



**CITY OF VAUGHAN
AUDIT COMMITTEE
AGENDA**

If you wish to speak to an item listed on the Agenda, please pre-register by completing a Request to Speak Form online, emailing clerks@vaughan.ca, or contacting Service Vaughan at 905-832-2281, by 12 noon on the last business day before the meeting.

Monday, November 25, 2024

10:00 a.m.

Online via Electronic Participation

Vaughan City Hall

		Pages
1.	CONFIRMATION OF AGENDA	
2.	DISCLOSURE OF INTEREST	
3.	COMMUNICATIONS	
4.	DETERMINATION OF ITEMS REQUIRING SEPARATE DISCUSSION INCLUDING MEMBERS RESOLUTION(S)	
5.	ADOPTION OF ITEMS NOT REQUIRING SEPARATE DISCUSSION	
6.	CONSIDERATION OF ITEMS REQUIRING SEPARATE DISCUSSION	
1.	2024 EXTERNAL AUDIT PLANNING REPORT Report of the Deputy City Manager, Corporate Services, City Treasurer and Chief Financial Officer	3
2.	INFORMATION TECHNOLOGY (IT) ASSET MANAGEMENT AND CONTRACTS AUDIT Report of the Director of Internal Audit	53
3.	MOVESMART MOBILITY MANAGEMENT STRATEGY AUDIT Report of the Director of Internal Audit	84

4. 2025 SCHEDULE OF MEETINGS
Administrative matter

108

7. NEW BUSINESS

8. ADJOURNMENT

Audit Committee Report

DATE: Monday, November 25, 2024

WARD(S): ALL

TITLE: 2024 EXTERNAL AUDIT PLANNING REPORT

FROM:

Michael Coroneos, Deputy City Manager, Corporate Services, City Treasurer and Chief Financial Officer

ACTION: DECISION

Purpose

The Audit Committee's approval is requested on the 2024 Statutory Financial Statements External Audit Planning Report for the year ending December 31, 2024, as prepared and presented by KPMG [Attachment 1].

Report Highlights

- The statutory financial statements are a requirement prescribed by the *Municipal Act, 2001* that shows the results of operations for the fiscal year and the financial position at the end of the fiscal year.
- The *Municipal Act* requires that the statutory financial statements be audited by an independent external auditor.
- KPMG LLP, our external auditor, has prepared the 2024 Statutory Financial Statements External Audit Planning Report for review and approval by the Audit Committee.

Recommendations

1. That the 2024 External Audit Planning Report for the year ending December 31, 2024, be approved; and
2. That the KPMG Audit Planning Report for the year ending December 31, 2024, and the presentation by KPMG [Attachment 1] be received.

Background

Section 296(1) of the *Municipal Act*, 2001 states, “a municipality shall appoint an auditor licensed under the Public Accounting Act, 2004 who is responsible for:

- a) Annually auditing the accounts and transactions of the municipality and its local boards and expressing an opinion on the financial statements of these bodies based on the audit; and
- b) Performing duties required by the municipality or local board.

KPMG was appointed as our external auditor in 2023 for a period of three years ending August 31, 2026, through a collaborative procurement process in accordance with the City’s Corporate Procurement Policy 15.C.03.

KPMG performs the following separate audits for the City of Vaughan:

- The Corporation of the City of Vaughan – Consolidated
- The Corporation of the City of Vaughan Public Library Board
- Board of Management for the Kleinburg Business Improvement Area
- The Corporation of the City of Vaughan Trust Funds
- Tourism Vaughan Corporation
- Statement of Revenue and Expenditure and Fund Balance of the Corporation of the City of Vaughan – Mayor’s Gala and Golf Events
- Vaughan Holdings Inc. (VHI) (owns 20.5% of Alectra Inc)
- Hydro Vaughan Energy Corporation (HVEC)
- 1446631 Ontario Inc. (not active)

Section 4.2.3 of the Audit Committee Charter requires the committee to:

“review the External Auditor’s proposed audit scope and approach, including coordination of efforts with Internal Audit”

The fiscal 2024 interim audit will be performed in December 2024 and the year-end audit will be performed in March and April of 2025 and is expected to be presented to the Audit Committee on May 26, 2025.

Previous Reports/Authority

N/A

Analysis and Options

N/A

Financial Impact

N/A

Operational Impact

N/A

Broader Regional Impacts/Considerations

N/A

Conclusion

Staff recommends that the 2024 External Audit Planning Report for the year ending December 31, 2024, prepared and presented by KPMG, LLP, as contained in Attachment 1 to this report, be approved.

For more information, please contact: Nancy Yates, Director of Financial Services and Deputy City Treasurer Ext 8984 or Marie Chan, Controller, Ext 8313.

Attachment

1. Audit Planning Report for the year ending December 31, 2024.

Prepared by

Nancy Yates, CPA, CA, BComm
Director of Financial Services & Deputy City Treasurer



The Corporation of the City of Vaughan

**Audit Planning Report
for the year ended
December 31, 2024**



Licensed Public Accountants

Prepared as of November 8, 2024
Presentation on November 25, 2024

kpmg.ca/audit

KPMG contacts

Key contacts in connection with this engagement



Maria Khoushnood

Lead Audit Engagement Partner

Tel: 416 228-7082

mkhoushnood@kpmg.ca



Chetan Mistry

Audit Manager

Tel: 416 224-4178

chetanmistry@kpmg.ca



Table of contents

Digital use information

This Audit Planning Report is also available as a “hyper-linked” PDF document.

If you are reading in electronic form (e.g. In “Adobe Reader” or “Board Books”), clicking on the home symbol on the top right corner will bring you back to this slide.



Click on any item in the table of contents to navigate to that section.

4	Highlights	6	Audit strategy	10	Group audit - Scoping
11	Risk assessment	18	Key milestones and deliverables	19	Audit Quality
20	Appendices				

The purpose of this report is to assist you, as a member of the Audit Committee, in your review of the plan for our audit of the financial statements. This report is intended solely for the information and use of Management, the Audit Committee, and City Council and should not be used for any other purpose or any other party. KPMG shall have no responsibility or liability for loss or damages or claims, if any, to or by any third party as this report to the Audit Committee has not been prepared for, and is not intended for, and should not be used by, any third party or for any other purpose.



Audit highlights



No matters to report



Matters to report – see link for details

Scope

Our audit of the consolidated financial statements (“financial statements”) of the Corporation of the City of Vaughan (“the City”) as of and for the year ended December 31, 2024 will be performed in accordance with Canadian generally accepted auditing standards (CAS).

Audit strategy

Materiality
Group: \$28.7 million
City: \$27.2 million



Involvement of others



Updates to our prior year audit plan



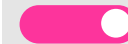
Risk assessment



Risk of management override of controls



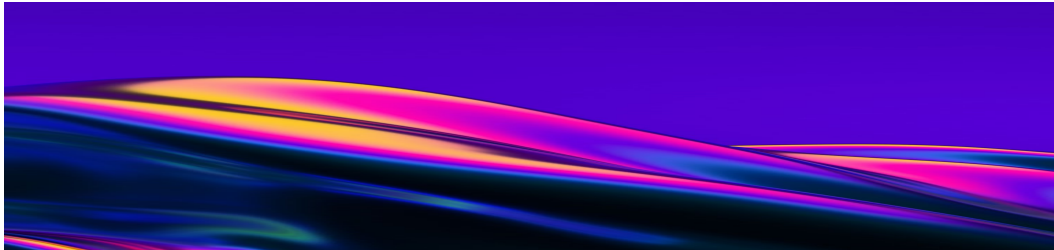
Presumption of the risk of fraud involving improper revenue recognition



Other risks of material misstatement



- Cash and investments
- Tangible capital assets
- Deferred revenues – obligatory reserve funds
- Employee future benefits (EFBs)
- Expenses – salaries and benefits
- Accounts payable, accrued liabilities and expenses
- Contingencies
- Asset retirement obligations (ARO)
- Financial instruments





Updates to our prior year audit plan

New significant risks

No new significant financial reporting risks identified.

Other significant changes



Newly effective accounting standards



Assess the impact to the financial statements and related disclosures for the changes to accounting standards effective 2024. Refer to Appendix B for new standards impacting the fiscal 2024 audit and for future changes in accounting standards.

Newly effective accounting standards 



Newly effective auditing standards

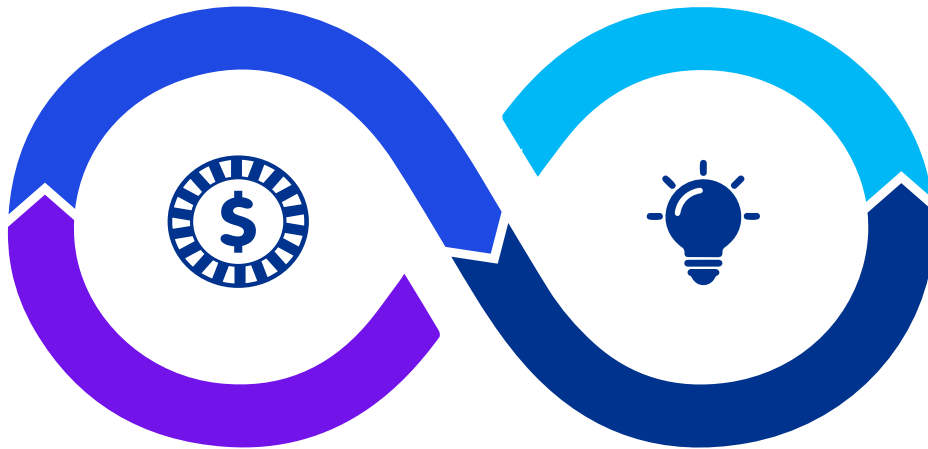


Refer to Appendix C for new standards impacting the fiscal 2024 audit.

Newly effective auditing standards 



Materiality



We **initially determine materiality** at a level at which we consider that misstatements could reasonably be expected to influence the economic decisions of users. Determining materiality is a matter of **professional judgement**, considering both quantitative and qualitative factors, and is affected by our perception of the common financial information needs of users of the financial statements as a group. We do not consider the possible effect of misstatements on specific individual users, whose needs may vary widely.

We **reassess materiality** throughout the audit and revise materiality if we become aware of information that would have caused us to determine a different materiality level initially.

Plan and perform the audit

We **initially determine materiality** to provide a basis for:

- Determining the nature, timing and extent of risk assessment procedures;
- Identifying and assessing the risks of material misstatement; and
- Determining the nature, timing, and extent of further audit procedures.

We design our procedures to detect misstatements at a level less than materiality in individual accounts and disclosures, to reduce to an appropriately low level the probability that the aggregate of uncorrected and undetected misstatements exceeds materiality for the financial statements as a whole.

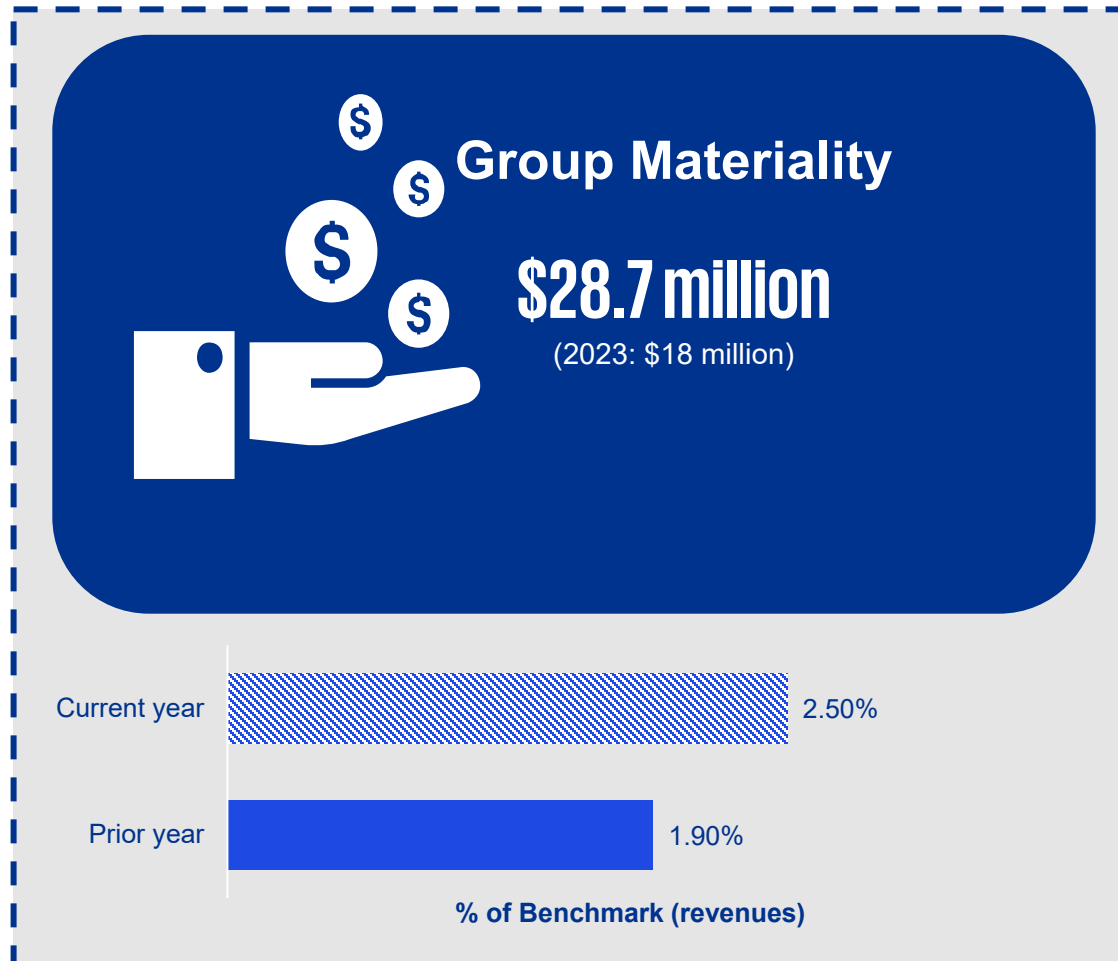
Evaluate the effect of misstatements

We also **use materiality** to evaluate the effect of:

- Identified misstatements on our audit; and
- Uncorrected misstatements, if any, on the financial statements and in forming our opinion.



Initial Group Materiality



Total Prior Year Actual Revenues (benchmark)

\$1,150 million

(2023 actual: \$945 million)

Total 2024 Actual Expenses

\$603 million

(2023 actual: \$581 million)

Group Performance Materiality

\$17.25 million

(2023: \$13.5 million)

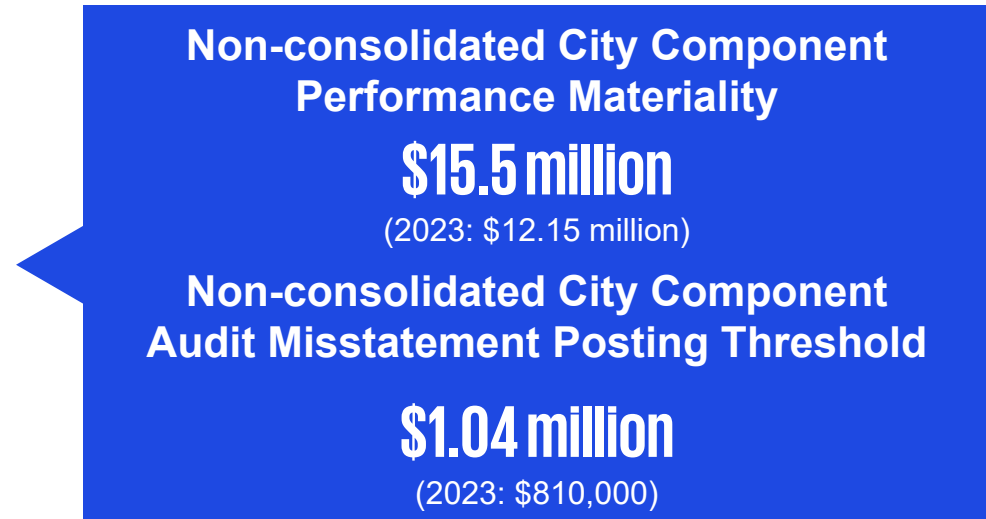
Group Audit Misstatement Posting Threshold

\$1.15 million

(2023: \$900,000)



Initial Component Materiality: Non-consolidated City









Involvement of others

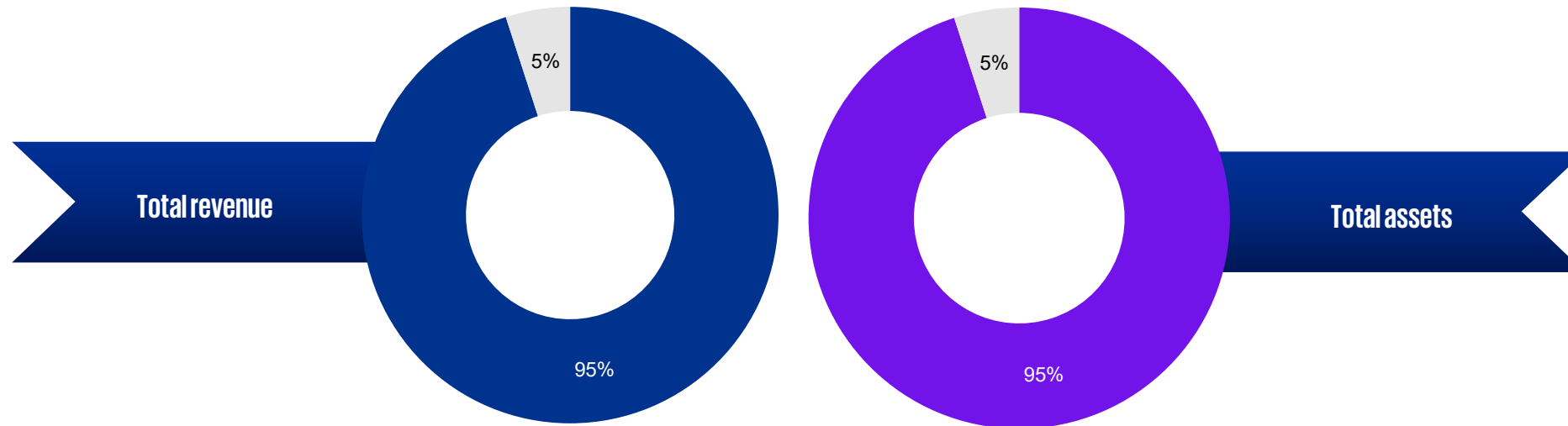
The following parties are involved in the audit of the financial statements:

Involved party	Nature and extent of planned involvement
Management's specialist	<ul style="list-style-type: none"> Management uses actuary for valuation of employee future benefit obligations. KPMG has decided to validate the report provided by the actuary and involve internal pension actuarial specialist for the same.
KPMG professionals with specialized skill or knowledge who are involved in performance of audit procedures	<p>Actuarial Specialist – Employee Future Benefits:</p> <ul style="list-style-type: none"> The employee future benefits liability is a significant accounting estimate and management relies on an actuary for the valuation of its employee future benefits. We will use an employed KPMG specialist throughout the audit cycle in assessing the assumptions and estimates used in the funding valuation and year end extrapolated accrued benefit liability. Refer to audit approach under the employee future benefit area of focus.



