

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



**Haldimand**  
County

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Separate Documents: not included in plan

- Appendix A. Accepted Council meeting minutes (Council Endorsement) -
- Appendix B. Drinking Water Emergency Response Guidance Document

## **Element 1.      Quality Management System Introduction**

This document is The Corporation of Haldimand County's (Haldimand County) drinking water Quality Management System (QMS) Operational Plan for the Caledonia and Cayuga Distribution System, Dunnville Drinking Water System (distribution system only) and the Nanticoke Drinking Water System (distribution system only). The Operational Plan conforms 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 service contract has been established for the operation and maintenance of two water treatment plants, one elevated storage tank, two standpipes and approximately 35 kilometres of transmission watermain located in the Dunnville and Nanticoke Drinking Water Systems. The Contractor is responsible to develop and maintain a QMS for the infrastructure associated with the service contract.

## **Element 2.      Quality Management System Policy**

The Corporation of Haldimand County owns, maintains and operates various drinking water systems. Haldimand County is committed to:

- Ensuring our drinking water systems comply with all current legislation and regulatory requirements for the safe supply of drinking water;
- Ensuring financial support is provided to maintain infrastructure integrity to allow safe and consistent delivery of drinking water to our water customers;
- Reviewing , maintaining and continually improving our Quality Management System and to communicate the Plan with our water customers.

### Element 3. Commitment and Endorsement

The Owner (Mayor and Council) and Top Management (General Manager of Public Works, the Manager Of Environmental Operations and the Manager of Engineering & Capital Works) of the Operating Authority (Haldimand County) supports the development, implementation, maintenance and continual improvement of this Drinking Water Quality Management System (DWQMS) for the County's three water works systems, as documented in this Operational Plan. The Top management and Operating Authority supports the DWQMS through provision of resources, ensuring staff are aware of applicable relevant legal requirements and supporting DWQMS communications. The following Haldimand County representative acknowledge and support the provision of providing sufficient resources to maintain and continually improve the QMS of Haldimand County.

Commitment and Endorsement for 2023- 2027

Shelley Ann Bentley	Mayor DWQMS Owner Representative	Craig Manley	Chief Administrative Officer Haldimand County DWQMS Top Management Representative
Stewart Patterson	Councillor – Ward 1	Phil Mete	General Manager Public Works Operations DWQMS Top Management Representative
John Metcalfe	Councillor – Ward 2	Brandon Hedges	Manager Environmental Operations DWQMS Top Management Representative
Dan Lawrence	Councillor – Ward 3	Phil Wilson	Manager Engineering & Capital Works DWQMS Top Management Representative
Natalie Stam	Councillor – Ward 4	Tyson Haedrich	General Manager Engineering & Capital Works DWQMS Top Management Representative
Rob Shirton	Councillor – Ward 5		
Patrick O'Neill	Councillor – Ward 6		

#### **Element 4.      Quality Management System Representative**

The QMS Representative duties will be carried out by the Environmental Operations Water/Waste Water Technologist responsibilities are as follows:

- Promote awareness of the quality Management System throughout the Operating Authority (Haldimand County);
- Ensure that current versions of documents required by the quality Management System are being used at all times;
- Report to Top Management on the performance of the quality Management System and any need for improvement;
- Administer the Quality Management System by ensuring that processes and procedures needed for the quality Management System are established and maintained;
- Ensure that personnel are aware of all applicable legislative and regulatory requirements that pertain to their duties for the operation of the Subject System.

## Element 5. Document and Records Control

Documents and Records will follow the Documents and Record Control Procedures (ES-DC-01). This procedure defines roles and responsibilities to ensure how documents and records are:

1. Kept current, legible and readily identifiable;
2. Retrievable;
3. Stored, protected, retained and disposed of.

All procedures will be documented with a standard template with a header that includes the Procedure number, the revision date and the latest revision number.

Procedures will be kept by the Water & Wastewater Technologist in the T:drive at [..\..\E09 Tech SOP Edit Versions](#). Any documents in this folder will be changed by only the Technologist as required.

