GEORGINA

2024 QMS Management Review Report
of the Town of Georgina
Keswick-Sutton Drinking Water Distribution System
No. 260062686

Review Period: January 1 – December 31, 2024

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Table of Contents

Background

The Ontario Government implemented the Municipal Drinking Water Licensing Program in 2007 as recommended by Justice O'Conner to the government regarding the Walkerton incident Inquiry. In response to this recommendation, the Ministry of Environment, Conservation, and Parks (MECP) developed the Drinking Water Quality Management Standard (DWQMS) that applied to owners and operating authorities for municipal drinking water systems. The DWQMS Operational Plan is implemented to the Owners and or Operating Authorities through the Safe Drinking Water Act 2002.

The annual Management Review is a requirement of the DWQMS (Element 20) and covers key aspects of managing the town's drinking water system. The annual Management Review report consists of a summary of the information for the 2024 calendar year that Top Management must annually review in accordance with the Ontario Drinking Water Quality Management standard.

It allows staff and Top Management to review the Drinking Water Distribution Subsystem, and evaluate the continuing suitability, adequacy, and effectiveness of the Quality Management System on an annual basis, as legislated by the MECP. Top Management ensures reviewing annual system performance, identifying deficiencies, and delivering reports/results to the Owner of 7the Drinking Water System. The DWQMS Compliance Officer/QMS Representative must complete the review and ensure all Action Items that arise from the review are completed within the allotted timelines.

Re-accreditation of the DWQMS is required every 3 years and the Town has successfully achieved re-accreditation of the DWQMS in August 2024. The re-accreditation process involved a Full Scope Audit of the entire DWQMS for the Town of Georgina Keswick-Sutton Drinking Water System. All members of the Water/Wastewater/Waste Division, as well as personnel from Asset Management, Capital Delivery, and Finance contributed to the success of the re-accreditation.

a. Incident of Regulatory Non-Compliance and Ministry Inspection

The Safe Drinking Water Act (2002) sets out several requirements for owners and Operating authorities of drinking water systems. Any event of failure to meet the requirements of the regulations could be considered an incident of regulatory non-compliance. In preparing the Management Review report, internal staff carefully reviewed the following records for evidence of non-compliance during the operating period February 6, 2024 – January 28, 2025.

- MECP inspection (January 28, 2025)
- Operator certification records for drinking water services
- Water quality records
- Lead testing regulatory requirements
- Annual and summary reports
- Municipal Drinking Water License
- QMS Operational Plan

The Ministry of Environment, Conservation, and Parks (MECP) conducted an announced inspection of the Keswick-Sutton Distribution System on January 28, 2025. The inspection will cover the time period of February 6, 2024, to January 28, 2025, and the scope included site visits of the Town's two (2) booster stations, a standard inspection with questions and a review of the following documentation: Certification Records, Operations and Maintenance Manual, Logbooks and other Records, Permit and Licence/Business Programs and Sampling/Monitoring Records.

This inspection will assess the Keswick-Sutton Distribution System's compliance with Safe Drinking Water Act, 2002 (SDWA), conformity with ministry drinking water policies and guidelines, operations manuals, standard operating procedures, logbooks, operator certifications, and training credentials, water quality results, water quality monitoring processes, reporting procedures, and corrective actions. MECP performed a comprehensive, multi-barrier inspection annually of the water system focusing on the source, treatment, distribution components, and management system. The inspection was completed on January 28, 2025 pursuant to Section 81 of the SDWA.

Action Item:

None

b. Incidents of Adverse Drinking Water Tests

Out of 738 Microbiological samples taken and 5153 chlorine residual tests completed in 2024, the Town reported two (2) adverse drinking water test results. Adverse Water Quality Incidents (AWQIs) encompass any exceedance of health-based drinking water standards, which cover approximately seventy (70) parameters as well as instances where improperly disinfected water is supplied to consumers.

Below is the list of AWQI reported in 2024 as per Schedule 16, O. Reg. 170/03.