Group audit - Scoping

Type of work performed	Total revenue	Total assets
Total full-scope audits	95% 	95% 
Total: Full-scope audit, audit of account balance(s) and/or disclosure(s), specified audit procedures	95%	95%
Non-significant components (Note 1)	5% 	5% 
Total consolidated	100%	100%



Note 1: The following components are not significant for the purpose of issuing the auditor's opinion on the group audit of the consolidated financial statements of the Corporation of the City of Vaughan:

- Vaughan Holdings Inc.,
- The Corporation of the City of Vaughan Public Library Board,
- Tourism Vaughan Corporation,
- Kleinburg Business Improvement Area,
- Hydro Vaughan Energy Corp.,



Risk assessment summary

Our planning begins with an assessment of risks of material misstatement in your financial statements.

We draw upon our understanding of the City and its environment (e.g. the sector, the wider economic environment in which the City operates, etc.), our understanding of the City's components of its system of internal control, including our business process understanding.

We use advanced technologies in performing our risk assessment procedures.

	Risk of fraud	Risk of error	Risk level
● Management override of controls	✓		Significant
● Presumption of the risk of fraud involving improper revenue recognition	✓	✓	Significant
● Cash and investments		✓	Base
● Tangible capital assets		✓	Base
● Deferred revenues – obligatory reserve funds		✓	Base
● Employee future benefits (EFB)		✓	Base
● Expenses – salaries and benefits		✓	Base
● Accounts payable, accrued liabilities and expenses		✓	Base
● Contingencies		✓	Base
● Consolidation		✓	Base

● PRESUMED RISK OF MATERIAL MISSTATEMENT ● OTHER RISK OF MATERIAL MISSTATEMENT

Advanced Technologies

Our **KPMG Clara Dynamic Risk Assessment** tool gives us a more sophisticated, forward-looking and multi-dimensional approach to assessing audit risk.

[Learn more](#)

Our **KPMG Clara Business Process Mining** provides immediate visualization of how 100% of your transactions are processed to complement your process narratives & flow charts.

[Learn more](#)

KPMG Clara Account Analysis allows us to analyze the flow of transactions through your business to drive a more meaningful risk assessment.

[Learn more](#)

KPMG Clara AI allows us to layer AI into our auditing platform, allowing us to scan 100% of your data and pull all of the risky transactions and anomalies out for further analysis.

[Learn more](#)

The **Clara Asset Impairment Tool** delivers advanced analysis of long-lived assets and goodwill impairment models (based on discounted cash flows) through the use of predictive analytics, enabling a more robust and independent challenge of management's assumptions.

[Learn more](#)



Significant risks



Management Override of Controls (non-rebuttable significant risk of material misstatement)

Presumption of the risk of fraud resulting from management override of controls

Why is it significant?

Management is in a unique position to perpetrate fraud because of its ability to manipulate accounting records and prepare fraudulent financial statements by overriding controls that otherwise appear to be operating effectively. Although the level of risk of management override of controls will vary from entity to entity, the risk nevertheless is present in all entities.

Our planned response

As this presumed risk of material misstatement due to fraud is not rebuttable, our audit methodology incorporates the required procedures in professional standards to address this risk. These procedures include:

- testing of journal entries and other adjustments
- performing a retrospective review of estimates
- evaluating the business rationale of significant unusual transactions.

We will also:

- evaluate the design and implementation and test operating effectiveness of selected relevant controls
- take a risk-based approach tailored to the City when designing substantive procedures and selecting specific transactions for testing
- continue to make use of technology to extract our risk-based sample from the entire population of journal entries
- continue to identify areas which may be subject to additional risk whether due to fraud or error in this regard.

Advanced technologies

Our **KPMG Clara Journal Entry Analysis Tool** assists in the performance of detailed journal entry testing based on engagement-specific risk identification and circumstances. Our tool provides auto-generated journal entry population statistics and focusses our audit effort on journal entries that are riskier in nature.



[Click to learn more](#)



Significant risks



Presumption of the risk of fraud involving improper revenue recognition

RISK OF



FRAUD

Why is it significant?

Presumption of the risk of fraud resulting from fraudulent revenue recognition

This is a presumed risk of material misstatement due to fraud. This risk has not been rebutted. Audit standards require us to assume there are generally pressures/incentives on management to commit fraudulent financial reporting through inappropriate revenue recognition.

The primary risk of fraudulent revenue recognition resides with manual journal entries for revenue transactions not in the normal course of business, specifically related to management's calculation of the deferred revenue –obligatory reserve funds.

Our planned response

Our audit methodology incorporates the required procedures in professional standards to address this risk.

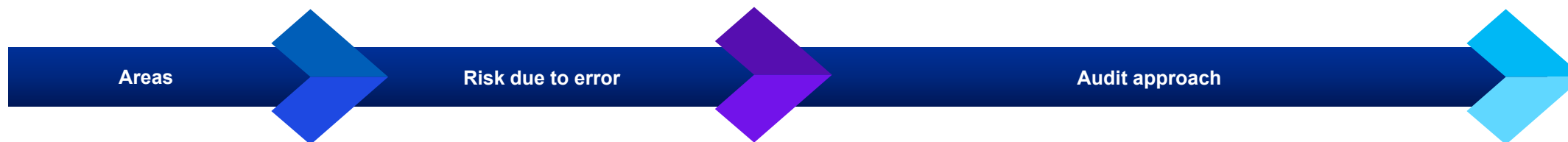
Our audit approach consists of evaluating the design and implementation and test operating effectiveness of selected relevant controls.

We test journal entries that meet specific criteria. These criteria are designed during the planning phase of the audit and are based on areas and accounts that are susceptible to manipulation through management override and we design search filters that allow us to identify any unusual journal entries.

The fraud risk from revenue recognition is limited to revenues recognized from deferred revenue –obligatory reserve funds.

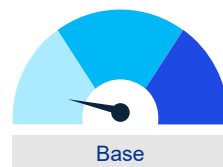


Other risks of material misstatement



Cash and investments

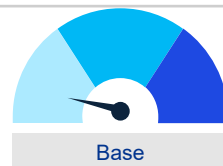
Risk of material misstatement due to valuation of investments and disclosures.



- To assess any loss in value of the portfolio investments, and if such a decline is other than temporary. Perform audit procedures to assess whether a write-down is necessary.
- Inspect year-end bank and investment reconciliations and substantive testing of significant reconciling items.
- Substantive tests of details over additions and disposals of investments.
- Obtain confirmations from third party financial institutions.
- Complete valuation assessment for any financial instruments reported at fair value.
- Evaluate financial statement note disclosures in accordance with Public Sector Accounting Standards (PSAS).

Tangible capital assets

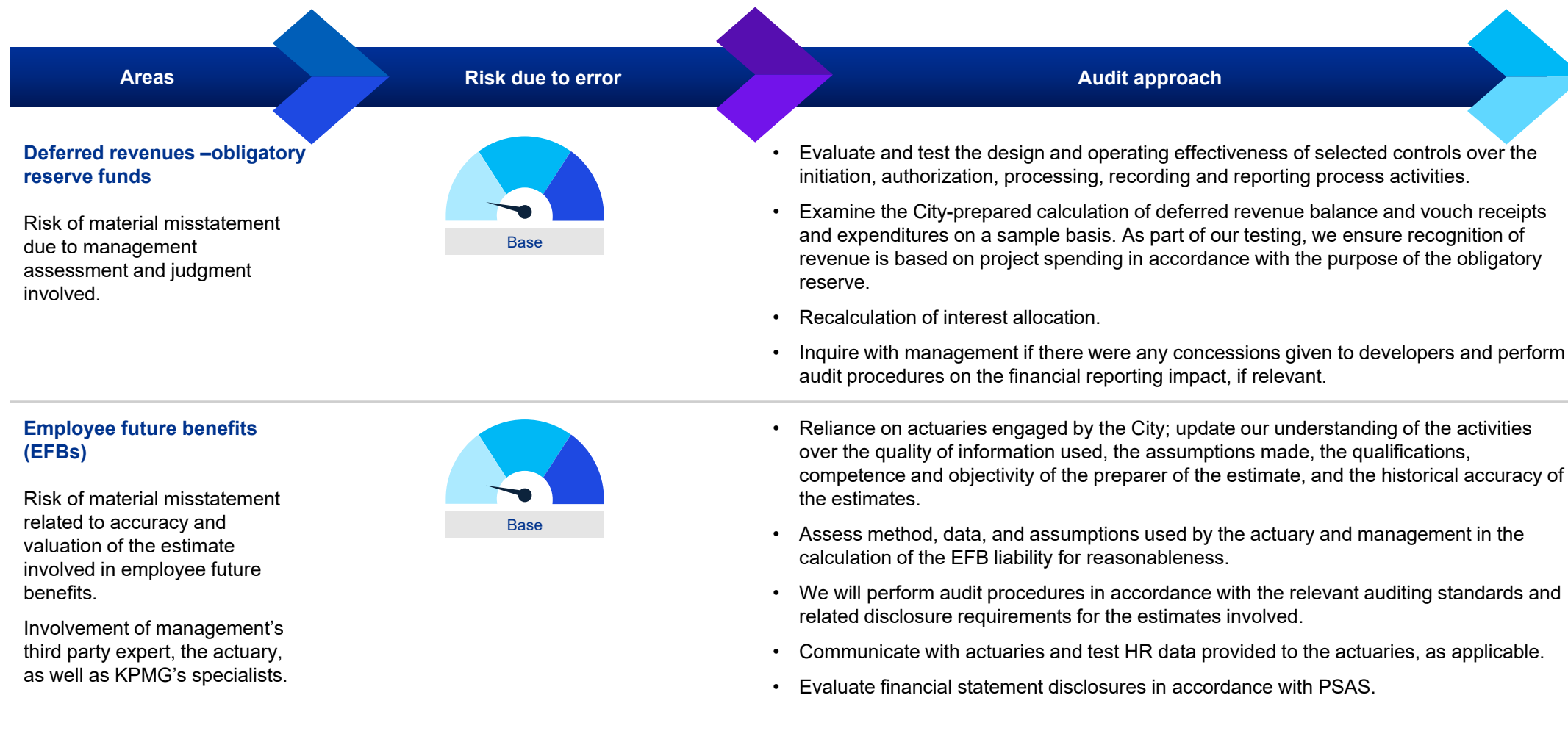
Risk of material misstatement related to existence and accuracy of tangible capital assets and accuracy of timing of revenue recognition, particularly related to funds intended for tangible capital assets additions and contributed assets.



- Substantive tests of details over additions (including contributed tangible capital assets) and disposals.
- Inspect amortization policy and perform recalculations.
- Examine construction in progress to ensure amounts are properly transferred to correct capital asset classes and amortization expense commences on a timely basis.
- Evaluate financial statement note disclosure in accordance with PSAS.
- We will agree fair value estimates of contributed tangible capital assets to supporting third party documentation or as estimated by the City; we will perform procedures to address the relevant auditing standards related to valuation estimates.
- We will also perform required procedures to assess the potential risks with respect to impairment of assets. Based on the nature of the City's operations, it is not expected that this will be a significant risk during the audit.

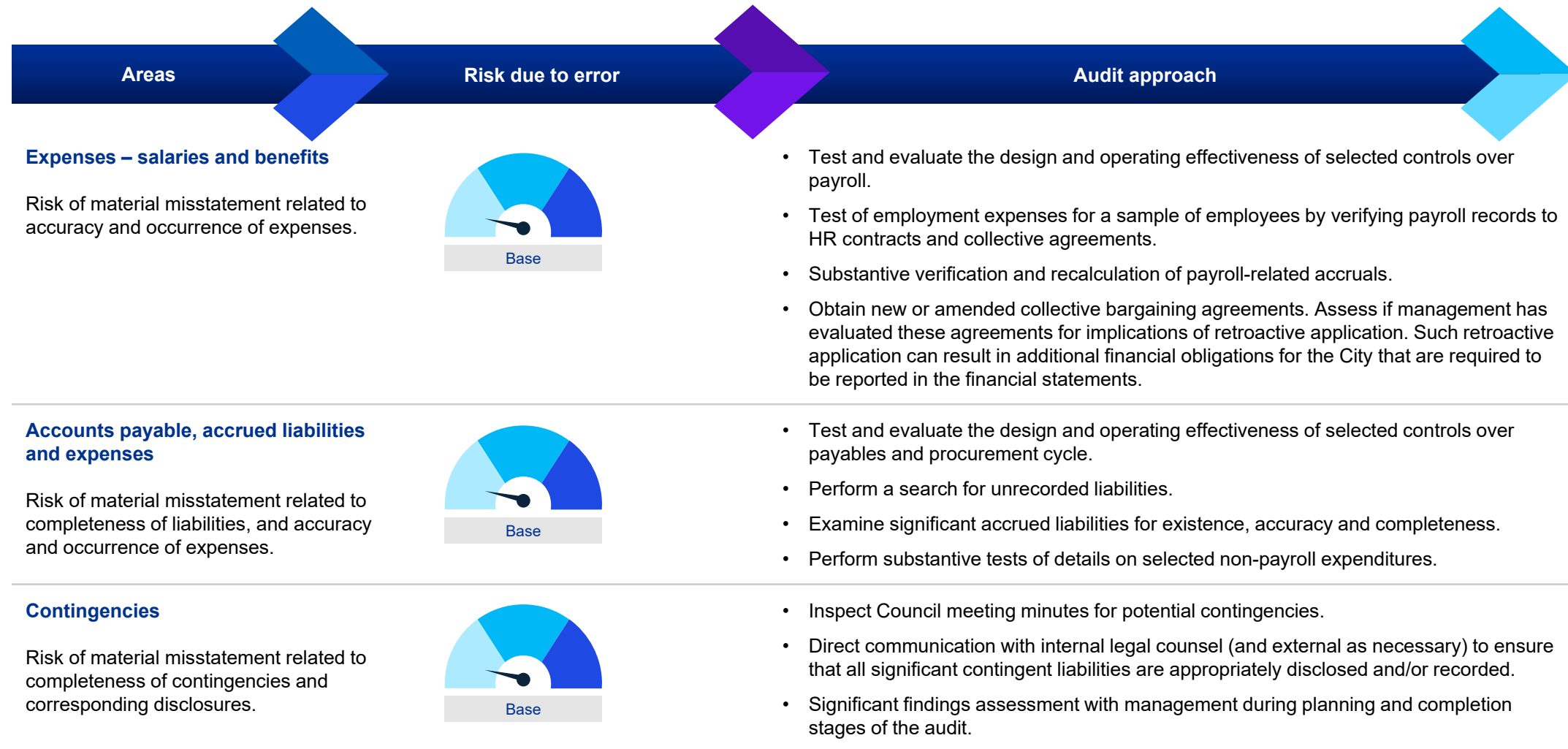


Other risks of material misstatement





Other risks of material misstatement





Required inquiries of the audit committee



Inquiries regarding risk assessment, including fraud risks

- What are the Audit Committee's views about fraud risks, including management override of controls, in the City? And have you taken any actions to respond to any identified fraud risks?
- Is the Audit Committee aware of, or has the Audit Committee identified, any instances of actual, suspected, or alleged fraud, including misconduct or unethical behavior related to financial reporting or misappropriation of assets?
 - If so, have the instances been appropriately addressed and how have they been addressed?
- How does the Audit Committee exercise oversight of the City's fraud risks and the establishment of controls to address fraud risks?



Inquiries regarding company processes

- Is the Audit Committee aware of tips or complaints regarding the City's financial reporting (including those received through the Audit Committee's internal whistleblower program, if such programs exist)? If so, the Audit Committee's responses to such tips and complaints?



Inquires regarding related parties and significant unusual transactions

- Is the Audit Committee aware of any instances where the City entered into any significant unusual transactions?
- What is the Audit Committee's understanding of the City's relationships and transactions with related parties that are significant to the City?
- Is the Audit Committee concerned about those relationships or transactions with related parties? If so, the substance of those concerns?



Key milestones and deliverables

Oct – Nov 2024

Planning & Risk Assessment

- Planning and risk assessment procedures
- Fraud risk assessment
- Audit planning discussion:
 - October 9th, 2024

Nov – Dec 2024

Interim work

- Interim fieldwork:
 - December 2 - 13, 2024

Mar – June 2025

Final Fieldwork & Reporting

- Final fieldwork
 - March 17 – April 18, 2025
- Closing meeting with management
 - April 2025
- Presentation of financial statements to the Audit Committee
 - May 26, 2025
- Approval of financial statements by City Council
 - June 24, 2025

July 2025

Debrief

- Debrief meeting
 - July 2025



How do we deliver audit quality?

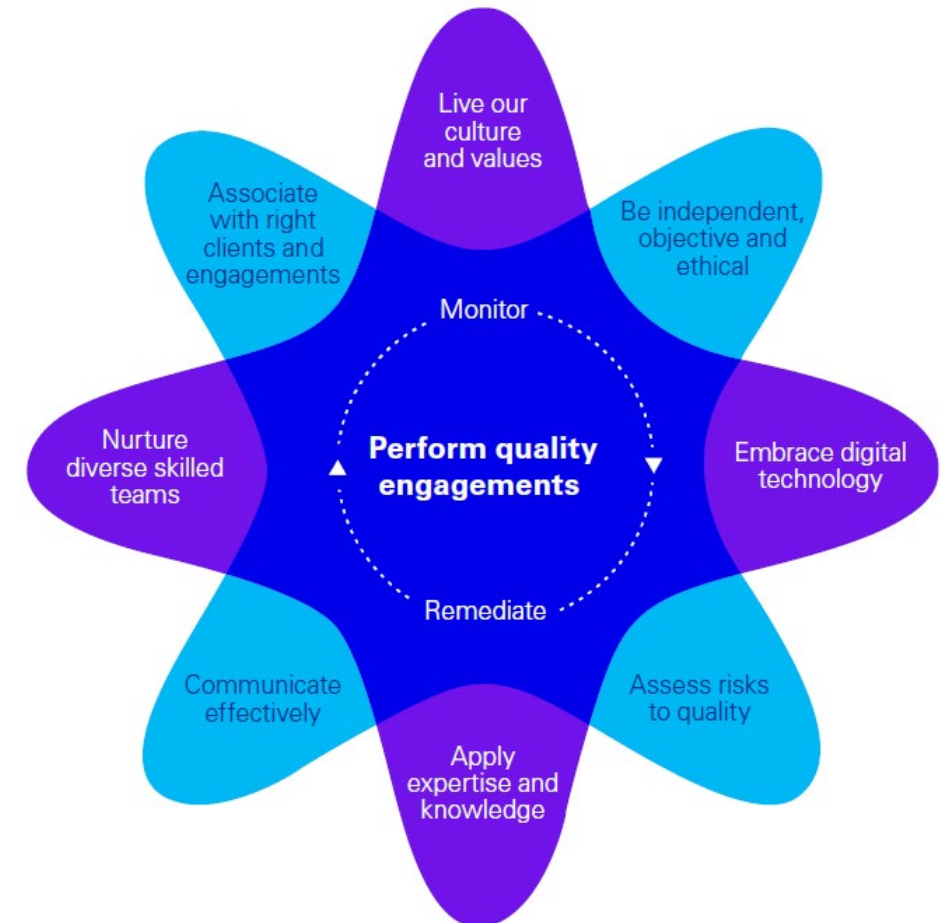
Quality essentially means doing the right thing and remains our highest priority. Our Global Quality Framework outlines how we deliver quality and how every partner and staff member contributes to its delivery.

