The Corporation of Haldimand County

Quality Management System (QMS) Operational Plan For

Caledonia and Cayuga Distribution System

Dunnville Drinking Water System

Nanticoke Drinking Water System

TABLE OF CONTENTS

DWQMS SPECIFIC REQUIREMENTS

Element 1.	Quality Management System Introduction	3
Element 2.	Quality Management System Policy	3
Element 3.	Commitment and Endorsement	4
Element 4.	Quality Management System Representative	5
Element 5.	Document and Records Control	6
Element 6.	Drinking Water System Descriptions	11
	 Caledonia and Cayuga Distribution System Dunnville Drinking Water System Nanticoke Drinking Water System 	
Element 7.	Risk Assessment	12
Element 8.	Risk Assessment Outcomes	16
	Confidential - Not Available to the Public	
Element 9.	Organizational Structure, Roles, Responsibilities and Authorities	17
Element 10.	Competencies	20
Element 11.	Personnel Coverage	21
Element 12.	Communications	22
Element 13.	Essential Supplies and Services	24
Element 14.	Review and Provision of Infrastructure	26
Element 15.	Infrastructure Maintenance, Rehabilitation and Renewal	27
Element 16.	Sampling, Testing and Monitoring	28
Element 17.	Measurement and Recording Equipment Calibration and Maintenance	30
Element 18.	Emergency Management	31
Element 19.	Internal Audit	33
Element 20.	Management Review	36
Element 21.	Continual Improvement	37
Appendix A. Appendix B.	Accepted Council meeting minutes (Council Endorsement) System Drawings: (Caledonia, Cayuga, Dunnville, Hagersville, Jarvis, Lake Erie Industrial Park and Townsend)	
Appendix C.	Risk Assessment System Hazards Identified & Ranked (Confidential)	
Appendix D.	Internal Audit Documents	
Appendix E. Appendix F.	Management Review Meeting Minutes Drinking Water Emergency Response Guidance Document	

Element 1. Quality Management System Introduction

This document is Haldimand County's drinking water Quality Management System (QMS) Operational Plan for the Caledonia / Cayuga water distribution system, Dunnville drinking water distribution system and the Nanticoke drinking water distribution system. The contents of this Operational Plan conform to the requirements of the Drinking Water Quality Management Standard set forth by the Ministry of the Environment. Haldimand County has created the following policies and procedures in order to establish and maintain a consistent Quality Management System.

Haldimand County owns all treatment and distribution infrastructure for three separate waterworks systems within its Municipal boundaries, however, only maintains and operates the distribution piping networks servicing the end users. A contract has been established with Veolia Water Canada Ltd. for the maintenance and operation of two water treatment plants, one elevated storage tank, two standpipe reservoirs and approximately 35 kilometres of transmission watermain located throughout three residential communities and an Industrial Park. Veolia is responsible to develop and maintain a QMS for the infrastructure identified within the contract.

Element 2. Quality Management System Policy

Reviewed: 30-Aug-17 Revision 1 Created: 18-Nov-08

The Corporation of Haldimand County's Quality Management System policies are to:

- Ensure our drinking water systems comply with all current legislation and regulatory requirements for the safe supply of drinking water;
- Ensure financial support is provided to maintain infrastructure integrity to allow safe and consistent delivery of drinking water to our water customers;
- Commit to review and update our Operational Plans as regulated by the Drinking Water Quality Management Standard in order to continually improve our Quality Management System and to communicate the results with our water customers.

Element 3. Commitment and Endorsement

The Corporation of Haldimand County supports the implementation, maintenance and continual improvement of this drinking water Quality Management System (QMS) for the County's three water works systems, as documented in this Operational Plan.

The following representatives, acknowledge the need for and support the provision of sufficient resources to maintain and continually improve the County's QMS. Copies of the original signed endorsement form part of this Plan as Appendix A.

Donald G. Boyle Jim Aatthews **Chief Administrative Officer** Compliance Supervisor Haldimand County Natér & Wastewater Operations NOV 20/17 20 Paul Mungar, C.E.T., CMM III Date Todd Øemille Date General Mahager Supervisor / ORO Public Works Department Water & Wastewater Operations Jeff Oakes , A. Sc. T Date Brandon Hedges Manager Supervisor / ORO Water & Wastewater Operations Water & Wastewater Operations Nov. 20/17 Date Jessica Ignaszak **OMS** Representative Water & Wastewater Operations

Furthermore, the Owners' (Mayor and Council) shall support Staff endorsement of the County's Quality Management System's Operational Plan by way of Council Resolution. The Council meeting minutes and resolution, where the Operational Plan was introduced and accepted by Council, also form part of this Plan as Appendix A.

Element 4. Quality Management System Representative

Reviewed: 31-Oct-18

Created: 18-Nov-08

As delegated by the County's DWQMS Team, one of the three Water & Wastewater Technologists will serve as the QMS Representative. Responsibilities are as follows:

- Promote the QMS Plan within Haldimand County;
- Communicate the County's QMS Plan to the Operating Authority and the Public;
- Identify needs and report on the effectiveness of the QMS to the Team's Management Advisor Members;
- Create and maintain a Document and Record Control procedure to ensure that the most current version of the QMS is in use at all times;
- Ensure communication procedure is followed regarding Legislative and Regulatory updates to promote effective operation of the County's drinking water systems.

Element 5. Document and Records Control

Reviewed: 31-Oct-18

Created: 18-Nov-08

1. Purpose:

To establish a management process recognizing the need to identify, store, protect, retain and dispose of all documents and records within the scope of the County's QMS Operational Plan.

2. Scope:

This procedure applies to all documents and records forming part of the County's QMS Plan and is applicable to all staff that manage or perform work on or related to these systems.

3. Definitions:

Controlled Document or Record - is a document or record that must have authorization for modifications.

Document - includes a sound recording, video tape, film, photograph, chart, graph, map, plan, survey, and information recorded or stored by means of any device.

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

4. Procedure:

Internally developed QMS documents and records (whenever possible) are generated electronically to ensure legibility. Headers, titles or procedure numbers are used to distinguish documents. Handwritten records must be legible and permanently rendered in ink or non-erasable marker.

To distinguish current versions of procedures, revision numbers and review dates are included within the headers.

The following personnel are authorized to review and approve QMS procedures for the County's water distribution system(s):

Review	Compliance Supervisor; or
	Water & Wastewater Supervisors
Approve	Manager, Water & Wastewater Operations

Current QMS documents and records are readily accessible to Water and Wastewater Operations personnel and internal or external auditors by request or at specified uncontrolled locations established by the QMS representative. Locations have been chosen based on accessibility and prevention of loss or damage. These locations are identified in Table # 1 forming part of this procedure. Any documents or records located in the designated areas are considered uncontrolled copies and should be identified, either permanently on the document or with a stamp, Uncontrolled Copy. If a document or record is not marked Uncontrolled Copy, it is to be returned to the QMS representative. The QMS representative will then determine if it should be marked and returned to that location for reference or recycled/destroyed.

All original electronic documents and records related to the QMS Plan are kept on the County's computer network system and are available on the Water and Wastewater groups shared drive, T:\Public Works\Environmental Services\E-Environmental Services\. Access is restricted to read only. The QMS representative has administrative access to the QMS policy, procedures and the plan in order to make necessary, approved changes when requested. Any electronic documents printed from the T:\ drive will be marked as Uncontrolled Copy.

Any Environmental Operations staff may request a revision to improve an existing internal QMS procedure or document. The request must be in writing and submitted to the Compliance Supervisor, the Water and Wastewater Supervisors or the Manager of Environmental Operations for their authorization. The change request form is identified as Attachment # 1, located at the end of this procedure. Once approved, the changes are to be provided to the QMS representative so the electronic version of the original procedure can be changed. The QMS representative replaces the outdated version of the procedure with the revised version within the QMS Plan. New copies are provided to all control locations by the QMS representative. All outdated versions are to be collected by the QMS representative and recycled, destroyed or retained in record retention. Table # 1 also identifies retention time periods for all relevant documents and records.

QMS documents and records are retained in accordance with applicable regulations or according to Corporate Policy, whichever governs. If there is no regulatory or corporate standard, the retention time will be at the discretion of the Manager of Environmental Operations.

Type of Document / Record	Controlled Document / Record Location	Location of Uncontrolled Copy(s) for Reference	Retention Time	Frequency of Review
QMS Plan Yellow Binder(s)	-Master Electronic Originals T:\E06 Water Works DWQMS \ Operational Plans -Attachment # 1 request to change sheets are located in the back of the QMS binders	-Area 1 and Area2 shops, Environmental Services Water/Wastewater Tech area	-Master Electronic Original forever, revising as needed -Uncontrolled copies replaced with revised version -Attachment # 1 request to change sheets kept for six (6) years	Annually, revised as needed
Internal QMS Audit Reports	Master electronic originals on T drive in DWQMS folder	Grey binder on compliance bookshelf in Kohler	-Six (6) years active, brought forward every year	Annually
Management Review Meeting Minutes	Master electronic originals on T drive in DWQMS folder	Grey binder on compliance bookshelf in Kohler	-Six (6) years active, brought forward every year	Annually
All Potable Water Sample Results required under the Safe Drinking Water Act received from accredited laboratories	- Bacteriological signed originals- Environmental Services Water/Wastewater Tech area -Lead electronic signed originals- T:\Water\Lead -THM electronic signed originals- T:\Water\Drinking Water Results\then select year	N/A	-Bacteriological Samples; current active year Environmental Services Water/Wastewater Tech area, five (5) past years inactive storage room -Lead & THM Six (6) years	-Results reviewed as received, input into Distribution trend spreadsheet(s)
Adverse Water Quality Incidents (AWQI) Corrective Action Records/Reports under O. Reg. 170/03	-faxed copies, signed originals all located Environmental Services Water/ Wastewater Tech area, binder labelled Adverse Water Sample Notification	N/A	-Six (6) years active	-Results reviewed as received
Annual Report under Section 11, O. Reg. 170/03	-electronic original located on T:\ E06 Water Works\year end	-copies available at any County office, via the County's website or upon request	-Electronic Original six (6) years -One (1) year current active copy	Annually
Annual Summary Reports under Schedule 22, O. Reg. 170/03	-electronic original located on T:\ E06 Water Works\year end	-signed copy presented to Council -hard copy kept with Environmental Services Water/Wastewater Tech area	-Electronic Original six (6) years -One (1) year current active copy	Annually
Annual Permit to Take Water Report under O. Reg. 170/03	-electronic original located on T:\ E06 Water Works\year end	-signed copy presented to MOE -hard copy kept with Environmental Services Water/Wastewater Tech Area	-Electronic Original six (6) years -One (1) year current active copy	Annually