Incident Date	Parameter	Result	Unit of Measure	Corrective Action	Corrective Action Date
2024/09/05	Total Coliform	P	PA	Flush and resample upstream, downstream and at the location of initial adverse site.	2024/09/06
2024/11/26	Operational Adverse (positive pressure not maintained)	N/A	N/A	Flush watermain and collected one sample at the source of potential AWQI. Notified MECP and YRPH. Test results received for this location passed Ontario Drinking Water Quality Standards.	2024/11/26

- * - Multiple samples were collected to fulfill requirements of corrective action
- P – present
- P/A – presence/absence
- CFU – colony forming unit
- MG/L – milligrams per liter

There was two (2) AWQI recorded in 2024, a decrease from five (5) incidents in 2023. In compliance with Ontario Regulation 170/03 of Drinking Water Systems, A Written Notification (form 4444E) was issued. This included corrective actions such as resampling and testing at the AWQI site, followed by a Notice of Resolution sent to the Ministry of Environment, Conservation and Parks (MECP) and Medical Officer Health (MOH).

All subsequent sample results returned negative for microbiological contamination, and free chlorine levels remained within acceptable limits.

Action Item:

None

c. Deviations from Critical Control Points / Critical Control Limits and Response Actions

Through the DWQMS risk assessment process, Critical Control Points (CCPs) are identified within the water distribution system. A CCP is defined as a step at which control can be applied to prevent or eliminate a drinking water hazard or reduce it to an acceptable concentration that is within the established Critical Control Limit (CCL). Deviations from the CCLs ranges were captured and reviewed to determine potential preventative measures to implement in the system.

Results from the previous year's Internal Audit, recommended providing a summary table of CCP and CCL to Operators as a reference. A Risk Assessment review was conducted with the Water/Wastewater/Waste Operations Manager, Water/Wastewater Lead-Hand and QMS Representative to revise the Risk Assessment documents accordingly:

- ✓ Risk Assessment Potential Hazard Events table
- ✓ Risk Assessment Outcomes – Critical Control Points (CCP)
- ✓ Risk Ranking table – risk = likelihood + severity + detectability

Refresher training on the updated documents were shared with the Water/Wastewater Operators on June 25, 2024, and the revised documents were added to their Information Binders for future reference.

Action Item:

None

d. Effectiveness of the Risk Assessment Process

The QMS Risk Assessment process has been established to collectively identify, assess, rank and prioritize potential drinking water related hazards and associated risks. A risk assessment review is conducted annually, and a full review is conducted at least once every 36 months (3 years). Reviews are to check the validity of the risk assessment information and evaluate the methodology and approach taken.

At least once every calendar year and every 36-month a review or following a major process change, the QMS Representative shall facilitate a formal review of the risk assessment document with designated personnel.

Risk Assessment Schedule	2022	2023	2024	2025	2026
Full Risk Assessment (every 3 years)	✓			X	
Review Risk Assessment (annually)		✓	✓		X
✓ = Completed X = To be completed					

The intent of assessing potential risks in the drinking water system is to ensure that projected measures to adopt and/or mitigate the risk and/or hazardous incident will assist staff in responding accordingly.

An Annual Review of the Risk Assessment and Risk Assessment Outcomes documentation was conducted on June 12, 2024, by the Water/Wastewater/Waste Operations Manager, Water/Wastewater Lead-Hand, and QMS Representative.

A full analysis of the QMS Risk Assessment is scheduled for April 10th, 2025, to ensure compliance with DWQMS requirements.

Action Item:

None

e. Internal and third party audit results

The Ontario Drinking Water Quality Management Standard (DWQMS) requires that the Owner and/or Operating Authority perform an internal audit annually of each component of the Quality Management System (QMS). Following the internal audit, an external audit is conducted by an accredited authority, and this will take place as a surveillance audit. Additionally, every three years a comprehensive on-site verification audit of the QMS must be conducted by a recognized accreditation body to ensure re-certification.

Internal and external audits of the Quality Management System (QMS) are mandatory and are essential for maintaining and enhancing organizational quality. Internal audits aim to assess compliance with established policies and procedures, identify inefficiencies and uncover potential risks while measuring process performance and fostering staff engagement with the QMS.

In contrast, external audits provide an independent verification of compliance with standards and regulations, building trust among stakeholders and facilitating certification processes. They also enable benchmarking against industry best practices and offer actionable feedback for continuous improvement. Together, these audits enhance the effectiveness of the QMS, ensuring that quality objectives are consistently met and improved upon.

