



Town of
East Gwillimbury

THE TOWN OF EAST GWILLIMBURY

DRINKING WATER QUALITY MANAGEMENT STANDARD

OPERATIONAL PLAN

HOLLAND LANDING/QUEENSVILLE/SHARON,
MOUNT ALBERT AND
YONGE/GREEN LANE

CLASS I WATER DISTRIBUTION SYSTEMS

Online Copy

Revision Level: 16

Version Date: January 2022

Controlled Digital (PDF) Copy Distribution List of this Operational Plan

Appointed DWQMS Certification Body

Upon request, updates not sent.

Public (www.eastgwillimbury.ca)

The Town of East Gwillimbury Senior Management Team (Standard of Care Bulletin)

1. Chief Administrative Officer
2. General Manager of Community Infrastructure & Environmental Services
3. Fire Chief

The Town of East Gwillimbury Office Staff (Read/ Write Access on Network Drive)

4. Director of Operations
5. Environmental Compliance Technologist
6. Environmental Operations Technologist

The Town of East Gwillimbury Water/ Wastewater Operators (Uncontrolled Copy of File on Laptops; synchronized when computer connected to Town WIFI)

7. Supervisor of Water and Wastewater Operations
8. Senior Water/ Wastewater Operator
9. Water/ Wastewater Operators (5)



Schedule C – Director’s Directions for Operational Plans (Subject System Description Form)
Municipal Residential Drinking Water System

Fields marked with an asterisk (*) are mandatory.

Owner of Municipal Residential Drinking Water System *
Town of East Gwillimbury

Name of Municipal Residential Drinking Water System *
HOLLAND LANDING/ QUEENSVILLE/ SHARON WATER DISTRIBUTION

Subject Systems

Check here if the Municipal Residential Drinking Water System is operated by one operating authority. Enter the name of the operating authority in the below table.

Table with 3 columns: Name of Operational Subsystems(if Applicable), Name of Operating Authority *, DWS Number(s) *. Row 1: 1, Town of East Gwillimbury, 260001747

Add item (+)

Provide the information outlined in the 'Contact Information' section for each Operational Subsystem.

Contact Information 1

Remove

Contact information form for Contact Information 1: Last Name (Hughson), First Name (Greg), Title (Acting Supervisor of Water/ Wastewater Operations), Phone Number (905 955-5189), Email Address (ghughson@eastgwillimbury.ca)

Contact Information 2

Remove

Contact information form for Contact Information 2: Last Name (Dodwell), First Name (Dave), Title (Environmental Compliance Technologist), Phone Number (905 955-4493), Email Address (ddodwell@eastgwillimbury.ca)

Contact Information 3

Remove

Contact information form for Contact Information 3: Last Name (Baidy), First Name (Kristy), Title (Water/Wastewater Manager), Phone Number (905 955-7351), Email Address (kbaidy@eastgwillimbury.ca)

**Schedule C – Director’s Directions for
Operational Plans (Subject System
Description Form)**
Municipal Residential Drinking Water System

Fields marked with an asterisk (*) are mandatory.

Owner of Municipal Residential Drinking Water System *
Town of East Gwillimbury

Name of Municipal Residential Drinking Water System *
MOUNT ALBERT WATER DISTRIBUTION

Subject Systems

Check here if the Municipal Residential Drinking Water System is operated by one operating authority. Enter the name of the operating authority in the below table.

	Name of Operational Subsystems(if Applicable)	Name of Operating Authority *	DWS Number(s) *
1		Town of East Gwillimbury	260002265

[Add item \(+\)](#)

Provide the information outlined in the 'Contact Information' section for each Operational Subsystem.

Contact Information 1

[Remove](#)

Last Name *	First Name *	Middle Initial
Hughson	Greg	
Title *	Phone Number *	
Acting Supervisor of Water/ Wastewater Operations	905 955-5189	
Email Address *		
ghughson@eastgwillimbury.ca		

Contact Information 2

[Remove](#)

Last Name *	First Name *	Middle Initial
Dodwell	Dave	
Title *	Phone Number *	
Environmental Compliance Technologist	905 955-4493	
Email Address *		
ddodwell@eastgwillimbury.ca		

Contact Information 3

[Remove](#)

Last Name *	First Name *	Middle Initial
Baidy	Kristy	
Title *	Phone Number *	
Water/ Wastewater Manager	905 955-7351	
Email Address *		
kbaidy@eastgwillimbury.ca		



Schedule C – Director’s Directions for Operational Plans (Subject System Description Form) Municipal Residential Drinking Water System

Fields marked with an asterisk (*) are mandatory.

Owner of Municipal Residential Drinking Water System *
Town of East Gwillimbury

Name of Municipal Residential Drinking Water System *
YONGE/ GREEN LANE DISTRIBUTION SYSTEM

Subject Systems

Check here if the Municipal Residential Drinking Water System is operated by one operating authority. Enter the name of the operating authority in the below table.

Table with 3 columns: Name of Operational Subsystems(if Applicable), Name of Operating Authority *, DWS Number(s) *. Row 1: 1, Town of East Gwillimbury, 260087685

Add item (+)

Provide the information outlined in the 'Contact Information' section for each Operational Subsystem.