Table #1 – Location of DWQMS Documents / Records

Drinking Water System Distribution Maps	-electronic original located with GIS/CAD Technician in Engineering Services Division	-hard copies located in Area 1 and Area 2 Shops for staff review	-Master Electronic Original forever, revising as needed	-reviewed and updated, if necessary, every 30 days
Water & Wastewater Standard Operating Procedures (SOP's) Red Binder(s)	electronic original located on T:\ E00 Environmental Services - General\ES's SOPs	-hard copy: located in Area 1 and Area 2 Shop, Caledonia and Cayuga Reservoirs and Kohler office	-revised as needed -Revision request to change forms to be kept for six (6) years	-reviewed annually
Distribution System Maintenance Records • Hydrant sheets • Valve sheets • Main breaks	N/A	-Area 1 and Area 2 Shops control and file their original signed or initialled records	-Minimum two (2) years in Water & Wastewater Supervisor's office	As needed
Monitoring Equipment Instruction Manuals & Calibration Reports	-original completed records provided by qualified testing company or operations staff are retained in Water & Wastewater Supervisor's office	-copies provided to each shop, Area 1 and Area 2 for reference -blank internal calibration sheets are stored on the T/Drive for Area 1 and 2	-Minimum two (2) years active in each respective office	Annually
Drinking Water Works Permit(s), Drinking Water Works License(s), Change Forms 1, 2, 3 and Schedule C	T:\ E06 Water Works\DWQMS\Permits & Licenses	-hard copy located Environmental Services office, binder labelled Ontario MDWL & DWWP on Tech shelf	-All documents are kept for 10 years	As needed
Certificates of Approval	N/A	-hard copy located Environmental Services office, binder labelled Certificates of Approval on Tech shelf	-C of A's are kept, for seven (7) years	As needed
Permits to Take Water	-scanned PDF copy located on T:\ E06 Water Works then select Dunnville or Nanticoke then the C of A file.	-hard copy located Environmental Services office, binder labelled Permits to Take Water on Tech shelf	-Current and last versions kept on file (NOTE: PTTW for Dunnville and Nanticoke only)	As needed
Emergency Response Guidance Document	-electronic original located on "T" drive accessible by Compliance Group only in order to make required / requested changes	-hard copies located as Appendix F forming part of the County's QMS Operational Plan	-Current version is updated as needed This document has been identified as a "Living Document"	Annually
After Hour Call-Out Binder	-hard copies located in Area 1 and Area 2 Shops for staff review	N/A	-each shop updates their version as needed to reflect their system needs. These binders have been identified as a "Living Documents"	As needed

Attachment	#	1
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Haldimand County Operational Plan - Request for Change

System Operational Plan to Change:	
Element Title and Number to Change:	
Procedure Title and Number to Change:	
Revision Number:	Revision Date:
List proposed changes below or affix a cha	anged copy of the current policy or procedure.
Person Requesting Change:	
Date:	
Changes Authorized By:	
Date:	
Comments:	

Element 6. Drinking Water System Description

Reviewed: 31-Oct-18

Created: 18-Nov-08

Haldimand County owns all treatment and distribution infrastructure for three separate waterworks systems, however, only maintains and operates the distribution piping network servicing the end users. Veolia Water Canada Ltd. has been contracted to maintain and operate all treatment plant processes, two standpipes, a booster station, one elevated storage tank and approximately 35km of transmission watermain. Veolia has submitted their operational plan for accreditation as the operating authority for the above infrastructure.

Table # 1 – County Water Distribution Systems Data Scheduled for Report to Council:
28-Feb-17 (PW-WW-01-2017)

Area	Residents (2016 Census Canada)	Watermain Length (km)	Hydrants	Main Line Valves	Service Connections / Water Meters
Caledonia and Cayuga System	11,387	69.2	389	711	6,439
Dunnville System	5,759	40.8	226	458	2,358
Nanticoke System	6,359	37.7	238	398	2,191

All County assets; valves, hydrants and pipes, have been mapped on system distribution drawings for operator use. The maps will form part of this Plan as Appendix B.

Mapping updates are currently completed on a continual basis by the County's Engineering Services GIS/CAD Tech.

Element 7. Risk Assessment

Reviewed: 31-Oct-18

Created: 07-Nov-08

1. Purpose:

To describe the process used to identify, assess and rank the risks associated with potential hazards or hazardous events throughout any of the County's water distribution systems.

The method and criteria used to assess the potential hazards or hazardous events has been included in the body of the QMS. The County has elected to include the actual hazards and ratings as Appendix C forming part of the Operational Plan.

2. Scope:

This procedure is limited to identifying and ranking potential drinking water health hazards that impact the supply, delivery and quality of the treated water.

3. Definitions:

Consequence - the potential impact to public health ^{and}/_{or} operation of the drinking water system if a hazard or hazardous event is not controlled.

Control Measure - includes any processes, physical steps or other practices that have been put in place at a drinking water system to prevent or reduce a hazard or hazardous event before it occurs.

Critical Control Point (CCP) - an essential step or point in the subject system at which control can be applied by the Operator to prevent or eliminate a drinking water health hazard or reduce it to an acceptable level.

Detectability - the ability to identify or detect a hazard or hazardous event.

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 anything found in the waters,
 - i. That adversely affects, or is likely to adversely affect, the health of the users of the system;
 - ii. That deters or hinders, or is likely to deter or hinder, the prevention or suppression of disease, or
 - iii. 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

Hazard - is a source of danger or a property that may cause drinking water to be unsafe for human consumption. The hazard may be biological, chemical, physical or radiological in nature.

Hazardous Event - is an incident or situation that can lead to the presence of a hazard.

Likelihood - the probability of a hazard or hazardous event occurring.

4. Procedure:

The QMS Representative gave a Risk Assessment & Emergency Preparedness Presentation to the Environmental Operations field staff.

As part of the overview, a chart was provided to the staff to identify system hazards see below;

Risk Assessment Worksheet – Haldimand County Distribution Systems

	Hagersville Jarvis LEIP Townsend
What Control Measures are	Can a Control measure be implemented
Currently in Place?	or improved? Please state what or how.

Collectively, field staff completed a chart for each of the six communities within Haldimand's boundaries. These charts were returned to the QMS Representative at which time the QMS team was created in order to assess and rank each identified hazard.

The following rating system was used to rank each identified hazard or hazardous event. **Risk Value** = Likelihood + Consequence + Detectability

Likelihood Rating System

Description	Likelihood of Hazardous Event Occurring	<u>Rating</u>
Rare	May occur in exceptional circumstances and has not occurred in the past	1
Unlikely	Could occur at some time, historically has occurred less than once every 5 or 10 years	2
Possible	Has occurred or may occur once or more per year	3
Likely	Has occurred or may occur on a monthly to quarterly basis	4
Very likely	One or more occurrences on a monthly or more frequent basis	5

Consequence Rating System

Description	Consequence of Hazardous Event Occurring	<u>Rating</u>
Insignificant	Insignificant impact, little public exposure, little or no health risk	1
Minor	Limited public exposure, minor health risk	2

Moderate	Minor public exposure, health impact on small part of the population	3
Major	Large part of population at risk	4
Catastrophic	Major impact for large part of the population, complete failure of system	5

Description	Consequence of Hazardous Event Occurring		
Very			
Detectable	Easy to detect, on-line monitoring through SCADA		
Moderately Detectable	Moderately detectable, alarm present but not in SCADA, may require		
	operator to walk by and notice alarm; problem is indicated promptly by in-house lab test results	2	
Normally	Normally detectable, visually detectable on rounds or through regular		
Detectable	ectable maintenance		
Poorly Detectable	Poorly detectable, visually detectable but not inspected on a regular basis; not normally detected before problem becomes evident; lab tests		
	are not done on a regular basis	4	
Undetectable	Cannot be detected	5	

NOTE: All hazards or hazardous events identified were ranked as if there were no current control or back-up measures in place. Once a Risk Value was calculated, the team implemented a "cap" to better identify a Critical Control Point (CCP) limit. This limit was 10 out of a potential 15 points. In the case where an event having a higher calculated risk value is not determined by the risk assessment group to be critical, an explanation of the reasoning for this distinction is provided. An explanation of the reasoning is also required if the risk assessment team was to deem an event with a lower calculated risk to be critical as well. These hazards or hazardous events have been identified within Element 8 and Appendix C.

From the identified critical events, the risk assessment group then traces backwards through the water process to determine the specific points where each critically hazardous event originates. These points then become critical control points. The final point in a series that leads to a critical event is identified as the critical control point.

Critical control points require the establishment of controlled conditions, including critical control limits, equipment redundancy and control and recover procedures.

Critical limits are established for values that measure critical events. The limits provide operators with a range of acceptable values within which no preventive or correction actins are required.

Critical limits define the point at which an operator must take action to prevent escalation of the critical event or to correct the critical event.

Critical limits are determined based on regulatory requirements, process monitoring capabilities, off-hours response time and historical performance trends. Audio or dial-out alarms, where available, are all set at a level near the critical limit as a first warning measure and at the critical limit as redundancy notification.

