QMS Rep.	C Good – QMS Rep.	John Graham – PM

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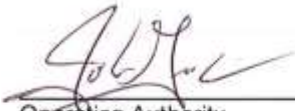
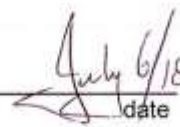
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**Notice of Appointment**

**Quality Management System Representative**

Top Management for the Operating Authority (Veolia Water Canada) has appointed the Quality Management System Representative to be:

**Courtney Good**  
Quality Assurance and Compliance Specialist

  
  
 Operating Authority  
 Representative  
 Project Manager- Veolia  
 John Graham

File: C:\DWQMS\4 – QMS Representative Policy

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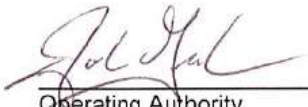
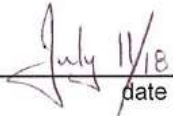
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**Notice of Appointment**

**Alternate Quality Management System Representative**

Top Management for the Operating Authority (Veolia Water Canada) has appointed the Alternate Quality Management System Representative to be:

**Nancy Mayhew**  
Quality Assurance and Compliance Specialist

   
\_\_\_\_\_  
Operating Authority  
Representative  
Project Manager- Veolia  
John Graham

File: C:\DWQMS\4 – QMS Representative Policy

Rev. Level:	Date:	Change:	By:	Approved By:
Initial Release	May 15, 2009	Release	DC Scott –QMS Rep.	Laurie Cox - Veolia PM / ORO
Rev 1	Dec. 7, 2016	Add Notice of Appointment	Courtney Black – QMS Rep.	John Graham – PM
Rev. 2	May 30, 2018	Updated QMS Rep Name	C Good – QMS Rep.	John Graham – PM
Rev. 3	July 10, 2018	Added Alternate QMS Rep.	C Good – QMS Rep.	John Graham – PM

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





Township of Ashfield-Colborne-Wawanosh



## DWQMS Operational Plan A-C-W

### 5. Document 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

File: C:\DWQMS\ACW\ - 5- Document and Records Control

Rev. Level:	Date:	Change:	By:	Approved By:
Initial Release	Apr. 30, 2009	Release	DC Scott –QMS Rep.	Laurie Cox - Veolia Project Manager

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



Township of Ashfield-Colborne-Wawanosh



## DWQMS Operational Plan A-C-W

### 6. Drinking Water System

#### System Descriptions

Please see the appropriate section tab at the back of this document for details on the individual systems for the Township of Ashfield-Colborne-Wawanosh.

The Systems included are:

Benmiller Drinking Water System

Century Heights Subdivision Drinking Water System

Courtney Subdivision Distribution System

Dungannon Drinking Water System

Huron Sands Drinking Water System

South Lucknow Distribution System

File: C:\DWQMS\ACW\ - 6 – Drinking Water System

Rev. Level:	Date:	Change:	By:	Approved By:
Initial Release	Apr. 30, 2009	Release	DC Scott –QMS Rep.	Laurie Cox - Veolia Project Manager
Rev. 1	Mar. 28, 2011	Revise System Names	DC Scott –QMS Rep.	Laurie Cox - Veolia Project Manager

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



Township of Ashfield-Colborne-Wawanosh



## DWQMS Operational Plan A-C-W

### 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.

An Operations 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.

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 every 36 months in addition to the annual reviews.

#### Appendix B

APPENDIX B 1: Risk Assessment Procedure

APPENDIX B 2: Risk Assessment Table

File: C:\DWQMS\ACW\ - 7 – Risk Assessment

Rev. Level:	Date:	Change:	By:	Approved By:
Initial Release	Apr. 30, 2009	Release	DC Scott –QMS Rep.	Laurie Cox - Veolia Project Manager

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



Township of Ashfield-Colborne-Wawanosh



## DWQMS Operational Plan A-C-W

### 8. Risk Assessment Outcomes

#### System Descriptions

Please see the appropriate section tab at the back of this document for details on the individual systems for the Township of Ashfield-Colborne-Wawanosh.