The drivers outlined in the framework are the ten components of the KPMG System of Quality Management (SoQM). Aligned with ISQM 1/CSQM 1, our SoQM components also meet the requirements of the International Code of Ethics for Professional Accountants (including International Independence Standards) issued by the International Ethics Standards Board for Accountants (IESBA) and the relevant rules of professional conduct / code of ethics applicable to the practice of public accounting in Canada, which apply to professional services firms that perform audits of financial statements. Our Transparency Report includes our firm's Statement on the Effectiveness of our SoQM.

[▶ KPMG Canada Transparency Report](#)

We define 'audit quality' as being the outcome when:

- audits are **executed consistently**, in line with the requirements and intent of **applicable professional standards** within a strong **system of quality management**; and
- all of our related activities are undertaken in an environment of the utmost level of **objectivity, independence, ethics and integrity**.



Doing the right thing. Always.



Appendices



Regulatory communications



New accounting standards



New auditing standards



Insights



Technology



Climate risk



Municipal Government Service Offerings



Unleashing tomorrow- today with AI



Cyber Security





Appendix A: Regulatory communications



CPAB communication protocol

The reports available through the following links were published by the Canadian Public Accountability Board to inform Audit Committees and other stakeholders about the results of quality inspections conducted over the past year:

- [CPAB Audit Quality Insights Report: 2022 Annual Inspections Results](#)
- [CPAB Audit Quality Insights Report: 2023 Interim Inspections Results](#)
- [CPAB Regulatory Oversight Report: 2023 Annual Inspections Results](#)
- [CPAB Audit Quality Insights Report: 2024 Interim Inspections Results](#)



Appendix B: New accounting standards (current)

Standard	Summary and implications
Revenue	<ul style="list-style-type: none"> The new standard PS 3400 <i>Revenue</i> is effective for fiscal years beginning on or after April 1, 2023 (<i>The City's December 31, 2024 year-end</i>). The new standard establishes a single framework to categorize revenue to enhance the consistency of revenue recognition and its measurement. The standard notes that in the case of revenue arising from an exchange transaction, a public sector entity must ensure the recognition of revenue aligns with the satisfaction of related performance obligations. The standard notes that unilateral revenue arises when no performance obligations are present, and recognition occurs when there is authority to record the revenue and an event has happened that gives the public sector entity the right to the revenue.
Purchased Intangibles	<ul style="list-style-type: none"> The new Public Sector Guideline 8 <i>Purchased intangibles</i> is effective for fiscal years beginning on or after April 1, 2023 with earlier adoption permitted (<i>The City's December 31, 2024 year-end</i>). The guideline allows public sector entities to recognize intangibles purchased through an exchange transaction. The definition of an asset, the general recognition criteria and GAAP hierarchy are used to account for purchased intangibles. Narrow scope amendments were made to PS 1000 <i>Financial statement concepts</i> to remove the prohibition to recognize purchased intangibles and to PS 1201 <i>Financial statement presentation</i> to remove the requirement to disclose purchased intangibles not recognized. The guideline can be applied retroactively or prospectively.



Appendix B: New accounting standards (current continued)

Standard	Summary and implications
Public Private Partnerships	<ul style="list-style-type: none">• The new standard PS 3160 <i>Public private partnerships</i> is effective for fiscal years beginning on or after April 1, 2023 (<i>The City's December 31, 2024 year-end</i>).• The standard includes new requirements for the recognition, measurement and classification of infrastructure procured through a public private partnership.• The standard notes that recognition of infrastructure by the public sector entity would occur when it controls the purpose and use of the infrastructure, when it controls access and the price, if any, charged for use, and it controls any significant interest accumulated in the infrastructure when the public private partnership ends.• The public sector entity recognizes a liability when it needs to pay cash or non-cash consideration to the private sector partner for the infrastructure.• The infrastructure would be valued at cost, which represents fair value at the date of recognition with a liability of the same amount if one exists. Cost would be measured in reference to the public private partnership process and agreement, or by discounting the expected cash flows by a discount rate that reflects the time value of money and risks specific to the project.• The standard can be applied retroactively or prospectively.



Appendix B: Changes in accounting standards – Future

Standard	Summary and implications
Employee Benefits	<ul style="list-style-type: none"> The Public Sector Accounting Board has initiated a review of sections PS 3250 Retirement benefits and PS 3255 Post-employment benefits, compensated absences and termination benefits. It will apply to fiscal years beginning on or after April 1, 2026. Early adoption will be permitted and guidance applied retroactively. The intention is to use principles from International Public Sector Accounting Standard 39 Employee benefits as a starting point to develop the Canadian standard. Given the complexity of issues involved and potential implications of any changes that may arise from the review of the existing guidance, the new standards will be implemented in a multi-release strategy. The first standard will provide foundational guidance. Subsequent standards will provide additional guidance on current and emerging issues. The proposed section PS 3251 Employee benefits will replace the current sections PS 3250 Retirement benefits and PS 3255 Post-employment benefits, compensated absences and termination benefits. This proposed section would result in public sector entities recognizing the impact of revaluations of the net defined benefit liability (asset) immediately on the statement of financial position. Organizations would also assess the funding status of their post-employment benefit plans to determine the appropriate rate for discounting post-employment benefit obligations. The Public Sector Accounting Board is in the process of evaluating comments received from stakeholders on the exposure draft.
Concepts Underlying Financial Performance	<ul style="list-style-type: none"> The revised conceptual framework is effective for fiscal years beginning on or after April 1, 2026 with earlier adoption permitted. The framework provides the core concepts and objectives underlying Canadian public sector accounting standards. The ten chapter conceptual framework defines and elaborates on the characteristics of public sector entities and their financial reporting objectives. Additional information is provided about financial statement objectives, qualitative characteristics and elements. General recognition and measurement criteria, and presentation concepts are introduced.




Appendix B: Changes in accounting standards - Future (continued)

Standard	Summary and implications
Financial Statement Presentation	<ul style="list-style-type: none"> • The proposed section PS 1202 Financial statement presentation will replace the current section PS 1201 Financial statement presentation. PS 1202 Financial statement presentation will apply to fiscal years beginning on or after April 1, 2026 to coincide with the adoption of the revised conceptual framework. Early adoption will be permitted. • The proposed section includes the following: <ul style="list-style-type: none"> • Relocation of the net debt indicator to its own statement called the statement of net financial assets/liabilities, with the calculation of net debt refined to ensure its original meaning is retained. • Separating liabilities into financial liabilities and non-financial liabilities. • Restructuring the statement of financial position to present total assets followed by total liabilities. • Changes to common terminology used in the financial statements, including re-naming accumulated surplus (deficit) to net assets (liabilities). • Removal of the statement of remeasurement gains (losses) with the information instead included on a new statement called the statement of changes in net assets (liabilities). This new statement would present the changes in each component of net assets (liabilities), including a new component called “accumulated other”. • A new provision whereby an entity can use an amended budget in certain circumstances. • Inclusion of disclosures related to risks and uncertainties that could affect the entity’s financial position. • The Public Sector Accounting Board is currently deliberating on feedback received on exposure drafts related to the reporting model.
Government not-for-profit strategy	<ul style="list-style-type: none"> • The Public Sector Accounting Board has approved its government not-for-profit (“GNFP”) strategy implementation plan. All proposed changes to the PS 4200 series, PSAS, and potential customizations will be subject to due process before PSAB finalizes any changes to the PS Handbook. There is no tentative date for the change. • The approved strategy option is to incorporate the PS 4200 series of standards with potential customizations into public sector accounting standards. This means reviewing the existing PS 4200 series of standards to determine if they should be retained and added to public sector accounting standards. Incorporating the updated or amended PS 4200 series standards in public sector accounting standards would make the guidance available to any public sector entity. Accounting and/or reporting customizations may be permitted if there are substantive and distinct accountabilities that warrant modification from public sector accounting standards.



Appendix C: Newly effective and upcoming changes to auditing standards

For more information on newly effective and upcoming changes to auditing standards - see Current Developments 

Effective for periods beginning on or after December 15, 2023

ISA 600/CAS 600

 Revised special considerations – Audits of group financial statements

Effective for periods beginning on or after December 15, 2024

ISA 260/CAS 260

 Communications with those charged with governance

ISA 700/CAS 700

 Forming an opinion and reporting on the financial statements



Appendix D: Audit and assurance insights

Our latest thinking on the issues that matter most to Audit Committees, board of directors and management.

KPMG Audit & Assurance Insights

Curated research and insights for audit committees and boards.

Board Leadership Centre

Leading insights to help board members maximize boardroom opportunities

Current Developments

Series of quarterly publications for Canadian businesses including Spotlight on IFRS, Canadian Assurance & Related Services, Canadian Securities Matters, and US Outlook reports.

Audit Committee Guide – Canadian Edition

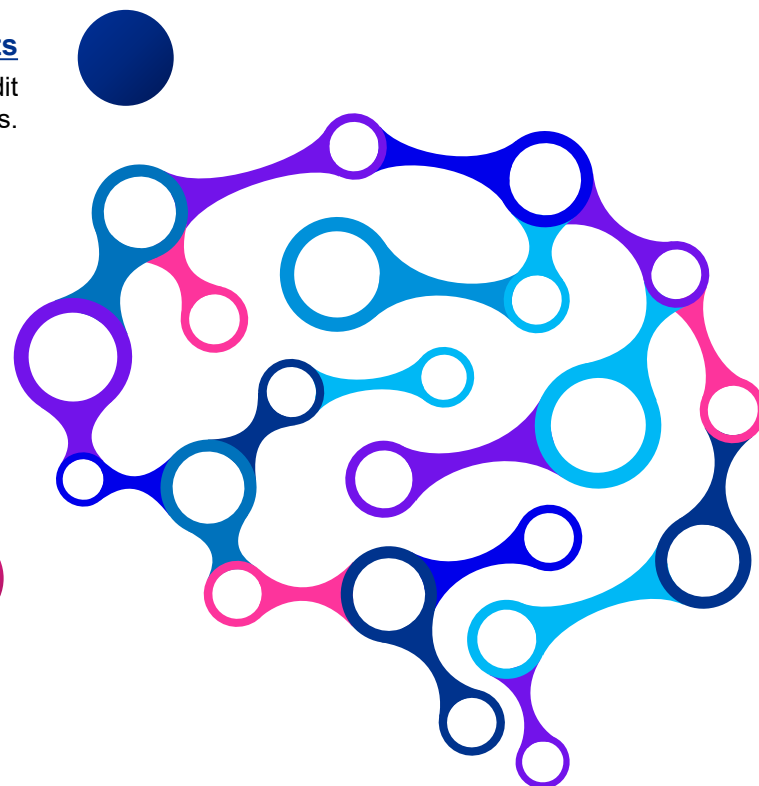
A practical guide providing insight into current challenges and leading practices shaping audit committee effectiveness in Canada.

Sustainability Reporting

Resource centre on implementing the new Canadian reporting standards

IFRS Breaking News

A monthly Canadian newsletter that provides the latest insights on accounting, financial reporting and sustainability reporting.





Appendix E: Our technology story



Streamlined client experience

And deeper insights into your business, translating to a better audit experience.



Secure

A secure client portal provides centralized, efficient coordination with your audit team.



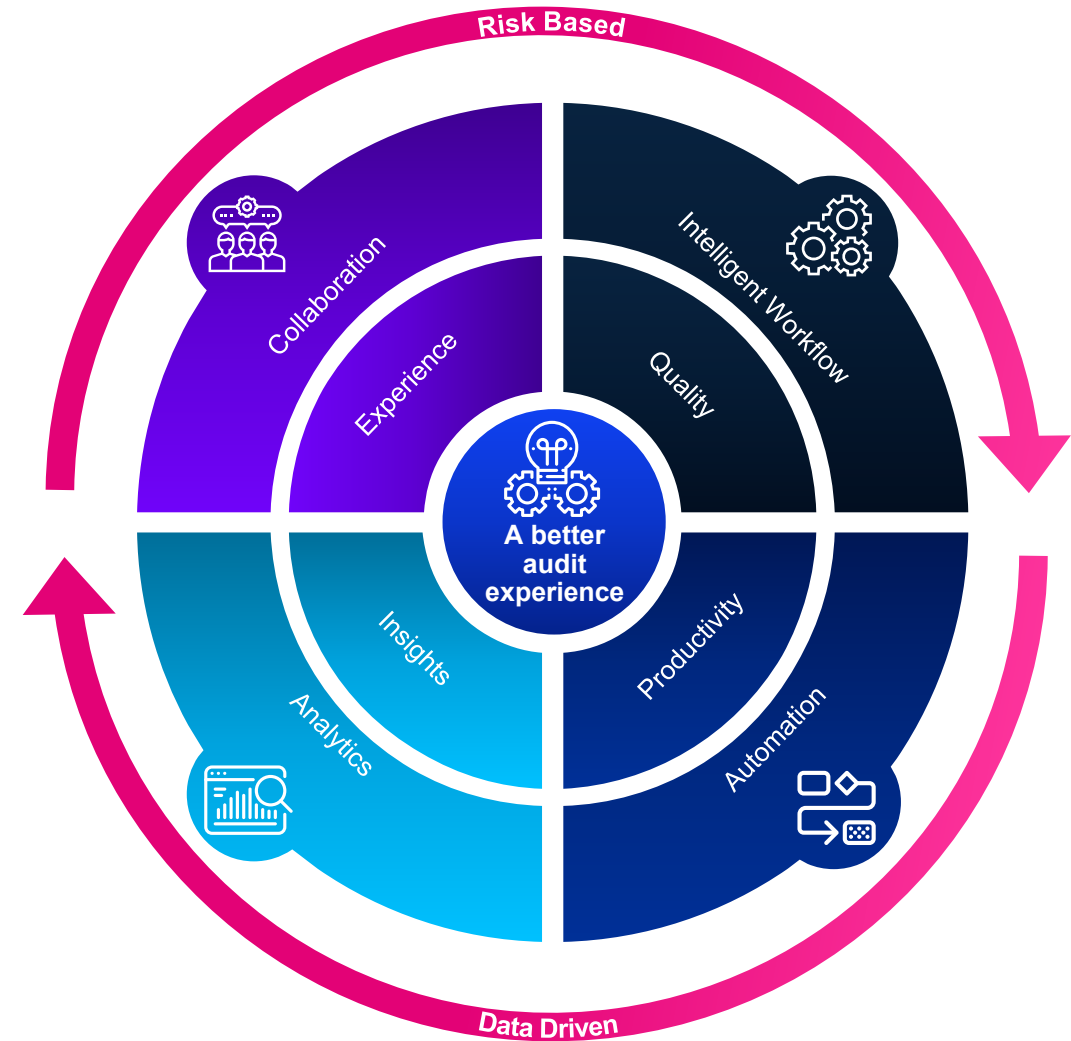
Intelligent workflow

An intelligent workflow guides audit teams through the audit.



Increased precision

Advanced data analytics and automation facilitate a risk-based audit approach, increasing precision and reducing your burden.





Appendix F: Climate risk in the financial statements

All entities are facing climate-related risks and opportunities – and are making strategic decisions in response. The impacts of climate-related risks in the financial statements are broad, potentially complex and will depend on industry-specific risks.

How might climate-related risks impact the financial statements?

01

Assets

Consider the useful lives and residual values of PP&E and intangible assets, cash flow projections used for impairment testing of non-financial assets, and the potential impacts on inventories.

02

Liabilities

Consider the recognition of environmental and decommissioning obligations, accounting for emissions or 'green' schemes, impact on employee-benefit arrangements, and restructuring provisions.

03

Borrowers

Consider the accounting for different forms of government assistance, potential for embedded derivatives in green bonds, lease of green technology, impacts of leasing polluting assets.

04

Lenders

Consider how climate-related risks impact operating and financing leases, the potential impact on expected credit losses, and whether green loans meet the solely payments of principal and interest (SPPI) criterion.

05

Disclosures

Consider the impact on the going concern assessment and related disclosures and whether the impacts of climate-related matters have been disclosed clearly.

See here for more information





Appendix F: Climate risk in the financial statements (Continued)

All entities are facing climate-related risks and opportunities – and are making strategic decisions in response. The impacts of climate-related risks in the financial statements are broad, potentially complex and will depend on industry-specific risks.

How might climate-related risks impact the financial statements?

01

Long-lived assets

02

Leases

03

Impairment of nonfinancial assets

04

Financial instruments

05

Contingencies and insurance

06

Revenue and inventories

07

Compensation and benefits

08

Income taxes

09

Acquisitions and restructuring

10

Fair value measurement and projections

11

Presentation and disclosure

[See here for more information](#)



Appendix F: Greenwashing and Bill C-59: Key Facts & Considerations

Key Facts



Competition Act

Bill C-59 came into force on June 20, 2024.



Penalties

Penalties can range up to three times the value of the benefit derived from the claim, or 3% of the company's global annual gross revenue, whichever is greater.

Scope

Bill C-59 includes prohibitions relating to:

1. **Environmental claims re: products or services** *E.g. Low carbon fuels*
2. **Social claims re: products or services** *E.g. Indigenous Reconciliation; diversity, equity and inclusion (DEI); responsible supply chain / modern slavery*
3. **Environmental claims relating to a company** *E.g. Net-zero or Carbon-Neutral*
4. **Burden of proof on companies:**
 - Environmental / Social product or service claims: "adequate and proper test"
 - Company / Brand claims: in accordance with an "internationally recognized methodology"

Key Considerations

Assess your ability to substantiate environmental or social claims about your products, services and business by considering:

- What claims do we make that are specific to the company, brand or its products and services?
- What *methodologies* do we use to calculate emissions or other environmental and social effects?
- Is our net-zero plan realistic, operationally feasible, and can it be validated or proven?
- Have we allocated appropriate resources and personnel to our ESG initiatives?



Appendix F: Bill C-59: Key Facts & Considerations

Assess

- Identify and review ESG communications (ESG report, website, social media, press releases etc.)
- Assess ESG communications (product, service and company claims) against legal requirements
- Develop recommendations and action plans to mitigate ESG legal risk

Substantiate

- Analyze the feasibility of ESG targets and initiatives from technical, financial, commercial and regulatory perspectives
- Develop comprehensive plans to ensure effective implementation of ESG initiatives
- Establish metrics and manage ESG data to track performance and potential risks

Implement

- Prepare for new and emerging risks and requirements
- Enhance ESG reporting governance, processes and controls
- Incorporate ESG legal risk considerations into enterprise risk management program

In case you missed our recent webinar on this topic:

- Webinar [recording](#) and [slides](#)



Appendix F: Frequently Asked Questions

When is Bill C-59 in force?