5. Risk Assessment Commitment:

Annually the Risk Assessment Team will review the method used to assess the noted risks and confirm the validity of the assumptions used in the risk assessment.

Environmental Operations staff will commit to re-assessing the noted risks once every thirty-six (36) months in order to improve the Risk Value to reflect better control measures or rehabilitated infrastructure.

Newly discovered hazards or hazardous events will be added, assessed and rated by the Risk Assessment team or their appointed delegates, on a needed basis as they are identified.

Element 8. Risk Assessment Outcome

As part of the County's risk assessment outcome notes, several SOP's have been identified that provide necessary instruction to key County staff to address or manage hazard or hazardous events. Also, SOPs exist that instruct staff on routine maintenance tasks necessary to ensure infrastructure is still viable and in good repair.

Appendix C, of the QMS Plan lists the hazards or hazardous events identified by water and wastewater field staff for the County's water distribution systems. The majority of the hazards or hazardous events are common threats throughout the three drinking water systems; Caledonia and Cayuga, Dunnville and Nanticoke. To distinguish system specific hazards or hazardous events, the actual waterworks name will be highlighted in the first column.

Appendix C has been identified as a CONFIDENTIAL document. Haldimand County has included it in the submission to the MECP Director as part of the application process.

Appendix C is not available for public review.

Element 9. Organizational Structure, Roles, Responsibilities and Authorities

Below is the organization chart for positions that are impacted by the County's QMS Plan. A brief description of the identified positions roles and responsibilities follows.



Mayor and Council

The Mayor and Council representing the Corporation of Haldimand County have the overall responsibility and authority to ensure that the County's three waterworks systems meet all legislation and regulatory requirements. Their decisions on where and how to allocate funds necessary to commit to the safe operation of the waterworks is based on recommendations from the General Manager of Public Works and the Manager of the Environmental Operations Division.

Chief Administration Officer

The Chief Administration Officer's primary role with respect to the Quality Management System is to keep the Mayor and Council apprised of the QMS Plan, its objectives, goals, updates and improvements as recommended by the QMS Team.

Director Public Works Department & Manager of Environmental Operations

These two positions have been identified as the Senior Management positions within the QMS Team. The main roles of these positions are:

- Responsible for completing Management Review and communicating the results with the owner
- Ensure staff and funds are available to complete all DWQMS tasks
- Ensure DWQMS training is offered to staff via the respective supervisors
- Make decisions respecting the QMS and recommendations to the owner respecting the subject system
- Must sign off on the Operational Plan
- Commit to implementing and following the QMS Policy Statement
- Keep the owner apprised of the DWQMS progress

Compliance Supervisor and Water & Wastewater Supervisors

These three positions have been identified as the Management Advisor Member positions within the QMS Team. The main roles of these positions are:

- Ensure staff are participating in regular scheduled DWQMS training
- Review any regulatory/legislative changes with all staff to ensure effective operation of the Systems
- Assist DWQMS Representative in completing the QMS Plan
- Advise DWQMS Representative on limit of detail needed for QMS Plan
- Provide direction / input on key decision conflicts that may arise

Chief Operator-In-Charge (COIC)

These two positions have been identified as the Operator / Maintenance System Specialists within the QMS Team. The main roles of these positions are:

- Advise / make change recommendations to SOP's and daily logs
- Provide accurate records of work orders to justify billing of services
- Create SOPs in discussion with Distribution System Operators and review with Water & Wastewater Supervisors and DWQMS Representative
- Assist with proper documentation filing in order to be accessible by all operations staff
- Assist water and wastewater Supervisors in ensuring consistency in daily operations

Distribution System Operators

There are 7 operators for Area #1 which includes the towns of Hagersville, Caledonia, Townsend, Jarvis, Lake Erie Industrial Park. There are 6 operators for Area #2 which includes the towns of Dunnville and Cayuga. All operators day to day activities directly impact drinking water and are key to the delivery of safe drinking water to all consumers. The main roles of these positions are:

- Inspect ,evaluate and adjust services including repairs to all infrastructure:
 - Water mains and services;
 - Reservoirs and pump stations;
 - Supply and standpipes for the communities.
- Conduct infrastructure locates;
- Conduct water sampling and analysis;
- Installation of water meters;
- Respond to service requests and system issues/emergencies;
- Perform preventative maintenance activities;
- Ensure MECP regulatory requirements are being followed.
- Participate in all DWQMS training to improve knowledge and understanding of the system and its impacts on roles and responsibilities.

Water and Wastewater Technologists

Currently, one of the three full-time Technologists has been assigned the QMS Representative role within the QMS Team. The main roles of this assignment are:

- Create and carry out an implementation action plan and keep it up to date
- Coordinate and organize meetings, timelines and all correspondence for Team so Top Management can present to Owner
- Apprise staff of their responsibilities, inquire as to training needs related to DWQMS including regulatory/legislative changes and orientate staff awareness
- Provide technical review of procedures developed by Operations Staff including constructive feedback to staff
- Interview staff for input on QMS policy and field task procedures

Element 10. Competencies

Reviewed: 31-Oct-18

Created: 18-Nov-08

The following table presents the competencies required by Haldimand County personnel whose duties directly affect drinking water quality.

Position	Required Competencies
	Financial , leadership and management skills
General	Direction setting capability
Managers	General understanding of infrastructure and operational requirements
(EO, WW)	Effective communication skills
	Direct contact with CAO, Council and Mayor and Managers
	Financial , leadership and management skills
	Good understanding of infrastructure and operational requirements
Managers	• Up to date knowledge of regulatory requirements and optimization goals
(EO,WW)	Direction setting capability
	Effective communication skills
	Direct contact with Supervisors, General Managers and Council as required
	Financial , leadership and supervisory skills
	Good understanding of infrastructure and operational requirements
	Up to date knowledge of regulatory requirements and optimization goals
	Operator certification of the highest type and class of subsystem, in good
Supervisors	standing (EO only)
(EO, WW)	Problem solving skills
	Effective communication skills
	 Purchasing Authority up to \$20,000
	Contact with Operators, Supervisors, Managers, General Managers and Council
	as required
	Supervisory skills
	Problem Solving skills
	• Up to date knowledge regulatory requirements and optimization goals
Chief Operator-In- Charge (COIC)	Operator certification in good standing
	Data management and interpretation skills
	Testing and monitoring skills
	Effective communication skills
	Instrumentation and control skills
	Good understanding of infrastructure and operational requirements

	Ability to perform routine, preventative and emergency maintenance activities
	WHMIS, Confined Space training
	Valid class G driver's Licence
	• ¹ / ₂ day Risk Assessment evaluation facilitated by QMS Rep. (every 3 years)
	 Contact with Operators, Supervisors, Managers, General Managers and Council as required
	Operator certification in good standing
	Problem Solving skills
	 Up to date knowledge regulatory requirements and optimization goals
	Data management and interpretation skills
	Testing and monitoring skills
	Instrumentation and control skills
	Effective communication skills
Operator	Good understanding of infrastructure and operational requirements
	• Ability to perform routine, preventative and emergency maintenance activities
	Problem solving skills
	WHMIS, Confined Space training
	Valid class G driver's Licence
	• ¹ / ₂ day Risk Assessment evaluation facilitated by QMS Rep. (every 3 years)
	Contact with Operators, Supervisors, Managers, General Managers and Council
	as required
	Organizational Skills
	Basic DWQMS Plan Training
	Internal Auditor, Risk Assessment Training
DWQMS	Effective communication skills
Representative	• Contact with Operators, Supervisors, General Managers and Council as required
	Emergency preparedness training
	 Up to date knowledge regulatory requirements and optimization goals
	Good record keeping and documentation skills
NOTE: EO: Envir	conmental Operations WW- Water and Wastewater Engineering and Compliance

Certified operators are responsible for completing the annual training hours required to maintain Operator Certification. The Water & Wastewater Supervisors take reasonable steps to ensure that every opportunity is given to attend certified training necessary to meet the certification legislation.

In addition to above certification requirements, the QMS Rep. has implemented 2 hour Annual workshop for all operators. The workshop topics will reflect the County's Operational Plan contents and are intended to stimulate discussion.

Element 11. Personnel Coverage

Reviewed: 31-Oct-18

Created: 15-Jan-09

1. Purpose:

To describe the process for ensuring that competent personnel are available for duties that directly affect drinking water quality.

2. Scope:

Applies to operations personnel responsible for all distribution piping systems within the County.

3. Definitions:

Competency – an integrated set of requisite skills and knowledge that enables an individual to effectively perform the activities of a given occupation.

4. Procedure:

Haldimand County's waterworks distribution systems, regular working hours for Operations: 8hr. Shift- 07:30 to 16:00 Monday to Friday.

Personal Coverage for after-hours/weekend/Stat Holiday has been identified under Haldimand County's, Environmental Operations Division Standard Operating Procedures (SOPs).

SOP # ES-GA-02 Assignment of an "Overall-Responsible-Operator" and a "Chief-Operator-In-Charge"

The Water & Wastewater Supervisors are responsible for approving vacation time for staff in a manner which ensures a sufficient complement of personnel is available for the performance of normal operating duties.

Element 12. Communications

Reviewed: 31-Oct-18

Created: 15-Jan-09

1. Purpose:

To describe the procedure for QMS related communications between Haldimand County, Veolia, suppliers and the public.

2. Scope:

Applies to the County's waterworks distribution systems, internal and external communications regarding QMS implemented for the County.

3. Definitions:

N/A

4. Procedure:

The QMS Representative is responsible for identifying and coordinating any system specific communications in relation to the status and development of the QMS Plan. Other responsibilities include ensuring that Senior Management is promptly informed regarding QMS related matters with County wide significance.

The continuing suitability, adequacy and effectiveness of the QMS Plan are communicated to the owner as part of the QMS Procedure No. 11 Management Review. Ongoing QMS updates are provided to the owner during regularly scheduled meetings and through electronic and verbal communications.