The Systems included are:

Benmiller Drinking Water System

Century Heights Subdivision Drinking Water System

Courtney Subdivision Distribution System

Dungannon Drinking Water System

Huron Sands Drinking Water System

South Lucknow Distribution System

File: C:\DWQMS\ACW\ - 8 – Risk Assessment Outcomes

Rev. Level:	Date:	Change:	By:	Approved By:
Initial Release	Apr. 30, 2009	Release	DC Scott –QMS Rep.	Laurie Cox - Veolia Project Manager
Rev. 1	Mar. 28, 2011	Revise System names	DC Scott –QMS Rep.	Laurie Cox - Veolia Project Manager

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



Township of Ashfield-Colborne-Wawanosh



## DWQMS Operational Plan A-C-W

### 9. Organizational Structure, Roles, Responsibilities, and Authorities

The system Owner, and the Operating Authority, Veolia Water Canada, have an organizational structure in place to ensure the management of the drinking water system by qualified staff.

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.

An annual Management Review, as described in Element 20, takes place to ensure the system is current.

#### Appendix E

APPENDIX E 1: Organizational Chart - Veolia

APPENDIX E 2: Responsibilities Table - Veolia

APPENDIX E 3: Job Descriptions - Veolia

APPENDIX E 4: Organizational Chart – Township of Ashfield-Colborne-Wawanosh

APPENDIX E 5: Responsibilities Table - Township of Ashfield-Colborne-Wawanosh

File: C:\DWQMS\ACW – 9 – Organizational Structure, Roles, Responsibilities, and Authorities

Rev. Level:	Date:	Change:	By:	Approved By:
Initial Release	Apr. 30, 2009	Release	DC Scott –QMS Rep.	Laurie Cox - Veolia Project Manager
Rev. 1	May 28, 2011	E4,E5 to ACW	DC Scott –QMS Rep.	Laurie Cox - Veolia Project Manager

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



Township of Ashfield-Colborne-Wawanosh



## DWQMS Operational Plan A-C-W

### 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:

- All Water Treatment Plant operators shall, at a minimum, attain and maintain a Class I certification as per O. Reg. 128/04.
- The Water Treatment Plant Overall Responsible Operator (ORO) shall maintain, at a minimum, a Class III certification (with exceptions for relief periods as specified in the legislation).
- All Water Treatment Plant distribution employees shall, at a minimum, maintain a Class I certification as per O. Reg. 128/04 and in accordance with the classification of the works.
- The Water Treatment Plant distribution Overall Responsible Operator (ORO) shall maintain, at a minimum, a Class III certification.

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 of training records and certifications is made by the Administrative Assistant (or Project Manager) to ensure classifications are current and competency is maintained. Operators are advised by the CO of upcoming requirements.

The Project Manager may also recommend training courses and approves training registration requests as appropriate. The Administrative Assistant 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.

File: C:\DWQMS\ACW – 10 – Competencies

Rev. Level:	Date:	Change:	By:	Approved By:
Initial Release	Apr. 30, 2009	Release	DC Scott –QMS Rep.	Laurie Cox - Veolia Project Manager
Rev. 1	May 30, 2018	Removed Reference to CO	C Good – QMS Rep.	John Graham – Veolia PM

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



Township of Ashfield-Colborne-Wawanosh



## DWQMS Operational Plan A-C-W

### 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 F 1: Competency Requirements Table

APPENDIX F 2: Training Matrix

File: C:\DWQMS\ACW – 10 – Competencies

Rev. Level:	Date:	Change:	By:	Approved By:
Initial Release	Apr. 30, 2009	Release	DC Scott –QMS Rep.	Laurie Cox - Veolia Project Manager
Rev. 1	May 30, 2018	Removed Reference to CO	C Good – QMS Rep.	John Graham – Veolia PM

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



Township of Ashfield-Colborne-Wawanosh



## DWQMS Operational Plan A-C-W

### 11. Personnel Coverage

The Water Treatment Plant (WTP) is staffed from Monday to Friday from 8:00 a.m. until 4:30 p.m. and attended on weekends for normal daily rounds.