The section specific to greenwashing (s. 236 of Bill C-59 and Subsection 74.01(1) of the Competition Act) came into force upon receiving Royal Assent on June 20, 2024. There is a one-year grace period against private rights of action with respect to s. 74.01(1). Although the Bureau has the authority to take enforcement action sooner, according to witness testimony, it is unlikely to do so prior to issuing guidelines following consultation. Some suggest this may occur in January 2026.

Can the Bureau investigate complaints retroactively (claims made before the Amendment comes into force)?

Not easily. There is a safeguard in the proposed bill, called the public interest 'leave test' (103.1 of the Act). The Tribunal will have to decide whether the case has merit (is in the public's interest) and requires investigation retroactively.

What does “adequate and proper test” and “internationally recognized methodologies” mean?

This is yet to be determined, and it is not defined in the Bill or the Act. This is something the Bureau has committed to define following consultation and further research. Importantly, the Senate Committee believes that the analysis should also include federal and other Canadian best practices, such as those set by Environment and Climate Change Canada.

What corporate documents and communications does this affect?

The Act applies to performance claims about a service, product or business interest including “any form of statement, warranty or guarantee of a product's performance, efficacy or length of life.” which make take the form of “messages, pictures, or verbal communications, including online and in-store advertisements, social media messages, promotional emails”. The Act does not apply in the case of collective bargaining, amateur sports, securities underwriting, or activities subject to other federal or provincial legislation. The Canadian Securities Administrators may provide guidance and national instruments related to greenwashing in securities disclosures.



Appendix G: Municipal Government Service Offerings

Overview

KPMG's Governance, Risk and Compliance services team has vast experience working with clients across the municipal government sector, assessing organizations risk management, internal control and governance processes and providing value adding insight across our municipal government clients. KPMG has a successful track record and are the leading service provider of municipal government services across a variety of audit areas including operations, finance, service delivery reviews, cyber security and HR. KPMG also provides full outsourced and co-sourced audit services to a number of municipalities, helping clients to identify more efficient and effective ways of delivering their services and streamlining costs. Below we have provided further details of our service offerings to municipalities.

Experience

KPMG brings a wealth of practical experience delivering services to municipal government clients. We have listed some example audited areas below.

• Absence Management	• Cyber Security	• Insurance	• Real Estate
• Accounts Payable	• Enforcement	• IT Governance	• Reserves
• Accounts Receivable and Cash Handling	• Facility Management	• Overtime	• Recruitment and Retention
• Asset Management	• Fleet Inventory	• Parks and Recreation	• Remuneration
• By-Law Compliance	• Fleet Management	• Physical Security	• Snow Clearing
• Councillor Budgets	• Health and Safety	• Procurement	• Support Functions

Client list

We are the leading municipal government advisor in Ontario in relation to internal audit, compliance, service delivery and process reviews. We have shown below a summary of the municipalities we have provided services to.





Appendix G: Municipal Government Service Offerings (Continued)

Review areas

Below we have shown an examples of the types of reviews we have conducted through our work with Ontario Municipalities

Internal Audit reviews

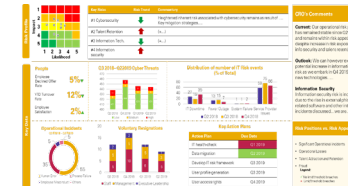
- Review of the design and operation of key business controls
- Identifying recommendations to improve and optimize the control environment
- Using data analytics and visualization to test large data sets
- Examples include AP, cash handling and Fleet Inventory

Service delivery/process reviews

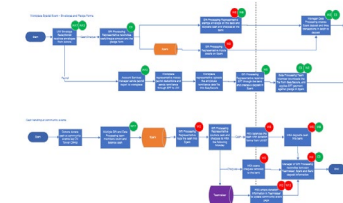
- Review of the operational efficiency and effectiveness of a service area
- Using lean methodologies to identify more efficient and effective ways of delivering services.
- Creation of process maps and identification of opportunities to streamline processes and create cost savings
- Examples include Snow Clearing, Parks & Recreation and Security

Specialist reviews

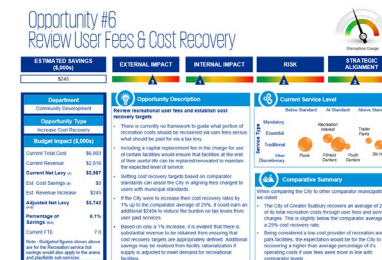
- Using specialist KPMG resources to provide assurance and recommendations across specialist service areas
- Using best practice methodologies and frameworks to provide value adding insights and recommendations
- Examples include, Cyber Security, IT Risk Assessments, Facilities and Real Estate



Control Testing Analysis



Process Flow Charts



Opportunity Scorecard





Appendix H: Unleashing tomorrow - today with AI

Turn AI into a cornerstone of sustainable, competitive growth.

A comprehensive business strategy can seamlessly intertwine technology with your business's goals, transform AI from a concept into a key driver of your objectives, strategy and ROI.

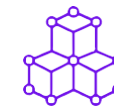
It's not just about tech; it's about people, striving to ensure smooth transitions and unlocking human potential alongside AI innovations.

This holistic approach can extend to governance, supply chain, data analytics, implementation and more, solidifying your operations against future challenges.



Assessing opportunities

Seek to understand how AI can impact or disrupt your business and what the existing opportunities are.



Scaling AI initiatives

Scaling up existing AI projects, aligned to the overall business strategy to help ensure success.

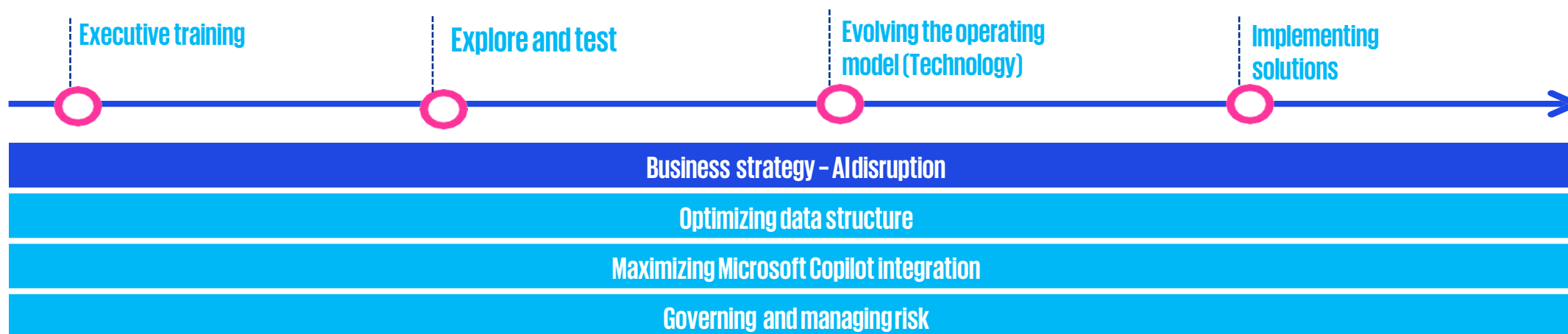


Competitive edge

Staying competitive in a rapidly evolving market where AI is disrupting business operations is key.

Brighter business intelligence, powered by AI

Your company's strategy and business intelligence are at the heart of your business decisions. It should be intimately linked to your artificial intelligence (AI) strategy, efforts, and goals.





Appendix H: Unleashing tomorrow - today with AI (Continued)

4 key phases of a successful AI strategy



Understand

Hyper Diagnostic

Demonstrate the "art of the possible" and the current AI landscape, explore diverse use cases, and assess peer adoption.

AI readiness assessment

Deploy AI readiness assessment to ensure the company is prepared from a tech, data, governance and people perspective.

Perspective on AI strategy

Assess AI's disruptive potential across core and support functions, demonstrate its impact on operations and costs, and establish an initial AI strategy aligned with company priorities.



Design

Risk Assessment

Discuss the potential risks and opportunities associated with the key scenarios.

Opportunity assessment

Pinpoint quick wins, evaluating their potential benefits, and conduct a high-level feasibility assessment.

Present available subsidy and grant options for relevant AI projects.



Initiate

Stakeholder involvement

Provide recommendations for engaging internal stakeholders and collect insights on AI adoption throughout the company's value chain.

Financial implications and opportunity validation Quantify the impact of various AI scenarios, calculating ROI. Identify and engage necessary people, processes, and technologies for execution.

Strategic roadmap

Create a concise strategic plan, encompassing vision, values, competitive advantage, key initiatives, and a roadmap with resource allocation and KPIs.



Operationalize

Transform technology services with generative AI

Assessment of current IT capabilities and the foundations necessary for the implementation of the selected generative AI solutions

Define the IT delivery model for solutions.

Enterprise architecture adapted to AI

Support for the integration of Gen AI into the enterprise architecture and into the organization's roadmap.

Define a Target Operating Model

Orchestrate business capabilities

Orchestration of all business practices and underlying IT capabilities necessary for operationalization.



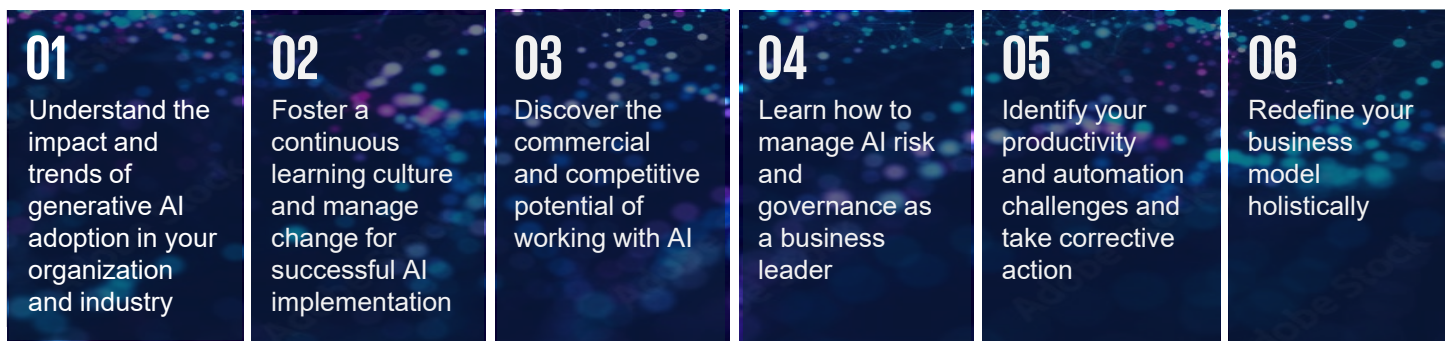
Appendix H: AI Education and Training for executives & boards

Embrace the future with AI, the driving force of the new economy, set to help transform your business model. This transformative power can drive your organization's position in the market. Consider the impending changes and strategize for the years ahead, helping to ensure a seamless and secure integration of this groundbreaking technology.

60%

of organizations plan to adopt generative AI within 6 to 12 months*.

Change starts with you



A first step in the adoption of AI in your business

Implementing generative AI starts with your business priorities, supported by executive and board engagement to drive a transformation aligned with your corporate ambitions.

Executive and board training

- Presentation to various executive committees
- Presentation to the Board of Directors
- Role and responsibilities around AI as a board member and executive
- Workshop on concrete business potential
- AI strategic plan

AI strategy and value

Use case development

Implement AI solutions



Governing and managing risk (Trusted AI)

Workforce transformation and adoption

AI Data & Cloud infrastructure

*KPMG survey of 300 executives on generative AI, March 2023



Appendix H: AI Education and Training for executives and boards (Continued)

A three-part training program Discover real-life uses of generative AI, tailored to your business sector



Updated overview of this fast-paced technology

- Learn what is new in the world of AI
- Explore industry-specific use cases that could benefit your organization
- Manage AI risk and governance adequately



Technology demonstrations

- See the impact of generative AI on the future of your organization through concrete, contextualized demonstrations
- Assess the potential benefits for your organization



Brainstorming workshops

- Identify organizational priorities for AI adoption and how to prepare your teams for change upstream
- Educate and empower key stakeholders to drive AI strategy and the governance framework at the executive level

KPMG, a leader in generative AI

200+

Professionals dedicated to generative AI recognized for their technical skills and innovative strategic vision.

800+

Tailor-made use cases for all business sectors.

50+

Board and executive education and training sessions delivered in the last year. Our team understands the challenges you face as an executive or board member and can help you build confidence and accelerate the value AI can bring to your business.



Appendix I: Cyber Security

Hamilton cyberattack shows municipalities need to shore up digital defences: expert

TORONTO – A recent ransomware attack that knocked out several online services in one of Ontario's largest cities has brought into sharp focus the need for municipalities to have a plan to respond to what's become an unavoidable – and increasingly sophisticated – threat, a top cybersecurity expert said.

By Paola Loriggio The Canadian Press

Monday, March 11, 2024 | 3 min to read

Article was updated Mar 11, 2024

NORTHERN ONTARIO | News

'It's really a coin flip': Experts weigh in on if Sudbury will recover \$1.5M lost to fraud

Cyberattack cost local town \$1.3M, including \$290k in Bitcoin ransom

A cyberattack on the Town of St. Marys that encrypted municipal systems and stole sensitive data cost the local government roughly \$1.3 million, including a \$290,000 Bitcoin ransom payment made to the hackers, officials have revealed.

Galen Simmons · Stratford Beacon Herald

Published Apr 13, 2023 · Last updated Apr

Nova Scotia

Personal information 'likely stolen' in Kings County cyberattack

Councillors, staff and others impacted by July incident

Haley Ryan · CBC News · Posted: Aug 14, 2023 4:38 PM EDT | Last Updated: August 14, 2023

Hamilton cybersecurity breach continues to paralyze city services

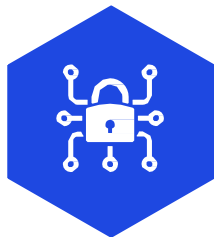
Public, councillors left in the dark as to nature of incident that has hampered communications, transit and payment processing

Canadian city says timeline for recovery from ransomware attack 'unknown'

The city of Hamilton, Canada, is still recovering from a ransomware attack that has affected nearly every facet of government functions.



Appendix I: How can a cyber attack impact you?



Organizational Disruption

Technology is a main enablement tool used in our cities, many core services rely on technology to deliver services.

When access to technology is disrupted it can have severe impacts to public services, emergency services, infrastructure and sensitive information.



Associated Costs

Cyber incidents have a variety of costs associated with recovery, which include:

- Ransom Payments
- System Restoration
- Security Upgrades
- Legal & Professional Services
- Follow-on Monitoring
- Loss of Revenue
- Financial Fraud/Theft

These costs start to balloon quickly and can have long lasting effects.



Reputational Damage & Residents Impact

A cyber incident can cause significant reputational damage to a city, leading to a loss of trust among residents and potential investors, which can indirectly impact the city's financial health. For residents, the breach of their personal information can lead to a loss of confidence in the city's ability to protect their data, potentially resulting in decreased use of city services that require personal information.



Appendix I: What is a cyber resilient

Preparation

This involves understanding your organization's risk profile, identifying business critical assets, and developing a comprehensive cybersecurity strategy. It includes training employees on cybersecurity best practices and implementing robust security measures where possible.

Protection

This entails implementing measures to prevent cyber attacks. It includes maintaining up-to-date security software, regularly patching vulnerabilities, and controlling access to sensitive information. Protecting your organization requires cybersecurity to be a part of all business conversations.

Detection

This includes continuously monitoring systems and networks for signs of a cyber attack. It calls for the use of security tools, conducting regular security audits and making consistent updates to improve detection capabilities.

Response & Recovery

This consists of having a plan in place to respond to a cyber attack and recover from it. It is made up of incident response plans, disaster recovery plans, and business continuity plans. These plans should be regularly tested and improved upon.

What is a cyber resilient municipality?

01

Risk Prioritization

To be a cyber resilient municipality, you must be able to prioritize your resources to address the risks that threaten you. To prioritize risks, you must understand all the risks currently facing your organization.

02

Implement the Basics

Implementing basic cyber security practices like training, maintaining security software, regularly patching and multifactor authentication can be cost effective ways to dramatically improve cybersecurity resilience.

03

Defence in Depth

This is a crucial strategy for municipalities as it reduces the risk of a single point of failure, enhances efficiency in threat detection and response, increase resilience to attacks, and provide protection against advanced cyber threats.



Appendix I: Steps to building cyber resilience

The following principles serve as the bedrock for establishing a continuous lifecycle that fosters cyber resilience. These principles provide a consistent framework of actions to progressively build and enhance cyber resilience.

1 – Understand Current State

To build a robust cyber resilience framework, it is imperative to start with a comprehensive understanding of your current cybersecurity status. This includes an evaluation of the protective measures already implemented, identification of critical assets, understanding the policies and procedures that regulate your operations, and an assessment of system vulnerabilities. By gaining these insights, you can make risk informed decisions that protect your organization and efficiently allocate the resources available.

4 – Increase Resilience

Increasing resilience and developing business continuity is an important part of building cyber resilience. It ensures uninterrupted business operations even in the face of cyber threats and allows organizations to quickly recover from cyber incidents, minimizing downtime and associated costs. Furthermore, a robust business continuity plan demonstrates an organization's commitment to security, which can enhance its reputation among stakeholders.



2 – Test your Technology

Testing technology is crucial for building cyber resilience as it helps identify potential vulnerabilities and weaknesses in the system that could be exploited by cyber threats. It also allows organizations to evaluate the effectiveness of their current security measures and protocols. By testing your technology, you can deepen the understanding of risks your organization faces and perform ongoing risk management. These tests allow for an unbiased look at your infrastructure and contribute to a proactive prevention of unauthorized users.

3 – Validate Response

Validating response efforts is a crucial part of building cyber resilience as it ensures that the organization's incident response plan is effective and efficient. It allows for the identification of any gaps or weaknesses in the response strategy, enabling improvements to be made. Furthermore, it provides an opportunity for staff to practice and refine their skills in a controlled environment, enhancing their readiness for real cyber incidents.