Media inquiries must be directed to the Manager of Environmental Operations. The Manager will coordinate with the appropriate County personnel, if required, prior to responding.

Haldimand County's QMS Plan is communicated to the public through the County's Website. The QMS Plan is also posted in designated areas around the County as per Element #5 Document and Record Control.

All inquiries; questions, complaints or comments, related to the County's QMS Plan shall be directed to the QMS Representative either directly or via the QMS team's Senior Management representatives. These may originate from the Mayor and Council, county employees, the public or other municipalities. It is the QMS Representative's responsibility to track the inquiries and address each in a timely manner. The inquiry and follow-up feedback will be provided for discussion at the Management Review meetings.

All Regulatory and legislative updates are communicated through the regulatory body's primary County Contact. The updates are forwarded to the DWQMS representative and to all staff whose responsibilities directly impact drinking water. The plan is updated accordingly and the Area Supervisors review updates with operations staff for discussion and implementation.

Internal and External communication responsibilities and reporting requirements for emergency situations are set out under the County's Emergency Response Plan.

Element 13. Essential Supplies and Services

Reviewed: 31-Oct-18

Created: 15-Jan-09

1. Purpose:

To describe the procedure for identifying essential supplies and services and ensuring quality requirements and procurement methods are established and communicated.

2. Scope:

This procedure covers all products and services that are deemed to be essential to the delivery of safe drinking water to the County's waterworks distribution systems.

3. Definitions:

Essential Supplies and Services - supplies and services deemed to be critical to the delivery of safe drinking water.

4. Procedure:

A list titled "Haldimand County Essential Supplies and Services Contact List", has been created to identify companies that the County contacts for the purchase of all essential supplies or services necessary for the delivery of safe drinking water. This list identifies redundant companies that are capable of supplying the parts, material, equipment or services, with the exception of sodium hypochlorite. Through discussion with Veolia Canada, the County has established a redundant supply of sodium hypochlorite in the event our supplier is unable to provide this product. This list is comprised of excavation contractors, suppliers of equipment and materials, piping, valves, hydrants etc., fuel needs and water quality testing services.

Supply or service providers are selected based upon their qualifications and ability to meet the needs without compromising operational performance and compliance with applicable legislation and regulations. Annually, FORM # 1 is provided to each company on the list to be completed and returned. This list is maintained by the County's two Water and Wastewater Supervisors.

Purchasing is conducted in accordance with Haldimand County's Corporate Procurement and administration policies, procedures and guidelines.

FORM #1



DATE

To whom it may concern:

Essential Supplies and services are those deemed to be critical to the delivery of safe drinking water within Haldimand County. This is one of the aspects of the County's Drinking Water Quality Management Operational Plan.

A requirement of the County's plan is to annually review and update our list of Essential Supply and Service Providers. Your company is currently identified on this list, therefore, it is important that you complete the information below and return to the Environmental Operations Division. A signed original is required for our files so please drop off at any of the county's satellite offices or return via mail to the address below.

Company Name	
Product / Service Provided	
Regulatory Standards	
i.e. AWWA, CSA, NSF/ANSI etc.	
Company Contact	
Address	
Business Phone	
Cell Phone	
E-mail	
Fax	

I (we) would like to remain on Haldimand County's Essential Supplies and Services contact list.

I (we) would like to be <u>removed</u> from Haldimand County's Essential Supplies and Services contact list.

Authorized Representative:

Print

Signature

Date

Kohler Office, 1162 Kohler Road 8, Cayuga, Ontario N0A 1E0 Phone: (905) 318-5932 · Fax: (905) 772-3779 www.HaldimandCounty.on.ca

Element 14. Review and Provision of Infrastructure

Reviewed: 31-Oct-18

Created: 10-Feb-09

1. Purpose:

To document a procedure for the annual review of the adequacy of the infrastructure and resources necessary to operate and maintain the County's drinking water system.

2. Scope:

This procedure applies to all waterworks distribution systems within the County.

3. Definitions:

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 transport or communication.

Rehabilitation - the process of repairing or refurbishing an infrastructure element.

Renewal - the process of replacing the infrastructure element with new elements.

4. Procedure:

Haldimand County's Engineering Services Division shall maintain a 10 year capital budget replacement forecast list for the distribution system that assists with preparation of the proposed annual operating and capital budget for the following year.

Annually, the Manager of Environmental Operations organizes a meeting with key staff to review, discuss and recommend priority system needs yet to be identified on the 10 year capital budget replacement forecast list. The annual recommendations are based on MECP compliance inspection reports, water quality or quantity trends, staff suggestions and consumer feedback. Also taken into consideration in the risk assessment and its identified requirements to protect the County's drinking water infrastructure. Once completed, the list is forwarded to the Engineering Services Division where it is incorporated into the 10 year capital budget replacement forecast list.

The General Manager of Public Works takes the capital budget report to Council for their approval annually.

Element 15. Infrastructure Maintenance, Rehabilitation and Renewal

Reviewed: 31-Oct-18

Created: 18-Nov-08

The Water & Wastewater Supervisors maintain a scheduled program of inspection and maintenance tasks for waterworks equipment and distribution system components. Equipment is maintained and operated as per manufactures instruction, including any calibration requirements. Equipment instruction manuals are typically kept with the piece of equipment. Maintenance and calibration records are kept as per Table #1 forming part of Element #5 Document and Record Control.

Planned maintenance, rehabilitation or replacement of distribution infrastructure is performed as per the annual capital budget forecast recommendations, approved by Council. These job tasks are determined based on deterioration of sections of pipe due to age or soil conditions, current material or size of pipe, number of main breaks as recorded in the maintenance sheets, MOE recommendations or orders, customer feedback identifying poor flow, low pressure or continuous dirty water areas of the system. These tasks are usually scheduled well in advance of commencement.

Unplanned job tasks; typically caused by main breaks, damaged hydrants, valves or low system chlorine residuals are identified as unscheduled events and tracked through work orders. The County relies on a software package called Worktech to manage daily calls from the public, record the concerns and provide direction to field staff for response. In turn, field staff documents their investigation, resolution or note if additional follow-up is required on the work order. The work orders are tracked and utilized for analysis and historical purposes. These tasks fall under the annual operations budget, approved by Council.

Manual updates to the water distribution maps are currently completed by field staff to indicate main breaks or system infrastructure changes. These maps are forwarded to Development Services, GIS Technologist so the original electronic drawing can be modified.

Element 16. Sampling, Testing and Monitoring

Reviewed: 31-Oct-18

Created: 15-Jan-09

1. Purpose:

To describe the procedure for sampling, testing and monitoring for process control and finished drinking water.

2. Scope:

This procedure applies to sampling, testing and monitoring activities that take place both upstream and within the County's waterworks distribution systems. It identifies the County's interaction with contracted Operating Authority, Veolia Water Canada and with the City of Hamilton.

3. Definitions:

N/A

4. Procedure:

All sampling, monitoring and testing has been identified under Haldimand County's, Environmental Operations Division Standard Operating Procedures (SOPs);

SOP # ES-WD-01: Water Distribution System Sampling Requirements

SOP # ES-WD-02: Method for Obtaining a Bacteriological Drinking Water Sample for Analysis from Haldimand County Water Distribution System.

SOP # ES-WD-03: Method for Obtaining a Bacteriological Drinking Water Re- Sample for Analysis from Haldimand County Water Distribution System.

SOP # ES-WD-04: Distribution Drinking Water Adverse Sample Notification Initiated By Accredited Laboratory.

SOP # ES-WD-05: Distribution Drinking Water Adverse Sample Notification Initiated By County Water & Wastewater Operations Staff.

All analytical results from laboratory reports are maintained as per Element #5 Document & Records Control.

For all water sampling, monitoring, testing, quality analysis and results taken up stream of the County's distribution systems, the Operating Authority responsible for the supply of the potable water to the County is to provide this information. Both Veolia Water Canada and the City of Hamilton provide all drinking water analytical sampling results to the County; bacteriological on a weekly basis via e-mail, Schedule 23 and 24 requirements on an annual basis within the reporting practices of the regulations, anything in addition to regulatory requirements on an as performed basis. NOTE: in the event of an adverse result, immediate verbal and written notification is provided to the County from the respective Operating Authority. All documentation provided is reviewed by County staff and filed as per Element #5 Document & Records Control.

Element 17. Measurement and Recording Equipment Calibration and Maintenance

Reviewed: 31-Oct-18

Created: 15-Jan-09

1. Purpose:

To describe the process for the calibration and maintenance of measurement and recording equipment used by County staff to monitor the distribution system.

2. Scope:

This procedure applies to the measurement and recording equipment used to monitor the quality of the treated water within all waterworks distribution systems within the County.

3. Definitions:

N/A

4. Procedure:

All measurement and recording equipment calibration and maintenance activities must be performed by appropriately trained and qualified personnel or by a qualified third party calibration service provider.

Calibration and maintenance activities are carried out in accordance with procedures specified in the manufacturer's manual.

Any measurement device which does not meet its specified performance requirements during calibration must be removed from service until repaired or replaced.

Calibration and maintenance records and maintenance/equipment manuals are maintained as per Element #5 Document & Records Control.

Element 18. Emergency Management

Reviewed: 31-Oct-18

Created: 19-Jan-09

1. Purpose:

To describe the process followed to maintain a state of emergency preparedness for Haldimand County.

2. Scope:

Applies to potential operations emergency situations or service interruptions identified for all waterworks distribution systems within the County.

3. Definitions:

Emergency Response Plan – a corporate level plan for preparedness for high level multidiscipline emergencies.

Hazard – is a source of danger or a property that may cause drinking water to be unsafe for human consumption. The hazard may be biological, chemical, physical or radiological in nature.