Contact Information 1

Remove

Contact information 1 fields: Last Name (Hughson), First Name (Greg), Middle Initial, Title (Acting Supervisor of Water/ Wastewater Operations), Phone Number (905 955-5189), Email Address (ghughson@eastgwillimbury.ca)

Contact Information 2

Remove

Contact information 2 fields: Last Name (Dodwell), First Name (Dave), Middle Initial, Title (Environmental Compliance Technologist), Phone Number (905 955-4493), Email Address (ddodwell@eastgwillimbury.ca)

Contact Information 3

Remove

Contact information 3 fields: Last Name (Baidy), First Name (Kristy), Middle Initial, Title (Water/ Wastewater Manager), Phone Number (905 955-7351), Email Address (kbaidy@eastgwillimbury.ca)

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List of Quality Management Standard Procedures and Associated Forms:

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QMS Procedure 04 – Procedure for Personnel Coverage
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QMS Procedure 07 – Procedure for Calibration
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QMS Procedure 10 – Infrastructure Maintenance and Renewal Procedure
QNS Procedure 11 – Procedure for Drinking Water Works Permits Amendments
QMS Form 01 – “Document Change Request” Form
QMS Form 02 – “Document Transmittal” Sheet
QMS Form 03 – “Town’s Water Distribution Systems – Risk Assessment” Table
QMS Form 04 – “Internal Audit” Checklist
QMS Form 05 – “Management Review” Form
QMS Form 06 – “Essential Suppliers, Contractors and Consultants” Review Form
QMS Form 07 – “Development and Approval of QMS Procedure Log” Form
QMS Form 08 – “Essential Suppliers, Contractors and Consultants Contact Information” Form
QMS Form 09 – “Corrective Action” Form
QMS Form 10 – “Standard of Care Bulletin” Form

List of Appendices:

Appendix 1: Town’s Documents Control Table
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Appendix 3: A Summary of Town’s Drinking Water Systems
Appendix 4: Outcomes of Town’s Water Distribution Systems – Risk Assessment
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Appendix 7: A List of Government Agencies Contacts
Appendix 8: A List of Town’s Essential Suppliers, Contractors and Consultants
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Appendix 10: A List of Town’s Priority Water Customers
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Appendix 12: QMS Activity Schedule

Town of East Gwillimbury Water Emergency Plan:

Response and Recovery Procedure 1 – Boil Water Advisory/Drinking Water Advisory

Response and Recovery Procedure 2 – Major Watermain Break and Repairs

Response and Recovery Procedure 3 – Adverse Laboratory Water Quality Results

Response and Recovery Procedure 4 – Street Flooding due to Major Watermain Break

Inter-Operating Authority Communication Protocols:

IMP 01 - “Operating Protocols between Newmarket, East Gwillimbury and Region of York” regarding Yonge/Green Lane Area developed by Town of Newmarket.

IMP 02 - “Inter-municipal communication protocol in response to operational and water quality issues” developed by the Region of York.

IMP 03 - “Inter-municipal Communication for Emergency / Urgent Valve Isolation Notification Protocol” developed by the Region of York.

IMP 01 FORM - “Inter-municipal communication protocol in response to operational and water quality issues” developed by the Region of York.

IMP 02 FORM - “Inter-municipal Communication for Emergency / Urgent Valve Isolation Notification Protocol” developed by the Region of York.

Purpose

The purpose of this Operational Plan is to describe the Drinking Water Quality Management Standards for the operation and maintenance of the three drinking-water distribution systems owned by the Corporation of the Town of East Gwillimbury.

This Operational Plan, the procedures, work instructions and other DWQMS documentation that are referenced herein are intended to meet the legislated requirements under the *Safe Drinking Water Act 2002* in the Province of Ontario.

Scope

This Operational Plan covers the activities and personnel associated with all of the operational aspects of the drinking-water distribution systems for the Town of East Gwillimbury. The three water distribution systems operated by the Town of East Gwillimbury are: Holland Landing-Queensville-Sharon (DWS #260001747), Mount Albert (DWS #260002265), and Yonge/Green Lane (DWS#280087685).

References

- Drinking Water Quality Management Standard
- Safe Drinking Water Act, 2002
- Drinking Water Systems (*Ontario Regulation 170/03*) and their latest amendments
- Drinking Water Quality Standards (*Ontario Regulation 169/03*) and their latest amendments

Definitions

QMS	Quality Management System
DWQMS	Drinking Water Quality Management Standard
Distribution	Mains and related components (i.e. hydrants, valves, etc.)
The Town	The Town of East Gwillimbury
MECP	The Ministry of Environment, Conservation and Parks
CCP	Critical Control Point
ORO	Overall Responsible Operator

Element 1 - Quality Management System

The Town of East Gwillimbury Community Infrastructure & Environmental Services Department, on behalf of the Corporation of the Town of East Gwillimbury, operates and maintains three drinking water distribution systems: Holland Landing/Queensville/Sharon (DWS# 260001747), Mount Albert (DWS# 260002265) and Yonge/Green Lane (DWS# 260087685). This Operational Plan documents the contents and activities of the QMS to meet the requirements of the DWQMS under the Safe Drinking Water Act, 2002.

Element 2 – Quality Management System Policy

This QMS Policy is applicable to all employees related to the Town of East Gwillimbury's waterworks and is posted at the Operations Centre and the town's website.

Drinking Water Quality Management System Policy

The Corporation of the Town of East Gwillimbury owns, operates, and maintains three Class 1 Water Distribution Systems, namely: Holland Landing/ Queensville/ Sharon, Mount Albert, and Yonge/ Green Lane. The Town of East Gwillimbury shall:

- Comply with all relevant legislation and regulations for the consistent delivery of safe drinking water to the consumer.
- Maintain and continually improve on its Quality Management System.
- Communicate openly and effectively with the public concerning matters of drinking water quality.