Internal Audit results

On June 4 and 5, 2024, P. Becker Consulting conducted the 2024 Internal Audit of the Town of Georgina's Drinking Water Quality Management System and received three (3) Opportunity for Improvement (OFI) and zero (0) minor and major non-conformances.

The following are identified audit OFIs (check √ indicate the OFI has been completed):

- Element 7 & 8 Risk Assessment/Risk Assessment Outcomes - The CCPs and CCLs could be better highlighted in the current risk assessment by updating the risk rating trigger and reviewing and updating current water quality SOPs to identify CCLs.
- ✓ Element 12 Communications - (1) Water/Wastewater Division could work with Service Georgina to better capture and track water quality complaints. (2) No form of trending of complaints is undertaken and this could be done by mapping complaints in Geocortex which would be accessible to Operators to better understand a potential issue in an area.
- ✓ Element 15 Infrastructure Maintenance, Rehabilitation and Renewal – Operator could provide additional information in Booster Station logbooks showing both station checks and maintenance work (e.g., diesel generator run, repairs) that was done.

There has been significant work done towards improving the QMS performance in relation to best management practices (BMP), as the corporation is growing annually in population, new development, and the increase of assets and infrastructure.

External Audit results

Starting July 22, 2024, Intertek - SAI Global began an audit of re-accreditation for the Town of Georgina's Drinking Water Quality Management System. The audit started with a desktop review of the Town's Operational Plan and whether the documentation of the procedures and processes meet the "PLAN" requirements of the DWQMS V2. Continuing August 14 and 15,

2024 the audit resumed onsite, whereby the Auditor assessed whether the QMS is implemented for the subject system that meets the “DO” requirements of the DWQMS V2.

The 2024 Full Scope audit of the entire QMS system for the Town of Georgina’s re-accreditation received three (3) Opportunities for Improvement (OFIs), and zero (0) minor and major non-conformances.

The following are External Audit OFIs for 2024:

- Element 8 Risk Assessment Outcomes – Consider including Risk/Hazards associated with a Chemical Spill in the Risk Assessment Outcomes (it is noted that the System is Distribution only and does not control the Source Water, however the risk of a Chemical Spill affecting any point of the Distribution System should be considered).
- Element 5 Documents and Records Control - Consider a strategy for management of hard copy records that have reached the end of their minimum retention period.
- ✓ Element 17 – Measurement and Recording Equipment Calibration and Maintenance – Consider updating standard reference values on Form 008 for monthly verification on hand-held colorimeters.

It is suggested that the Opportunities for Improvement (OFIs) be considered by management to further enhance the corporation’s QMS performance. After the 2024 Full Scope audit, it was determined that the Town of Georgina QMS system remains effective and meets the requirements of the DWQMS V2 and the Town will be granted re-accreditation.

In comparison from 2023 Internal Audit, there was a significant decrease of OFIs in 2024. Three (3) OFIs have been completed to date, two (2) OFIs regarding Risk Assessment will be addressed in 2025 and the remaining OFI related to management of hard copy records is currently being reviewed and organized in line with corporate and QMS requirements.

Action Item:

Address OFI from audit; 1) conduct full Risk Assessment analysis, and 2) consider a strategy for management of hard copy records that have reached the end of their minimum retention period to address Documents and Records Control.

f. Result of Emergency Response Testing

Emergency Management of Drinking Water Quality Management Standard (DWQMS) requires the Quality Management System (QMS) to identify events related to emergencies specific to drinking water quality. QMS documentation must include procedures on communication, response and recovery, emergency response training and testing, and personnel responsibilities.

Emergency response training and testing shall be conducted annually to ensure staff awareness of emergency protocols, and all training shall be planned, implemented and documented accordingly. Training may be in the form of a desktop case-study, and/or mock emergency scenario exercise. The goal is to introduce an emergency situation and have staff work through an emergency incident by assessing, develop a response plan and using existing procedures and protocols.

The emergency response testing was conducted on October 17, 2024, and following the exercise, an After-Action Review (AAR) was held to identify lessons learned and formulate action items aimed at enhancing staff preparedness for future emergency incidents.