Documents and records will be stored according to Table #1 in the Documents and Record Control Procedure (ES-DC-01).

Records that are deemed essential to the effective planning, operation and control of its operations to the safe supply of drinking water have been identified and are listed with their storage locations in Table #1 in the Documents and Record Control Procedure (ES-DC-01).

Procedure that have been deemed essential by the Distribution staff have been identified for yearly review. All other procedures will be reviewed every three years. The essential procedures are identified on the Water and Wastewater Operations Division Procedure Table of Contents (found at [..\..\E09 Tech SOP Edit Versions\SOP Table of Contents.docx](#)).

## Element 6. Drinking Water System Description

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. The systems are as follows:

- Nanticoke Drinking Water System, which supplies water to the Nanticoke Industrial Park and the communities of Jarvis, Townsend and Hagersville.
- Dunnville Drinking Water System, which supplies water to the town of Dunnville.
- The Caledonia and Cayuga Distribution System, which supplies water to the communities of Caledonia, Cayuga and York originating from the Hamilton Water System..

The county contracts maintenance and operations of all water treatment plants, two standpipes, a booster station, one elevated storage tank and approximately 35km of transmission watermain. The contractor is expected to have an up to date operational plan and achieve accreditation as the operating authority.

Table # 1 – County Water Distribution System Components

	Residents (2021 Census Canada)	Watermain (km)	Hydrants	Valves	Water Meters	Water Depots	Standpipes/ Elevated Tanks
Caledonia and Cayuga System	13,899	83.12	512	944	4,978	0	2
Dunnville System	5907	37.6	227	457	2,460	1	1*
Nanticoke System	6,359	41.39	275	479	2,323	2	2*

\* Infrastructure managed by contract operator.

All County assets; valves, hydrants and pipes, have been mapped on system distribution drawings for operator use. As new municipal infrastructure is installed or changed, mapping updates are completed by the Engineering Technologist in the Engineering and Capital Works Department and the file referenced in the Drinking Water Works Permit Schedule A Section 1.2 is updated.

The Caledonia/ Cayuga distribution system is fed by Hamilton Water System. This system feeds chloraminated water to the Caledonia Pumping Station where chlorine is analyzed, measured and chlorine is added to achieve “BreakPoint”. This results in a free chlorine residual (>0.05 mg/L) that is then distributed to the system. The Memorandum of Understanding between Hamilton and Haldimand can be found in the <..\E04 Water\Hamilton Supply\Hamilton Haldimand MOU-2021 .pdf>

The free chlorine residual that is required to achieve safe drinking water is tested throughout each system as predetermined sample stations. The procedure can be found

The following documents are applicable to the above drinking water system and form part of this licence:

- Drinking Water Works Permit

Drinking Water System Name Permit Number Issue Date

Dunnville Drinking Water System 066-201 December 10, 2021

- Permits to Take Water

Water Taking Location Permit Number Issue Date

Lake Erie and the Grand River 6818-96NNHQ April 11, 2013



## Element 7. Risk Assessment

Reviewed: 10-Oct-22

Revised: 09-Sept-20

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 B 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 <sup>and/or</sup> 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, the below chart was provided to the staff to identify system hazards including the Ministry's document "Potential Hazardous Events for Municipal Residential Drinking Water Systems"

Risk Assessment Worksheet – Haldimand County Distribution Systems

Please Circle System: Caledonia Cayuga Dunnville Hagersville Jarvis LEIP Townsend

Identify Hazard or Hazardous Event	What Control Measures are Currently in Place?	Can a Control measure be implemented 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 a team was created 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	Rating
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	Rating
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

## Detectability Rating System

Description	Consequence of Hazardous Event Occurring	Rating
Very Detectable	Easy to detect, on-line monitoring through SCADA	1
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 Detectable	Normally detectable, visually detectable on rounds or through regular maintenance	3
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 B.