Appendix J: Expanding the use of audit technology



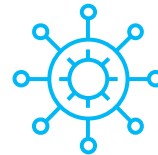
Analytics

- AI Transaction Scoring
- Audit Routine Catalogue
- Data Visualization
- Group Scoping Tool
- Matching Routines
- Process Mining Analytics
- KPMG Forecast Analytics Suite



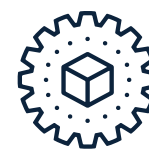
Automation

- Automated Industry Routines
- Confirmation
- Data Extraction Scripts
- DataShare
- DataSnipper
- Inventory Counter App
- iRadar and iNav
- Offset Remover



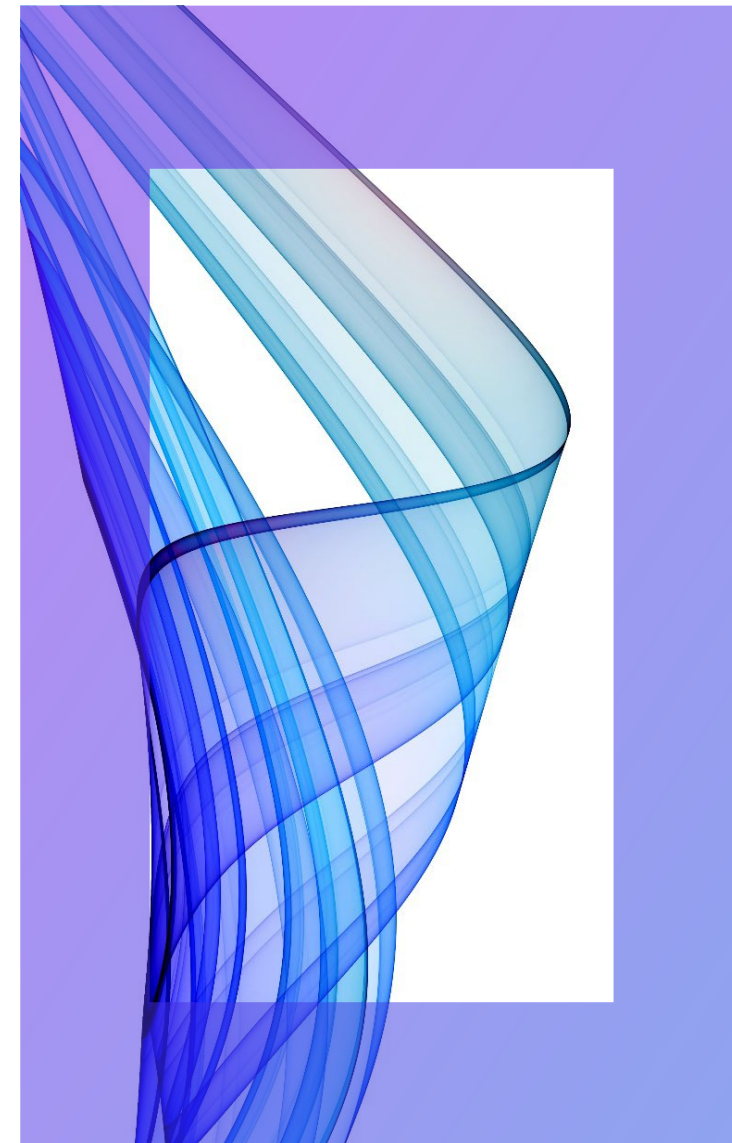
Collaboration

- DocuSign™
- KPMG Clara for Clients



Workflow

- KPMG Clara Workflow
- Account Analysis
- Journal Entry Analysis
- Planning Analytics





Appendix K: Continuous evolution

Our investment: \$5B

We are in the midst of a five-year investment to develop our people, digital capabilities, and advanced technology.

Responsive delivery model

Tailored to you to drive impactful outcomes around the quality and effectiveness of our audits.

Result: A better experience

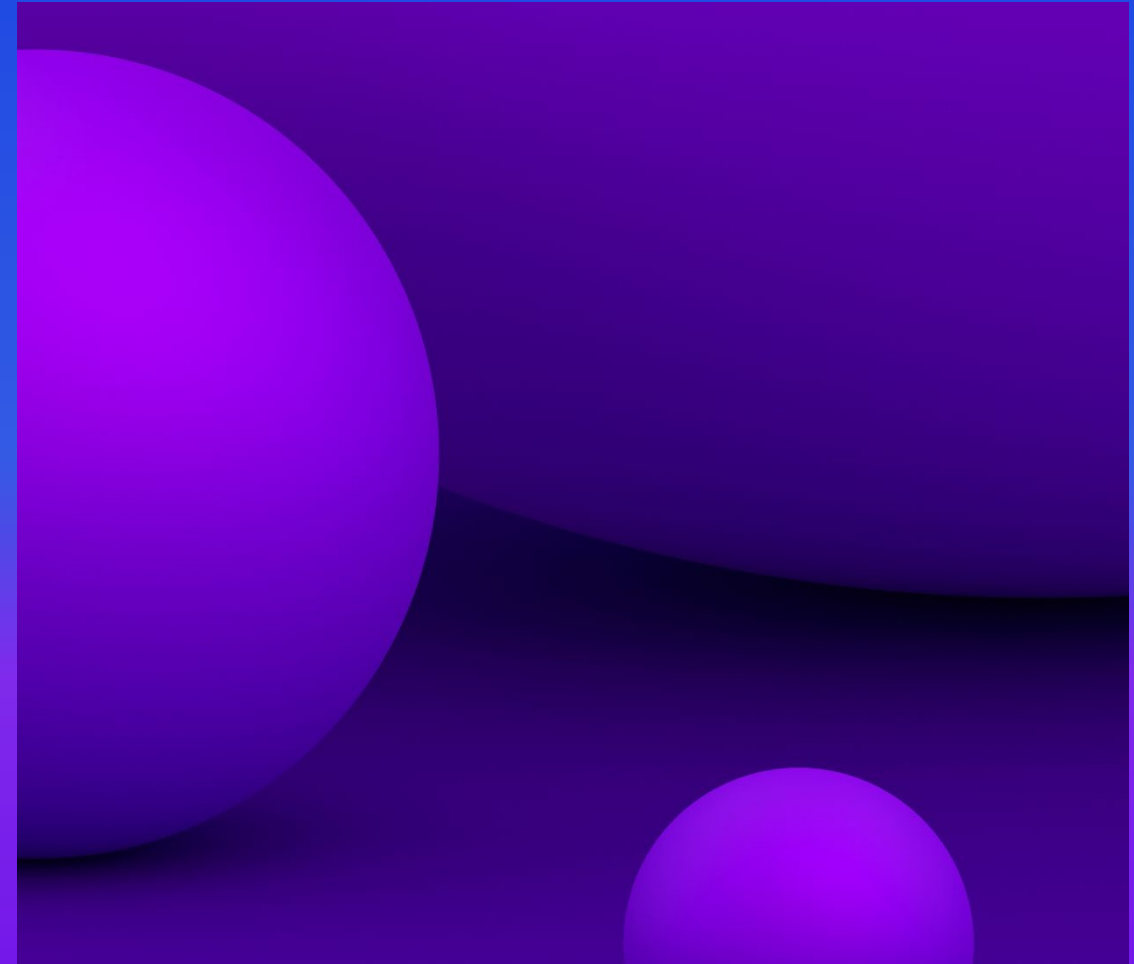
Enhanced quality, reduced disruption, increased focus on areas of higher risk, and deeper insights into your business.





[kpmg.ca](https://www.kpmg.ca)

© 2024 KPMG LLP, an Ontario limited liability partnership and a member firm of the KPMG global organization of independent member firms affiliated with KPMG International Limited, a private English company limited by guarantee. All rights reserved. The KPMG name and logo are trademarks used under license by the independent member firms of the KPMG global organization.



Audit Committee Report

DATE: Monday, November 25, 2024

WARD(S): ALL

TITLE: INFORMATION TECHNOLOGY (IT) ASSET MANAGEMENT AND CONTRACTS AUDIT

FROM:

Kevin Shapiro, Director of Internal Audit

ACTION: FOR INFORMATION

Purpose

To communicate the findings from the Information Technology (IT) Asset Management and Contracts Audit.

Report Highlights

- The IT Asset & Contract (ITAC) team within the Office of the Chief Information Officer (OCIO) is responsible for IT Asset Management (ITAM) at the City.
- ITAM is the continuous process of maintaining an updated inventory of IT assets, both tangible and intangible.
- A robust ITAM process ensures assets are being deployed, maintained, and disposed of in a timely and cost-effective manner.
- Although the department has taken steps to mature the ITAM process, improvements are required to efficiently and effectively mitigate risks associated with ITAM activities.
- 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.
- This audit was conducted in conformance with the *International Standards for the Professional Practice of Internal Auditing*.

Recommendations

1. That the Internal Audit Report on Information Technology (IT) Asset Management and Contracts be received.

Background

The objective of the audit was to evaluate the adequacy and effectiveness of the internal controls, processes and procedures in place related to IT Asset Management (ITAM) and Contracts, and that they are adequately designed and operating as intended to mitigate business risks.

The audit approach included assessing that policies and procedures exist, are regularly reviewed, updated and applied consistently; governance, management, control and oversight of IT assets exist; asset contracts are appropriate to satisfy the needs of the City; appropriate processes for the budgeting, acquisition, usage, maintenance, decommissioning and disposal of IT assets exists; and IT assets are adequately safeguarded.

The scope of the audit covered the period of September 2023 to September 2024.

This audit was conducted in conformance with the *International Standards for the Professional Practice of Internal Auditing*.

Previous Reports/Authority

Not applicable.

Analysis and Options

Asset management involves analyzing and tracking the lifecycle of an asset to maximize its value. At a high level, the process begins with acquiring the asset, using the asset, supporting and maintaining the asset, then disposing the asset at the conclusion of its useful life. Asset management programs help ensure informed decisions can be made as to when to retire and/or replace an asset.

The City continues to experience substantial growth in new technology projects and increased utilization of existing and new technology. There has also been a continued increase in licensing through vendor service agreements.

The City operates many types of IT assets, including hardware, software, and business applications, to support service delivery. It is vital that the City tracks its IT asset inventory and maximizes the usefulness of its IT assets to ensure their continued reliability and availability. If IT asset lifecycles are not managed efficiently and effectively, there is a greater risk of these assets becoming outdated, not meeting the needs of the City, and potentially increasing IT security risks.

Financial Impact

There are no direct economic impacts associated with this report.

Broader Regional Impacts/Considerations

Not applicable.

Conclusion

Although the department has taken steps to mature the ITAM process, improvements are required to efficiently and effectively mitigate risks associated with ITAM activities. The following opportunities were identified:

- Continue to mature the ITAM program and governance process.
- Track IT asset inventory in a centralized repository and regularly monitor ongoing asset usage.
- Incorporate enhanced status tracking of assets during the decommissioning and disposal lifecycle phase.
- Capture all IT asset contracts in the contract tracking dashboard.

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

Attachments

1. Internal Audit Report – Information Technology (IT) Asset Management and Contracts.
2. Presentation Materials.

Prepared by

Kevin Shapiro, Director of Internal Audit, ext. 8293.



INTERNAL AUDIT REPORT

Information Technology (IT) Asset Management and Contracts Audit

November 2024

INTERNAL AUDIT REPORT

INFORMATION TECHNOLOGY (IT) ASSET MANAGEMENT AND CONTRACTS AUDIT

CONCLUSION AND SUMMARY

The IT Asset & Contract (ITAC) team within the Office of the Chief Information Officer (OCIO) is responsible for IT Asset Management (ITAM) at the City. ITAM is the continuous process of maintaining an updated inventory of IT assets, both tangible and intangible. It incorporates a set of policies and procedures to assist the organization in managing IT assets throughout their lifecycle. A robust ITAM process ensures assets are being deployed, maintained, and disposed of in a timely and cost-effective manner. It also assists organizations in quantifying and mitigating operational, financial, legal and reputational risks associated with IT assets, to maximize value to the City.

Although the department has taken steps to mature the ITAM process, improvements are required to efficiently and effectively mitigate risks associated with ITAM activities. The following opportunities were identified:

- Continue to mature the ITAM program and governance process.
- Track IT asset inventory in a centralized repository and regularly monitor ongoing asset usage.
- Incorporate enhanced status tracking of assets during the decommissioning and disposal lifecycle phase.
- Capture all IT asset contracts in the contract tracking dashboard.

IT governance provides a structure for aligning IT strategy with business strategy. It provides a framework for best practices and controls. Although an ITAM Framework, Lifecycle model and Charter have been developed as part of establishing the ITAM Program, an overarching ITAM Strategy has not been developed. An ITAM Strategy establishes ITAM goals and priorities, and provides direction for the effective management of the Program. In addition, the Enterprise Governance of IT Committee (“Committee”) has not reviewed and approved the foundational ITAM Program documents. Although the Committee was established after the implementation of the ITAM Program, it is crucial that governance stakeholders review and approve those foundational documents, to facilitate the effective management of the Program.

Tracking IT assets in a centralized inventory repository enables asset usage and safeguard monitoring - mitigating the risk of loss, underutilization of assets, theft and misappropriation of assets. As part of the audit, it was noted that IT asset end-user devices are tracked using multiple asset repositories, with some devices, such as desktops, notebooks, Windows tablets and pod printers being tracked using two asset repositories. Managing multiple inventory trackers is not optimal; a fit-for-purpose IT end-user inventory tracking system that captures all inventory classes and data in a single system will reduce administrative efforts, achieve greater data centralization, and enable identification of opportunities to incorporate automation in the management of end-user assets, throughout an assets’ lifecycle. Although device usage reports are generated for mobile devices and PC’s, a regular recurring process to identify, follow-up and investigate the reason for low device usage is not currently performed. Unused/inactive devices introduce financial and security risks for the City. Establishing a regular follow-up process for devices

INTERNAL AUDIT REPORT

INFORMATION TECHNOLOGY (IT) ASSET MANAGEMENT AND CONTRACTS AUDIT

identified as being underutilized will facilitate re-purposing or retiring devices that no longer have a defined usage, aids in identifying and locating devices that may have been misplaced and ensures low/no usage devices are periodically connected to the network to receive security patches and updates.

The decommissioning of computers follows the PC Replacement Program, in which a structured approach to reclaiming, sanitizing and disposing for resale of old computers follows a four-year replacement cycle. Although a process exists to decommission and dispose of IT assets, improved asset status tracking throughout the decommissioning and disposal process would increase visibility and reduce the risk of decommissioned assets being inadvertently omitted from the competitive bid process. Verifying and documenting that all decommissioned assets have been added to the bid disposal listing ensures all assets subject to bid disposal are sold, recouping value to the City.

Maintaining a central repository of IT asset contracts facilitates the appropriate supervision, tracking, and oversight of contracts. OCIO maintains a contract tracking dashboard, which captures active and inactive contracts, pertinent contract documentation, contract review year, and bid issue and contract expiry date. Although the dashboard exists, OCIO confirmed that not all IT asset contracts have been captured. OCIO developed the dashboard in 2020 and has since been updating it with the intention to capture all contracts. Ensuring that a comprehensive database of all IT asset contracts is maintained, updated and regularly reviewed supports appropriate planning and decision making for future IT asset expenditures.

This audit was conducted in conformance with the *International Standards for the Professional Practice of Internal Auditing*.

Internal Audit will follow up on the status of outstanding management action plans related to this audit and will report the status at a future Audit Committee meeting.

INTERNAL AUDIT REPORT

INFORMATION TECHNOLOGY (IT) ASSET MANAGEMENT AND CONTRACTS AUDIT

BACKGROUND

Asset management involves analyzing and tracking the lifecycle of an asset to maximize its value. At a high level, the process begins with acquiring the asset, using the asset, supporting and maintaining the asset, then disposing the asset at the conclusion of its useful life. Asset management programs help ensure informed decisions can be made as to when to retire and/or replace an asset.

The City continues to experience substantial growth in new technology projects and increased utilization of existing and new technology. There has also been a continued increase in licensing through vendor service agreements.

The City operates many types of IT assets, including hardware, software, and business applications, to support service delivery. It is vital that the City tracks its IT asset inventory and maximizes the usefulness of its IT assets to ensure their continued reliability and availability. If IT asset lifecycles are not managed efficiently and effectively, there is a greater risk of these assets becoming outdated, not meeting the needs of the City, and potentially increasing IT security risks.

The ITAC team within OCIO, is responsible for ITAM at the City. According to OCIO, the City has been following the Information Technology Infrastructure Library (ITIL) framework for over 20 years. This framework contains best practices in IT Service Management. ITAM principles were introduced in ITIL v3 (2007) as part of the Service Asset and Configuration Management (SACM) process, which included asset management but did not emphasize ITAM as a distinct strategic function. With the release of ITIL v4 (2019), ITAM has been elevated to a standalone practice, highlighting its critical role in optimizing asset value, controlling costs, and supporting informed decision-making.

OBJECTIVES AND SCOPE

The objective of the audit was to evaluate the adequacy and effectiveness of the internal controls, processes and procedures in place related to IT Asset Management (ITAM) and Contracts, and that they are adequately designed and operating as intended to mitigate business risks.

The audit approach included assessing that policies and procedures exist, are regularly reviewed, updated and applied consistently; governance, management, control and oversight of IT assets exist; asset contracts are appropriate to satisfy the needs of the City; appropriate processes for the budgeting, acquisition, usage, maintenance, decommissioning and disposal of IT assets exist; and IT assets are adequately safeguarded.

The scope of the audit covered the period of September 2023 to September 2024.

This audit was conducted in conformance with the *International Standards for the Professional Practice of Internal Auditing*.

Auditor and Author: Luca DeFazio, CPA, CA
Director: Kevin Shapiro CIA, CFE, CRMA

INTERNAL AUDIT REPORT

INFORMATION TECHNOLOGY (IT) ASSET MANAGEMENT AND CONTRACTS AUDIT

DETAILED REPORT

1. Continue to Mature the ITAM Program and Governance Process

IT governance provides a structure for aligning IT strategy with business strategy. It provides a framework for best practices and controls. Oversight ensures results are being measured against achieving the Term of Council Priorities and strategic objectives. Effective governance is critical to ensure that IT assets are effectively managed throughout an assets' lifecycle, to facilitate meeting organizational requirements.

An established ITAM Program with ongoing governance oversight is vital to the successful management of organizational IT assets. According to the International Association of IT Asset Managers (IAITAM), "IT asset management is a set of business practices that incorporates IT assets across the business units within the organization. It joins the financial, inventory, contractual and risk management responsibilities to manage the overall lifecycle of these assets including tactical and strategic decision making."

In 2019, the Office of the Chief Information Officer (OCIO) identified that establishing an ITAM Program would be beneficial to reduce and avoid unnecessary IT lifecycle costs, mitigate risks (including but not limited to operational, legal, financial, regulatory and reputation) and maximize value from IT investments. To assist in the development of an ITAM Program, a consultant was engaged, who performed an IT asset maturity assessment and proposed key program materials, including an IT Asset Framework and Lifecycle. In 2020, OCIO selected and adopted the current ITAM Program Framework and IT Asset Lifecycle. The lifecycle includes five key IT asset management phases: I. plan and budget, ii. acquire, iii. deploy and maintain, iv. use, and v. deinstall, reclaim and dispose.