The Water Treatment Plant Project Manager is the primary Overall Responsible Operator (ORO). Back-up OROs are identified in the shift log, as required.

There is an assigned on-call water treatment plant operator during off-hours as described in the After Hours Dispatch Procedure for WTP personnel coverage. The on-call operator conducts a physical verification of conditions at the plant once per day during weekends and statutory holidays.

The normal on-call schedule for water treatment plant operators shall be from quitting time on Tuesday to start time the following Tuesday. The Water Treatment Plant Project Manager establishes and maintains the on-call schedule.

The Water Treatment Systems are monitored by a SCADA system, PLC control or alarm system as appropriate. An auto-dialer has been programmed to contact the Project Manager / Overall Responsible Operator, or personnel designated by the Project Manager, whenever conditions warrant.

The on-call operator is the designated operator in charge and will respond to, and investigate all alarms within 45 minutes.

An Overall Responsible Operator, or designated back-up ORO, is available by cell phone when not physically at the system.

There are regular daily checks of the distribution system conducted by water distribution personnel. The time of the visit and the details of any related action taken are recorded in the on-site daily log. Procedures are located in the WTP Operations Manual.

Veolia Water Canada is a non-unionized operation and labour disputes are unlikely, although management personnel are trained in operations if back-up operators are required.

### Appendix G

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

Page 1 of 1

File: C:\DWQMS\ACW - 11 – Personnel Coverage

Rev. Level:	Date:	Change:	By:	Approved By:
Initial Release	Apr. 30, 2009	Release	DC Scott –QMS Rep.	Laurie Cox - Veolia Project Manager
Rev. 1	Mar, 28, 2011	Modify for SCADA	DC Scott –QMS Rep.	Laurie Cox - Veolia Project Manager
Rev 2	Nov. 30, 2011	Add labour dispute coverage	DC Scott –QMS Rep.	Laurie Cox - Veolia Project Manager

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

Uncontrolled Printed Copy





Township of Ashfield-Colborne-Wawanosh



DWQMS Operational Plan  
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## 12. Communications

The Project Manager / ORO shall ensure that the Owner is provided with 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 Project Manager, 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 will be by the Project Manager to the Owner through the Owner's liaison, 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 QMS Representative following the original implementation, and thereafter following the Management Review, or as changes occur. The QMS Policy and Operational Plan are to be posted in the Operations Room for access by all employees.

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

Consumers or the General Public will have access to the QMS policy at the Operating Authority's Water Treatment Plant (WTP) site, as well as at the Municipal Office.

The Owner shall make the Operational Plans available for viewing by the public at the principal office of the owner and at one other publicly accessible location in the geographical area served by the subject system.

Information about the QMS may be added to the Municipal website, as decided by the Owner.

File: C:\DWQMS\ACW - 13 - Essential Supplies and Services

Rev. Level:	Date:	Change:	By:	Approved By:
Initial Release	Apr. 30, 2009	Release	DC Scott -QMS Rep.	Laurie Cox - Veolia Project Manager
Rev. 1	June 14, 2013	Remove annual letter	DC Scott -QMS Rep.	John Graham - Veolia Project Manager

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



Township of Ashfield-Colborne-Wawanosh



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### 13. Essential Supplies and Services

Essential supplies and services are purchased by the Operating Authority on behalf of the Owner under the direction of the Project Manager.

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) and / or AWWA (American Water Works Association) standards. Current versions of these standards are to be reviewed, as required, on the appropriate internet website by Operations or Purchasing personnel.

