

DATE: June 23, 2020

TO: Honourable Mayor and Members of Council

FROM: James Steele, Director of Environmental Services
Zoran Postic, Deputy City Manager, Public Works

RE: **COMMUNICATIONS – COUNCIL MEETING – JUNE 29, 2020
COMMITTEE OF THE WHOLE (2) JUNE 16, 2020 (ITEM #2)
INTERNAL AUDIT REPORT – 2019 ANNUAL REPORT
(DETAILED STATUS UPDATE FOR WATER, WASTEWATER AND
STORMWATER AUDIT)**

1. Purpose

The purpose of this Communication is to provide the Honourable Mayor and Members of Council further details on the status of the 14 high level recommendations identified in the Water, Wastewater and Stormwater Audit, dated April 2019 and the 32, more detailed, Management Action Plan Items, developed to guide the implementation of the recommended improvements.

Status of Management Action Plan (MAP) Items are detailed below. For convenience, excerpts from the [Internal Audit Report – 2019 Annual Report](#), considered by Committee of the Whole (2) on June 16, 2020, are shown in *italics*.

2. Status of Management Actions

All, but two, of the MAP items with deadlines on, or before, the end of 2019 (Urgent and Critical Actions) were completed within the recommended timelines identified in the April 2019 Audit Report. The remaining two were MAP Items 6.2 and 8.4. These items, although completion is overdue, are both in progress and any portions of these actions related to immediate risks, were completed immediately. The balance (mostly administrative) portions of the items continue to progress.

A scorecard, showing the progress on each of the recommendations are provided below, with the status of each Management Action Item identified in one of the following categories: Complete; In Progress; Not Started; or Overdue. In addition, the status of Overdue items are provided in their respective sections.

Recommendation No. 1 – Water Sampling Policies, Procedures and Practices

All management actions have been completed, with the exception of the establishment of a Service Level Agreement with an accredited lab to complete microbiological testing, this work is underway and is expected to be fully actioned in Q2, 2020.

Management Action Status: 5 Complete, 1 In Progress, 0 Not Started, 0 Overdue

Recommendation No. 2 - Ensure that the Catch Basin Inspection and Cleaning Program Complies with the City's and York Region's Sewer By-Law

All management actions have been completed and management continues to optimize the catch basin cleaning program, using Lean Green Belt Techniques and evaluating the feasibility of sourcing a decanting facility within close proximity to the City, potentially in partnership with other local municipalities and/or York Region.

Management Action Status: 2 Complete, 0 In Progress, 0 Not Started, 0 Overdue

Recommendation No. 3 - Ensure the Hydrant Inspection and Maintenance Program Complies with the Ontario Fire Code

All management actions are complete, 100% of the City's hydrants were inspected in 2019 and will be inspected annually. Communication protocols between Environmental Services and Vaughan Fire and Rescue Services have been developed and will continue to evolve as the partnership continues.

Management Action Status: 2 Complete, 0 In Progress, 0 Not Started, 0 Overdue

Recommendation No. 4 - Re-establish the Valve Turning Program

All management actions have been completed. System valves were prioritized and in 2019, Pure Technologies was hired to implement the City's priority valve turning program, which was completed as expected. More comprehensive, risk based, valve prioritization will take place in coming years, by using data obtained during the valve turning exercise and as more advanced analytical software tools are implemented over the next few years.

Management Action Status: 2 Complete, 0 In Progress, 0 Not started, 0 Overdue

Recommendation No. 5 - Implement a Risk Based Preventative Maintenance Program

This recommendation has yet to be fully implemented. The 2021 budgeting process will consider service risk, infrastructure integrity, life cycle of the infrastructure, potential for service disruption, asset management practices and plans to prioritize infrastructure investment. Close coordination with Corporate Asset Management will continue ensuring entire lifecycle performance is integrated into condition assessment and preventative maintenance activities.

Management Action Status: 0 Complete, 1 In Progress, 0 Not Started, 0 Overdue

Recommendation No. 6 - Implement the Recommendations for Improving the Maintenance Conditions of Water and Wastewater Facilities

Of the three recommendations only one has yet to be started. Discussions related to the work that ought to be completed and who is best equipped to incorporate it into their programs have already begun resourcing and formalization of the handover still need to be completed. In general terms, Facilities will be taking care of the building envelope of facilities, while Environmental Services will take carriage of the process equipment.

Management Action Status: 0 Complete, 1 In Progress, 1 Not Started, 1 Overdue

The key action in MAP 6.2 is focused on management of the City's water and wastewater assets and delivery of minor capital projects. Over the past year, staff have been recruited with a focus on the required skill sets to ensure appropriate planning, procurement and construction take place. Ensuring that appropriate investments to maintain the systems using proactive asset management.

Furthermore, significant progress has been made in maturing the department's asset management approach, which will be supported by the implementation of a Corporate Computerized Maintenance Management System.

Interim control measures were put into place during the first three months (enhanced tracking processes), however, due to the broader organizational changes required to fully implement the Corporate asset management system, this will be listed as "overdue" until this last piece is implemented.