4. Procedure:

Identifying Potential Emergencies

Haldimand County has established a list of mandatory contingencies for potential emergency situations or service interruptions. These are:

- Potential or actual unsafe water
- Catastrophic equipment failure that impacts the ability to provide service
- Power failure that impacts the ability to provide service
- Accidental release that could impact the environment
- Main Breaks
- Critical injury
- Critical shortage of staff

In the event of an emergency situation, staff can reference the Public Works Department, Environmental Operations Division's Drinking Water Emergency Response Guidance Document (ERGD) forming part of this plan, identified as Appendix F. The Risk Assessment Table shall be used for identifying potential emergency situations that may arise. Since the Risk Assessment is reviewed annually, as per Element #7 Risk Assessment, if any additional emergencies are identified they shall be added to the list by the QMS Representative.

Emergency Response Training

All water/wastewater personnel shall receive general emergency response training at least once every two years, as managed, arranged and recorded by the Supervisor. Personnel who are identified with specific response roles shall receive additional training to cover their additional responsibilities.

This training shall include a review and discussion of emergencies that occurred since the previous training, and a review of the response work instructions. Any recommended edits to the response work instructions shall be communicated to the QMS representative, to be carried out.

The QMS Representative ensures the results of the Emergency Response Training are included as input to the management review process.

Distribution of Procedures

The Drinking Water Emergency Response Guidance Document forms part of the County's Operational Plan, therefore, copies will be available in all locations of the Operational Plan.

Element 19. Internal Audits

Reviewed: 31-Oct-18

Created: 19-Jan-09

1. Purpose:

To describe the process for conducting internal audits that evaluates the conformance of Haldimand County QMS to the requirements of the Drinking Water Quality Management Standard (DWQMS).

2. Scope:

The objective of this audit is to determine whether the drinking water Quality Management system (QMS) implemented in Haldimand County conforms to the requirements of the Ministry of the Environment and Climate Control's Drinking Water Quality Management Standard (DWQMS). This procedure applies to all activities within the scope of the QMS implemented in Haldimand County as documented in the Operational Plan.

3. Definitions:

Internal QMS Audit – a systematic and documented internal verification process that involves objectively obtaining and evaluating documents and process to determine whether a quality management system conforms to the requirements of the DWQMS.

Internal Auditor – person with skills, training and/or experience to conduct an internal audit.

Nonconformity – non-fulfillment of a requirement.

4. Procedure:

The QMS Representative will notify the Manager of Environmental Operations to ensure that an internal QMS audit is conducted for the system at least once per calendar year by personnel with adequate skills, training and/or experience.

In consultation with operations, the QMS team establishes the audit criteria and develops the internal audit protocol to be used by the auditor(s). Protocol questions are designed to encompass all of the requirements of the DWQMS. Additional information is included in the protocol to provide clarification on the purpose and application of the requirement. The protocol is reviewed annually and updated as necessary by the QMS Team.

The auditor(s) review the approved policy and procedures, the results of previous internal and external QMS audits, the status of corrective and preventive actions and other QMS related documentation prior to the audit.

The auditor(s) follows the audit protocol and engage in activities that may include asking questions, observing operations and reviewing documents and records. Nonconformities with reference to specific documents and details are recorded on the audit protocol along with any additional comments and suggestions.

Upon completion of the final audit report, Attachment #2, the auditor(s) review the results and identified nonconformities with the Manager of Environmental Operations. The audit report and supporting documentation are filed by the QMS Representative and retained as per Element #5 Document & Records Control.

When non-conformity is identified through the internal audit process, an action plan to rectify the issue is developed by the Management Team specifying responsibility and a target date for resolution. The Manager of Environmental Operations or designate monitors progress of the action plan related to the identified nonconformity until it is fully resolved.

The QMS Representative ensures that any necessary revisions to the QMS policy or procedures are completed and communicated to relevant facility personnel.

The QMS Representative ensures that results of the audit are included as input to the management review process.

- Audit Criteria
 - > The Drinking Water Quality Management Standard
 - > Current QMS manuals, procedures, documents and records
 - Audit report identified as Attachment # 2 (next page)

Attachment # 2

OPERATING AUTHORITY:				
AUDIT TYPE: Annual Internal Audit				
DRINKING WATERWORKS SYSTEMS:				
REQUIREMENT \downarrow SYSTEM \rightarrow 1. 2. 3				
horities:				
enewal				
	STEM→ STEM→	thorities	thorities	

Mj	 Major non-conformity. The auditor has determined one of the following: a) A required element of the DWQMS has not been incorporated into a QMS; b) A systemic problem with a QMS is evidenced by two or more minor non-conformities; or c) A minor non-conformity identified in a corrective action request has not been remedied 		
Mn	Minor non-conformity. In the opinion of the auditor, part of a required element of the DWQMS has not been incorporated satisfactorily into a QMS		
OFI	Opportunity for improvement. Conforms to the requirement, but there is an opportunity for improvement.		
С	Conforms to requirements.		
n/a	Not applicable to this audit.		
*	Additional comments added by audit team in the body of the report.		
Audit Report:			
Element 20. Management Review

Reviewed: 31-Oct-18

Created: 19-Jan-09

1. Purpose:

To describe the procedure for conducting a Management Review of the Quality Management System (QMS) for Haldimand County.

2. Scope:

Applies to the review of the QMS implemented for all waterworks distribution systems within the County.

3. Definition:

Management Review – a formal (documented) meeting conducted at least once every 12 months by Senior Management to evaluate the continuing suitability, adequacy and effectiveness of QMS.

4. Procedure:

The QMS Representative determines a suitable frequency for Management Review meetings for the drinking water system. As a minimum, review must be conducted at least once every calendar year.

Management Reviews for more than one drinking water system will be conducted at the same meeting provided the system belongs to the same owner and the considerations listed below are taken into account for each individual system and documented in the Management Review meeting notes.

The standing agenda for Management Review meeting is as follows:

- a) Incidents of regulatory non-compliance,
- b) Incidents of adverse drinking-water test,
- c) Deviations from critical control point limits and response actions,
- d) The efficacy of the risk assessment process,
- e) Internal and third-party audit results,
- f) Results of emergency response testing,
- g) Operational performance,
- h) Raw water supply and drinking water quality trends,
- i) Follow up on action items from previous Management Reviews,
- j) The status of management action items identified between reviews,
- k) Changes that could affect the QMS,
- l) Consumer feedback,
- m) The resources needed to maintain the QMS,

- n) The results of the infrastructure review,
- o) Operational plan currency, content and updates and
- p) Staff suggestions.

The QMS Representative coordinates the Management Review, creates an agenda identifying participants' responsibilities and in advance of the Management Review meeting, distributes the agenda along with any related reference material to all the participants.

The Management Review participants review the data presented and make recommendations and/or initiate action plans to address identified deficiencies as appropriate.

The QMS Representative ensures that the notes and action plans resulting from the Management Review meeting are prepared and distributed to the appropriate QMS team members and Haldimand County staff.

The QMS Representative will also monitor the progress and document the completion of action plans resulting from the Management Review.

Element 21. Continual Improvement

Reviewed: 23-Jan-19

Created: 19-Jan-09

1. Purpose:

To describe the process established for Haldimand County to continually improve the effectiveness of its QMS plan through the use of internal QMS audits and the Management Review Process.

2. Scope:

Applies to the review and tracking of best management practises, identified corrective actions and the implementation of preventative actions for all waterworks distribution systems within the County.

3. Definition:

N/A

4. Procedure:

The County has committed to tracking and measuring continual improvement within the drinking water distribution system in order to provide safe, reliable drinking water to its residents. Below are the procedures being followed to meet these goals and meeting the procedural documentation requirements.

- a. The County will review and consider applicable best management practises at least once every thirty-six months including:
 - a. MECP best management practises document
 - b. Regulatory/legislative documentation
 - c. Internal procedures
- b. The County has committed to tracking and measuring continual improvement through the review of below documentation and completion of meeting notes and action items. Action items are followed up on a scheduled basis to ensure follow up is completed.
 - a. MECP Inspection reports
 - b. Internal and external audit reports
 - c. Management review meeting outcomes
 - d. Feedback from staff
 - e. Review of any incidents including emergencies, adverse water quality results. Etc.

- c. The County has a process for the Identification and management of QMS corrective actions through the below activities and the completion of Internal Audit Reports. These reports outline corrective action plans with dates and items to be completed for follow-up. They require sign-off by the QMS rep and those staff who were directly involved.
 - a. Internal and external Audits
 - b. MECP inspection Reports
 - c. Management review meetings
- d. The development of preventative actions is a result of the below activities and implementation is done through development of action items and documentation.
 - a. Annual Review of QMS plan
 - b. Outcomes from corrective action documentation
 - c. Emergency documentation development and planning

APPENDIX A

Accepted Council Meeting Minutes and Copy of Original Signed Commitment & Endorsement

The Corporation of Haldimand County

Caledonia / Cayuga Water Distribution System

Dunnville Water Distribution System

Nanticoke Waterworks Water Distribution System (Hagersville – LEIP – Townsend – Jarvis) AND THAT project and funding approval is conditional upon compliance with Haldimand County Policy 2011-01 and County standards, permits and processes.

CARRIED (Unanimously 7-0)

OTHER BUSINESS:

None.

Mayor Hewitt assumed the Chair for this portion of the meeting.