Jeff Meggitt
Director of Operations, Community
Infrastructure and Environmental Services

Date: Nov 2, 2021



Kristy Baidy
Manager, Water and Wastewater,
Community Infrastructure and
Environmental Services

Date: Nov 2, 2021

Element 3 – Commitment and Endorsement**Top Management Endorsement**

The Operational Plan documents the drinking water quality management standards for the Town of East Gwillimbury drinking water distribution systems. Top Management has appointed the Manager, Water and Wastewater as the QMS Representative and endorsed the contents of the Operational Plan as its commitment to an effective Quality Management System by:

- Ensuring that a Quality Management System is in place that meets the requirements of Drinking Water Quality Management Standard,
- Ensuring that the Operating Authority is aware of all applicable legislative and regulatory requirements,
- Communicating the Quality Management System according to the procedure for communications,
- Determining, obtaining, or providing the resources needed to maintain and continually improve the Quality Management System.



Jeff Meggitt

Director of Operations, Community
Infrastructure and Environmental Services

Date: November 21, 2021

DWQMS Element 3 - Commitment and Endorsement (Continued)

Owner Endorsement

East Gwillimbury Council authorizes the Community Infrastructure & Environmental Services department to act on their behalf as the Operating Authority for East Gwillimbury's Drinking Water Systems.

Council commits to and endorses the Operational Plan which documents the Quality Management System for the Town's Drinking Water Systems.

Top Management, recognized as the highest level of management within the Operating Authority, will work together with Council to ensure the Operating Authority has the resources required to implement, maintain, and continually improve the Quality Management System.

Mike Molinari
Mike Molinari (Jan 17, 2022 09:56 EST)

Mike Molinari, *P. Eng.*
General Manager, Community Infrastructure
and Environmental Services

Date: Jan 17, 2022

True
True (Jan 17, 2022 12:28 EST)

Thomas R. Webster
Chief Administrative Officer, Town of East
Gwillimbury

Date: Jan 17, 2022

Virginia Hackson
Virginia Hackson (Jan 20, 2022 09:28 EST)

Virginia Hackson
Mayor, Town of East Gwillimbury

Date: Jan 20, 2022

Element 4 - Quality Management System Representative

The Environmental Compliance Technologist is appointed the role of Quality Management System Representative for the entirety of the Drinking Water Quality Management System which includes the Town's 3 Large Municipal Drinking Water Systems. The designated QMS Representative appointed two Alternate QMS Representatives: the Director of Operations and the Supervisor of Water/Wastewater Operations. The two Alternate QMS Representatives share the responsibilities of the Designated QMS representative required by the DWQMS. The roles and responsibilities of the Designated and Alternate QMS Representatives are listed in the table below. Should any member of the Team be unable to perform their duties then the other two Team members will ensure any requirements of that alternate are completed accordingly. These members make up the QMS Implementation Team:

Title	QMS Roles and Responsibilities
Designated QMS Representative (Environmental Compliance Technologist)	<ul style="list-style-type: none"> ▪ QMS Implementation Lead ▪ Ensures that the current versions of documents required by the QMS are always in use ▪ Develops QMS documentation ▪ Ensures that QMS procedures are applied to routine operating and maintenance activities ▪ Liaises with External and Internal Audits ▪ Promotes awareness of the QMS to Operating Authority, suppliers, and contractors ▪ Performs roles delegated by the designated QMS Representative ▪ Conducts Management Review meeting
Alternate QMS Representative (Manager Water/Wastewater)	<ul style="list-style-type: none"> ▪ Administers the Quality Management System by ensuring that processes and procedures needed for the QMS are followed by operations staff ▪ Assists with QMS implementation ▪ Assists with Internal and External Audits ▪ Performs roles delegated by the designated QMS Representative
Alternate QMS Representative (Supervisor of Water and Wastewater Operations)	<ul style="list-style-type: none"> ▪ Reviews QMS Documentation ▪ Assists with awareness of current legislation and regulatory requirements which are pertinent to the operation of the works. ▪ Appoints Alternate QMS Representatives ▪ Reports to Top Management on the effectiveness of the QMS and any need for improvement

Element 5 - Document and Records Control

The Town has developed a Procedure for Control of Documents (QMS Procedure 01) and a Procedure for Control of Records (QMS Procedure 02). These two procedures define how QMS documents and records are controlled.

The documents and records contained within the Town's Document Control Table, located in Appendix 1, and the Town's Record Control Table, located in Appendix 2, were identified by the QMS Implementation Team as documents and records applicable to the QMS requirements for the Town.

Element 6 - Drinking Water System

Town's Water Supply Process Flow Chart:

The Town's Water Supply Process Flow Chart (following page) illustrates water sources and water supply boundaries for each of the Town's drinking water distribution systems.

The Town of East Gwillimbury has three Class I water distribution systems: Holland Landing/Queensville/Sharon, Mount Albert, and Yonge/Green Lane. All of them are two-tier systems. Water sources for Mount Albert are ground wells only. But, water sources for Holland Landing/Queensville/Sharon and Yonge/Green Lane are ground wells blended with Lake Ontario-based surface water. The Regional Municipality of York owns and operates the ground wells, the water treatment plants and water storage facilities supplying the Town's drinking water systems as well as the transmission mains interconnecting the distinct areas. Surface water is treated and supplied by the City of Toronto and the Region of Peel. The Town owns and operates the water distribution systems that receive water from the Regional Municipality of York.