Action Item:

None

g. Operational Performance

The Town of Georgina's Drinking Water System and its Operational Performance are categorized through water quality testing and system performance as detailed below.

Water Quality Testing

Chlorine Residuals

In total 5,153 free chlorine residual tests were performed within the distribution system in 2024, including daily chlorine residual testing, weekly flushing chlorine residual testing and microbiological chlorine testing. Chlorine residual testing is conducted on the drinking water distribution system to ensure there is enough chlorine to continue to disinfect the distribution system. Residual chlorine plays a significant role in ensuring protection of water from any microbial contamination. The Water/Wastewater/Waste Division uses the flushing program at designated blow-offs, fire hydrants and sampling stations to eliminate stagnant water within the distribution system ensuring that chlorine residuals are constantly monitored and maintained at acceptable levels.

The range of free Cl_2 residual from all samples in 2024 was <0.05mg/L (min) to 1.96mg/L (max). The minimum acceptable legislated residual level is 0.05mg/L and the maximum is 4.00mg/L. The Town did not experience any event of free chlorine residuals below the legislated minimum acceptable concentration.

In 2024, there was one (1) observational adverse in which positive pressure was not maintained. In response to this, the Town's Water/Wastewater Operators took corrective action in accordance with O. Reg. 170/03.

Microbiological Sampling

The Town tested for 738 microbiological samples and one (1) sample returned with presence of Total Coliform (TC). All microbiological samples are accompanied by a free chlorine residual sample, therefore 738 samples were taken while sampling for microbiological contamination. 217 microbiological samples were tested for Heterotrophic Plate Count (HPC), calculated in CFUs, or colony-forming units. Heterotrophic bacteria present in water poses no health risk to humans, however a high HPC count is an indicator of ideal conditions for the growth of bacteria. It can be a breeding ground for more dangerous bacteria such as legionella or E. Coli. As per legislation, at minimum, 25% of all samples must be tested for HPC. The Town exceeds this minimum threshold as approximately 29% of all samples taken are tested for HPCs.

THM Sample Results

In 2024, eight (8) samples were tested for Trihalomethanes (THM) at locations that are deemed to have the highest potential for elevated THM values (furthest from the Treatment Facilities). The maximum 12-month running average limit is 100 µg/L. The results of the Town samples for the THM 12-month running average for 2024 was 44.13 µg/L. The Town has not exceeded the prescribed limit for THM running annual average.

HAA Sample Results

In 2024, twelve (12) samples were tested for Haloacetic Acids (HAA) at locations deemed to have the highest potential of the highest possible HAA values (locations closest to the Treatment Facilities). The maximum 12-month running average allowable limit is 80 µg/L. The results of the Town samples for the HAA 12-month running average for 2024 was 23 µg/L, demonstrating that the water is within regulatory limits, however elevated results approaching half the limit need to be monitored. Schedule 23: Inorganic Parameters and Schedule 24: Organic Parameters in Ontario Regulation 170/03 are sampled by York Region.

Sodium Results

The Region of York (RoY) tests for Sodium in accordance with their sampling schedule, as they are the Treatment facility providing potable water to the Town of Georgina. Test results from 2024 Sodium sampling for the Town of Georgina can be found on the Region of York website under Annual Water Quality Reports https://www.york.ca/environment/water-and-wastewater/drinking-water-quality-and-monitoring. In alignment with Ontario Regulation 170/03, the Town of Georgina will be required to conduct Sodium testing in June 2028.

Nitrate and Nitrite Testing

In 2024, a total of eight (8) Nitrites and Nitrates (NO_2, NO_3) samples were tested within the distribution system at selected locations within the Town. All NO_2 and NO_3 samples are accompanied by a free chlorine residual sample, therefore in total sixteen (16) samples were taken in 2024.

Lead Sampling

The Town is exempt from lead testing within the residential plumbing systems, however, must still sample for Lead within the distribution system on a rolling three-year cycle. In 2024, the Town was in the third year of its three-year cycle, during which it was required to collect samples for Alkalinity, Lead and pH. A total of eight (8) samples were taken for both Alkalinity and Lead – 1st round, four (4) Alkalinity and four (4) Lead, and 2nd round, four (4) Alkalinity and four (4) Lead.