MOTIONS OF CONSENT

Recommendation 10

Moved By: Councillor Shirton Seconded By: Councillor Grice

THAT the following reports/memorandums be received as information:

- PW-WW-M01-2016 Re: Annual Drinking Water Quality Management Standard (DWQMS) Update
 - 2. PW-WW-02-2016 Re: 2015 Drinking Water Quality Reports
 - CMS-GL-01-2016 Re: Grandview Lodge Operations Update September to December, 2015
 - 4. CS-CL-M02-2016 Re: Annual Freedom of Information Update (2015 Reporting Year)
 - CS-GM-01-2016 Re: 2016 Conservation Authorities' Levies Grand River Conservation Authority & Niagara Peninsula Conservation Authority

AND THAT the recommendations as contained in the following reports be adopted:

PW-ES-05-2016 RE: CHESTNUT STREET, DUNNVILLE - PARKING CONTROL BY-LAW AMENDMENTS

- THAT Report PW-ES-05-2016 Re: Chestnut Street, Dunnville Parking Control By-law Amendments dated January 18, 2016 be received;
- AND THAT Haldimand County Parking Control By-law 307/02, Schedule "C" No Parking – Dunnville, be amended as outlined in Report PW-ES-05-2016;
- AND THAT Haldimand County Parking Control By-law 307/02, Schedule "D" Restricted Parking - Dunnville, be amended as outlined in Report PW-ES-05-2016;
- AND THAT Haldimand County Parking Control By-law 307/02, Schedule "H" Physically Disabled Parking - Dunnville, be amended as outlined in Report PW-ES-05-2016;
- AND THAT Haldimand County Winter Control Parking By-law 302/02, Schedule "A" Snow Routes - Dunnville, be amended as outlined in Report PW-ES-05-2016.

The Corporation of Haldimand County Council in Committee Minutes - February 2, 2016 Page 7 of 17

CS-HR-01-2016 RE: 2016 Occupational Health and Safety Policy and Program

- THAT Report CS-HR-01-2016 Re: 2016 Occupational Health and Safety Policy and Program dated January 15, 2016 be received;
- AND THAT the 2016 Occupational Health and Safety Program be approved as outlined in Report CS-HR-01-2016;
- AND THAT Policy No. 2015-01 be rescinded and replaced with the 2016 Occupational Health and Safety Policy as outlined in Attachment #5 to Report CS-HR-01-2016.

CARRIED (Unanimously 7-0)

DEPARTMENTAL STAFF REPORTS (CONTINUED)

PUBLIC WORKS BUSINESS

Councillor Shirton, Chair of Public Works, assumed the Chair for this portion of the meeting.

PW-ES-08-2016 RE: IMPROVEMENTS TO THE MUNICIPAL DRAIN MAINTENANCE PROCESS

Recommendation 11

Moved By: Councillor Morison Seconded By: Councillor Corbett

THAT Report PW-ES-08-2016 Re: Improvements to the Municipal Drain Maintenance Process dated January 18, 2016 be received as information.

> CARRIED (Unanimously 6-0) Mayor Hewitt was absent for the vote.

OTHER BUSINESS:

None.

JOINT SERVICES BUSINESS

Councillor Corbett, Chair of Joint Services, assumed the Chair for this portion of the meeting.

OTHER BUSINESS:

 Councillor Dalimonte advised that Social Services staff extend an invitation to members of Council to sit in on the Ontario Works intake process. Similarly, the Salvation Army in Dunnville extends an invitation to members of Council to help deliver food from the food bank.

The Corporation of Haldimand County Council in Committee Minutes - February 2, 2016 Page 8 of 17

Corporation of Haldimand County Water Distribution Systems

3. Commitment and Endorsement

The Corporation of Haldimand County supports the implementation, maintenance and continual improvement of this drinking water Quality Management System (QMS) for the Nanticoke water distribution system, as documented in this Operational Plan.

The following representatives, acknowledge the need for and support the provision of sufficient resources to maintain and continually improve the QMS and therefore, have endorsed it below.

Donald G. Boyle **Chief Administrative Officer**

Chief Administrative Office Haldimand County

4PR 22/09 Date Paul Mungar C.E.T., CMM III

Manager Environmental Services Division

APR 22/09 Supervisor Date

Fol Compliance Supervisor Environmental Services Division

2009-04-22 Date

Geoff Rae, M.B.A., P.Eng., CMM III General Manager Physical Services Department

left/Oakes A. Sc. T

______Arc 23/C

Supervisor / ORO Water & Wastewater Operations

Warren Wight, C.E.T.

QMS Representative Environmental Services Division

Furthermore, the Owners' (Mayor and Council) shall support Staff endorsement of the County's Quality Management System's Operational Plan by way of Council Resolution. The Council meeting minutes and resolution where the Operational Plan was introduced and accepted by Council, form part of this Plan as Appendix A.

Nanticoke Operational Plan

07-Apr-09 UNCONTROLLED WHEN PRINTED

PAGE 4

APPENDIX B

Water Distribution System Maps

The Corporation of Haldimand County

Caledonia / Cayuga Water Distribution System

Dunnville Water Distribution System

Nanticoke Waterworks Water Distribution System (Hagersville – LEIP – Townsend – Jarvis)











Hagenrylike Water Distribution System







APPENDIX D

Internal Audit Documents

The Corporation of Haldimand County

Caledonia / Cayuga Water Distribution System

Dunnville Water Distribution System

Nanticoke Waterworks Water Distribution System (Hagersville – LEIP – Townsend – Jarvis)

QMS Procedure No. 14 – Internal Audits – Audit Report Attachment 2017 Internal Audit Report– Summary of Findings

System(s) Audited	Location & Auditee Personnel	Date /	Time	Auditor(s)
	Supervisor of Compliance, Environmental Operations > Audit Location: Kohler Office	22-Oct-18	09:00am	
Dunnville Drinking Water Distribution Caledonia/Cayuga Drinking Water	 Jim Matthews Manager of Water and Wastewater Operations Audit Location: Kohler Office Jeff Oakes 	22-Oct-18	2:00pm	Jessica Ignasza Joe Kuriger, (
Distribution Nanticoke Drinking Water Distribution	Area 2 W & WW Staff Audit Location: Kohler Office Derek Gatto (Operator)	23-Oct-18	08:30am	a Ignaszak, QMS Rep Kuriger, QMS Lead
	Area 1 W & WW Staff → Audit Location: Hagersville Shop o Jason Richard (Operator)	23-Oct-18	1:30pm	

Schedule for Internal Audit:

Introduction: To conduct an internal audit of staff knowledge of the County's Quality Management System and the Operational Plan required under the Drinking Water Quality Management Standard (DWQMS).

Audit Objectives and Scope: The objective of this audit is to determine whether the drinking water Quality Management System (QMS) of the above identified systems conform to the requirements of the MOE's Drinking Water Quality Management Standard (DWQMS). The auditors' role is to find gaps between what is documented in the plan and answers provided during staff interviews or facility document and record review.

Audit Method: Divide the Public Works, Environmental OperationsDivision into two manageable groups and conduct on site staff interviews. Two auditors will perform all individual audits ensuring to document all responses provided.

Only the Elements that have been audited are included within the Audit Notes.

Audit Results: A summary of all discussion topics, questions asked and answers provided will be compiled into the Audit Notes together with the audit team's observations / non-conformance findings. These results will be provided to all staff as part of the Internal Audit Report. Discussions around resolutions to identified "opportunity for improvement", "minor or major non-conformance findings" will take place at the Senior Management Debrief scheduled for November 1st, 2018.

OPERATING AUTHORITY: Corporation of Haldimand County

AUDIT TYPE: Annual Internal Audit		
DRINKING WATERWORKS SYSTEMS WITHIN T	HE QMS OPERATIONAL PLA	N:
a. Caledonia and Cayuga Distribution	System	
b. Dunnville Drinking Water System		
c. Nanticoke Drinking Water System		
REQUIREMENT ↓ QMS	OPERATIONAL PLAN \rightarrow	(a, b, c)
22. Quality Management System		N/A
23. Quality Management System Policy		С
24. Commitment and Endorsement		С
25. Quality Management System Representation	ve	С
26. Document and Records Control		Mn
27. Drinking-Water System		NA
28. Risk Assessment		OFI
29. Risk Assessment Outcome		OFI
30. Organizational Structure – Roles, Responsibilities	& Authorities	OFI
31. Competencies		OFI
32. Personnel Coverage		С
33. Communications		C
34. Essential Supplies and Services		OFI
35. Review and Provision of Infrastructure		C
36. Infrastructure Maintenance Rehabilitation	& Renewal	C
37. Sampling, Testing and Monitoring		OFI
38. Measurement & Recording Equipment Calibration &	Maintenance	С
39. Emergency Management		Mn
40. Internal Audit		NA
41. Management Review		С
42. Continual Improvement		С

	Major non-conformity. The auditor has determined one of the following:	
Mj	d) A required element of the DWQMS has not been incorporated into a QMS;	
	 e) A systemic problem with a QMS is evidenced by two or more minor non-conformities; or f) A minor non-conformity identified in a corrective action request has not been remedied 	
	Minor non-conformity. In the opinion of the auditor, part of a required element of the DWQMS has	
Mn	not been incorporated satisfactorily into a QMS	
OFI	Opportunity for improvement. Conforms to the requirement, but there is an opportunity for	
UFI	improvement.	
С	Conforms to requirements.	
C	contornis to requirements.	
nla	Not applicable to this audit.	
n/a		
*	Additional comments added by audit team in the body of the report.	
	Additional comments added by addit team in the body of the report.	