Description of the Town's Drinking Water Systems:

The Operating Authority keeps current a summary of Town's Drinking Water Systems and can be found in Appendix 3. It lists:

1. Updated information of areas and numbers of households & population serviced by each system
2. Water sources for each system and their treatment methods
3. Water storage facilities and the components in each system
4. Length of watermains in each system
5. Pipe age and pipe type within each system

Description of Water Sources and Water Storage Facilities:

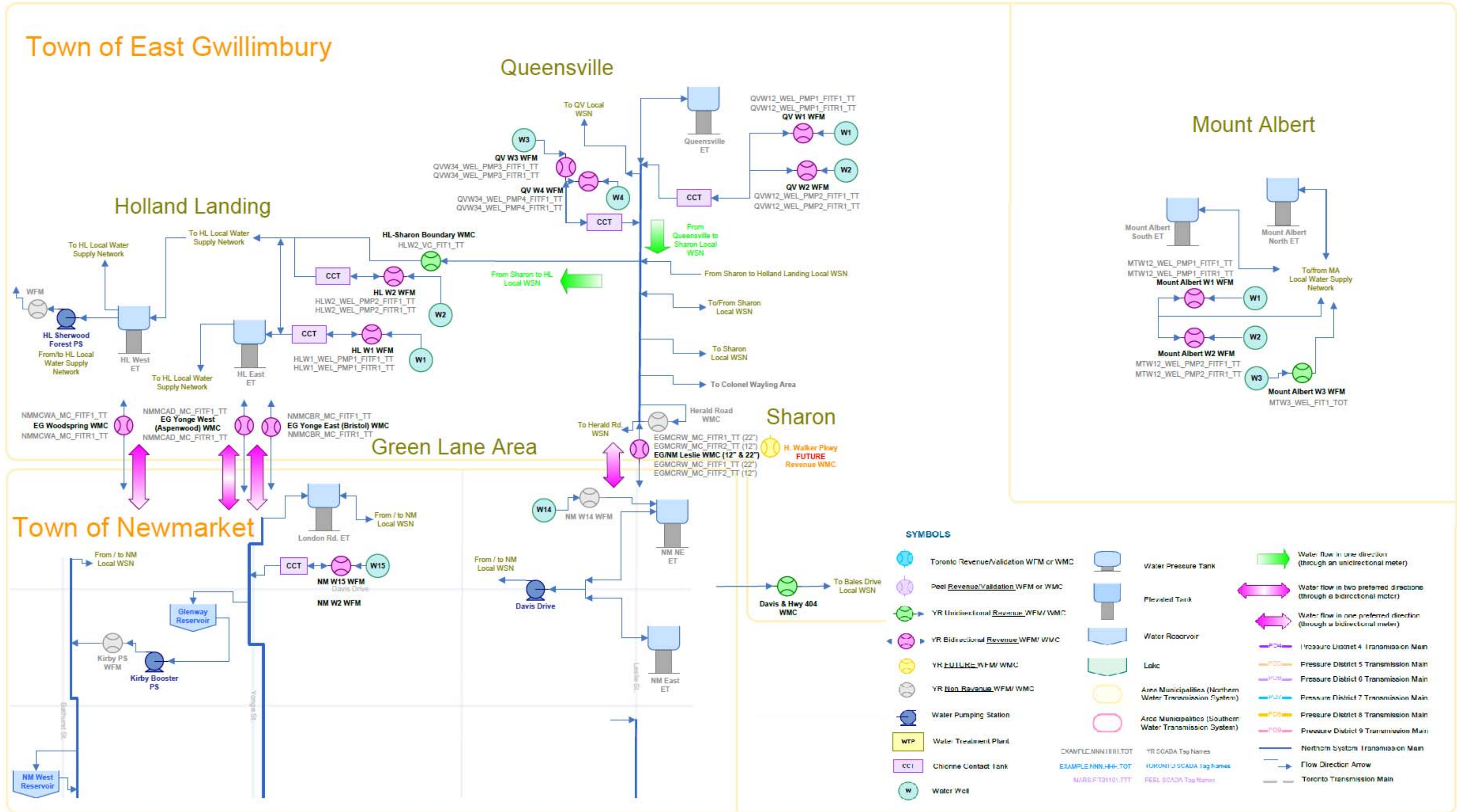
All water sources and storage facilities are owned and operated by the Regional Municipality of York. The Town does not add any chemicals to the water neither flowing through the distribution systems, nor own nor operate any booster stations. The water treatment process in more detail and the chemicals used in the process can be obtained from the Operational Plan developed by the Regional Municipality of York.

The general characteristics of the raw water supply can be obtained from the Regional Municipality of York.

Description of Critical Upstream and Downstream Processes:

The Town's drinking water systems strongly rely on the water sources and water storage facilities owned and operated by the Regional Municipality of York. The Town provides water a condominium block registered as a non-municipal year-round drinking water system in Holland Landing.

The Town's responsibilities are to operate and maintain the watermains and any appurtenances which comprise the distribution systems. The town follows its Standard Operation Procedures to ensure water quality (including maintaining disinfection residuals as per Standard Operating Procedure Activity 4.1b) is always maintained.



Element 7 - Risk Assessment

The Town has developed a Procedure for Risk Assessment (QMS Procedure 03). The procedure defines the method used for assessing risk and defines the mechanism to review and update the risk assessment outcomes.

Hazards and hazardous events were identified and documented in the Town's Water Distribution Systems - Risk Assessment Table (QMS Form 03). Each hazard and hazardous event was assessed in terms of Likelihood, Consequence and Detection. The details of the ranking scheme are included in the Procedure for Risk Assessment (QMS Procedure 03).