Year 1: Alkalinity / pH samples to be taken (2025)

Year 2: Alkalinity / pH samples to be taken (2026)

Year 3: Lead, Alkalinity / pH samples were taken (2024)

Since 2007, the Town of Georgina Lead results have been below the regulatory limit of 0.010 mg/L. The Town will continue to follow the three-year cycle schedule and is expected to sample and test in the distribution system in 2025.

System Performance

Preventive maintenance for the Town's drinking water system is organized and managed by the Operating Authority (Water/Wastewater/Waste Division). The type and frequency of these planned maintenance activities are guided by manufacturer recommendations, industry standards, best practices, and equipment manuals, ensuring optimal performance and longevity of the infrastructure. Emergency maintenance and rehabilitation of the Town's drinking water infrastructure both scheduled and unscheduled are crucial for ensuring system reliability. These activities are thoroughly planned and monitored using various software programs.

The following list of activities and their annual comparisons:

System Maintenance	2022	2023	2024
Number of Watermain Breaks	14	2	8
Number of Water Service Repairs	35	38	27
Number of Water Service Replacements		134	120
Frozen Services	0	0	0
Valve Repairs	9	0	3
Valve Replacements	0	3	17
Water Box Repairs	52	60	45
Water Box Replacements	52	57	48
Curb stop Replacements	2	1	11
Air Valve inspection	-	-	27
Fire Hydrant Inspections (annual)	All	1462	1516
Fire Hydrant – winter checks	-	-	1782
Fire Hydrant Repairs	32	12	56
Fire Hydrant Replacements	1	1	1
Thawing of Fire Hydrants	16	16	0

**All fire hydrants are to be inspected annually as per the Ontario Fire Code O. Reg 213/07*

In 2024 the Water/Wastewater/Waste Operations Manager conducted a thorough review of work practices and staffing related to the preventative maintenance program. It was concluded that all work and services should be documented and monitored through the corporate work order system as well as the web-based/map-based application system known as GeoCortex. Data reports are generated regularly to ensure that preventative maintenance tasks remain on schedule and are accurately recorded.

Water Loss management, dead-end flushing and leak detection are essential components of maintaining an efficient water distribution system. Water loss often caused by leaks, system inefficiencies or unauthorized usage can impact water conservation and operational costs. Regular dead-end flushing helps to maintain water quality and prevent stagnation.

Program(s)	Description
Dead-end Flushing	In 2024, we conducted an inventory of all dead-ends, flushing a total of 1,926 dead-ends as per the scheduled plan . The residual readings were also recorded. The flushing was carried out over the following weeks: Week 1 = 36 locations, Week 2 = 35 locations, Week 3 = 34 locations, Week 4 = 34 locations
Tracking Water usage	Monitoring water usage through dead-end flushing, Fire Department usage, Ad-Hoc Inspections of new development (Development Engineering) to ensure proper work practices and enforcement of water metering.
Fire Hydrant Inspection and Maintenance	Fire hydrants are inspected and maintained on an annual basis, which includes both a routine inspection and a separate winter inspection to ensure their proper functionality throughout the year.
Station Maintenance	Each booster station undergoes a weekly inspection and between 9-13 chlorine residuals are taken at each station weekly, to ensure proper water quality and system performance.
Valve Maintenance	In 2024, a total of 1,087 valves were cycled, achieving over 30% of our target goal for the year.

The municipality aims to enhance educational awareness around water loss and unauthorized use, specifically targeting hydrant tampering, theft and wastage. By addressing these issues, we can better sustain the water supply and reduce the unnecessary costs linked to stolen or wasted water. As part of this initiative, plans are underway to develop a business case for the 2026 Capital Budget. This will focus on resolving dead-ends in the system and implementing a leak detection program, as outline in the new initiatives from the Water/Wastewater Financial Plan.

Action Item:

Create an information session for Town personnel focused on water theft and develop a business case for the 2026 Capital Budget to address dead-ends and implement a leak detection program.

h. Raw Water Supply & Drinking Water Quality Trends

Raw Water Supply

Designated Town of Georgina staff participate in quarterly meetings with York Region to review raw water quality parameters.