Although the IT Asset & Contract (ITAC) team within OCIO has made strides in the establishment of the ITAM Program, the following were noted during the audit:

- Despite an ITAM Framework, Lifecycle model and ITAM Charter being developed as part of the ITAM Program, an overarching ITAM Strategy has not been developed. An ITAM Strategy establishes ITAM goals and priorities and provides direction for the effective management of the Program.
- The ITAM Program and associated framework, lifecycle model and charter have not been presented to the Enterprise Governance of IT Committee (the "Committee") for review, input and approval. Although the Committee was established after the development of the ITAM Program, it is crucial that key governance stakeholders review, provide commentary, and approve foundational documents related to the ITAM Program. In addition, regular review and update of key Program documentation should be performed and documented, with input and approval solicited from the Committee.
- An ITAM maturity assessment was performed by an external consultant between Q1 2020 through Q4 2021. The assessment baselined the current state of the City's IT operations against four measurement criteria: People, Process, Technology and Business Management. An evaluated rating of 30%, indicating "Committed" on a 6-

INTERNAL AUDIT REPORT

INFORMATION TECHNOLOGY (IT) ASSET MANAGEMENT AND CONTRACTS AUDIT

part scale, was assessed. A Committed rating is summarized as, *“Moving to a managed environment, for example, for day-to-day IT support processes and improved success in project management to become more customer-centric and increase customer satisfaction.”*

The following is the consultant’s maturity scoring table:

0-10% Survival
11-20% Aware
21-40% Committed
41-60% Proactive
61-80% Service Aligned
81-100% Business Partnership

Management agreed with the results of the assessment performed in 2021. However, it concluded that disruptions caused by COVID-19 impacted the quality of the assessment. As a result, OCIO subsequently performed an ITAM maturity self-assessment in 2023, awarding itself a score of 60%, indicating “Proactive”. Although a self-assessment measures progress to date, engaging an external consultant to perform a formal follow-up maturity assessment ensures an impartial assessment is performed. It also promotes exposure to current industry better practice(s), aids in the development of appropriate action plans to remediate any gaps which may not have been self-identified and encourages feedback and guidance to assist in the continued maturing the ITAM Program.

- Although ITAC staff involved in the lifecycle management of IT assets possess relevant certifications and evidence of current staff training records are maintained, it was observed that job descriptions for three key roles have not been recently updated. As IT standards and industry practices continue to evolve on a frequent basis, it is important that job descriptions remain current, to ensure expected competencies for prospective new hires are reflected, in the event new staff need to be added to the team. Job descriptions that do not reflect current education and experience requirements may lead to unqualified and/or inexperienced new staff being hired.

Appropriate IT governance is vital to ensure key stakeholders participate in decision making related to IT assets. This includes oversight of the ITAM Program. Although an ITAM Program has been established, ITAC acknowledges the need to continue maturing the Program - it has been proactively reviewing and considering updated industry practices. This is important as technology continues to evolve at a rapid pace. Engaging industry experts to perform a comprehensive maturity assessment of the ITAM Program will promote its continued maturation.

INTERNAL AUDIT REPORT

INFORMATION TECHNOLOGY (IT) ASSET MANAGEMENT AND CONTRACTS AUDIT

Recommendations

We recommend that management:

- Develop an IT Asset Management Strategy.
- Present foundational ITAM Program documentation (ITAM Strategy, Framework, and Lifecycle) to the Enterprise Governance of IT Committee for review, input, and approval.
- Engage an external consultant to perform a follow-up IT maturity assessment. Update components of the ITAM Program to be in alignment with industry better practice.
- Review and update job descriptions for key staff positions.

Management Action Plan

Management agrees with the audit recommendations.

OCIO will continue developing the IT Asset Management Strategy. An industry review will identify key elements for the Strategy, including a jurisdictional scan of peer municipalities and best practice materials. The Strategy will choose an IT Asset Management Framework from International Association of IT Asset Managers (IAITAM), Information Technology Infrastructure Library (ITIL), or a suitable combination that fits IT Asset Lifecycle requirements. High-Level ITAM Strategic Goals will be assessed and revised to align with best practices, reduce lifecycle costs, mitigate risks, and enhance IT investment value. The foundational ITAM program documentation will be presented to the Enterprise Governance of IT Committee for review and approval. (Q4 2025)

OCIO will engage an external consultant through the public procurement process to perform an evaluation of the IT asset management process and assess lifecycle maturity. (Q1 2026)

OCIO will work on revising and updating job descriptions involved in ITAM processes to better align with industry best practices. Given the rapid evolution of both the IT and ITAM sectors, periodic assessments are essential to prevent obsolescence and position the City as an industry leader. (Q2 2026)

2. Track IT Asset Inventory in a Centralized Repository and Regularly Monitor Ongoing Asset Usage

According to the Canadian Centre for Cyber Security, “the main purpose of ITAM is to create and maintain an asset repository that contains an accurate, current, and complete inventory of all the IT assets in your organization.” This ensures that assets are being effectively tracked throughout their lifecycle, from onboarding, usage, maintenance and decommission. Information about an asset that is consolidated into one system supports effective management. The Canadian Centre for Cyber Security adds, “when this data is consolidated in one place, it decreases administrative costs, optimizes asset efficiency, and gives your organization greater visibility into asset utilization, costs, and maintenance.”

Tracking IT assets in a centralized inventory repository enables asset usage and safeguard monitoring - mitigating the risk of loss, underutilization of assets, theft and misappropriation of assets. When underutilization is identified, efforts should be taken to redeploy assets to uphold the standard of value-for-money in the deployment and ongoing usage of assets.

The following observations were noted as part of the IT asset inventory tracking and monitoring process review:

- IT asset end-user devices such as desktops, notebooks, Windows tablets and pod printers are currently tracked using two asset repositories; the FootPrints asset repository and an MS Excel sheet (referred to as the “Config” sheet). Two repositories are used due to limitations with the FootPrints asset repository, preventing the Excel sheet from being retired. The FootPrints repository is used to track the unique device ID, warranty period, device description, who the device is assigned to, and date of disposal (for devices that have been disposed). However, it is unable to capture departmental financial account information, nor is it able to generate the unique, sequential, and unalterable asset tag (the device ID) for new assets added to the inventory; the Excel “Config” sheet is used. Although unique and sequential asset tracking ID’s are generated by the Excel sheet (with the corresponding physical ID tag affixed to the device), the current process of using Excel does not ensure unalterable ID generation.
- Although the majority of IT assets are tracked using FootPrints, a number of IT asset classes are not tracked in the central repository. For example, laptop docking stations and monitors are categorized by OCIO as “peripherals” due to their relative lower dollar value compared to notebooks and desktops and are considered lower risk assets due to corporate data not stored on these devices. Consequently, docking stations are not tracked in inventory records, and monitors are tracked on a separate SharePoint inventory listing. Audio visual (AV) hardware is not tracked in the FootPrints register. Instead, it is tracked on a separate standalone inventory Excel tracker.
- OCIO generates an inactive mobile report (‘Zero Device Usage Report’) by department, on a monthly basis. This report captures devices that have a SIM card installed for mobile connectivity, which have not been used (no voice, data or text usage) for a period of 30 days. These mobile devices include cell phones, modems, and Internet of

INTERNAL AUDIT REPORT

INFORMATION TECHNOLOGY (IT) ASSET MANAGEMENT AND CONTRACTS AUDIT

Things (IoT) devices that transmit data (such as SCADA control monitoring modules). These reports are provided to departments to identify unused devices for the previous month, to review if any devices require deactivation (for example, no longer needed, lost, misplaced, or malfunction). However, no follow-up process is performed by OCIO to confirm that departments have reviewed and taken action related to inactive devices. As a result, devices may continue to go unused. Devices that continue to be inactive will remain on the 'Zero Device Usage Report' until they are either used or are deactivated through the deactivation request process initiated by the department. Per review of a report provided during the audit, 269 devices have been inactive for at least 30 days. OCIO clarified that unused devices may be the result of mobile phones reserved for seasonal workers, mobile phones waiting to be assigned to a new hire, and back-up devices (modems and mobile phones) for emergency purposes. Mobile SIM card charges continue to be incurred while devices go unused. Based on the June 2024 Zero Device Usage Report, the monthly cost incurred for unused SIM cards was \$4,327.35.

- Although OCIO generates a report to identify PC's with low device usage ('End-User Device Low Usage Report') and has in the past followed-up with departments possessing inactive devices as part of the PC Renewal Program, a regular recurring process to identify, follow-up and investigate the reason for low device usage is not currently performed. Per review of a low usage report provided during the audit, 183 devices had not been used for at least 181 days. Of the 183 devices, 82 had been inactive for greater than 365 days.

Managing multiple inventory systems is not an optimal solution. Using Excel to track information is prone to unintended data modifications, along with the increased administrative effort required to manage multiple systems. A fit-for-purpose IT end-user inventory tracking system that captures all inventory classes and data in a single system will reduce administrative efforts, achieve greater data centralization, and enable identification of opportunities to incorporate automation in the management of end-user assets throughout an assets' lifecycle.

Unused/inactive devices introduce financial and security risks for the City. This includes, but not limited to consuming corporate software licenses that could otherwise be used for different devices/users (resulting in over licensing costs), presents security risks due to software patches not being regularly applied, and incurs unnecessary monthly mobile SIM card charges for departments when mobile devices are not being used. Establishing a regular follow-up process for devices identified as being underutilized will facilitate re-purposing or retiring devices that no longer have a defined usage, aids in identifying and locating devices that may have been misplaced and ensures low/no usage devices are periodically connected to the network to receive security patches and updates.

INTERNAL AUDIT REPORT

INFORMATION TECHNOLOGY (IT) ASSET MANAGEMENT AND CONTRACTS AUDIT

Recommendations

We recommend that management:

- Investigate the feasibility of consolidating IT assets into a centralized inventory management system, to track all required information. This system should have the capability of generating unique, sequential, and unalterable device ID's.
- Initiate a scheduled verification process to confirm the continued existence and usage of IT assets. This would include following up with departments with low mobile device and PC device usage.
- For mobile devices repeatedly identified on the zero device usage report, request departments to provide a business reason for keeping those SIM cards active.
- Where appropriate, redeploy assets to optimize device usage and/or deactivate SIM cards that are no longer used.

Management Action Plan

Management agrees with the audit recommendations.

OCIO will assess and provide recommendations on the viability of centralizing IT assets into a unified inventory management system to track all necessary information. (Q4 2025)

OCIO will enhance the procedure to verify and monitor PCs and Mobile Devices/SIM Cards with low or zero usage by implementing scheduled checks after a set period of inactivity. The Zero Device Usage process will include follow-up communications with departments to confirm device existence and provide a valid business justification. Where appropriate, assets will be redeployed to optimize device usage. Updates to the asset register from these verifications will be included, along with an escalation process for nonresponsive departments regarding both PCs and Mobile Devices/SIM Cards. (Q4 2025)

3. Incorporate Enhanced Status Tracking of Assets During the Decommissioning and Disposal Lifecycle Phase

IT asset decommissioning and disposal is a critical phase in the lifecycle management process. Per the International Association of IT Asset Managers (IAITAM) Best Practice Library (BPL), it defines six core goals for Disposal Management: i. to dispose of assets legally and securely; ii. asset disposal requirements are identified and understood; iii. disposed assets are accurately tracked; iv. the end-of-life process is defined, and the disposal procedures are implemented; v. software is harvested and reallocated during the disposal cycle; and vi. information security for disposed assets is ensured. These goals collectively ensure that sensitive information and data are safeguarded, assets are securely disposed of, and recouping value through resale of IT assets.

The decommissioning of computers follows the PC Replacement Program, in which a structured approach to reclaiming, sanitizing and disposing for resale of old computers follows a four-year replacement cycle (based on initial purchase date of the computer). Once a computer identified for decommissioning has been collected, software is used to erase the assets' data. A sticker "Retired" is affixed to the hardware and it is placed on a skid with other retired IT assets in a locked cage to distinguish from non-retired assets. Monitors, small desk printers, UPS's (uninterrupted power sources), AV hardware and projectors follow a similar process once deemed unusable and not appropriate for repurposing (for example, missing parts, components defective, no longer working). Once or twice a year, after a sufficient number of decommissioned assets have been accumulated, Procurement Services facilitates a competitive bid process to sell the assets. Once a successful bidder has been awarded and the assets have been sold, the individual status of the assets are updated in the asset repository from the previous "Active" status to "Retired" status, and "Disposed" sub-status. The disposal bid number is updated per asset in FootPrints, to formally document the assets' exit from the organization.

Although a process exists to decommission and dispose of IT assets, improved asset status tracking throughout the decommissioning and disposal process would increase visibility and reduce the risk of decommissioned assets being inadvertently omitted from the competitive bid. The following observations were noted:

- When an asset to be disposed of is removed from active use (is returned to OCIO by a City employee), but before it is fully sanitized of data, the status of the asset is not updated in the asset repository to reflect the asset in a "Quarantined" status.
- After an asset has been sanitized of data, but prior to exiting the organization via disposal bid, the status of the asset is not updated in the asset repository to reflect the asset in a "Decommissioned" status.
- A process to verify all decommissioned assets have been added to the bid disposal listing has not been established. For context, any assets updated in the asset repository as "Disposed" have been physically confirmed to be on the disposal spreadsheet, to be included as part of the competitive bid. As a result, any assets still in a "Decommissioned" status suggests they may not have been added to the bid

INTERNAL AUDIT REPORT

INFORMATION TECHNOLOGY (IT) ASSET MANAGEMENT AND CONTRACTS AUDIT

disposal listing. Confirming that all decommissioned assets have been added to the bid disposal spreadsheet ensures that assets are not inadvertently “missed” from being sold.

Management agrees that implementing the additional tracking and verification process will enhance visibility of individual assets in the decommissioning and disposal lifecycle phase. These enhancements ensure all assets subject to bid disposal are sold, recouping value to the City.

Recommendations

We recommend that management:

- Finalize the enhanced status tracking of assets during the decommissioning and disposal lifecycle phase in the inventory tracking system.
- Finalize the process to review and confirm that all assets received for decommissioning are included in the competitive bid disposal.

Management Action Plan

Management agrees with the audit recommendations and remediation work is already underway.

OCIO will enhance processes and procedures required to track end-user assets with greater visibility when they transition between the "Active" and "Retire" phases of the IT Asset Lifecycle. This will include the addition of new sub-status values, “Decommissioned” and “Quarantined” to the asset repository, facilitating tracking for assets removed from active use but not yet disposed of via public bid. Procedures will be updated accordingly to accommodate this change. (Q2 2025)

The "IT Assets Management Operational Guidelines" will also be updated to include a procedure for scheduled semi-annual checks, ensuring that assets in the "Decommissioned" sub-status are confirmed for disposal through disposal bid cycles, which occur 1-2 times per year. (Q2 2025)

4. Capture All IT Asset Contracts in the Contract Tracking Dashboard

Maintaining a central repository of IT asset contracts facilitates the appropriate supervision, tracking, and oversight of contracts. This includes capturing when a contract has been initiated, when asset license expiry dates approach (and may require renewal or going-to-market), and for future IT asset expenditure planning. Some contracts may extend multiple years and having a comprehensive database of contracts that is updated, maintained and reviewed on a regular basis enables data-driven expenditure decisions.

OCIO maintains a contract tracking dashboard to track and manage IT asset contracts. This dashboard captures active and inactive contracts, pertinent contract documentation such as a copy of the contract and supporting information prepared to award the contract, department contact information, contract review year, and bid issue and contract expiry date. Using the dashboard, OCIO meets regularly with Procurement and client groups to proactively identify contracts nearing expiry, to decide on next steps, and to ensure no stoppage of service, software, or access to hardware.

Although the dashboard exists, OCIO confirmed that not all IT asset contracts have been captured in the dashboard. OCIO developed the dashboard in 2020 and has since been updating it with the intention to capture all contracts. OCIO's initial focus was on high dollar value contracts, operationally sensitive contracts, and new contracts as they are signed. OCIO estimates that it has captured approximately 90% of all IT asset contracts in the dashboard and will endeavor to identify the remaining contracts that have not already been included, and to include them.

Ensuring that a comprehensive database of all IT asset contracts is maintained, updated and regularly reviewed supports appropriate planning and decision making for future IT asset expenditures.

Recommendation

We recommend that management update the contract tracking dashboard to capture all IT asset contracts.

Management Action Plan

Management agrees with the audit recommendation.

By serving as the intake point for all OCIO owned IT-related contracts, ITAC will ensure that all contracts are incorporated into the contract tracking dashboard within their next renewal cycle for optimal management throughout their lifecycle. (Q1 2027)

The ITAC team will direct OCIO staff that all OCIO-owned IT-related contracts will be processed through the ITAC team to centralize OCIO's contracts. (Q1 2025)

5. Continue to Develop and Update Relevant, Current and Appropriate Policies and Procedures, Operational Guidelines and Standards

Standard Operating Procedures (SOPs) are established methods of conducting routine or repetitive tasks performed by staff. They document the way activities are to be performed for the consistent performance and conformance to policies and procedures. To be effective they should identify roles and responsibilities, provide expectations, and guidance to achieve operational objectives.

OCIO has developed IT Asset Management Operational Guidelines that provide guidance in the performance of the five key IT asset management lifecycle phase activities. Although guidance exists, reference and alignment with industry better practice is not documented for all lifecycle phase activities. In addition, a regular and consistent review cycle of the operational guidelines has not been established.

The development, use and regular updating of key process documentation, in alignment with industry better practice provides individuals with information to appropriately perform tasks in a consistent manner, to promote quality end results. Management acknowledges the risk of outdated, inconsistent and/or missing process documentation and the need to continue updating operational guidelines to ensure they are appropriate, up to date and comprehensive. Prior to the commencement of the audit, management has been proactively investigating industry better practice and has used a risk-based approach to prioritize the updating of process documentation. We encourage management to continue this process.

Recommendations

We recommend that management:

- Continue to update key Program documentation including, policies, procedures, and Operational Guidelines to promote consistency and quality in IT asset management activities.
- Align and reference Program documentation with industry better practice.
- Establish a periodic review cycle and document the review.

Management Action Plan

Management agrees with the audit recommendations.

OCIO will establish a periodic review cycle for ITAM-related different classes of documentation (Procedures, Processes, Standards, Policies) with a documented review. This will ensure OCIO's continuous alignment with best practices. (Q1 2026)


OCIO will align applicable processes and procedures with industry-standard ITAM frameworks by referencing the specific framework they comply with. (Q2 2026)

Information Technology (IT) Asset Management and Contracts Audit

Audit Committee – November 25th, 2024



Agenda

- 
1. Audit Objective
 2. Scope and Methodology
 3. Audit Conclusion
 4. Management Action Plans
 5. Next Steps
 6. Questions

Audit Objective

To evaluate the adequacy and effectiveness of the internal controls, processes and procedures in place related to IT Asset Management (ITAM) and Contracts, and that they are adequately designed and operating as intended to mitigate business risks.

Audit Scope and Methodology

- Assessing that policies and procedures exist, are regularly reviewed, updated and applied consistently
- Governance, management, control and oversight of IT assets exist
- Asset contracts are appropriate to satisfy the needs of the City
- Appropriate processes for the budgeting, acquisition, usage, maintenance, decommissioning and disposal of IT assets exists
- IT assets are adequately safeguarded
- The scope of the audit covered the period of September 2023 to September 2024.

Audit Conclusion

Although steps have been taken to mature the IT Asset Management process, improvements are required to efficiently and effectively mitigate risks associated with ITAM activities.

