

## SEWER CAPACITY MANAGEMENT PROCESSES AUDIT

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### EXECUTIVE SUMMARY

The City Auditor's Office issued the Sewer Capacity Management Processes Audit Report to Administration on March 2, 2015. The report includes Administration's response to four recommendations raised by the City Auditor's Office to further improve resiliency to manage the insufficient sewer capacity risk against escalated growth projections.

### RECOMMENDATIONS

1. That Audit Committee receive this report for information; and
2. That Audit Committee recommend that Council receive this report for information.

### RECOMMENDATION OF THE AUDIT COMMITTEE, DATED 2015 MARCH 12:

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That Council receive Report AC2015-0146 for information.

### PREVIOUS COUNCIL DIRECTION / POLICY

Bylaw 30M2004 established the position of City Auditor and the powers, duties and functions of the position. Under the City Auditor's Office Charter, the City Auditor presents an annual risk-based audit plan to Audit Committee for approval. The City Auditor's Office 2014 Annual Audit Plan was approved on December 12, 2013.

The City Auditor is accountable to Council and subject to the oversight of the Audit Committee under Bylaw 48M2012.

### BACKGROUND

The Sewer Capacity audit was conducted as part of the approved City Auditor's 2014 Annual Audit Plan to assess processes and controls in place to mitigate sewer capacity risk within Water Resources (WR). The objective of this audit was to assess the effectiveness of prioritization of sewer projects; communication channels between WR and other business areas that can impact capacity needs; evaluation of design standards; and monitoring of high inflow and infiltration levels in order to successfully mitigate sewer capacity risk.

### INVESTIGATION: ALTERNATIVES AND ANALYSIS

WR provides the city of Calgary an extensive sanitary system which is delivered over approximately 4,200 km of wastewater mains. The city is growing at a rate of approximately 25,000 people per year as per the City of Calgary Action Plan 2015-2018. WR has a continuing challenge to meet the needs of a city's extraordinary growth and to comply with increasingly strict regulatory requirements.

Insufficient sewer capacity poses a high risk to the public's health and safety. It also may cause financial and reputational risks such as developments completed without services or future development restrictions. An agile planning process is critical to ensure appropriate levels of service to customers.

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WR has implemented new and revised processes to support capacity requirements to meet these growth challenges. Based on our scope of review, WR processes for long term planning, capacity assessment and the prioritization of projects are in place and operating to support effective risk management of insufficient sewer capacity. Our testing confirmed the identified capacity upgrades from the modeling process are integrated into the SLRP (Sanitary Long Range Plan). The SLRP identifies the capital investment requirements for the next 10 years but also outlines the infrastructure that Water needs for the next 30 years and beyond.

Our testing of sample sewer upgrade projects noted on an annual basis WR re-prioritize the sewer upgrades projects as per population growth projections. The risk based identification and prioritization of the capital projects are included in the WIIP (Water Infrastructure and Investment Plan).

We determined that WR completes ongoing monitoring of sewer capacity such as monitoring of high inflow and infiltration areas, as well as completing capacity assessment studies of the sewer districts and conducting current and proposed sanitary sewer systems sufficiency reviews.

Recognizing that forecasted growth will continually place pressure on the management of sewer capacity we raised four recommendations to WR targeted to further enhance resiliency.

Administration has agreed to our recommendations and has indicated in their responses a commitment to implement the action plans with commitment dates no later than March 31, 2015. The City Auditor's Office will follow-up on these commitments as part of our on-going follow-up process.

### **Stakeholder Engagement, Research and Communication**

This audit was conducted with the Manager, Infrastructure Planning and the Senior Planning Engineer acting as the primary audit contacts within Administration. Additional support and cooperation was provided by management and staff within the Water Resources business unit.

### **Strategic Alignment**

Audit Reports assist Council in its oversight of the City Manager's administration and accountability for stewardship over public funds and achievement on value for money in City operations.

### **Social, Environmental, Economic (External)**

This report has been reviewed for alignment with The City of Calgary's Triple Bottom Line (TBL) Policy Framework. No implications are identified.

### **Financial Capacity**

#### **Current and Future Operating Budget:**

N/A

#### **Current and Future Capital Budget:**

N/A

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### Risk Assessment

The activities of the City Auditor's office serve to promote accountability, mitigate risk, and support an effective governance structure.

### REASON FOR RECOMMENDATIONS:

Audit Committee's Terms of Reference states: "Audit Committee receives directly from the City Auditor any individual audit report and forwards these to Council for information."

### ATTACHMENTS

1. Sewer Management Processes Audit Report.