The outcomes of the risk assessment helped with the determination of the Critical Control Points.

Element 8 - Risk Assessment Outcomes

The outcomes of the risk assessment for the Town's water distribution systems are in Appendix 4. Where there is an identified CCP, a control procedure or measure has been developed to report and record deviations from Critical Control Limits.

Element 9 - Organizational Structure, Roles, Responsibilities, Authorities**The Owner and the Operating Authority:**

The Town's Organization Chart for Water Distribution System below illustrates the Town organizational structure for the waterworks.

The Corporation of the Town of East Gwillimbury is identified as the Owner of the Town drinking water systems. The Mayor and Council is the representative of the Owner of the Town drinking water systems and has the ultimate responsibility for the quality of the water delivered to the residents.

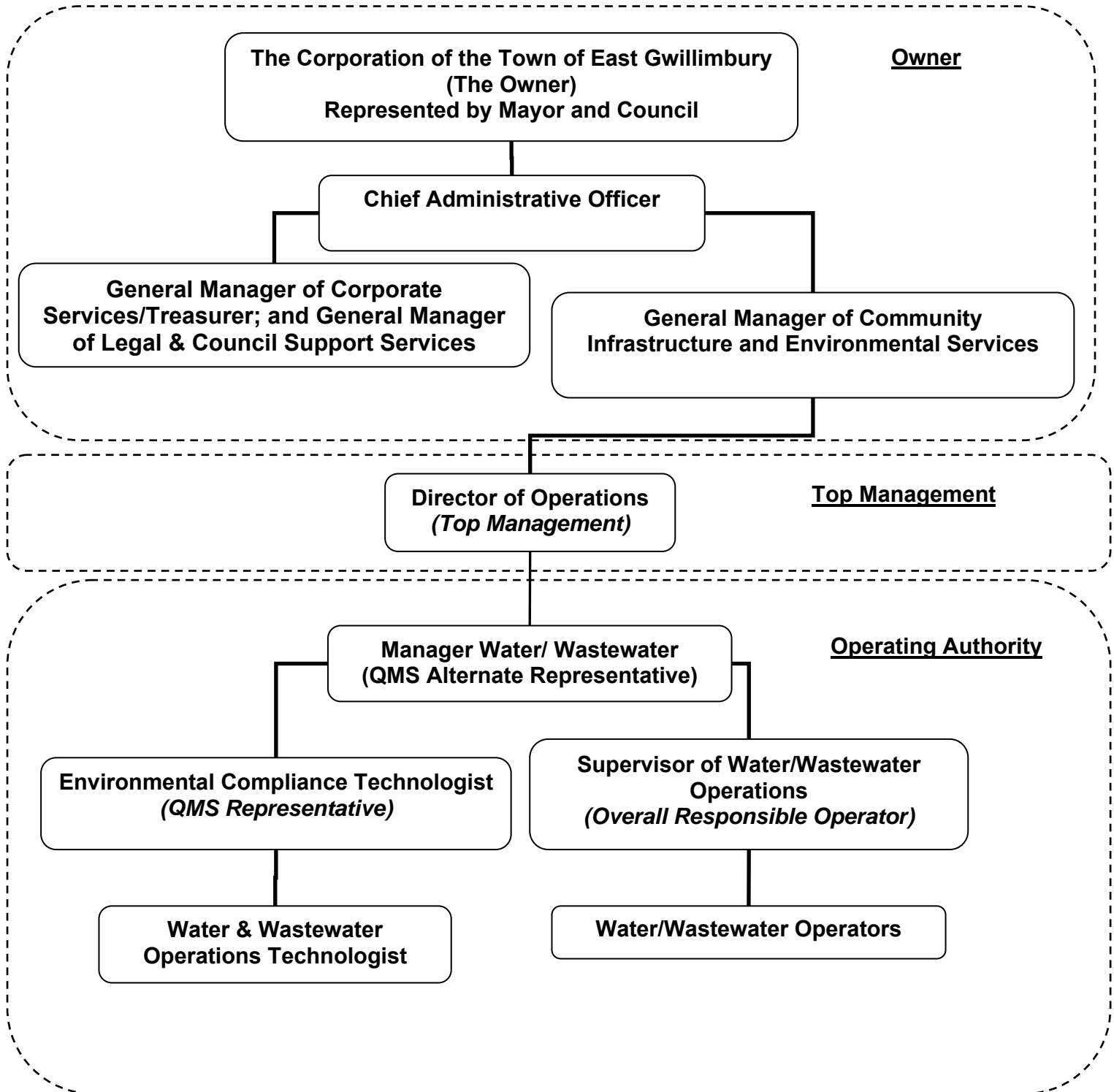
The municipality of the Town of East Gwillimbury is the Operating Authority for the Town drinking water systems.

List of Organizational Roles, Responsibilities and Authorities:

Appendix 5 contains a detailed list of organizational roles, responsibilities and authorities.

The Director of Operations shall ensure that the organizational structure, roles, responsibilities and authorities is kept current and shall update the Owner and Top Management on any changes in the roles and responsibilities associated with the QMS.