Issues and Observations

The following opportunities were identified:

- 1 Continue to Mature the ITAM Program and Governance Process
- 2 Track IT Asset Inventory in a Centralized Repository and Regularly Monitor Ongoing Asset Usage
- 3 Incorporate Enhanced Status Tracking of Assets During the Decommissioning and Disposal Lifecycle Phase
- 4 Capture All IT Asset Contracts in the Contract Tracking Dashboard

Management Action Plans

Management Action Plans

1

Continue to Mature the ITAM Program and Governance Process

- OCIO will finalize the IT Asset Management Strategy and present it to Enterprise Governance of IT Committee. (Q4 2025)
- OCIO will acquire an external consultant to evaluate IT asset management process and assess lifecycle maturity. (Q1 2026)
- Job descriptions involved in ITAM processes will be updated to align with industry best practices. (Q2 2026)

Management Action Plans

2

Track IT Asset Inventory in a Centralized Repository and Regularly Monitor Ongoing Asset Usage

- OCIO will assess and provide recommendations on the viability of centralizing IT assets into a unified inventory management system to track all necessary information. (Q4 2025)
- OCIO will enhance the procedure to verify and monitor PCs and Mobile Devices/SIM Cards with low or zero usage by implementing scheduled checks after a set period of inactivity and follow-up communications with departments. (Q4 2025)

Management Action Plans

3

Incorporate Enhanced Status Tracking of Assets During the Decommissioning and Disposal Lifecycle Phase

- OCIO will enhance processes to track end-user assets transitioning between "Active" and "Retire" phases, including adding a new sub-status "Decommissioned". (Q2 2025)
- OCIO will update "IT Assets Management Operational Guidelines" to include semi-annual checks for assets in the "Decommissioned" sub-status, ensuring disposal through bid cycles. (Q2 2025)

Management Action Plans

4

Capture All IT Asset Contracts in the Contract Tracking Dashboard

- All OCIO-owned IT-related contracts will be incorporated into the contract tracking dashboard. (Q1 2027)
- The ITAC team will direct OCIO staff to process all OCIO-owned IT-related contracts through the ITAC team to centralize OCIO's contracts. (Q1 2025)



Next Steps

- ✓ Action plans have been developed
- ✓ Implementation is underway or completed
- ✓ Internal Audit will follow up and report on the status of these action plans



Questions?



Thank you!

Audit Committee Report

DATE: Monday, November 25, 2024

WARD(S): ALL

TITLE: MOVESMART MOBILITY MANAGEMENT STRATEGY AUDIT

FROM:

Kevin Shapiro, Director of Internal Audit

ACTION: FOR INFORMATION

Purpose

To communicate the findings from the MoveSmart Mobility Management Strategy Audit.

Report Highlights

- The City's MoveSmart Mobility Management Strategy (MoveSmart or the Strategy) is a five-year capital and operational plan setting direction to advance the City's transportation goals and is founded on three pillars: safety, sustainability, and mobility.
- At the time of the audit, several of the projects within MoveSmart are well underway and many milestones have been successfully achieved.
- The audit found that management has efficiently and effectively communicated timelines and updates to the Mayor and Members of Council and the general public through Committee Meetings and corporate communication channels.
- While MoveSmart has made significant progress on several initiatives over the past three years, opportunities were identified to improve administrative oversight and ensure risks related to the implementation of the Strategy are efficiently and effectively mitigated.
- 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.
- This audit was conducted in conformance with the *International Standards for the Professional Practice of Internal Auditing*.

Recommendations

1. That the Internal Audit Report – MoveSmart Mobility Management Strategy be received.

Background

The objective of the audit is to evaluate the adequacy and effectiveness of the internal controls, processes and procedures in place to mitigate the business risks associated with the implementation and administration of the MoveSmart Mobility Management Strategy.

The audit approach included a review of the strategic goals, objectives and oversight of the business unit, review of relevant programs, legislation, policies and procedures, use of technology, and interviews with staff and management.

The scope of the audit will cover the relevant activities during the development and implementation of MoveSmart.

This audit was conducted in conformance with the *International Standards for the Professional Practice of Internal Auditing*.

Previous Reports/Authority

Not applicable.

Analysis and Options

On March 10, 2021, Council endorsed the five-year MoveSmart Mobility Management Strategy. MoveSmart is comprised of four highly integrated programs designed to encourage a safe network for all modes of transportation, including active and sustainable travel. The MoveSmart Strategy reinforces the City's commitment to advancing transportation and mobility while enhancing road safety and supporting sustainable active transportation options like cycling and walking. As the City's population increases – forecast to rise to more than 407,000 people by 2031 – road safety and effective traffic management will become even more important and require innovative solutions to meet the goals. MoveSmart works alongside other City of Vaughan transportation initiatives, such as the Transportation Master Plan, to build a functioning, efficient and focused interconnected transportation network.

The MoveSmart programs and initiatives aim to facilitate operational improvements through best practices and policies, operation, and design, and are supported by data-driven and evidence-based decisions.

MoveSmart is a five-year capital and operational plan setting direction to advance the City's transportation goals and is founded on three pillars: safety, sustainability, and mobility. Its objectives include the following:

- Provide a framework for collaboration with internal and external partners and to engage Vaughan citizens;
- Define a set of goals for transportation encompassing community values and identifying a plan to address the City's mobility needs in an effective, responsible, and sustainable manner; and
- Identify opportunities for a more balanced approach to transportation including the most vulnerable road users.

MoveSmart is designed to be fluid and adapt as the needs of the transportation network change. The strategy will be updated every five years (in parallel with the Transportation Master Plan) to reflect the growth and availability of innovative technologies and align with the City's new term of Council priorities.

The Strategy is managed by the MoveSmart project team within the Transportation and Fleet Management Services Department.

Financial Impact

There are no direct economic impacts associated with this report.

Broader Regional Impacts/Considerations

Not applicable.

Conclusion

The MoveSmart Mobility Management Strategy helps form and direct the City's vision to provide a safer, more efficient, and sustainable transportation system. In the 2018 Citizen Satisfaction Survey, 59 percent of residents said transportation is the most important issue facing the community. The City continues to focus on ensuring an efficient and reliable transportation system that ultimately gets citizens and businesses where they need to go. MoveSmart sets the direction and priorities for the next five years (2022-2026).

Operationally, the MoveSmart program team reports into the Public Works Portfolio and is supported by several City departments, including the PMO, OCIO, IPCAM, Legal Services, Financial Services, Procurement Services, Bylaw and Compliance, Permitting and Licensing Services, and Communications, Marketing and Engagement. Several external stakeholders also provide either direct or indirect support to the program. Examples include the Region of York and the City's neighbouring municipalities.

At the time of the audit, several of the projects within MoveSmart are well underway and many milestones have been successfully achieved. The audit found that management has efficiently and effectively communicated timelines and updates to the Mayor and Members of Council and the general public through Committee Meetings and corporate communication channels.

While MoveSmart has made significant progress on several initiatives over the past three years, opportunities were identified to improve administrative oversight and ensure risks related to the implementation of the Strategy are efficiently and effectively mitigated. Many of the issues that were identified are corporate-wide in nature and improvements will benefit several City initiatives. The following opportunities were identified:

- Continue coordination and discussions with the Region of York to address road safety improvements and traffic management related issues.
- Continue developing comprehensive Key Performance Indicators (KPIs) to evaluate MoveSmart's overall effectiveness by aligning with peer municipalities.
- Ensure City projects adhere to industry frameworks and best practices for Data and Security Management.

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

Attachment

1. Internal Audit Report – MoveSmart Mobility Management Strategy.

Prepared by

Kevin Shapiro, Director of Internal Audit, ext. 8293.



INTERNAL AUDIT REPORT

MoveSmart Mobility Management Strategy Audit

November 2024

INTERNAL AUDIT REPORT

MOVESMART MOBILITY MANAGEMENT STRATEGY AUDIT

CONCLUSION AND SUMMARY

The MoveSmart Mobility Management Strategy (MoveSmart or the Strategy) helps form and direct the City's vision to provide a safer, more efficient, and sustainable transportation system. In the 2018 Citizen Satisfaction Survey, 59 percent of residents said transportation is the most important issue facing the community. The City continues to focus on ensuring an efficient and reliable transportation system that ultimately gets citizens and businesses where they need to go. MoveSmart sets the direction and priorities for the next five years (2022-2026).

Operationally, the MoveSmart program team reports to the Public Works Portfolio and is supported by several City departments, including but not limited to the Program Management Office (PMO), Office of the Chief Information Officer (OCIO), Infrastructure Planning and Corporate Asset Management (IPCAM), Development Engineering Services, Legal Services, Financial Planning and Development Finance, Financial Services, Procurement Services, Bylaw and Compliance, Licensing and Permit Services (BCLPS), Risk, Access and Privacy and Communications, Marketing and Engagement (CME). Several external stakeholders also provide either direct or indirect support to the program. Examples include the York Region and the City's neighbouring municipalities.

At the time of the audit, several of the projects within MoveSmart are well underway and many milestones have been successfully achieved. The audit found that management has efficiently and effectively communicated timelines and updates to the Mayor and Members of Council and the general public through Committee Meetings and corporate communication channels.

While MoveSmart has made significant progress on several initiatives over the past three years, opportunities were identified to improve administrative oversight and ensure risks related to the implementation of the Strategy are efficiently and effectively mitigated. Many of the issues that were identified are corporate-wide in nature and improvements will benefit several City initiatives. The following opportunities were identified:

- Continue coordination and discussions with the Region of York to address road safety improvements and traffic management-related issues.
- Continue developing comprehensive Key Performance Indicators (KPIs) to evaluate MoveSmart's overall effectiveness by aligning with peer municipalities.
- Ensure City projects adhere to industry frameworks and best practices for Data and Security Management.

Traffic management is a shared responsibility between the City of Vaughan and York Region, with Vaughan managing local roads and York Region overseeing regional roads. Given the interconnected nature of these road networks, effective collaboration is essential to addressing congestion and road safety. While the City is making notable progress in data sharing and safety infrastructure with the Region, further opportunities for collaboration include future integration of smart technologies, such as synchronized traffic signals, and harmonizing both road safety improvements and mobility action plans that will be consistent and help to reduce congestion across City and Regional roads.

INTERNAL AUDIT REPORT

MOVESMART MOBILITY MANAGEMENT STRATEGY AUDIT

KPIs are essential for aligning organizational performance with strategic goals, providing a clear link between departmental actions and desired outcomes. They are categorized into output KPIs, which measure immediate, tangible actions such as completed projects, and outcome KPIs, which assess broader impacts and effectiveness. At the current stage, the MoveSmart Annual Progress Reports include both output and some outcome-focused metrics. With the progress of the Strategy, areas for improvement include balancing output and outcome KPIs, increasing benchmarks against other municipalities, and automating KPI calculations to enhance accuracy and enable real-time decision-making. These enhancements are crucial for fully assessing MoveSmart's effectiveness and ensuring it meets long-term goals like improved road safety and sustainable transportation.

Data and technology are central to MoveSmart, with a Data Management Program underpinning all initiatives for evidence-based decision-making. As new technologies and cloud-based systems are integrated, traffic data becomes more accessible, helping the City identify road safety improvements. The Traffic Engineering Division, in collaboration with IPCAM, is developing a Transportation Data Management Roadmap to create a modern multi-modal database. To ensure alignment with the City's data management practices, the City should enhance third-party agreements with strong data protection terms and establish review processes for service provider audit reports. As this is a City-wide issue, improvements in this area will help all City projects, including MoveSmart, enhance operational efficiencies and data accuracies and minimize security risks.

This audit was conducted in conformance with the *International Standards for the Professional Practice of Internal Auditing*.

During the audit, management took steps to improve the processes. Internal Audit will follow up on the status of outstanding management action plans related to this audit and will report the status to a future Audit Committee meeting.

INTERNAL AUDIT REPORT

MOVESMART MOBILITY MANAGEMENT STRATEGY AUDIT

BACKGROUND

On March 10, 2021, Council endorsed the five-year MoveSmart Mobility Management Strategy. MoveSmart is comprised of four highly integrated programs designed to encourage a safe network for all modes of transportation, including active and sustainable travel. The MoveSmart Strategy reinforces the City's commitment to advancing transportation and mobility while enhancing road safety and supporting sustainable active transportation options like cycling and walking. As the City's population increases – forecast to rise to more than 407,000 people by 2031 – road safety and effective traffic management will become even more important and require innovative solutions to meet the goals. MoveSmart works alongside other City of Vaughan transportation initiatives, such as the Transportation Master Plan, to build a functioning, efficient, and focused interconnected transportation network.

The MoveSmart programs and initiatives aim to facilitate operational improvements through best practices and policies, operation, and design and are supported by data-driven and evidence-based decisions.

MoveSmart is a five-year capital and operational plan that sets the direction for advancing the city's transportation goals. It is founded on three pillars: safety, sustainability, and mobility. Its objectives include the following:

- Provide a framework for collaboration with internal and external partners and to engage Vaughan citizens;
- Define a set of goals for transportation encompassing community values and identifying a plan to address the City's mobility needs in an effective, responsible, and sustainable manner; and
- Identify opportunities for a more balanced approach to transportation including the most vulnerable road users.

MoveSmart is designed to be fluid and adapt as the needs of the transportation network change. The strategy will be updated every five years (in parallel with the Transportation Master Plan) to reflect the growth and availability of innovative technologies and align with the City's new term of Council priorities.

The MoveSmart project team within the Traffic Engineering Division of the Transportation and Fleet Management Services Department (TFMS) manages the strategy.

INTERNAL AUDIT REPORT

MOVESMART MOBILITY MANAGEMENT STRATEGY AUDIT

OBJECTIVES AND SCOPE

The objective of the audit is to evaluate the adequacy and effectiveness of the internal controls, processes, and procedures in place to mitigate the business risks associated with the implementation and administration of the MoveSmart.

The audit approach included a review of the strategic goals, objectives, and oversight of the business unit, a review of relevant programs, legislation, policies and procedures, use of technology, and interviews with staff and management.

The scope of the audit will cover the relevant activities during the ongoing development and implementation of MoveSmart.

This audit was conducted in conformance with the *International Standards for the Professional Practice of Internal Auditing*.

Auditor and Author: Hemingway Wu, CPA;CA, CIA

Director: Kevin Shapiro CIA, CFE, CRMA

INTERNAL AUDIT REPORT

MOVESMART MOBILITY MANAGEMENT STRATEGY AUDIT

DETAILED REPORT

1. ***Continue Coordination with the Region of York to Address Road Safety and Traffic Management Related Issues***

Traffic operations are shared between the City and York Region, each with distinct responsibilities. The City of Vaughan manages local roads, and York Region oversees regional roads that connect multiple municipalities and handle higher traffic volumes.

Collaboration between Vaughan and York Region is a continued and integral process due to the interconnected nature of local and regional roads. Traffic issues on regional roads can cause congestion and safety concerns within the City's boundaries. Coordinated efforts in traffic program alignment and infrastructure improvements help ensure a seamless driving experience, reduce congestion, and enhance road safety. Joint initiatives in smart technology integration and data sharing further enable the City and the Region to address traffic challenges effectively, creating a more efficient and resilient transportation network.

According to the [MoveSmart Mobility Management Strategy 2024 Annual Report](#) included in the annual progress is the advancement of a Regional Traveler Safety Plan (the Plan), developed in collaboration with York Region and local municipalities, and establishes an integrated road safety plan across the Region. The Plan aims to create a safer road environment for all users in the Region by employing a holistic, data-informed, and collaborative approach to reduce severe collisions over the next five years. One of the action items identified in the plan is the integration with the City's MoveSmart Mobility Management Strategy.

Also, according to the [Intelligent Transportation Systems Single Source Procurement of an Advanced Traffic Management System Report](#), the City is investing in smart technology by implementing an Advanced Traffic Management System (ATMS) that is consistent with the standards and protocols adopted by the Region and will facilitate seamless traffic signal integration when the systems are ready to communicate. A common and integrated traffic signal system will ensure transparency and better corridor optimization, refine critical emergency response times, and coordinate signal operations between the City, York Region, and local municipal partners. The end goal is to establish synchronized traffic signals where warranted based on data, along with other collaborative measures to optimize traffic movement across municipal boundaries. Once the traffic signal controllers are upgraded in the field, the implementation of the ATMS software will facilitate the integration of both networks as required.

The City has been working collaboratively with York Region to leverage technical expertise and advisory services throughout the planning of MoveSmart's various programs and initiatives, and progress has been made in areas such as data sharing, road safety and mobility improvements, and most recently with the Intelligent Transportation Systems (ITS) program. Some examples of the collaborative efforts between the City and York Region include:

- Sharing of traffic data through a cloud-based Traffic Engineering Software. The Traffic Engineering Software (TES) now provides Vaughan and York Region data sharing

capabilities and program integration that supports evidence-based decisions when executing on the various initiatives under the MoveSmart Strategy and York Region Traveller Safety Plan. The traffic data management program houses information such as speeds, volume and collisions and serve as the central hub used to make mobility and road safety decisions, taking a more quantitative approach. TES stores data efficiently, allowing for quicker analysis, to support operations and planning services across our transportation network. The data alignment with the Region is critical for data accuracy and TES provides greater functionalities and advanced capabilities, including built-in comparative analysis, safety performance function calibration, annual network screening updates, improved mapping and dashboard displays, expanded customization and much more.

- Quarterly York Region Vision Zero Traveller Safety Plan meetings allow for collaboration amongst local partners and ensure milestones for the various road safety initiatives are being met and ensuring that mobility projects continue to support the harmonization of traffic plans, road safety initiatives, and other long-term strategies. Local partners will continue to identify and develop targeted road safety countermeasures that include standardizing approaches to traffic calming, traffic control warrants, provision of pedestrian and cycling infrastructure, as well as create education and outreach initiatives to support the most vulnerable road users.
- Continued engagement on the Intelligent Transportation Systems (ITS) initiative. Collaboration continues on the progress of the in-field traffic signal controller conversion, and the implementation of the ATMS, scheduled to be completed by Q4 2025. The objective is to ensure a seamless operation and signal progression when signal systems pass from one authority to another. ATMS is a systematic way to achieve signal progression through municipal boundaries. York Region has provided valuable insight, best practices and lessons learned throughout the development of the ITS plan. Future discussions will focus on the integration, optimization and operational requirements and responsibilities of both parties for the system. The ATMS central software and municipal Traffic Management Centres (TMC) will allow autonomy of operation for each jurisdiction, with the ability to collaborate on common corridors and intersections that require attention. Just recently City staff attended York Regions TMC to gain a better understanding of their operation in real time, discuss the prerequisites to develop a future TMC for Vaughan. Once the ATMS is established and all traffic signal controllers upgraded, Vaughan will be able to commit to a partnership with York Region that will facilitate and advance the use of smart technologies benefiting both local and arterial road networks.
- Current development of a comprehensive Construction Management and Work Zone Safety Plan (CWSP) where York Region has been identified as a vested stakeholder and will form part of the technical advisory committee. The first phase of the CWSP is to identify opportunities for both Vaughan and York Region to have effective traffic management and coordination between local and regional roads. This collaboration will focus on minimizing disruption to traffic flow while ensuring the safety of both construction workers, the general public and city infrastructure assets. The plan will include strategies for optimizing traffic routing, managing detours on local roads, and establishing clear

INTERNAL AUDIT REPORT

MOVESMART MOBILITY MANAGEMENT STRATEGY AUDIT

communication channels with all stakeholders to be proactive and to provide real-time updates on road closures or changes. The second phase of the CWSP will establish a comprehensive framework and policy development to ensure the safety and compliance of all personnel and operations within the designated construction area. This 1st phase of the plan is anticipated to be achieved by Q4 2025.