Drinking Water Quality Trends

Discussed in (g) Operational Performance – Water Quality Testing (above)

In addition, as a result of the 2024 external audit, it was recommended that the Town request sodium test results from York Region for the past 5 years to review (see table below).

Year	ToG WTP Raw	Sutton Elevated Tank	Keswick Deer Park Elevated Tank	Keswick West Park Heights Reservoir	Keswick Woodbine Elevated Tank	Keswick WTP Clearwell	Keswick WTP Wetwell
2019	31.5	31.4	-	32.8	32.3	36.4	36.7
2020	-	32.3	-	33.2	33.2	39.6	-
2021	33.1	33.3	-	33.6	32.9	-	-
2022	32.9	33.1	-	33.5	33.2	34.5	34.8
2023	34.5	34.7	35.8	34.8	34.7	38.3	39.3
2024	35.8	35.8	38.7	36.7	36	40.5	38.6

WTP (Water Treatment Plant)

The table displays an average sodium concentration of 35mg/L, and elevated concentrations of sodium at the Keswick WTP Clearwell and Keswick WTP Wetwell. When test results for sodium exceed 20mg/L, the Safe Drinking Water Act requires an adverse result be filed with the Ministry of Environment, Conservation and Park (MECP) and to the Regional Medical Officer of Health.

Sodium is not considered toxic in moderate levels, however many people consume more sodium than the recommended intake of 1500mg/L/day. Sodium is found in most food, soft and mineral water and in most medication. As such, sodium in drinking water is not a health concern for majority of people, however, may cause concern for individuals with sever hypertension, congestive heart failure or whom have been prescribed a sodium-restricted diet. The moderately elevated levels of sodium in the Town's drinking water does not cause concern for taste or odour as the concentration is far below the taste and odour objective limit of 200mg/L.

Action Item:

None

i. Follow-up Action Items from Previous Management Reviews

In 2023 a tracking structure was put in place to ensure Action Items are recorded, assigned and followed-up through the QMS Representative. Action Items from last year's Management Review and status update are listed below (√ indicates that the action item has been completed):

No. Year	Action Item	Update
CIR-2024-23 √	2023 MECP Inspection	MECP inspection was completed in February 2024, therefore a separate report was not required for council, as it was submitted with council report OID2024-001.
CIR-2024-24 √	Include Nitrate/Nitrite	Nitrate/Nitrite testing was added to 2024 Sampling Schedule.
CIR-2024-25 √	Review CLI-ECA requirements, and Cyber security	CLI-ECA Implementation Workplan document created, CLI-ECA Annual Performance Report developed, and Cyber security through External Auditor verified documents/records on server go through daily back-up.
CIR-2024-26 √	Review work practices and identify gaps for all preventative maintenance programs	Reviewed work practices, existing software, and personnel coverage and; -Better utilization of staff and work activities, along with preventative maintenance programs. -Utilize existing corporate work order system and add web-based application system to record/track activities. -staffing compliment of seven (7) W/WW Operators and include Lead-Hand in implementing field activities.
CIR-2024-28 √	Endorse version 10 Operational Plan	Top Management endorsed version 10 of QMS Operational Plan.

**CIR (Continual Improvement Record)*

Action Item:

None

j. The Status of Management Action Items Identified Between Reviews

No action items identified between reviews and none to report for 2024.

Action Item:

None

k. Changes that Could affect the Quality Management System

The Ministry of Environment Conservation and Parks (MECP) has granted the Town of Georgina a Environmental Compliance Approval (CLI-ECA) for its Sanitary Collection System. The Town's CLI-ECA, numbered 119-W601 and dated January 22, 2024, mandates several regulatory requirements that must be followed.

The Water/Wastewater/Waste Division engaged a consultant to assess the Town's Sanitary Collection System in compliance with the Environmental Compliance Approval (ECA) requirements set by the (MECP). This assessment resulted in a detailed action plan to ensure the system meets the ministry's compliance standards.

The Water/Wastewater/Waste Operations Manager and the QMS Representative have been actively addressing the action items outlines in the CLI-ECA workplan to ensure full regulatory compliance. The QMS Representative is supporting the implementation of the CLI-ECA action plan to prevent non-conformances and ensure the Town meets all regulatory deadlines.