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 actions 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. The team will also review the Ministry's "Potential Hazardous Events for Municipal Residential Drinking Water Systems" to determine if any changes are required.

Environmental Operations staff will commit to re-assessing risks once every thirty-six (36) months to ensure identified hazards and control measures are applicable to the drinking water systems.

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

## **Element 8. Risk Assessment Outcome**

Reviewed: 20-sept-22

Revised: 20-Sep-17

Created: 08-Nov-18

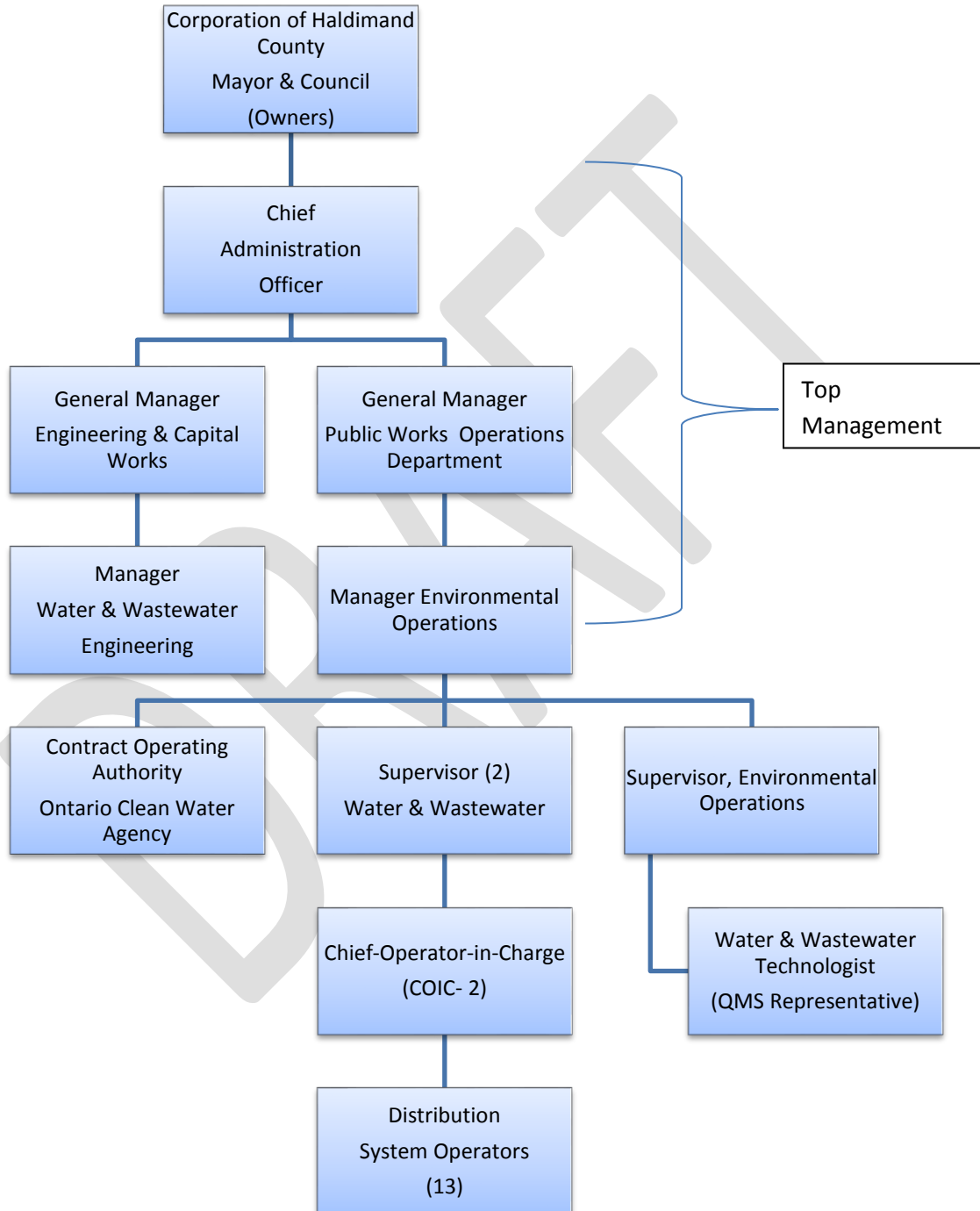
As part of the County's risk assessment outcome notes, several SOP's have been identified that provide necessary instruction to key County staff to address or manage hazard or hazardous events. Also, SOPs exist that instruct staff on routine maintenance tasks necessary to ensure infrastructure is still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