Town’s Organization Chart for Water Distribution Systems



Element 10 - Competencies

Competencies Table:

The Corporation of Town of East Gwillimbury has developed a Competency Table (see Appendix 6) outlining competency requirements for personnel performing duties directly affecting water quality. This table is reviewed when there are changes in:

- Responsibilities and Authorities of the personnel
- Technology
- Legislation or Regulations
- Drinking Water Quality Management Standards

The Director of Operations is responsible to conduct this review as required to ensure that the competencies of management and operation personnel are in line with the requirements for the safe and effective operation of the Town's three drinking-water systems.

Development and Maintenance of Competencies:

The Town of East Gwillimbury provides training in their annual budget process for all waterworks employees. At a minimum, the training budget includes funding for legislated and required training to maintain water operator certification in accordance with O.Reg.128/04 and O. Reg 129/04.

As a part of annual performance evaluation for each waterworks employee, the related supervisors will review training/knowledge needs with their waterworks employees and compile a list of recommended training based upon discussions with the waterworks employees and a review of any applicable legislation or regulations.

The Environmental Compliance Technologist, in conjunction with the Human Resources Department, arranges training courses or sessions for each waterworks employee based on the list of recommended training for each individual.

Training or knowledge gain may take the form of on or off-site training sessions, seminars, on-the-job training, distance learning or courses of study.

New Waterworks Employee:

Potential waterworks employees shall submit proof of relevant post-secondary education. Newly hired waterworks employees undergo a New Employee Orientation. The orientation consists of a review of the following:

- Health and Safety Policy and Procedures
- QMS Policy and Procedures
- Operational Overview for Waterworks
- Overview of the DWQMS
- Responsibilities and Authorities

Awareness of Waterworks Employees

Through regular DWQMS meetings, the Town of East Gwillimbury ensures each waterworks employee is aware of the relevance of their duties and how they affect safe drinking water.

Training Records

All training the waterworks employee received will be tracked on our Town's Waterworks Personnel Training Record and kept in the Competencies file as per the Procedure for Records Control (QMS Procedure 02). This will be reviewed at a minimum annually prior to the Management Review Meeting.

Element 11 – Personnel Coverage

A Procedure for Personnel Coverage (QMS Procedure 04) has been developed. The procedure outlines the working hours of the staff and identifies the on-call water/wastewater operator and the alternative ORO (Overall Responsible Operator).

An on-call schedule for afterhours operations staff and their current contact information is to be updated annually and distributed to the QMS Rep and the Town's afterhours call centre. Any deviations from this list are to be communicated to the QMS Rep and the Town's afterhours call centre service to ensure operator coverage is always maintained.

Element 12 - Communication

A Procedure for Communications (QMS Procedure 05) has been developed. The purpose of this procedure is to identify the method of communicating important information about the Quality Management System and East Gwillimbury's 3 Large Municipal Drinking Water Systems to between Top Management and the owner, town staff, essential suppliers, and the consumers.

Additionally, this procedure lists the items that are typically communicated.

Element 13 - Essential Supplies and Services

A List of Town's Essential Suppliers, Contractors and Consultants

All suppliers, contractors and consultants providing services essential for the Town's delivery of safe drinking water have been identified and are being maintained on a list updated on an annual basis.

All suppliers, contractors and consultants that may affect drinking water quality are selected on their ability to meet and sustain the Town's Community Program & Infrastructure Department criteria as follows:

- Selection is based upon the following principals:
 - Financials
 - Insurance (where appropriate)
 - Bonding (where appropriate)
 - Reference checks
 - Industry reputation
 - Ability to meet product quality specifications

- Ongoing assessments are based on the following principals:
 - Performance to requirements (contractors)
 - Accept/reject (product suppliers)
 - On-time delivery (where appropriate)
 - Responsiveness to inquiries and complaints

Performance Review

The QMS Implementation Team assesses their performance annually on the existing List of Town's Essential Suppliers, Contractors and Consultants (Appendix 8). Any new Suppliers or Services providers will be added using "Essential Suppliers, Contractors and Consultants Review" Form (QMS Form 06). The assessment result will be reflected in the updated version of A List of Town's Essential Suppliers, Contractors and Consultants (Appendix 8).

The vendors on the list will be issued a QMS Awareness Memo outlining the purpose of our QMS and how it affects them. Along with this memo, the vendors are given an update form to fill out. This form confirms the contact information of the vendor and helps ensure the Town's ability to access those services and products contained in the list when the need arises. This update form will be issued annually to ensure that the Town can procure the items and services listed when needed.

Element 14 – Review of Provision of Infrastructure

The Town of East Gwillimbury conducts a review of the status of the water distribution system infrastructure including its current and future service abilities and needs/demands of the communities under the Town's jurisdiction on an annual basis.

The Town of East Gwillimbury has developed the Procedure for Review of Provision of Infrastructure (QMS Procedure 06). The procedure details the reviewing process, documenting the output of the review and communicating as well as implementing the findings.

Top Management is responsible for communicating the findings of the review and its implementation plans to the Council, which is the representative of the owner.

Element 15 - Infrastructure Maintenance, Rehabilitation and Renewal

Scheduled:

The Town of East Gwillimbury has scheduled inspection and maintenance activities required for maintaining or improving infrastructure elements. The frequency and description of these activities are documented in the Town's Standard Operating Procedures for Water Distribution Systems.

All the scheduled inspection and maintenance activities are recorded on the related maintenance forms and in the Town's facility logbook.

Unscheduled:

The Town of East Gwillimbury reacts to the unscheduled maintenance activities on a case-by-case basis (i.e. watermain breaks).

Unscheduled inspection and maintenance activities are recorded on the related maintenance forms and in the Town's facility logbook.