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, is provided to all essential suppliers and service providers to advise of the implementation of a Quality Management System, and as required if conditions change, by letter or information outlined on a Purchase Order regarding requirements.

The Project Manager / ORO reviews the requirements annually, or as may be required for changes, and suppliers are informed (as required and noted above), by the Project Manager, Administrative Assistant, or designate.

Meetings may be held with contractors and service providers prior to work being carried out on water treatment equipment. They are accompanied by a Water Treatment Operator to ensure water plant and distribution system requirements are understood and met prior to performing their task. Contractors and service providers are required to sign a document confirming the meeting with the Project Manager or Operator, and their understanding of the requirements.

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

#### Appendix H

#### APPENDIX H: Essential Supplies and Services Table

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File: C:\DWQMS\ACW - 13 - Essential Supplies and Services

Rev. Level:	Date:	Change:	By:	Approved By:
Initial Release	Apr. 30, 2009	Release	DC Scott -QMS Rep.	Laurie Cox - Veolia Project Manager
Rev. 1	June 14, 2013	Remove annual letter	DC Scott -QMS Rep.	John Graham - Veolia Project Manager

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



Township of Ashfield-Colborne-Wawanosh



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## 14. Review and Provision 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 Maintenance Manager and 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 an Infrastructure section of the annual summary report and presented to the Owner on an annual basis.

During the annual Management Review, participants will discuss all infrastructure topics related to the Drinking Water System. The following topics shall be reviewed:

- a) Drinking Water Quality Trends.
- b) Annual Summary Report.
- c) Watermain replacement and rehabilitation.
- d) Planned maintenance on roads and sewers that will directly affect the Drinking Water Distribution System.
- e) Any issues with annual hydrant flushing, valve operation and/or hydrant maintenance.
- f) Planned maintenance and/or structural updates on the Drinking Water System (treatment or distribution).
- g) Capital budget.
- h) Preventative maintenance program.
- i) Long-term forecast of major infrastructure maintenance, rehabilitation and renewal activities.
- j) Outcome of the 36 month Risk Assessment.
- k) Town's Asset Management Plan

File: C:\DWQMS\ACW - 14- Review and Provision of Infrastructure

Rev. Level:	Date:	Change:	By:	Approved By:
Initial Release	Apr. 30, 2009	Release	DC Scott -QMS Rep.	Laurie Cox - Veolia Project Manager
Rev. 1	May 30, 2018	Add Management Rev Requirements	C Good - QMS Rep.	John Graham - Veolia PM

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



Township of Ashfield-Colborne-Wawanosh



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**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. 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 is kept current, and is communicated to the Owner at least annually, or as deemed required by the Operating Authority’s Project Manager / Overall Responsible Operator, in the Management Review as well as presentations to the local council, and committee, if applicable or required.

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 versus unplanned maintenance activity.

The Maintenance Request system can be initiated by any employee by filling in a Maintenance Request Form. This request is then forwarded to be assessed by the Maintenance Manager or Project Manager / ORO. Maintenance Requests are filed and reviewed as required to assess or confirm trends and issues are reported in the annual summary.

A “Jobs Plus’ Maintenance system also generates work orders for routine equipment servicing and preventive maintenance for designated equipment in the water treatment and distribution system.

A summary of key infrastructure material and equipment from Jobs Plus is generated by the Maintenance Manager or Project Manager / ORO and also added to the annual infrastructure summary.

File: C:\DWQMS\ACW – 15 - Infrastructure Maintenance, Rehabilitation and Renewal

Rev. Level:	Date:	Change:	By:	Approved By:
Initial Release	Apr. 30, 2009	Release	DC Scott –QMS Rep.	Laurie Cox - Veolia Project Manager
Rev. 1	June 14, 2013	Clarify summary	DC Scott –QMS Rep.	John Graham- Veolia Project Manager
Rev. 2	May 30, 2018	Add Management Rev Requirements	C Good – QMS Rep.	John Graham – Veolia PM

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



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**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 Appendix I 1.