Recommendation No. 7 - Ensure the Recommendations for Improving the City's Emergency Response Plan are Implemented

Significant progress has been made in improving Environmental Services Emergency response planning. Completed initiatives include the implementation of Automatic Vehicle Location system for Environmental Services vehicles, integrating water/wastewater/storm water emergencies into Corporate Emergency exercise, defining emergency levels as part of the Public Works Portfolio response escalation plan and several tabletop emergency exercises with front line operators.

Management Action Status: 0 Complete, 1 In Progress, 0 Not Started, 0 Overdue

Recommendation No. 8 - Improve Asset Management Planning, Project Management, Contract Administration and Procurement Practices

Low value purchase orders (LDMs) in 2019 have been reduced by approximately 50% from the previous year and Environmental Services continues to work with Procurement Services to develop strategies to ensure that the appropriate procurement processes are used. The Vendor of Record process is being evaluated to address a number of areas where LDMs have been used in the past, further reducing their use.

Management Action Status: 0 Complete, 3 In Progress, 0 Not Started, 1 Overdue

MAP Item 8.4 was identified as Urgent (requiring action in 0-3 months) and due to the number of LDM contracts being used by the Department to acquire critical parts for operations, this MAP was triaged, starting with contracts that would provide the greatest benefit in reducing LDMs. The first two contracts, awarded in 2019 through a competitive procurement process, avoiding more than 180 LDM procurements, annually. Work continues developing contract documents and strategic procurement, keeps this MAP Item in the overdue category.

Recommendation No. 9 - Perform an Operational Health and Safety and Public Hazard Risk Assessment

Work to address the job hazard analysis recommendation from the audit is closely related to a corporate wide initiative that is currently underway. Environmental Services staff are working closely with Corporate Health and Safety on this project and will be one of the first areas that are evaluated on this corporate initiative.

Management Action Status: 0 Complete, 2 In Progress, 1 Not Started, 0 Overdue

Recommendation No. 10 - Fully Operationalize the SCADA System

Modifications have been made to provide more universal access to the City's SCADA system for operators to use and minor adjustments to the SCADA system are currently underway. In addition, to provide a longer-term vision for full implementation of SCADA, a consultant has been engaged to develop a SCADA Master Plan, providing an implementation roadmap to implement the SCADA system and realize the investment that has been made to date.

Management Action Status: 0 Complete, 1 In Progress, 0 Not Started, 0 Overdue

Recommendation No. 11 – Leverage Advances in Technology to Improve Business Processes

Both the management actions related to the software system for tracking monitoring sampling results have been initiated. During the course of investigating the feasibility of using the WaterTrax mobile app, another more effective system for automatically uploading chlorine residuals became available. Trials continue with this system, with the plan for full implementation by Q4 2020.

Management Action Status: 1 Complete, 2 In Progress, 0 Not Started, 0 Overdue

Recommendation No. 12 - Update Development Agreements to Clarify Timing of Payment Requirements for New Watermain Connections

Coordination between Environmental Services and Development Engineering continues to improve. The two departments have developed RASCI charts to determine responsibilities amongst the teams and quarterly coordination meetings have taken place. Discussions continue to ensure that the requirements for watermain connections, construction water and payments for the same are integrated into new development agreements. For agreements that are already in place, payments/invoices are requested regularly. Formalization of the discussions and process remain to be completed.

Management Action Status: 0 Complete, 2 In Progress, 0 Not Started, 0 Overdue

Recommendation No. 13 - Provide Greater Oversight of the Main Flushing and Closed-Circuit Television (CCTV) Programs

Interim tools to assist in tracking and monitoring the main flushing and CCTV programs have been in use and full implementation of Info Asset Manager (planned for Q3 2020) will modernize these processes, not only allowing the monitoring of the programs individually but providing analytical tools to evaluate condition assessments. This data, along with work order and customer complaints, will be used to prioritize the programs into the future and will feed into asset management planning efforts.

Management Action Status: 0 Complete, 1 In Progress, 0 Not Started, 0 Overdue

Recommendation No. 14 - Analyze Insurance claims

The management action has been initiated as Environmental Services staff have met with Risk Management staff to leverage Clear Risk software system to provide info on claims. Risk Management has started to provide regular status reporting on the types of claims from Environmental Services activities.

Management Action Status: 0 Complete, 1 In Progress, 0 Not Started, 0 Overdue

3. Conclusions

Environmental Services' commitment to supply of safe drinking water, responsible collection of wastewater and efficient stormwater management continues.

The above illustrates that significant effort in implementing the recommendations provided through the Internal Audit report has been completed over the past year and continues to be top of mind for the Department. A summary of the 32 Management Action Plan Items is provided, below.

Complete	12 items	38%
In Progress	16 items	50%
Not Started	2 items	6%
Overdue	2 items	6%

For clarity, the two items identified as overdue have progressed significantly and have addressed immediate risks, mostly administrative work, remains to be able to confirm that these items have been fully actioned.

For additional information, please contact James Steele, Director, Environmental Services, ext. 6116