Appendix B (separate Document), 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 B 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, but they are 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.



## **Owner Representatives**

### **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 Operations and the Manager of the Environmental Operations Division. Must sign off on the Operational Plan.

### **Chief Administrative Officer**

The Chief Administration Officer's primary role with respect to the Quality Management System is to keep the Mayor and Council apprised of QMS objectives, goals, updates and improvements as recommended by the QMS Representative and Senior Management. Must sign off on the Operational Plan.

## **Senior Management**

### **General Manager of Public Works Operation**

### **General Manager of Engineering & Capital Works**

### **Manager of Environmental Operations**

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

## **Operations Group**

### **Water & Wastewater Supervisors**

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)

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 eight (8) operators for Area #1 which includes the towns of Hagersville, Caledonia, Townsend, Jarvis, Lake Erie Industrial Park. There are six (6) operators for Area #2 which includes the towns of Dunnville and Cayuga. All Distribution Operators must hold a license applicable to the facility or an OIT (Operator in Training) license. Operators that hold a Level 1, 2, or 3 Distribution License are deemed OIC (Operator in Charge) for all hours worked. OIT Operators cannot be deemed OIC. 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.



**Technical Support/QMS Representative**

Currently, the Environmental Operations Water/Waste Water Technologist has been assigned the QMS Representative role. 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: 20-Sept-22

Revised: 20-Sept-17

Created: 08-Nov-18

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

Position	Required Competencies
General Managers (EO, WW)	<ul style="list-style-type: none"> <li>Financial , leadership and management skills</li> <li>Direction setting capability</li> <li>General understanding of infrastructure and operational requirements</li> <li>Effective communication skills</li> <li>Direct contact with CAO, Council, Mayor and Managers</li> </ul>
Managers (EO,WW)	<ul style="list-style-type: none"> <li>Financial, leadership and management skills</li> <li>Good understanding of infrastructure and operational requirements</li> <li>Up to date knowledge of regulatory requirements</li> <li>Direction setting capability</li> <li>Effective communication skills</li> <li>Direct contact with Supervisors, General Managers and Council as required</li> </ul>
Supervisors (EO)	<ul style="list-style-type: none"> <li>Financial , leadership and supervisory skills</li> <li>Good understanding of infrastructure and operational requirements</li> <li>Up to date knowledge of regulatory requirements</li> <li>Operator certification of the highest type and class of subsystem, in good standing</li> <li>Problem solving skills</li> <li>Effective communication skills</li> <li>Purchasing Authority up to \$20,000</li> <li>Contact with Operators, Supervisors, Managers, General Managers and Council as required</li> </ul>
Chief Operator-In-Charge (COIC)	<ul style="list-style-type: none"> <li>Supervisory skills</li> <li>Problem Solving skills</li> <li>Up to date knowledge of regulatory requirements</li> <li>Operator certification in good standing</li> </ul>