The table below lists CLI-ECA action plan items addressed in 2024:

Year	Description	Status/Update
2024	QMS Representative is supporting the CLI-ECA action plan to ensure the Town avoids any non-conformances and meets MECP deadlines.	A dedicated staff for CLI-ECA will be assigned in 2025 and 2025 budget funding secured for consulting services to meet CLI-ECA deadlines.
2024	Operations Manager and QMS Rep, addressed action plan items outlined in the CLI-ECA Workplan requirements to ensure conformance and meet MECP deadlines.	Two (2) SOP were created for sanitary sampling and responding to overflows, eighty (80) sewage samples were collected to assess contaminate concentration and establish baseline data for the discharged Collection System and developed CLI-ECA Annual Performance Report for the Town's Sanitary Collection System to meet compliance.

**Standard Operating Procedure (SOP)*

Action Items:

Follow-up on CLI-ECA workplan requirements for the Sanitary Sewer Collection System.

I. Resources needed to maintain the Quality Management System

The Town will need to assess the potential expansion of its Quality Management System (QMS) framework to include the Sanitary Collection System. This evaluation will involve identifying any necessary changes to ensure the QMS continues to meet evolving compliance standards and operational requirements.

To effectively maintain a Quality Management System (QMS) there are essential resources that must be in place, and there must be qualified personnel and dedicated staffing structure to ensure compliance of the Drinking Water Quality Management Standard (DWQMS). Additionally, investing in a records management system for QMS will provide support in streamlining processes, provide structure to document management and improve on collaboration to ensure both the water and sanitary are aligned with best practices and regulatory requirements.

The table below displays the completed and pending action items (√ indicates that the description item has been completed):

Year	Description	Status/Update
2023	Preventative Maintenance programs, better align with Core Asset Management Plan, ie. annual Valve cycling to achieve 30% completion	√ Preventative maintenance practices were reviewed and we exceeded the target by 3.04% (100 valves more). Continued success depends on having reliable equipment and adequate staffing.
2023	Managing work-related activities, records-keeping and tracking (software solutions).	√ Better utilizing existing software to manage activities.
2023	Ensure continuous coverage and certified competent personnel	√ Staffing complement of seven (7) W/WW Operators, in addition to the Lead Hand position.
2024	Need to add a dedicate staff to deal with all matters relating to sanitary to ensure CLI-ECA compliance. QMS Representative and Operations Manager develop CLI-ECA Annual Performance Report for 2024.	√ A dedicated staff for CLI-ECA will be assigned in 2025, and 2025 budget funding secured for consulting services to meet deadlines.

Corporate GIS/ITS support is critical for ensuring that maps are consistently and accurately updated in the system as new infrastructure is added. The Water/Wastewater/Waste Division will collaborate with GIS/ITS to establish clear guidelines and procedures for timely and complete updates.

Action Item:

Water/Wastewater/Waste Division will work with the GIS/ITS team to develop guidelines and procedures for the accurate and timely updating of maps as new infrastructure is installed.

m. Consumer Feedback

Customer feedback provides a comprehensive overview of customer satisfaction, concerns, and suggestions gathered through various outlets. This feedback serves as input for continuous improvement, highlighting areas where services, or processes may need adjustment to better meet consumer expectations.

Trends, recurring issues, and customer comments will provide insights for improving customer experience and recognizing water issues within the water distribution system. Through the work order system, a report was generated on service types for 2024, and the table below provides a list of trends and common types of complaints derived from customer feedback.

Types of Complaints	2022	2023	2024
Taste and Odour	6	7	8
Low Water Pressure/No Water complaints	16	17	32
Water Service Leaks/Breaks	31	38	27
Frozen Water Service	0	0	0
Service Box Repairs/Lowering	6	3	45

Staff have been directed to more effectively utilize the existing corporate software programs, as these tools have proven valuable in generating service reports and establishing a record of trends.

A review of the service types in the work order system (Work Tech) was conducted in 2024 with ITS and included the Water/Wastewater Operators to help better streamline the service activities/types within the work order system.

Action Item:

None

n. Result of the Infrastructure Review

Drinking Water Quality Management Standard (DWQMS) mandates that a current summary of infrastructure maintenance, rehabilitation and renewal programs be maintained, communicated and monitored to assess the effectiveness of the maintenance program.