5	DOCUMENT AND RECORD CONTROL
	Minor Non-Conformance
	Staff are unaware of a significant number of documents accessible to them. This means the review
	process is not being followed as most documents have an annual review requirement. Examples
	are SOP's, risk assessment documentation, essential supplies and services list.
7	RISK ASSESSMENT
	Opportunity for Improvement
	The County's operations staff are not aware of this document. It has been updated as of 2018 and
	all staff need to be aware of the risks and their associated critical control points. A workshop was
	held with operations staff to review the document and ranking process. Staff who were not in
-	attendance of the workshop need to have the outcome reviewed with them.
8	RISK SSESSMENT OUTCOME
	Opportunity for Improvement
	Same opportunity available as Element 7. Element 8 is applied in conjunction with element 7 and
	refers specifically to the actual risk assessment document (schedule C).
9	ORGANIZATIONAL STRUCTURE, ROLES, RESPONSIBILITIES AND AUTHORITIES
	Opportunity for Improvement
	There is an opportunity to improve the structure for all personnel that directly affect drinking
	water. It is not clearly defined what the roles and responsibilities of the distribution operators are.
	These roles need to be clearly defined. Staff with roles that directly impact the drinking water
	should have input to their defined roles within the DWQMS plan.
10	COMPETANCIES
	Opportunity for Improvement
	There is an opportunity to improve the competencies listed for staff that directly impact the
	County's drinking water. They are not clearly defined for operators and management staff. Key
	Staff should participate in revisions to ensure what is in the plan is accurate an reflects current
	process.
13	ESSENTIAL SUPPLIES AND SERVICES
	Opportunity for Improvement
	Operations staff are unaware of this document. This should be reviewed with staff as the supply
	of equipment is critical to delivering safe drinking water.
16	SAMPLING, TESTING AND MONITORING
	Opportunity for Improvement
	There is an opportunity to improve staff awareness regarding content in Element #16. Staff are
	not aware of the sampling, testing and monitoring SOPs listed in the element. This documentation
	needs to be reviewed annually and updated as needed.
18	EMERGENCY MANAGEMENT
	Minor Non-Conformance
	Additional emergency training for staff is encouraged, which should include mock disasters and
	how to effectively respond to a potential emergency. It is stated in the plan that every other year
	training is given to operations staff and this is not currently being done.
	The Emergency Response Guidance Document should be reviewed annually (as per Table #1) and
	updated accordingly. The review should include all water and wastewater staff.

General Audit Notes:

The scope of this audit included an onsite review of QMS, SOP and call Binders. Interview style questions were asked of the Area Supervisor and CIOC based on these documents. The purpose was to determine if the binders are being used and reviewed.

Most information was up to date but showed an opportunity for improvement to ensure up to date and consistent information is being used by all areas.

Audit Report Auditor Approval	Joseph Wuriger	Jessica Ignaszak	

APPENDIX E

Management Review Meeting Minutes

The Corporation of Haldimand County

Caledonia / Cayuga Water Distribution System

Dunnville Water Distribution System

Nanticoke Waterworks Water Distribution System (Hagersville – LEIP – Townsend – Jarvis)

DWQMS – Haldimand County Management Review Meeting # 9 - Agenda

Required:

Jeff Oakes, Top Management Phil Mete, Top Management Jim Matthews, Compliance Supervisor Joe Kuriger, QMS Lead Jessica Ignaszak, QMS Rep.

- 1. Review Minutes and action items of 23-Jan-18 Meeting:
- 2. Address Items a) through p) Identified in Element 20:
 - a. Incidents of regulatory non-compliance
 - b. Incidents of adverse drinking-water tests
 - Deviations from critical control point limits and response actions
 - d. The efficacy of the risk assessment process
 - e. Internal and third-party audit results
 - f. Results of emergency response testing
 - g. Operational performance
 - h. Raw water supply and drinking water quality trends
 - i. Follow-up on action items from previous management reviews
 - The status of management action items identified between reviews
 - k. Changes that could affect the Quality Management System
 - I. Consumer feedback
 - m. The resources needed to maintain the Quality Management System
 - n. The results of the infrastructure review
 - o. Operational Plan currency, content and updates
 - p. Staff suggestions
- 3. New Business
 - a. New Business
- 4. Next Meeting:
 - a. November 2019

DWQMS – Halo Management Review		01-Nov-18 Meeting Agenda
Required:		
Jeff Oakes, Top Management Jim Matthews, Compliance Supervisor	Phil Mete, Top Management Phil Wilson, W&WW Project Manager	
Jessica Ignaszak, QMS Rep.	Joe Kuriger, QMS Lead	
Review Minutes and action is	tems of 23-Jan-18 Meeting:	
• Address Items a) through p)	Identified in Element 20:	
Cayuga/CaNanticoke	non-compliance y Inspections were conducted on aledonia System, 17-Oct-18 System, 11-Jul-18 System, 08-Aug-18	
waterworks systems.A sodium hypochlorite	IS REQUIRED for any of the three analyzer identified in the Nanticoke Permit was removed from the	
b. Incidents of adverse dr ∀eolia Water Incidents • July 17, 2018 – To Nanticoke East Re	tal Coliform of 2 CFU/100mL at	
County Distribution Incidents • July 25, 2018 – To Dunnville SS #15	tal Coliform of 8 CFU/100mL at (GVL)	
 Deviations from critical actions 	control point limits and response	
 County has response 	onded to all alarms as per procedures ny CCP's were compromised.	
 The County's risk a updated in 2018. 	e risk assessment process ssessment was fully reviewed and eld with distribution staff to review risk	
	scuss critical control points	
e. Internal and third-party	audit results	

	 Desktop External audit will be conducted by SAI Global in December of 2018. Summary of Findings will form part of the Operational Plan. Internal audit was conducted October 22 and 23, 2018. The summary of findings forms part of the Operational Plan. There was 6 OFI's (opportunity for improvement) as well as 2 identified Mn (minor non-conformance). Opportunities for Improvement Risk Assessment Risk Assessment Outcome Organizational Structure Competencies Essential Supplies and Services Sampling, Testing, Monitoring Minor Non-Conformances Document and Record control shows some gaps. Staff do not know where to locate documentation and SOPs are not reviewed on an annual basis. Emergency Management training is stated as being arranged by the Area Supervisor once every 2 years. According to Audit results this is not being done.	
f	 Results of emergency response testing Mock Disaster Table Top Exercise was held September 20, 2018 develop response to a Hamilton supply contamination event 	
ļ	 g. Operational performance In 2018, all requirements and production demands were met. 	
I	 Raw water supply and drinking water quality trends County distribution water quality spreadsheets are being updated, but regular reviews have not been implemented. There are numerous data entry errors present. County and Veolia staff meet on a monthly basis to review, interpret and discuss all process performance trends for all drinking waterworks systems. Trends include but are not limited to; raw water flows, treated water flows, chemical demand, Raw/all filters/settled/finished water turbidities. All concerns, issues and updates on capital/operational projects also form part of the meeting. Discussions are tracked and circulated via meeting minutes. 	
i	. Follow-up on action items from previous management reviews	

	 QMS Rep. will monitor completion dates of all recorded action items and provide any follow-up necessary to ensure status of the item is provided. Note: This is contrary to the QMS plan. 	
j.	 • An action item list will be developed and a follow up 	
	email sent to determine if items have been completed.	
k.	 Changes that could affect the Quality Management System The County has implemented the MECP considerations for the risk assessment process and other key changes to standard. The County is also undergoing some re-structuring which could not article impact the DWOMS Plan and its 	
	which could potentially impact the DWQMS Plan and its delivery.	
I.	 Consumer feedback The County received complaints over the taste/odour of water in the Caledonia/Cayuga distribution system in 2018. 	
	 Chlorine residual complaints were received in 2018 from residents in Caledonia. 	
m	The resources needed to maintain the Quality Management System	
	 Staff resources and financial availability was provided in 2018 ensuring the Quality Management System was maintained and conformed with the DWQMS requirements. 	
n.	 The results of the infrastructure review A report for the 2018 budget was presented and approved by Council in December 2017. 2019 capital projects related to water infrastructure were documented and prioritized in August/September 2018. 	
ο.	 Operational Plan currency, content and updates Plan will be reviewed and updated as of November 30, 2018. 	
p.	 Staff suggestions Staff have suggested that the DWQMS plan be reviewed in more detail at their level to increase knowledge and overall awareness of the plan. 	
	ew Business	
a.	New Council – Standard of Care and DWQMS Overview	

Corporation of Haldimand County Quality Management System (QMS) Operational Plan

 Next Meeting: a. November 2019

#	Action	Responsibility	Due Date
1	-Provide DWQMS introduction/awareness information to Jeff for inclusion in "New Hire" Orientation checklist package -use workshop introductions as a start	Jessica	November 2019
2	-Develop orientation checklist for specific job positions within water and wastewater - Include DWQMS information Review with Supervisors (Jim, Todd, Brandon)	Jeff	Prior to New Hires
3	-Schedule DWQMS, Quality Management System training for new staff	Jessica	As required
4	-Invite Supervisors (ORO's)to participate in next Management Debrief	Jessica	November 2019
5	-Follow up with Jason (emergency services) to obtain details on Emergency Mock Disaster planning and provide suggestions for water related event -Identify Example Mock disaster to provide to County Emergency Response Team	Jeff	2020
6	Revise Element 20 – Emergency Management to identify current process for management meeting minutes and action items	Jessica	Nov. 31. 2018
7	-Develop standard of care presentation and package -deliver via presentation to council along with Annual Water quality Reports	Joe/Jessica	Feb. 2019

APPENDIX F

Drinking Water Emergency Response Guidance Document

The Corporation of Haldimand County

Caledonia / Cayuga Water Distribution System

Dunnville Water Distribution System

Nanticoke Waterworks Water Distribution System (Hagersville – LEIP – Townsend – Jarvis)



CORPORATION OF HALDIMAND COUNTY

PUBLIC WORKS DEPARTMENT

WATER AND WASTEWATER OPERATIONS DIVISION

DRINKING WATER EMERGENCY RESPONSE GUIDANCE DOCUMENT

ADOPTED: March 5th, 2012 REVIEWED: February 2019 REVISED: February 21, 2019

INTRODUCTION

An emergency is a situation or an impending situation that constitutes a danger of major proportions that could result in serious harm to persons or substantial damage to property and that is caused by the forces of nature, a disease or other health risk, an accident or an act whether intentional or otherwise, which, by its nature or magnitude, that may require a co-ordinated response by a number of agencies under the authorization of the General Manager of Public Works.

Whenever a situation occurs that affects or has the potential to affect the quality or quantity of potable water to customers of Haldimand County, the responsibility for providing immediate assistance rests with the Water and Wastewater Operations Division.