Specific sampling and monitoring procedures are established for operating the water treatment facility, and are listed in the Operations Manual. Laboratory analysis is carried out in-house as well as from an accredited outside lab. In house test procedures are kept in a binder in the test lab.

Test results are reported to the Operating Authority by the Accredited Lab and Operator Test results are recorded in the logbook in the Water Treatment Plant lab by the Operator.

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

The procedure is for test results to be provided to the Owner on a monthly basis by the Quality Assurance and Compliance Specialist 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 WTP process steps, including frequency, location, quality targets, challenging conditions, and records is shown in Appendix I - Sampling, Testing and Monitoring Table.

**Appendix I**

APPENDIX I1: Sampling, Testing and Monitoring Summary Table

File: C:\DWQMS\ACW – 16 – Sampling, Testing and Monitoring

Rev. Level:	Date:	Change:	By:	Approved By:
Initial Release	Apr. 30, 2009	Release	DC Scott –QMS Rep.	Laurie Cox - Veolia Project Manager
Rev. 1	May 30, 2018	Removed Reference to CO	C Good – QMS Rep.	John Graham – Veolia PM

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



Township of Ashfield-Colborne-Wawanosh



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## 17. Measuring and Recording Equipment Calibration and Maintenance

The Operating Authority maintains a calibration and maintenance process, as required for the measurement and recording equipment used in the water treatment system. 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 Treatment Plant Operations Manual.

A summary of the calibration and maintenance requirements, for the WTP 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 Quality Assurance and Compliance Specialist as revisions are required.

### Appendix J

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

File: C:\DWQMS\ACW - 17 - Measuring and Recording Equipment Calibration and Maintenance

Rev. Level:	Date:	Change:	By:	Approved By:
Initial Release	Apr. 30, 2009	Release	DC Scott - QMS Rep.	Laurie Cox - Veolia Project Manager
Rev. 1	May 30, 2018	Removed Reference to CO	C Good - QMS Rep.	John Graham - Veolia PM

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



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**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 Section 8 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 Treatment Plant listing potential emergencies and the appropriate measures for response, contacts, and how to restore the system to normal operation. WTP 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.

A list of emergency contacts and essential suppliers and services is kept with the Contingency Plan.

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. Owner Responsibilities are listed as required, in the Emergency Response Plan.

Emergency Response Testing can be accomplished by review of one or more Contingency Plan procedures, review of actual emergencies, or by participation in the Municipality’s annual emergency exercise. This should be carried out by the Project Manager, or designate, on a regular basis (minimum annually) and followed up in the form of a documented 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

File: C:\DWQMS\ACW – 18 - Emergency Management

Rev. Level:	Date:	Change:	By:	Approved By:
Initial Release	Apr. 30, 2009	Release	DC Scott –QMS Rep.	Laurie Cox - Veolia Project Manager
Rev. 1	June 14, 2013	Clarify ER Testing	DC Scott –QMS Rep.	John Graham - Veolia Project Manager
Rev. 2	June 20, 2013	Correct typo ref to H-K	DC Scott –QMS Rep.	John Graham - Veolia Project Manager

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



Township of Ashfield-Colborne-Wawanosh



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**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.

A Checklist will be prepared by the internal auditor(s), based on the review of applicable documentation for the element(s) to be audited. The documentation review could include the Operational Plan – Policy Procedures, and Tables, Operations Manuals/Contingency Plan, Process Maps, Work Instructions, and previous internal and external audit reports.

Internal Audits are required to be completed at least annually.