	<ul style="list-style-type: none"> <li>• Data management and interpretation skills</li> <li>• Testing and monitoring skills</li> <li>• Effective communication skills</li> <li>• Instrumentation and control skills</li> <li>• Good understanding of infrastructure and operational requirements</li> <li>• Ability to perform routine, preventative and emergency maintenance activities</li> <li>• WHMIS, Confined Space training</li> <li>• Valid class G driver's Licence</li> <li>• ½ day Risk Assessment evaluation facilitated by QMS Rep. (every 3 years)</li> <li>• Contact with Operators, Supervisors, Managers, General Managers and Council as required</li> </ul>
Operator	<ul style="list-style-type: none"> <li>• Operator certification in good standing</li> <li>• Problem Solving skills</li> <li>• Up to date knowledge of regulatory requirements</li> <li>• Data management and interpretation skills</li> <li>• Testing and monitoring skills</li> <li>• Instrumentation and control skills</li> <li>• Effective communication skills</li> <li>• Good understanding of infrastructure and operational requirements</li> <li>• Ability to perform routine, preventative and emergency maintenance activities</li> <li>• WHMIS, Confined Space training</li> <li>• Valid class G driver's Licence</li> <li>• ½ day Risk Assessment evaluation facilitated by QMS Rep. (every 3 years)</li> <li>• Contact with Operators, Supervisors, Managers, General Managers and Council as required</li> </ul>
DWQMS Representative	<ul style="list-style-type: none"> <li>• Leadership Skills</li> <li>• Organizational Skills</li> <li>• Ability to multi-task</li> <li>• Auditing experience and/or training</li> <li>• Ability to effectively communicate and liaise with internal and external groups</li> <li>• Ability to facilitate training and workshops</li> <li>• Emergency preparedness and management training</li> <li>• Knowledge of drinking water regulations</li> </ul>

	<ul style="list-style-type: none"><li>• Good record keeping and documentation skills</li></ul>
<b>NOTE:</b> EO: Environmental Operations WW- Water and Wastewater Engineering	

Certified operators are responsible for completing the annual training hours required to maintain Operator Certification. The Water & Wastewater Supervisors are required 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 Representative provides an annual workshop. Workshop topics will reflect the County's Operational Plan contents and are intended to stimulate discussion.

## Element 11. Personnel Coverage

Reviewed: 14-Oct-22

Revised: 20-Sept-17

Created: 09-Jan-15

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).

In the event of a staffing emergency provisions regarding O. Reg. 128/04 and O. Reg. 129/04 will allow for retired operators to operate back in the field proposed through ERO notice no. 019-3513 and ERO Notice 019-3515

*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: 14-Oct-22

Revised: 20-Sept-17

Created: 09-Jan-15

1. Purpose:

To describe the procedure for QMS related communications between Haldimand County, Contract Operators, 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 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: 4-Oct-22

Revised: 20-Sep-17

Created: 09-Jan-15

### 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 Ontario Clean Water Agency, the County has established an alternate supply of sodium hypochlorite in the event there are supply issues with the County's service provider. This list is comprised of contractors, water quality testing services, equipment, material and fuel suppliers.

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 a list maintained by the County's Water and Wastewater Supervisors that has to be completed and returned to the QMS Representative.

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.

A requirement of the County's Quality Management System's Operational Plan is to annually review and update the 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 provide a signed copy to the Environmental Operations Division via email to [wwwops@haldimandcounty.on.ca](mailto:wwwops@haldimandcounty.on.ca).

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 removed from Haldimand County's Essential Supplies and Services contact list.

Authorized Representative:

\_\_\_\_\_  
*Print* *Signature* *Date*

Haldimand County Administration Building  
 Attn: Environmental Operations  
 53 Thorburn St., Cayuga, Ontario N0A 1E0  
 Phone: (905) 318-5932  
[www.HaldimandCounty.on.ca](http://www.HaldimandCounty.on.ca)

## Element 14. Review and Provision of Infrastructure

Reviewed: 18-Oct-22

Revised: 20-Sep-17

Created: 09-Feb-10

### 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 prepare and maintain a 10 year capital replacement budget forecast for the distribution system that assists with preparing an 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 to be identified on the 10 year capital replacement budget forecast. The annual recommendations are based on MECP compliance inspection reports, risk assessments completed in Element 7, water quality or quantity trends, staff suggestions and consumer feedback. Once completed, the list is forwarded to the Engineering Services Division where it is incorporated into the 10 year capital replacement budget forecast.

