



# Finance, Administration and Audit Committee Report

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**DATE:** Wednesday, June 05, 2019

**WARD(S):** ALL

**TITLE: INTERNAL AUDIT REPORT – WATER, WASTEWATER AND STORMWATER OPERATIONS AUDIT**

**FROM:**

Kevin Shapiro, Director of Internal Audit

**ACTION:** FOR INFORMATION

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**Purpose**

To present to the Finance, Administration and Audit Committee the Internal Audit Report on the Audit of Water, Wastewater and Stormwater Operations.

**Report Highlights**

- The Environmental Services department is responsible for providing water, wastewater and stormwater services to more than 335,000 residences and more than 11,900 businesses in the City of Vaughan.
- The audit of Water, Wastewater and Stormwater Operations identified numerous issues that have impacted Environmental Services' ability to deliver on several of their objectives, while increasing the risk of litigation and reputational damage to the City.
- Management has developed action plans which will mitigate the identified risks and address the recommendations outlined in the report.
- Internal Audit will follow up with management and report on the status of management action plans at a future committee meeting.

**Recommendations**

1. That the Internal Audit Report on the Water, Wastewater and Stormwater Operations be received.

## **Background**

The objective of the audit was to evaluate the adequacy and effectiveness of the internal controls, processes and procedures in place to mitigate the business risks associated with managing of the water, wastewater and stormwater operations.

The audit approach included a review of the strategic goals, objectives and oversight of the department, review of relevant programs, legislation, policies and procedures, procurement processes, project management and contract administration practices, use of technology, and interviews with staff and management.

The audit scope included department related activities that occurred in January 2017 to December 2018.

The audit scope did not include a review of the water, wastewater and stormwater billing process, the water meter replacement program, backflow prevention program or the solid waste management division.

## **Previous Reports/Authority**

Not applicable.

## **Analysis and Options**

The Environmental Services department is responsible for providing water, wastewater and stormwater services to more than 335,000 residences and more than 11,900 businesses in the City of Vaughan.

The provincial government implemented the Municipal Drinking Water Licensing Program in 2007 as a result of the Walkerton Inquiry. The Ministry of the Environment and Climate Change developed the Drinking Water Quality Management Standard (DWQMS) that applies to owners and operating authorities for municipal drinking water systems. The implementation of the DWQMS is mandated by the provincial government through the Safe Drinking Water Act.

The Corporation of the City of Vaughan is considered the owner of the City's water distribution system and works with York Region to ensure access to safe drinking water. The Water division of Environmental Services is responsible for providing assurances that the drinking water is properly sampled for safety and quality. Other responsibilities include the routine inspection and maintenance of hydrants, watermains and valves.

Applicable legislation and regulations, such as the Clean Water Act, Environmental Protection Act, and various local and regional by-laws impact the operation and maintenance of the City's sanitary wastewater collection system. The system is designed to collect wastewater from homes and businesses and bring it to wastewater treatment plants through pipes and pumping stations. The wastewater collection system consists of six wastewater lift stations, three wastewater force mains, 997 km of piping, and 12,905

maintenance holes. Programs, such as systematic flushing and remote camera viewing for blockages and damage, help to maintain the City's infrastructure.

Environmental Services also operates and maintains Vaughan's stormwater collection system. It is designed to collect runoff from rainfall and snowmelt, convey it to stormwater management facilities to enhance water quality, before the stormwater is released to outlets, rivers and streams. The stormwater system consists of 144 stormwater management ponds, which are inspected and cleaned on a prioritized basis. The City has approximately 1,100 km of stormwater piping and more than 18,000 catch basins. The Stormwater division have programs to periodically remove debris to ensure the stormwater system is functioning at optimal level.

### **Financial Impact**

There are no direct economic impacts associated with this report.

### **Broader Regional Impacts/Considerations**

Not applicable.

### **Conclusion**

The audit of Water, Wastewater and Stormwater Operations identified numerous issues that have impacted Environmental Services' ability to deliver on several of their objectives, while increasing the risk of litigation and reputational damage to the City.

This conclusion is based on several factors, including:

- Ineffective project management and contract administration.
- Inadequate asset management planning processes and preventative maintenance programs.
- The absence of appropriate management oversight.
- Inefficient and ineffective procurement practices.
- Heavy reliance on manual processes.
- A lackadaisical approach to policy and procedural development and legislative compliance.

Due to the severity of these issues, there have been significant consequences, including but not limited to:

- Contracts expiring without anyone acting upon it, resulting in the failure to execute programs.
- Underspensing on maintenance and installation.
- Hiring consultants and not developing plans to implement the recommendations.
- Going to market with non-compliant contract specifications.

- Inefficient and ineffective use of resources.
- Development of policies and procedures that are lacking detail and do not outline roles, responsibilities and accountability of all those involved in the process.

The following improvements are required:

- Establish a standardized project management governance framework that will be a driver to set predetermined goals, improve outcomes and strengthen project management governance.
- Develop risk based, long-term asset management plans and preventive maintenance programs to better inform the budgeting process and resource requirements.
- Provide greater oversight and scrutiny over non-competitive purchases to ensure appropriate procurement methods are used.
- Leverage advances in technology to improve business processes.
- Update the content of City policies, procedures and guidelines while providing more clarity on roles, responsibilities and expectations of stakeholders.

**For more information**, please contact: Kevin Shapiro, Director of Internal Audit, ext. 8293

## **Attachments**

1. Internal Audit Report – Water, Wastewater and Stormwater Operations Audit

## **Prepared by**

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