**Appendix L**

APPENDIX L1: Internal Audit Procedure and Schedule

APPENDIX L2: Internal Audit Checklist

File: C:\DWQMS\ACW – 19 – Internal Audits

Rev. Level:	Date:	Change:	By:	Approved By:
Initial Release	Apr. 30, 2009	Release	DC Scott –QMS Rep.	Laurie Cox - Veolia Project Manager
Rev. 1	Mar. 28, 2011	Add review of prev. audits	DC Scott –QMS Rep.	Laurie Cox - Veolia Project Manager
Rev. 2	June 14, 2013	Update checklist info	DC Scott –QMS Rep.	John Graham - Veolia Project Manager

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





Township of Ashfield-Colborne-Wawanosh



## DWQMS Operational Plan A-C-W

### 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 an annual 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.

Management Reviews are required to be completed at least annually.

A report of the results of the management review are reported to the Owner by the Project Manager on an annual basis.

#### Appendix M

APPENDIX M1: Management Review Procedure

File: C:\DWQMS\ACW - 20 - Management Review

Rev. Level:	Date:	Change:	By:	Approved By:
Initial Release	Apr. 30, 2009	Release	DC Scott -QMS Rep.	Laurie Cox - Veolia Project Manager

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



Township of Ashfield-Colborne-Wawanosh



## DWQMS Operational Plan A-C-W

### 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. On-going annual Management Reviews and resulting corrective actions will be the basis for further improvement.

Corrective Actions are added to the Corrective Actions Report Log – Appendix N2, when identified. Sources of Corrective Actions include:

- a) internal audits
- b) external audits
- c) AWQIs
- d) MOECC inspection reports

The QMS Rep is responsible for ensuring corrective actions are identified are implemented and their effectiveness monitored in the Corrective Actions Report Log.

Preventative Actions are added to the Preventative Actions Log – Appendix N3, when identified. Sources of Preventative Actions may include:

- a) Opportunities for Improvement
- b) Staff suggestions
- c) risk assessment outcomes
- d) emergency response training outcomes
- e) management reviews

The QMS Rep is responsible for ensuring preventative actions identified are implemented and their effectiveness monitored in the Preventative Action Log.

Best Management Practices (BMPs) are added to the Best Management Practices Log – Appendix

File: C:\DWQMS\ACW - 21 – Continual Improvement

Rev. Level:	Date:	Change:	By:	Approved By:
Initial Release	Apr. 30, 2009	Release	DC Scott –QMS Rep.	Laurie Cox - Veolia Project Manager
Rev. 1	April 25, 2017	Added App N1&N2 & assoc. verbiage	C. Black – QMS Rep.	John Graham – Veolia PM
Rev. 2	May 30, 2018	Updated to 2.0 standard	C Good – QMS Rep.	John Graham – Veolia PM

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



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### DWQMS Operational Plan A-C-W

N4, when identified. Sources of BMPs include:

- a) BMPs published by the MOECC
- b) consumer complaints
- c) training sessions
- d) staff feedback
- e) publications by professional organizations

The QMS Rep is responsible for ensuring BMPs identified are implemented and their effectiveness monitored in the Best Management Practices Log.

An annual review of Appendix N2, N3 and N4 will be completed during the Management Review to ensure they are implement and are effective in corrective and preventing the re-occurrence of the nonconformity. Additionally, the effectiveness of these items shall be measured at the time of the Management Review by reviewing the number of associated AWQIs, MOECC inspection non-compliances, internal and external audit results, consumer complaints, etc.

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.

### **Appendix N**

Appendix N1: DWQMS Annual Review Form

Appendix N2: Corrective Action Report (CAR) Log

Appendix N3: Preventative Action Report (PAR) Log

Appendix N4: Best Management Practices (BMP) Log

File: C:\DWQMS\ACW - 21 – Continual Improvement

Rev. Level:	Date:	Change:	By:	Approved By:
Initial Release	Apr. 30, 2009	Release	DC Scott –QMS Rep.	Laurie Cox - Veolia Project Manager
Rev. 1	April 25, 2017	Added App N1&N2 & assoc. verbiage	C. Black – QMS Rep.	John Graham – Veolia PM
Rev. 2	May 30, 2018	Updated to 2.0 standard	C Good – QMS Rep.	John Graham – Veolia PM

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