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: 12-Oct-22

Revised: 17-Sept-20

Created: 08-Nov-18

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 manufacture specifications, including any calibration requirements. Instruction manuals are typically kept with each piece of equipment. Maintenance and calibration records are retained as per Table #1 located in Element 5.

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 the following criteria:

- Infrastructure age, material or size;
- Number of pipe failures recorded in the maintenance sheets;
- MOE recommendations or orders;
- Customer feedback identifying poor flow and/or low pressure.

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 Pearl to manage and record customer requests and schedule daily work activities. In turn, staff document their investigation, resolution and additional follow-up 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.

Water main breaks are mapped within the County's GIS System by water distribution staff to assist with managing the County's assets. As municipal infrastructure is replaced, mapping updates are completed by the Engineering Technologist in the Engineering and Capital Works Department.

## Element 16. Sampling, Testing and Monitoring

Reviewed: 12-Oct-22

Revised: 17-Sept-20

Created: 09-Jan-15

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 within the County's waterworks distribution systems.

The Contract Operating Authority and The City of Hamilton are responsible for their own operational plans including water sampling, testing and monitoring. Sample results are provided to the County. The County also receives a copy of the City of Hamilton's Annual Drinking Water Report which includes a summary of their sample results.

3. Definitions:

N/A

4. Procedure:

Distribution system sampling, monitoring and testing requirements and procedures are identified within the following 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.

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 QMS Element 5.

DRAFT

## **Element 17. Measurement and Recording Equipment Calibration and Maintenance**

Reviewed: 12-Oct-22

Revised: 17-Sept-20

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.

## Element 18. Emergency Management

Reviewed: 14-Oct-22

Revised: 17-Sep-20

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 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 E.**

The Risk Assessment Table shall be used for identifying potential emergency situations that may arise. If additional emergencies are identified, they shall be added to Schedule C by the QMS Representative.

#### Emergency Response Training

On an annual basis, all water/wastewater personnel shall receive general emergency response training, as managed, arranged and recorded by the Supervisor. Personnel who are identified with specific response roles shall receive additional training to cover their responsibilities. This training shall include a review and discussion of any emergencies that occurred since the previous training and mitigation strategies employed. Any recommended edits to existing standard operating procedures or emergency response documents shall be communicated to the QMS representative.

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 upon request.



## Element 19. Internal Audits

Reviewed: 14-Oct-22

Revised: 17-Sep-20

Created: 19-Jan-09

### 1. Purpose:

To describe the process for conducting internal audits that evaluates the conformance of Haldimand County's 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 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. The QMS Representative will establish an audit team to assist with conducting the internal audit.

The audit team will establish audit criteria and develop the internal audit protocol to be used by the auditor(s). Audit criteria will include, but not be limited to, the following items:

- The Drinking Water Quality Management Standard;
- Current QMS manuals, procedures, documents and records;
- Audit report identified as Attachment #2.

Audit 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.

The audit team reviews 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 audit team 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 audit team review the results and identified nonconformities in discussion with the Manager of Environmental Operations. The audit report and supporting documentation are filed by the QMS Representative and retained as per Element 5. The most recent audit report is stored with the Environmental Operations Group

When non-conformities are identified through the internal audit, the Management Team develops an action plan that specifies staff responsibilities and a target resolution date. The Manager of Environmental Operations or designate monitors progress of the action plan until the nonconformity is 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 reviewed during the management review process.

