

Drinking Water System Regulation O. Reg. 170/03

City of Richmond Hill  
**Quality Management System - 2019 Annual Report**



## **Quality Management System for Richmond Hill's Drinking Water Distribution System**

The Drinking Water Quality Management Standard (DWQMS) requires the City of Richmond Hill to establish and maintain a Quality Management System (QMS) that conforms to the standard. The City owns a stand-alone drinking water distribution system, QMS policies and procedures govern the activities and services performed by the City. The DWQMS also requires that Members of Council are made aware to the following areas within the QMS, as they are:

- Review and Provision of Infrastructure
- Infrastructure Maintenance, Rehabilitation and Renewal Summary
- Management Review Outcomes
- Third-Party Audit Outcomes and Accreditation Renewal
- Organizational Structure, Roles, Responsibilities and Authorities

- 1. Review and Provision of Infrastructure** - Council is being communicated on the status of the programs in place to maintain, rehabilitate and renew the infrastructure of the drinking water system through the 10 Year Capital Forecast for Roads, Water and Wastewater.
- 2. Infrastructure Maintenance, Rehabilitation and Renewal Summary** – The table below includes the programs in place to maintain, rehabilitate and renew the infrastructure of the drinking water system.

Infrastructure Type	Program Type	Program Name	Program Description
Watermains	Maintenance – Planned	Uni-Directional Flushing (UDF)	A preventative program that cleans watermains through high-velocity flushing, increasing pipe efficiency and prolonging lifespan (every 5 years plan).
		Dead End Flushing	Targeted flushing of dead-end watermains to introduce fresh water and discourage degradation of water quality (annual).
	Maintenance – Unplanned	Main Breaks	Repair of watermains following pipe breakage.
	Renewal / Rehabilitation	10 Year Capital Forecast	Water system data is analyzed and watermains are identified for renewal and rehabilitation (old pipes are replaced with new ones.)
Valves	Maintenance – Planned	Valve Cycling & Inspection	A preventative program that exercises all valves in the system to locate and identify inoperable, defective or broken valves as well as to help ensure operability and prolong lifespan of infrastructure (valves to be on a 2 or 5 year cycled program).
	Maintenance – Unplanned	Valve Repair & Replacement	Repair/replacement of inoperable, defective or broken valves
Hydrants	Maintenance – Planned	Hydrant Inspection and Winterizing	A preventative program to locate and identify inoperable, defective or broken hydrants and maintain operability during winter months (annual).
		Hydrant Painting	A preventative program to protect hydrants from corrosion, maintain visibility and flow parameter (annual).
	Maintenance – Unplanned	Hydrant Repair & Replacement	Repair/replacement of inoperable, defective or broken hydrants
Service Connections	Maintenance – Unplanned	Curb stops Repairs	Repairs of inoperable, defective or broken curb stops.
		Water Service Pipe Repairs	Repairs and/or replacement of broken water service pipes
		Frozen Services	Thawing of frozen water service piping

3. **Management Review Outcomes** – Management Review meeting took place on December 17, 2019. The following table presents the outcomes of the management review:

<b>Summary of Deficiencies</b>	No deficiencies were identified for 2019.	
<b>Summary of Decisions</b>	More trend analysis of water programs and targets.	
<b>Update on Previous Action items</b>	<p><u>Management Review:</u> As the Management Review is held only once a year, all managers should be present at the meeting or a delegate shall be in attendance.</p>	<p><b>Completed</b> – Director of Infrastructure Delivery Services considers that all managers in Division should be part of the DWQMS Top Management. Director to attend meeting each year but not part of Top Management Team.</p>
	<p><u>Infrastructure, Maintenance, Rehabilitation and Renewal – Hydraulic Model:</u> discussions to take place with Planning and Regulatory Services and EIS (dept.) in regards to having a hydraulic modeller for the Town.</p>	<p><b>In progress</b> – EIS Department has prepared business case to obtain a City's hydraulic model.</p>
	<p><u>Incidents of Regulatory Non-Compliance:</u> Non-compliance for the use of liquid paper/ white-out on logbooks/records and the ORO was not clearly identified on various dates on the daily activity sheet document</p>	<p><b>Completed</b> – Updated <u>WI-DW-4.1 Record Keeping</u> with proper procedure for correcting mistakes in records. All Water and Wastewater operators were trained in <u>Log Book Writing</u> on Dec 13 &amp; 14, 2018.</p>
	<p><u>Resources needed to maintain the Quality Management System:</u> Work with IT Department to run pilot program to assess if Maximo could be utilized as QMS Software Tool.</p>	<p><b>In progress</b> – Maximo is not suitable as QMS Software Tool. IT created copy of EMS Corrective Action Database for QMS using Microsoft Access. However, Access is being phase out by IT.</p>
	<p><u>Consumer feedback:</u> Graphs need to be revised to include actuals; further breakdown of the number of calls by call-type including previous years should be presented.</p>	<p><b>Completed</b> – Water Quality Analyst has recorded the calls and has created graphs with actuals to show the breakdown of the calls and the trend in the data.</p>
	<p><u>Results of the Infrastructure Review - Data Trend Analysis</u> – Historical data must be analyzed for trends. Set performance measures for the various Infrastructure Programs based off the trend analysis, thus, targets can be set for continual improvement.</p>	<p><b>In Progress</b> – Data has been collected since 2016 and will continue to be collected for proper analysis and creation of targets and programs.</p>
	<p>Municipal Drinking Water Licence and Works Permit - <b>MDWL and DWWP are due to expire on August 12, 2019</b> – Renewal application must be submitted by February 12, 2019.</p>	<p><b>Completed</b> – Richmond Hill received its Municipal Drinking Water Licence and Drinking Water Works Permit, effective July 22, 2019 and will expire in 5 years.</p>

**4. Third-Party Audit Outcomes and Accreditation Renewal**

The surveillance audit took place on November 6 and 7, 2019. Two minor non-conformances both procedural were identified through the third-party surveillance audit; once the Corrective Actions were implemented, the City received its accreditation certificate dated January 20, 2020.