Monitoring the effectiveness of the maintenance program:

On an annual basis, the scheduled and unscheduled maintenance activities are summarized during the annual budgeting process. The Environmental Compliance Technologist is responsible for this summary. The results of this summary will be compared from year to year to provide an indication of their effectiveness and determine whether additional resources are necessary for the water systems' maintenance.

Long-Term Forecasting:

The long-term forecasting of major infrastructure maintenance, rehabilitation and renewal activities will be reviewed on an annual basis as a part of QMS procedure 11 part 6.4 and the scheduled annual review.

In conjunction with the Town's asset management program, the condition of the Town's water systems is assessed on an ongoing basis. When appropriate, upgrades and rehabilitation for the Town's water systems are considered and added to the Town's water operational activities or capital program.

Expansion of the water distribution systems is a coordinated effort between Development Services Division, Operations and Fleet Division within the Community Infrastructure & Environmental Services Department. Identified water expansion projects will be included in the Town's water capital program.

All water capital projects are communicated to the Mayor and Council during the annual budget approval process.

All records are maintained according to the Procedure for the Control of Records (QMS Procedure 02).

Element 16 -Sampling, Testing and Monitoring

The Town's Community Infrastructure & Environmental Services Department conducts the sampling, testing and monitoring of the Holland Landing/Queensville/Sharon, Mount Albert and Yonge/Green Lane water distribution systems as regulated by the Safe Drinking Water Act, 2002.

Sampling and Testing:

The Holland Landing/Queensville/Sharon, Mount Albert and Yonge/Green Lane water distribution systems are sampled in the amount and at the frequency regulated by O.Reg 170/03. All testing parameters required by O.Reg 170/03 are tested by an accredited testing laboratory. The water quality sampling and monitoring procedures can be found in Section 4 "Water Quality Sampling" of the Town's Operations and Maintenance Manual for Water Distribution Systems:

Activity 4.1: MOE Water Sampling Program

Activity 4.2: MOE Lead Sampling Program

Activity 4.3: Adverse Water Quality Reporting and Corrective Actions

Activity 4.4: After-hour Procedure for Adverse Water Quality Sample Results

Where possible, the sampling and testing are conducted at conditions most challenging to the systems, such as: dead-ends, low demand zones etc.

Flushing:

Flushing helps address challenging conditions such as dead ends and system fluctuations. Activity 2.1: Flushing Hydrants and Blow offs Procedure can be found in Section 2 "Watermain Cleaning" of the Town's Operations and Maintenance Manual for Water Distribution Systems.

Monitoring:

The Town monitors the Holland Landing/Queensville/Sharon, Mount Albert and Yonge/Green Lane water distribution systems through:

- Visual inspection
- Sampling
- Testing
- Flushing
- Consumer Complaints

Where possible, the monitoring is conducted at conditions most challenging to the systems, such as: unstable chlorine residual level and etc.

Any minor problems with the water distribution systems are reported to the Environmental Compliance Technologist by immediate verbal notification from administrative staff. The Supervisor of Water/Wastewater Operations follows up with the appropriate corrective action.

Any major problems with the water distribution systems are reported to the Supervisor of Water/Wastewater Operations by immediate verbal notification from administrative staff. The Supervisor of Water/Wastewater Operations leads the appropriate corrective action and final resolution.

Monitoring Upstream of the Town's Drinking Water Systems:

Sampling and testing of the treated water supply at the wells and the water storage facilities is conducted by the Region of York. The wells and water storage facilities are monitored by a SCADA system. Details of the sampling, testing and monitoring processes for these facilities are available from the Operational Plan developed by the Region of York.

Inter-Operating Authority Communication Protocol:

If there is any operational and water quality issues related to other operating authorities, follow the two inter-municipal communication protocols below:

- IMP 01 - "Operating Protocols between Newmarket, East Gwillimbury and Region of York" regarding Yonge/Green Lane Area developed by Town of Newmarket.
- IMP 02 - "Inter-municipal communication protocol in response to operational and water quality issues" developed by the Region of York.
- IMP 03 - "Inter-municipal Communication for Emergency / Urgent Valve Isolation Notification Protocol" developed by the Region of York.

Reporting:

The Annual Water Quality Report for the Holland Landing/Queensville/Sharon, Mount Albert and Yonge/Green Lane water distribution systems includes a summary all sample test results and any adverse testing results with the corrective actions and resolutions. These reports are posted to the Town's website by February 28 of the following year for which the report is developed as per regulations. Copies of these reports are also available to residents at the Civic Centre

The Annual Summary Report is communicated to the Owner at the end of March as regulated by the MOE. Both the Annual Water Quality Reports and the Annual Water Summary Report are available for Public viewing on the Town's website and at the Municipal Office in the Community Infrastructure & Environmental Services Department.

Records Control:

All the Town's annual sampling plans, completed lab chain-of-custody submission forms, lab testing results, completed daily chlorine residual testing logbooks and new watermain testing results are kept as per the Procedure for Control of Records (QMS Procedure 02).

Element 17- Measurement and Recording Equipment Calibration and Maintenance

A procedure has been developed for the calibration of devices used to ensure water quality, Procedure for Calibration (QMS Procedure 07).

All of the Town's equipment calibration and maintenance records are maintained as per the Procedure for Control of Records (QMS Procedure 02).

Element 18 - Emergency Management

Water Emergency Plan

The Town of East Gwillimbury has an Emergency Plan in place in accordance with the prevailing legislation and regulations.