**Attachment # 2**

<b>OPERATING AUTHORITY:</b>				
<b>AUDIT TYPE:</b> Annual Internal Audit				
<b>DRINKING WATERWORKS SYSTEMS:</b>				
<b>REQUIREMENT ↓</b>	<b>SYSTEM →</b>	<b>1.</b>	<b>2.</b>	<b>3.</b>
1. Quality Management System				
2. Quality Management System Policy				
3. Commitment and Endorsement				
4. Quality Management System Representative				
5. Document and Records Control				
6. Drinking-Water System				
7. Risk Assessment				
8. Risk Assessment Outcome				
9. Organizational Structure – Roles, Responsibilities & Authorities				
10. Competencies				
11. Personnel Coverage				
12. Communications				
13. Essential Supplies and Services				
14. Review and Provision of Infrastructure				
15. Infrastructure Maintenance Rehabilitation & Renewal				
16. Sampling, Testing and Monitoring				
17. Measurement & Recording Equipment Calibration & Maintenance				
18. Emergency Management				
19. Internal Audit				
20. Management Review				
21. Continual Improvement				

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
OFl	Opportunity for improvement. Conforms to the requirement, but there is an opportunity for improvement.
C	Conforms to requirements.
n/a	Not applicable to this audit.
*	Additional comments added by audit team in the body of the report.
Audit Report: Auditor Approval	

## Element 20. Management Review

Reviewed: 12-Jun-21

Revised: 17-Sep-20

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 for Senior Management to evaluate the continuing suitability, adequacy and effectiveness of the County's 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.

The review meeting will include all drinking water systems and the topics listed below will be discussed and documented for each individual system in the Management Review meeting notes.

The agenda topics for the Management Review meeting are 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 meeting and creates and distributes an agenda along with any related reference material to all the participants.

The Management Review participants will make recommendations and/or propose action plans to address identified deficiencies.

The QMS Representative ensures that the notes and action plans resulting from the Management Review meeting are prepared and distributed to the appropriate Haldimand County staff. The most recent management review meeting minutes are stored with the Environmental Operations group

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: 12-Jun-21

Revised: 17-Sep-20

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:
  - a. Internal and external Audits
  - b. MECP inspection Reports
  - c. Management review meetings

When a finding has been identified (non-conformance, potential non-conformance, opportunity for improvement), the County will outline corrective action plans with dates and items to be completed for follow-up as they are addressed. This is to be documented on a document named QMS 21-01 Continual Improvement Tracking Spreadsheet.

- d. The development of preventative actions is a result of the below activities and implementation is done through documented action items.
  - 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 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)



4. 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:

1. PW-WW-M01-2016 Re: Annual Drinking Water Quality Management Standard (DWQMS) Update
2. PW-WW-02-2016 Re: 2015 Drinking Water Quality Reports
3. 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)
5. 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**

1. THAT Report PW-ES-05-2016 Re: Chestnut Street, Dunnville – Parking Control By-law Amendments dated January 18, 2016 be received;
2. 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;
3. 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;
4. 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;
5. 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.

**CS-HR-01-2016 RE: 2016 OCCUPATIONAL HEALTH AND SAFETY POLICY AND PROGRAM**

1. THAT Report CS-HR-01-2016 Re: 2016 Occupational Health and Safety Policy and Program dated January 15, 2016 be received;
2. AND THAT the 2016 Occupational Health and Safety Program be approved as outlined in Report CS-HR-01-2016;
3. 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:**

1. 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.

### 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.

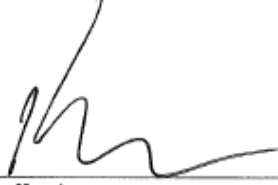

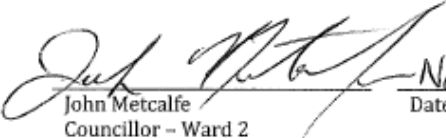
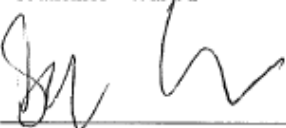
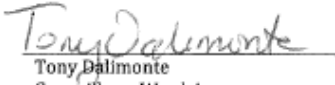
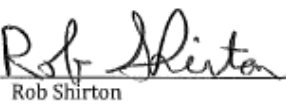
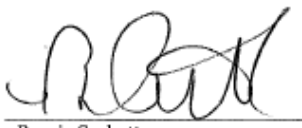
 Craig Marley Chief Administrative Officer Haldimand County	 Tyson Haedrich General Manager Engineering and Capital Works
 Phil Mete General Manager Public Works Operations	 Phil Wilson Manager Engineering and Capital Works
 Jeff Oakes, A.Sc.T Manager Environmental Operations	 Jessica Ignaszak QMS Representative W & WW Engineering and Compliance

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 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.