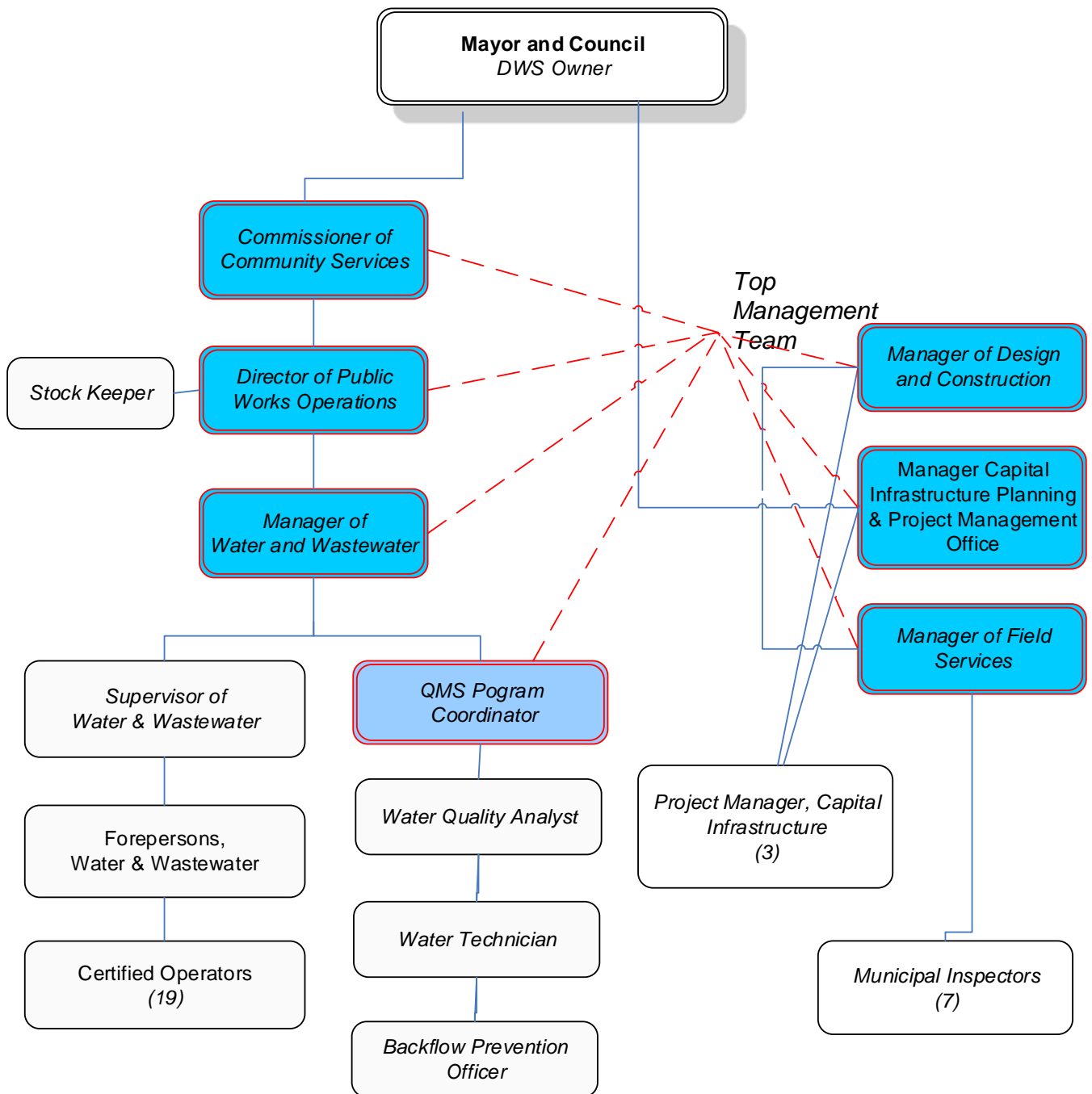


**5. Organizational Structure, Roles, Responsibilities and Authorities**

Members of Council as the "Owner" of the drinking water distribution system are responsible for ensuring their drinking water system meets all prescribed drinking water quality standards, operate in accordance with the *Safe Drinking Water Act* and its regulations, keep a fit state of repair, comply with all sampling, testing and monitoring requirements and meet all reporting requirements.

QMS Top Management will now consist of: Commissioner of Community Services, Director of Public Works Operations, Manager of Water and Wastewater, Manager of Design and Construction, Manager of Field

Services, Manager Capital Infrastructure Planning & Project Management Office and QMS Program Coordinator.



Note: For Roles, Responsibilities and Authorities please see Table of Roles and Responsibilities in Appendix 3—Operational Plan.