The intent of the Emergency Response Guidance Document (ERGD) is to provide Water and Wastewater Operations staff with contact information and to identify roles and responsibilities. An effective response plan will ensure the emergency situation is brought under control as quickly as possible.

For the ERGD to be effective it is important that its contents;

- be conveyed to all parties responsible for coordinating an emergency event;
- identify staff roles and responsibilities;
 - recognize severity of event,
 - o notification to public, media, other agencies etc.,
 - o communication protocol,
 - o during normal working hours vs. after hours,
- reference current documentation protocol;
- reference health and safety protocol; and
- be reviewed by staff (debrief) after each incident is resolved.

The main objectives of the ERGD are:

- to ensure the earliest possible response and overall control of the emergency,
- to undertake immediate actions to eliminate all sources of potential danger within the affected area,
- to provide timely and factual updates to all personnel managing the emergency,
- to document all instructions given and actions taken,
- to recognize areas for improvement through a debrief session, make appropriate changes and communicate changes to staff,
- to assess the content for relevance on an annual basis and communicate changes to staff

NOTIFICATION PROTOCOL

In the event of a situation that affects or has the potential to affect the quality or quantity of potable water to customers of Haldimand County, all water system personnel are expected to address the situation appropriately and with as little risk to public safety as possible. The following is the notification protocol adopted by Water and Wastewater Operations:

Notification of a situation can be from:

- the public
 - during normal working hours
 - o outside of normal working hours
- an accredited laboratory
- contract water treatment plant operations
- county staff
- 1. Notification of a situation <u>during normal working hours</u> will be received by:
 - Kohler Office
 - Kohler Office staff will immediately notify the proper Water and Wastewater Area Cell phone (First Responder)
 - o Extend Communications
 - Notification must be dispatched to the Operator via on-call pager (First Responder)
 - Water & Wastewater Operator, COIC or Supervisor (Overall Responsible Operator ((ORO)
 - Operator (First Responder) will respond accordingly or as per direction from COIC or Supervisor (ORO)

In the event contact can not be made with the Operator (First Responder), the Area Chief-Operator-in Charge is to be notified. The COIC will direct an operator to respond (First Responder) and determine if the ORO needs to be involved.

- 2. Notification of a situation <u>after hours</u> will be received by:
 - Extend Communications
 - Notification must be dispatched to the On-Call Operator via pager (First Responder)

In the event contact can not be made with the On-Call Pager Operator (First Responder), the ORO is to be notified.

ALL NOTIFICATION MUST BE MADE BY SPEAKING IN PERSON OR BY TELEPHONE WITH A PERSON REFERENCED IN THE CONTACT LIST

Proper documentation (time, date, call person, receiving person, emergency event, location additional contacts etc.) must be completed

ROLES AND RESPONSIBILITIES

For any emergency event, **all individuals** are responsible and accountable for their actions and must ensure personal safety. Due diligence by all staff must always be practiced.

All staff are required to keep good records identifying key tasks performed or directed and timelines during the event. The documentation should be legible and should show ownership via signatures.

- 1. First Responder (Operator)
 - \circ $\;$ Respond to emergency in a timely manner and assess situation for
 - Immediate or evident dangers;
 - Containment or isolation of situation;
 - Judge the severity of the situation;
 - potential health risk,
 - the number of people impacted,
 - amount of damage to property / County assets
 - Based on severity of situation, contact COIC or ORO for additional support;
 - Contact Contract Water / Wastewater Treatment Plant Operator (if required);
 - If assistance is required; additional staff, contractor;
 - After hours call Extend Communications for additional staff,
 - For contractor support reference contractor list
 - Traffic control needs.
 - Implement corrective actions and recovery plan
 - Contaminated system requires isolation of affected area, notification to affected customers.
 - o If the emergency results in an adverse drinking water condition:
 - During normal working hours, contact Kohler office;
 - After hours, the first responder <u>must</u> initiate adverse reporting protocol.
 - As required, reference adverse drinking water notification SOP
 - ES-WD-05 Adverse Sample Notification WWW
 - If emergency resulted in property damage, advise owner to contact their insurance company.
- 2. <u>Chief Operator-In-Charge (COIC)</u>
 - \circ $\;$ Provide direction to First Responder and support as required
 - Communicate status of event to ORO
- 3. <u>Operator Responsible Overall (Supervisor Water and Wastewater)</u>
 - Communicate status of event to Kohler staff;
 - Keep Manager apprised of status of event;
 - Keep Medical Officer of Health updated on status of event;
 - Provide staff with the appropriate level of approval to ensure the necessary equipment, staff and materials required to resolve the emergency are available;
 - Support with public notification of emergency events (after hours).

- Request IT to post an announcement or update on the County's website via <u>haldimandoncall@gmail.com</u> and confirm with follow-up telephone call to 905-981-9157
- 4. Manager of Water and Wastewater Operations
 - Keep General Manager of Public Works updated on status of event
 - o Respond to Media inquiries and coordinate public information
 - Provide staff with the appropriate level of approval to ensure the necessary equipment, staff and materials required to resolve the emergency is available
- 5. <u>General Manager of Public Works</u>
 - Keep Senior Management Team, Council and the Mayor updated on status of event
 - o Respond to Media inquiries and coordinate public information
 - Contact surrounding Municipalities for assistance (if required)
 - Provide staff with the appropriate level of approval to ensure the necessary equipment, staff and materials required to resolve the emergency is available
- 6. Kohler Division Support / Water & Wastewater Tech Support
 - Respond to public inquiries
 - During normal working hours, assist with notification of adverse drinking water sample results
 - Provide Legislative or Regulatory guidance and direction to assist with corrective actions
 - Support with public notification of emergency events (during normal hours):
 - Request Emergency Information Officer, (Supervisor Corporate Affairs) to prepare a media release as well as social on media and on the County's website and confirm with follow-up telephone call to 905-318-5932 ext. 6309;
 - Prepare and assist in delivering notices as required.
 - Coordinate a debrief of the event and update procedure as required
- 7. Haldimand Norfolk Health Unit
 - Provide direction on necessary corrective actions related to an Adverse Water Quality Incident (AWQI)
 - Notify Media of necessary public health advisories (i.e. boil water advisory)
 - o Issue and rescind any public health advisories or restriction notifications

SCHEDULE A: EMERGENCY RESPONSE PERSONNEL CONTACT LIST

Normal Working Hours (8:30 AM to 4:00 PM)

General Manager of Public Works	Phil Mete cell #	905-318-5932 ext 6381
Manager of Water and Wastewater Operations	Jeff Oakes cell #	905-318-5932 ext 6156
Area 1 Hagersville Water & Wastewater Shop Hagersville, Jarvis, Townsend & LEIP Caledonia COIC cell# ORO (Supervisor) cell # Area 2 Dunnville Water & Wastewater Shop Cayuga Dunnville COIC cell#	Operator cell # Operator cell # Dave Watson Todd DeMille home # Operator cell # Operator cell # Craig Thomson	905-318-5932 ext. 6131 905-318-5932 ext. 6142
ORO (Supervisor) cell #	Brandon Hedge home #	S
Kohler Office Division Support Water & Wastewater Tech Support	905-318-5932 Virginia Roth Joseph Kuriger Cell# Jessica Ignaszak Cell# Stephanie Nolet Cell#	
Compliance Supervisor	Jim Matthews cell # home #	ext 6272
Administrative Assistant <u>After Hours</u>	Tammy Chapma	an ext 6126
Extend Communications		888-849-7345
<u>Contracted Operating Authority</u> Veolia Water Canada Ltd. Nanticoke Water Treatment Plant Senior Operator Project Manager Dunnville Water Treatment Plant	Joe Feeney cell Duane Rutter ce	

Corporation of Haldimand County Quality Management System (QMS) Operational Plan

Hagersville Wastewater Treatment Plant Project Manager	David Kohli cell #	905-768-5252
<u>Haldimand Norfolk Health Unit</u> Medical Officer of Health (Haldimand) Medical Officer of Health (MOH)	Simcoe Dr. Shanker Nesathurai Dr. David Williams	519-426-6170
Ministry of the Environment Spills Action Cent	re	1-800-268-6060
Haldimand County Fire Services	Cayuga	905-318-5932
Manager Emergency Services	Jason Gallagher	ext 6228
	cell #	
Deputy Fire Chief	Rodger Hill	ext 6246
	cell #	
On Call Duty Officer for Fire Department		289-674-0397

SCHEDULE B: PRIVATE CONTACT LIST

Hagersville		
West Haldimand General Hospital		905-768-3311
Anson Place Retirement Home		905-768-1641
Hewitt's Dairy		905-768-3524
Koala-T Daycare		905-768-5439
Dunnville		
Dunnville War Memorial Hospital		905-774-7431
Grandview Lodge		905-774-7547
Jarvis / LEIP		
Christian Reform School		519-587-4444
Leisure Living		519-587-2208
Stelco Steel		519-587-4541
Caledonia		
RVilla Retirement Home		905-765-5503
Townsend		
Parkway Daycare		519-587-5796
Parkview Meadows		519-587-2448
		515 507 2440
New Credit	working hours	905-768-1133
	after hours	519-861-2654
		905-971-2982
Grand Erie District School Board		519-756-6306
		Ext 3
Catholic School Board		519-756-6369

Element 3. Commitment and Endorsement

The Corporation of Haldimand County supports the implementation, maintenance and continual improvement of this drinking water Quality Management System (QMS) for the County's three water works systems, as documented in this Operational Plan.

The following representatives, acknowledge the need for and support the provision of sufficient resources to maintain and continually improve the County's QMS. Copies of the original signed endorsement form part of this Plan as Appendix A.



Furthermore, the Owners' (Mayor and Council) shall support Staff endorsement of the County's Quality Management System's Operational Plan by way of Council Resolution. The Council meeting minutes and resolution where the Operational Plan was introduced and accepted by Council also form part of this Plan as Appendix A.