The table below is derived from the 2024 Infrastructure review:

Infrastructure Review	Description
Asset Management Plan	2024 – Simcoe Landing water booster station condition assessment complete.
Capital Delivery Water Service Replacements	Polybutylene Replacement Program – 2024 contract package 1 – completed 125 water service connections on Royal Road, Bayview Avenue, Elmhurst Lane and Love's Road. 2025 contract package 2 – plan to address large section of Lake Drive South, replacement of approx. 190 polybutylene water services.
Capital Delivery The Queensway South Watermain Replacement	2024 – completed engineering design of the replacement watermain 2025 – tendering to follow for the construction of the replacement watermain
Capital Delivery Morton Avenue Watermain / Connell Boosted Zone	2024 – Connell Boosted Zone completed. Morton Avenue (Woodbine Ave to The Queensway South) has been deferred to 2026 to align with York Region project.

In 2024, the condition assessment of the Water Booster pumping station was completed. The Polybutylene replacement program saw the successful completion of contract package #1, replacing 125 water service connections on Royal Road, Bayview Avenue, Elmhurst Lane, and Love's Road. Contract package #2 for 2025 will focus on replacing approximately 190 Polybutylene water services along a large section of Lake Drive South.

Under Capital Delivery, the engineering design for the Queensway South watermain replacement was completed in 2024, with construction tendering scheduled for 2025. Additionally, the Connel booster zone project was completed in 2024, while the Morton Avenue watermain replacement has been deferred to 2026 to align with a York Region project.

Action Item:

None

o. Operational Plan Currency, Content, and Updates

The Operational Plan serves as the key tool for conveying the Town's Quality Management System (QMS) across all levels, from staff to the Mayor and Council, from the Mayor and Council to Ontario's Ministry of Environment, Conservation and Parks (MECP), and to the public. It is endorsed and communicated by the QMS Representative, Operating Authority, Top Management, and Mayor/Council. The Town of Georgina's QMS Operational Plan was revised in 2024 (version 10), undergoing a comprehensive update to both its content and formatting, aimed at enhancing the clarity and flow of information.

The Operational Plan was updated on October 25, 2024, specifically Attachment D referencing contact information of the Water/Wastewater Supervisor, along with some minor adjustments to language within the document. These were slight changes to the QMS Operational Plan (version 10), as all major revisions were completed in January 2024.

Major revisions completed to the QMS Operational Plan document shall be reviewed/approved by Top Management and shared with the Owner through a briefing note and/or council report. Various updates of QMS documents, such as personnel whose roles and responsibilities directly affect the drinking water system shall be shared and/or communicated accordingly.

Action Item:

None

p. Staff Suggestions

Staff are encouraged to submit helpful ideas for internal processes, potential improvements to the QMS, or call attention to any problems or difficulties they may be experiencing. A staff suggestion box sits in the lunchroom, all suggestions are tracked and brought forward at monthly staff meetings where they are shared, discussed and followed up on.

In 2024, two (2) staff suggestions were put forward: 1) a recommendation to extend the duration of staff meetings to allow sufficient time for discussion, and 2) a suggestion from an Operator to review areas within the Town where the ground is unstable, which impacts their ability to provide service to certain assets.

Action Item:

None

Summary of Action Items from 2024 QMS Management Review:

Action Item #	Action Item description	Assigned to/ due by:
1	QMS Representative to ensure an analysis of the Risk Assessment is completed in 2025 to ensure compliance with DWQMS requirements.	A. Antoniadis Q2
2	Continue reviewing and organizing hard copy records specific to the action item from the external audit regarding Documents and Records Control.	M. Puopolo, A. Antoniadis Q2
3	Follow-up on CLI-ECA Workplan requirements for the Sanitary Sewer Collection System.	M.Puopolo Q1-Q4
4	Create an information session for Town personnel focused on water theft and develop a business case for the 2026 Capital Budget to address dead-ends and implement a leak detection program.	M.Puopolo A. Antoniadis Q2-Q3
5	Water/Wastewater/Waste Division will work with the GIS/ITS team to develop guidelines and procedures for the accurate and timely updating of maps as new infrastructure is installed.	M.Puopolo Q2