However, some emergency situations/service interruptions that would particularly affect the Town's ability to sustain normal waterworks operations over a particular period of time have been identified through the risk assessment process (see QMS Procedure 03 - Procedure for Risk Assessment)

The Town of East Gwillimbury has established, implemented and maintained a Water Emergency Plan.

In addition to the above, the Town's Community Infrastructure & Environmental Services Department in conjunction with other municipalities has formed a Northern Six Municipalities DWQMS Working Group. It includes Newmarket, Aurora, Georgina, Whitchurch-Stouffville, East Gwillimbury and King, and has developed a list of Northern Six Municipality Emergency Contacts and Shared Resources (See Appendix 8) to address specific emergency conditions.

The Town's Water Emergency Plan can be found as an attachment to this Operational Plan.

Town staff will conduct table-top exercises every year and a field exercise in every third year.

Potential Emergency Situations

On an annual basis the QMS Rep reviews a list of potential emergency situations or service interruptions with regards to the Drinking Water System. This review is completed during annual Risk Assessment review (QMS Procedure 3) and the list can be found in the Operational Plan Appendix 04 "Outcomes of Risk Assessment".

Communications

A list of Water Emergency Contacts is posted in each functional area along with the List of Essential Suppliers, Contractors and Consultants (Appendix 8).

During a water distribution emergency, the Director of Operations is responsible for communications on behalf of the Operating Authority and will contact the Owner and regulatory agencies as necessary. Communications with media will be coordinated with the Owner.

The Owner is represented by the Community Infrastructure & Environmental Services Department to address specific emergency conditions relating to the water distribution systems.

Communication protocols for responding to a water distribution emergency are outlined in each individual water emergency response and recovery procedure.

Water Emergency Contact Lists

- A List of Government Agencies Contacts is included as Appendix 7 of this Operational Plan.
- A List of Town's Essential Suppliers, Contractors and Consultants is included in Appendix 8 of this Operational Plan.
- The Northern Six Municipalities Emergency Contact List and Shared Resources are in Appendix 9 of this Operational Plan.
- A List of Town's Priority Water Customers is included as Appendix 10 of this Operational Plan.
- A List of Town's Internal Water Emergency Contacts is included as Appendix 11 of this Operational Plan.

Keeping the lists of Water Emergency Contacts up to date is the responsibility of the QMS Implementation Team and the Environmental Compliance Technologist.

Element 19 - Internal Audits

The Town of East Gwillimbury has established Procedure for Internal Audits (QMS Procedure 08).

The Procedure for Internal Audits has been implemented and maintained to conform to the requirements of the Ministry of the Environment's DWQMS including but not limited to; considering previous internal and external Audit results and describing how Quality Management System Corrective Actions are identified and initiated.

Results of each Internal Audit are an integral input to the Management Review process.

Records of Internal Audits are maintained in the Town's Internal Audits files, as per the Procedure for Control of Records (QMS Procedure 02).

Element 20 - Management Review

A Management Review is used to evaluate the continuing suitability, adequacy and effectiveness of the QMS. The Procedure for Management Review (QMS Procedure 09) has been established and is implemented on an annual basis.

Any outcomes from Management Review activities are documented in the “Management Review” Form (QMS Form 05) and followed-up with a timeframe and kept in the Town’s Management Review files, as per the Procedure for Control of Records (QMS Procedure 02).

Element 21 - Continual Improvement

The Town of East Gwillimbury has committed to the continual improvement of the Drinking Water Quality Management System by reviewing and considering applicable best management practices, documenting a process for identification and management of Quality Management System Corrective Actions and documenting a process for identifying and implementing Preventive Actions.

Continual Improvement is conducted and documented in accordance the Town's Procedure for Continual Improvement (QMS Procedure 12) and Procedure for Control of Records (QMS Procedure 02).

Revision Level	Date	Change	Developed By
0	January 30, 2009	New Document	R.F.
1	July 13, 2009	After Internal Audit and Council meeting on July 13, 09	R.F.
2	March 20, 2012	Response to CGSB "On-Site Verification Audit Report-2011" issued on September 22, 2011	J.V.
3	August 2013	Update of Department Names and Titles following corporate reorganization.	D.D.
4	April 2014	Updated QMS Policy and Commitment and Endorsement with signatures of current Manager/ General Manager	D.D.
5	June 24, 2014	Element 10, the wording was changed to more accurately describe the monthly DWQMS tailgate meetings	D.D.
6	August 05, 2014	Updated Endorsement by new General Manager of CIES	D.D.
7	August 19, 2014	Updated Element 13 to make reference to Form 6 only being utilized when adding to Essential Suppliers and Services list	D.D.
8	March 15, 2017	-Updated title of "Manager of Environmental Services" to "Director of Operations".	D.D.
9	November 26, 2018	"October" updates for DWQMS 2.0	D.D.
10	August 12, 2019	Updated Section for staff training records to be reviewed at a minimum annual basis	D.D.
11	January 21, 2020	Updates made following the OFI's from 2019 External Audit.	D.D.
12	May 05, 2020	Page 24, organization chart updated	D.D.
13	July 16, 2020	Page 16, Roles and Responsibilities updated	D.D.
14	January 11, 2021	QMS rep changed to Compliance Technologist and moved the roles to match each position accurately.	D.D.
15	January 28, 2021	a copy of Schedule 'C' for each of the 3 large MDWS in the Operational Plan.	D.D.
16	January 25, 2022	-Schedule 'C' copies updated w/ new contact info -Elements 2&3 updated -Element 4 updated with Manager Water/Wastewater -Element 9 organization chart updated	D.D.