	<u>Nov. 19, 2019</u> Date		<u>Nov 25, 2019</u> Date
Ken Hewitt Mayor		Stewart Patterson Councillor - Ward 1	
	<u>Nov. 19, 2019</u> Date		<u>Nov. 19, 2019</u> Date
John Metcalfe Councillor - Ward 2		Dan Lawrence Councillor - Ward 3	
	<u>Nov. 19, 2019</u> Date		<u>Nov. 19, 2019</u> Date
Tony Dalimonte Councillor - Ward 4		Rob Shirton Councillor - Ward 5	
	<u>Nov. 19, 2019</u> Date		
Bernie Corbett Councillor - Ward 6			

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.



CORPORATION OF HALDIMAND COUNTY

PUBLIC WORKS DEPARTMENT

ENVIRONMENTAL OPERATIONS DIVISION

# DRINKING WATER EMERGENCY RESPONSE GUIDANCE DOCUMENT

ADOPTED: March 5<sup>th</sup>, 2012

REVIEWED: September 18 2020

REVISED: September 9, 2021

## 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 Environmental 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;
  - notification to public, media, other agencies etc.,
  - communication protocol,
  - 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 Environmental Operations:

Notification of a situation can be from:

- the public
  - during normal working hours
  - outside of normal working hours
- an accredited laboratory
- contract water treatment plant operations
- county staff

1. Notification of a situation during normal working hours will be received by:

- Haldimand County Administration Building
  - **Office staff will immediately notify the Area Chief Operator in Charge (COIC) who will contact an Operator to respond (First Responder)**
- Extend Communications
  - **Notification will be dispatched to the On-Call Operator**
- 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 cannot be made with the Chief-Operator-in Charge, the Area Supervisor is to be notified. The Supervisor will direct an operator to respond (First Responder).*

2. Notification of a situation after hours will be received by:

- Extend Communications
  - **Notification must be dispatched to the On-Call Operator (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)

- 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.
  - If the emergency results in an adverse drinking water condition:
    - During normal working hours, contact Haldimand County Administration office;
    - After hours, the first responder **must** initiate adverse reporting protocol.
      - Reference SOP **ES-WD-05** *Adverse Sample Notification WWW*
- If emergency resulted in property damage, advise owner to contact their insurance company.

### 2. Chief Operator-In-Charge (COIC)

- Provide direction to First Responder and support as required
- Communicate status of event to ORO

### 3. Operator Responsible Overall (Supervisor Water and Wastewater)

- Communicate status of event to office 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).
- After Hours → Request announcement or updates to County's website and/or Social Media:
  - Contact the Supervisor, Corporate Affairs / Emergency Information Officer via cell phone (289-339-1386) or e-mail: [communications@haldimandcounty.on.ca](mailto:communications@haldimandcounty.on.ca)
  - In the case that the Supervisor, Corporate Affairs cannot be reached, contact IT after-hours support line at (905) 981-9157 or [ittickets@haldimandcounty.on.ca](mailto:ittickets@haldimandcounty.on.ca).



4. Manager of Environmental Operations

- Keep General Manager of Public Works updated on status of event
- 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. General Manager of Environmental Operations

- Keep Senior Management Team, Council and the Mayor updated on status of event
- 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. Water & Wastewater Tech/Division 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 action
- Support with public notification of emergency events (during normal hours):
  - Request Supervisor, Corporate Affairs to prepare a media release and social media notice and confirm with follow-up telephone call to 905-318-5932 ext. 6309;
  - Update the County's website
  - 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)

Issue and rescind any public health advisories or restriction notifications