

## Data Analytics Desktop Review Program

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### EXECUTIVE SUMMARY

This report provides an update of the new desktop review program as part of The City Auditor's Office (CAO) overall data analytics initiative endorsed by Audit Committee in 2016. The desktop review program is preparing to launch in Q2 of 2020, based on a successful pilot that was concluded in Q3 of 2019. The reviews conducted under this program will provide wider assurance on operational compliance and will utilize less resource cost than a traditional risk-based audit. The program utilizes the City's data sourced from multiple systems to evaluate compliance and best practice across the organization, to provide timely feedback to Administration when non-compliance occurs, and to monitor trends to identify escalating risks for remediation. A priority list of areas for review in 2020 will be provided to Audit Committee in early Q2 2020. Scorecard reporting on 2020 compliance assurance and trending will be provided no later than end of Q4 2020.

The desktop audit review process increases The CAO's ability to evaluate performance and processes. The process also helps to identify key issues as they arise in order to be able to initiate a more traditional audit if necessary. The reporting provides detailed data, trending analysis and compliance coverage using 100% of the population. This comprehensive analysis creates more reliable, timely and accurate reporting for Administration and provides reliable assurance for Council and Audit Committee in terms of governance, cost effectiveness, risk management and oversight.

The CAO appreciates the continued support from Audit Committee to our important data analytics initiative.

### RECOMMENDATION

1. That the Audit Committee receive this report for information.

### PREVIOUS COUNCIL DIRECTION / POLICY

Bylaw number 48M2012 "Audit Committee Bylaw" states in section 1 g) Audit Committee "oversees the integrity of The City's system of internal controls, legal compliance regarding financial matters, Codes of Conduct, and other policies, as determined by the Audit Committee" and in section 6 a) The Audit Committee "monitors Administration's compliance with existing policies and legislation".

Bylaw 30M2004 (as amended) established the position of City Auditor and the powers, duties and functions of the position. The City Auditor is accountable to Council and subject to the oversight of Audit Committee under Bylaw 48M2012 (as amended).

### BACKGROUND

In 2016, the CAO received approval from Audit Committee to support a focused initiative on the development and application of data analytics. The CAO purchased Galvanize Analytics, Power BI and added additional server capacity to enable better data analysis and stronger visualizations of data. The CAO uses analytics gleaned from City data to provide greater insight into areas of potential risk exposure which support all aspects of the mandate to deliver effective

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assurance, advisory and investigative services. To accomplish this, the CAO has dedicated two staff to this initiative, who have collectively developed and maintained over 75 scripts.

### **INVESTIGATION: ALTERNATIVES AND ANALYSIS**

Earlier in 2019, The CAO conducted the pilot program across three desktop overtime reviews in Transit, Water Services and Corporate Analytics & Innovation, analyzing 100% of the overtime data over the last three years.

The pilot program was successful from the perspective of both Administration and The CAO. Results of the pilot confirmed the reliability of the data and analysis and Administration indicated they found the CAO reporting provided insight that guided opportunities for improving compliance and operational efficiency. Each of the desktop reviews were completed in less than 50% of the average elapsed time of a traditional audit and did not require a significant amount of support time from the business under evaluation. The CAO will continue to monitor trends identified in this pilot and should unfavourable trends escalate then a formal compliance audit by the CAO may be conducted.

Overall, data analytic desktop reviews assist the CAO in gaining deeper insights into City systems and controls to support ongoing assurance in an economic manner while being responsive to changing risks.

Over the long term, it is anticipated that significant benefits will be provided to Audit Committee and Council specific to their governance and oversight role. This will be achieved through the provision of broader risk assurance, timely identification of compliance improvements and operational efficiency savings gained across the organization.

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

The pilot review was conducted with Transit, Water Services and Corporate Analytics & Innovation acting as the principal contacts within Administration.

### **Strategic Alignment**

Audit assurance activities assist Council and Audit Committee in their oversight of Administration and its accountability for stewardship over public funds and in achieving value for money in City operations.

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

N/A

### **Financial Capacity**

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

The pilot and proposed launch of the desktop review program is funded within the existing operating budget of the CAO.

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

N/A

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### Risk Assessment

The activities of The CAO serve to promote accountability, mitigate risk, and support an effective governance structure. The Data Analytics desktop review program will improve effective risk management, through timely identification of non-compliance, identification of operational improvement opportunities and increased audit assurance efficiencies.

**REASON FOR RECOMMENDATION:**

Bylaw 48M2012 (as amended) states: "In accordance with Bylaw 30M2004, oversees and ensures the accountability of the City Auditor on behalf of Council".

### ATTACHMENTS

None