In addition to data sharing and road safety infrastructure, consistent application of regulatory transportation and road safety standards across Vaughan and York Region reduces driver confusion and enhances overall road safety.

Effective traffic management and road safety infrastructure collaboration between Vaughan and York Region can improve traffic flow, reduce congestion, and enhance road safety. A unified approach, including coordinated signal timing and uniform traffic strategies, creates a more efficient driving environment. By aligning safety infrastructure and technology, both jurisdictions can optimize traffic management solutions, benefiting all road users and contributing to a safer, more cohesive transportation network.

Internal Audit is satisfied with the actions management has already taken to address the risks identified in this observation as management intends to continue to work in collaboration with the Region to identify and address road safety and traffic related issues within the City. We have no further recommendations at this time.

MOVESMART MOBILITY MANAGEMENT STRATEGY AUDIT

2. *Continue to Develop Comprehensive KPIs to Evaluate the Overall Effectiveness of MoveSmart by Aligning With Peer Municipalities*

KPIs help organizations understand how well they are performing in their strategic goals and objectives and, therefore, help to monitor the execution of strategy. They should demonstrate the cause-and-effect relationship between departmental processes and outcomes to the City's desired results from the strategic plan. It helps all levels of the organization see the impact of their work on performance and trace that impact up to organizational performance. This ensures that everyone works together to execute the strategy and achieve high performance.

The MoveSmart team prepares and submits an Annual Progress Report to Council on accomplishing tasks and initiatives, including KPIs. Consultants have been engaged in researching and recommending relevant KPIs for the strategy. The proposed KPIs are based on research using academic literature for Vaughan based on Canadian and international jurisdictions. Queen's University proposed twenty KPIs with a combination of output and outcome metrics. Output KPIs measure tangible projects and programs administered, while outcome metrics measure the effect of the Strategy, focusing on the broader impacts of the initiatives implemented. Output KPIs allow for immediate tracking of activities, ensuring that short-term efforts are on track. Outcome KPIs, conversely, ensure that these efforts translate into meaningful, long-term improvements and achieve desired behavioural changes.

Our review of the KPI and performance measurement processes had the following observations:

- While the current MoveSmart Annual Progress Report updates include some outcome-focused metrics, such as reductions in average traffic speeds and the number of speeding tickets issued, the reports, have to date, focused on output-based KPIs (highlighting completed actions including the establishment of community safety zones, traffic signal improvements, and the implementation of the Automated Speed Enforcement (ASE) Program. A balanced approach is currently being developed, including recent data collection and outcome-focused metrics to measure the impacts of MoveSmart's projects and initiatives.
- Currently, some of MoveSmart KPI calculations rely on manual data processing for annual reporting by staff with data provided by external consultants. Automated data collection and analysis can facilitate more efficient KPI calculations, including developing computerization tools (e.g., MITAC for Community Safety Zones and Traffic Calming Plan Screening and Assessment Tables). Also, through the 2nd phase of the ITS and ATMS plan, identified technology solutions will allow staff to monitor and report on traffic volumes at intersections in real-time allowing for automated KPI data collection to help expedite traffic signal coordination where warranted. This will enhance the accuracy, timeliness, and accessibility of KPI data and allow for continuous monitoring and real-time decision-making in traffic management.
- While the City's current Citizen and Business Survey includes questions related to specific MoveSmart initiatives, such as traffic flow, congestion, and cycling infrastructure, it lacks direct questions regarding public satisfaction with the overall effectiveness of

INTERNAL AUDIT REPORT

MOVESMART MOBILITY MANAGEMENT STRATEGY AUDIT

MoveSmart and the public's acceptance of active transportation modes. Including these questions is important for assessing the Strategy's effectiveness and improving community engagement with sustainable transportation options.

The focus on output KPIs in the MoveSmart program stems from the complexities of developing robust outcome metrics, which are still in progress. The program is advancing its data collection capabilities by exploring new technologies, aiming to enhance KPI reporting and development.

Comprehensive and balanced KPIs help to achieve a complete assessment of the MoveSmart Strategy's effectiveness in achieving long-term goals, such as improved road safety and congestion level, sustainable transportation and desired behavioral changes. Additionally, benchmarking against peer municipalities increases the ability to gauge performance and learn from best practices. The manual KPI calculation process may cause delays and add to the workload, while automation can facilitate real-time monitoring and timely decision-making, potentially enhancing the overall effectiveness of MoveSmart's operations.

Recommendations

We recommend that management:

- Continue the development of comprehensive outcome KPIs that align closely with strategic objectives and community needs, such as reduced collisions, improved traffic operations and increases in adoption of sustainable transportation modes, and effectiveness of construction work zone safety. Regularly review and update the KPI framework to ensure its relevance and alignment with evolving strategic priorities. Facilitate MoveSmart's transition towards a balanced approach that effectively measures immediate outputs and lasting outcomes, enhancing its overall effectiveness and transparency.
- Investigate and evaluate the feasibility of acquiring new technologies to assist in the development of automated KPIs. This could involve implementing APIs to extract data from the source to make real time decisions to improve traffic flow immediately.
- Continue to benchmark protocols to regularly compare MoveSmart's KPIs with peer municipalities. Foster collaboration with regional peers to share best practices and enhance strategy effectiveness, promoting transparency by incorporating benchmarking findings into annual updates to provide context on MoveSmart's performance relative to external benchmarks
- Consider including specific questions regarding the public's satisfaction with the MoveSmart Strategy and acceptance of active transportation modes in future Citizen and Business Surveys and incorporating results in annual updates.

Management Action Plan

Management agrees with the audit recommendations.

Public Works Strategic Portfolio and Business Performance is currently engaged in discussions with the OCIO department to develop a data mart that will allow data to be managed independently. This solution is intended to effectively organize and oversee data such as ASE, while also being adaptable for use in other areas of the MoveSmart initiative, enhancing overall data management capabilities. This can be achieved by the end of Q2 2025.

Efforts are currently underway to refine data metrics, with a targeted completion of Q4 2025. The program is exploring new technologies to enhance its data collection and reporting capabilities, subject to available funding through the annual budget process.

Continue to use benchmark protocols to compare MoveSmart's KPIs with municipalities in York Region through the York Region Vision Zero Traveller Safety Plan. This includes sharing the City's plans, policies, standards and guidelines to support best practices through a central repository developed by York Region in November 2024. By Q4 2025, we will incorporate benchmarking findings into annual updates to provide context on MoveSmart's performance relative to external benchmarks, promoting transparency.

Continue to work with internal and external stakeholders (e.g., True North Safety and York University MITAC) to advance data automation and analysis to inform KPIs for continuous monitoring. This involves implementing APIs to extract data from the source and automate calculations already underway. Scope of work is scheduled for Q1 2025 completion with design and implementation for Q3 2025, subject to resources.

Staff have reached out to CME to ensure that appropriate questions are developed for future surveys. These questions will focus on citizen satisfaction with the implementation of MoveSmart programming, as well as road safety and mobility management efforts. The next Citizen Survey is scheduled for release in 2026.

INTERNAL AUDIT REPORT

MOVESMART MOBILITY MANAGEMENT STRATEGY AUDIT

3. *Ensure City Projects Adhere to Industry Frameworks and Best Practices for Data and Security Management*

Data and technology are considered the cornerstones of MoveSmart. The Data Management Program is the foundation that supports all the initiatives within MoveSmart to inform evidence-based decisions and policy development. As new technologies are implemented within the data warehouse and as information sharing and analytics are enhanced through various cloud-based systems provided by third-party vendors, traffic data is more readily available to help identify road safety improvements in areas of focus based on evidence.

MoveSmart is currently in the phase of developing its data management framework. According to [the Committee of Whole \(Working Session\) Report on March 6, 2024, entitled "MOVESMART MOBILITY MANAGEMENT STRATEGY 2024 ANNUAL REPORT" \(Report 1, Item 5\)](#), the Traffic Engineering Division of TFMS is working in conjunction with IPCAM to develop a Transportation Planning Data Management Strategy or "Roadmap" (the Transportation Data Management Roadmap Project or the Project), which will identify the actions needed to establish a comprehensive, modern, and high-quality multi-modal database upon which the City will be able to monitor the implementation progress of the 2023 Vaughan Transportation Plan and the MoveSmart Mobility Management Strategy.

As traffic data form part of the City of Vaughan's data asset and inventory, OCIO should be engaged to ensure that new technology solutions are aligned with the City's overall data management practices, IT infrastructure architecture and security framework. The OCIO Workplan process requires a Business Request be submitted for any activity involving information or technology components, in consultation with the OCIO Business Relationship Manager. Examples include new software acquisitions, process automation, and data management. Each request must be assessed for readiness, including items like process mapping, documented requirements, cost determination, secured funding, stakeholder agreement, and OCIO skill availability. In addition, per discussion with the City's Legal Services, it is best practice to incorporate data protection and privacy terms into the City's agreements, with refinements, additions, and/or deletions, subject to risk assessments conducted in each situation.

Our review of the data management practices and processes had the following observations:

- At the time of the audit, although the need for OCIO involvement was acknowledged, the OCIO had not received a formal Business Request from the IPCAM Project Team to engage with the Project.
- Third-party data management agreements and procurement documents need key data protection and privacy terms, such as data security and confidentiality measures, data retention and deletion period, and the "right-to-audit" clause. The City's Procurement Services and Legal Services are currently reviewing and updating the procurement templates to ensure that appropriate terms and conditions are included.
- A process is not in place to request and review service organization audit reports for third-party service providers hosting the City's traffic data. These reports play a crucial

INTERNAL AUDIT REPORT

MOVESMART MOBILITY MANAGEMENT STRATEGY AUDIT

role in evaluating and communicating the effectiveness of a service provider's internal controls related to handling data and services.

The need for a better data management framework has arisen due to the increasing importance of data in MoveSmart's operations. The City's procurement templates did not reflect current data protection and privacy requirements. In the past, contracts were not always required to be reviewed by Legal Services to ensure they included comprehensive data protection and privacy terms. However, in 2023, procurement policies were updated to mandate a legal review for certain projects that fall under these policies. The absence of clear security, confidentiality, and data privacy terms could increase the risk of unauthorized access and legal non-compliance, which could impact the ability to successfully deliver on MoveSmart initiatives if appropriate indemnity efforts are not in place.

Since the commencement of the audit, with the assistance of the City's stakeholder departments, they have been working to improve the related processes to support MoveSmart and other City Services.

Recommendations

We recommend that:

- The IPCAM Project Manager of the Transportation Data Management Roadmap Project communicate with OCIO and extend a formal business request to OCIO to engage with the Project.
- Procurement Services, Legal, and Risk Management Services continue reviewing and updating the procurement templates to include:
 - Appropriate data protection and privacy terms and conditions.
 - A right-to-audit clause in contracts to allow the City to verify compliance with data protection and cybersecurity measures by vendors.
- Management implements a process to request and review annual service organization audit reports from third-party service providers to ensure ongoing compliance with data protection standards.

Management Action Plan

Management agrees with the audit recommendations.

The IPCAM Transportation Planning Data Management Strategy continues to gather background information. The Project Team recently sent out internal surveys to impacted staff/departments, which included multiple members of the OCIO team and responses are being currently reviewed. It was agreed that a formal Business Request would be submitted at this stage of the Project before the end of 2024.

Legal Services currently reviews and considers data and privacy terms for all agreements. The review and updating of templates for privacy and data protection terms will be part of a longer-term project to revamp the procurement agreement templates and to introduce a new

INTERNAL AUDIT REPORT

MOVESMART MOBILITY MANAGEMENT STRATEGY AUDIT

suite of IT-specific agreements. Given that Legal Services is also currently in the process of working with Procurement on the new RFP template and suite of non-IT and non-construction agreements, it is expected that the new suite of IT agreements will be complete midway through 2026.

4. *Continue to Enhance Project Management by Leveraging Best Practices and Advances in Technology*

To achieve MoveSmart's goals, the MoveSmart team engaged external consultants under the guidance of Project and Program Managers. The City's PMO oversees projects and provides templates and tools for consistent delivery, while the Public Works Financial Performance Management Hub monitors finances in real time.

The Public Works Financial Performance Management Hub maintains Capital Budget Dashboard and an Operating Dashboard designed to empower staff with unparalleled financial clarity. The Capital Budget Dashboard extracts data directly from the City's JDE financial system (JDE). It is designed to provide real-time visibility into capital expenditure allocations, monitor project progress, and make informed decisions that align with the department's financial goals.

The City's Program Management Office (PMO) provides oversight and advisory services for designing and delivering projects and their lifecycle. The PMO has recently developed standard templates for different project phases, adhering to established project management frameworks and best practices. At the time of the audit, the PMO was undergoing integration with the City departments, including Public Works (PW). This integration will ensure that PW identifies and delivers projects, including those related to MoveSmart, through the Program Management Process. As a result, all applicable projects will be chartered, monitored, and reported consistently using standard templates and tools, with changes approved systematically.

Our review of selected MoveSmart project management processes had the following observations:

- During the audit, a glitch in the PW Capital Budget Dashboard was identified that prevented it from displaying and allocating invoices correctly, following a recent automation of the process. The issue led to the failure of the Capital Budget Dashboard to update properly. Per discussion with management, the root of the problem lies in the absence of regular data quality checks of the City's data mart, which resulted in a log error. The glitch may increase the risk of adverse decision-making based on incomplete or inaccurate data displayed on the dashboard. While the glitch has been rectified and the risk was currently considered low due to the slow movement of projects during the period, the incident underscores the need for enhanced system monitoring and improved business processes to detect and prevent similar glitches in the future.
- PW project managers use a manual Purchase Order Receiving Copy tracking sheet to monitor invoice status. Currently the manual process is used due to the absence of a comprehensive corporate-wide tracking and notification solution. However, this manual process lacks real-time detailed information on invoice processing stages, which could lead to occasional delays in processing invoice payments. Per discussion with management, due to system limitations, JDE currently does not provide the project managers with direct visibility into invoice status. Delays in invoice payments can affect

INTERNAL AUDIT REPORT

MOVESMART MOBILITY MANAGEMENT STRATEGY AUDIT

vendor relationships and potentially disrupt project timelines if vendors withhold services due to non-payment.

The MoveSmart team is dedicated to a project management approach that emphasizes clarity, efficiency, and accountability. However, challenges have arisen in the consistent application of PMO standard templates, particularly for projects initiated in 2022 before the establishment of our current tools. In that year, the team engaged with the PMO and departmental stakeholders to explore applicable resources. Given the varying scope and complexity of the projects, not all tools are suitable for every initiative. The audit has identified a need for improved communication and training to enhance the understanding and application of these tools, which will foster consistency among client departments. The inconsistency in the use of PMO templates can be linked to the City's evolving project management maturity. Addressing these challenges is essential for achieving reliable outcomes and leveraging past experiences to improve future processes. For example, conducting Post Implementation Reviews (PIRs) could be improved for completed projects is crucial to gauge success and gather lessons learned.

Recommendations

We recommend that management:

- Continue to enhance system monitoring and improve business processes, particularly by increasing the frequency of data quality checks of the PW Dashboards.
- Before a corporate wide tracking and notification solution is implemented, staff should improve the invoice tracking business process by periodically tracking invoice status on the PW Capital Dashboard.
- Ensure all PMO standardized project templates are developed and enforced through additional communication and training plan. MoveSmart should institute a monitoring process to complement this and ensure compliance.

Management Action Plan

Management agrees with the audit recommendations.

Project and Program Managers will review invoice status every quarter within the PW Capital Dashboard to improve invoice tracking efficiency. Q1 2025.

PMO will work with MoveSmart management team to disseminate information including project management guidelines and tools, when ready.

An annual monitoring process will be undertaken internally among Project and Program Managers within MoveSmart to review and support compliance and provide support where needed. Q3 2025.

5. Finalize Developing Automated Speed Enforcement (ASE) Operating Procedures and Staff Training

According to [the Committee of the Whole \(Working Session\) Report on November 29, 2023, entitled Automated Speed Enforcement \(ASE\) Implementation Plan \(Report 1, Item 5\)](#), the City is in the process of implementing the ASE Program (ASE or the Program). The ASE Program aims to reduce speed, increase road safety, and raise public awareness to drive within the posted speed limits. It is a highly effective road safety tool designed to work in parallel with other MoveSmart initiatives, including engineering traffic calming measures, enforcement, and education. ASE promotes compliance with posted speed limits and reduces speeds and collisions in school and community safety zones. The City of Vaughan's ASE Program is anticipated to be active in Q1 2025.

The complexity and coordination challenges in developing ASE procedures stem from the need to synchronize efforts across various stakeholders while ensuring compliance with provincial regulations. This task is inherently complex due to each City department's diverse roles, from data collection to ticket screening and adjudication, and the need for consistent communication and policy alignment. Providing staff training requires significant resources and effort. Without comprehensive procedures or proper staff training, procedures may be incomplete or flawed, risking legal challenges and operational bottlenecks. This can undermine the ASE Program's credibility, increase administrative costs, and reduce its effectiveness in enhancing road safety, ultimately failing to achieve the intended outcomes.

Concurrently with finalizing the program milestones such as the selection of Joint Processing Centre (JPC), camera installation, and agreements with vendors and the Province, management was developing internal ASE operating procedures. The procedures outlined a comprehensive process for managing the Program, with the tasks and responsibilities divided among various vendors and City Departments. At the time of the audit, the procedure was still a work in progress, with some open questions to be addressed, including ticket processing, payment collection, City fleet ticket handling, legal compliance, and communication strategies. This has now been completed.

A dashboard is being developed to track various program performance metrics as well as the revenue and costs of the ASE program once ASE is active. It will serve the purpose of ensuring that any premium from the program will be reinvested into road safety initiatives, so the program stays cost neutral. The dashboard will be developed by Q2 2025.

It was noted that staff from the ASE working group continue to refine comprehensive operating procedures and training programs within their respective divisions ensuring compliance with ASE regulations and operating requirements:

- The City's Fleet Management Services have identified two people in the department who will be processing internal user group payments and tracking associated data. They will be developing training materials and SOP's once they have a clear line on the payment process. At the moment they are still working with Finance as to how they will be paying. Completion for ASE training will be in Q1 2025.

INTERNAL AUDIT REPORT

MOVESMART MOBILITY MANAGEMENT STRATEGY AUDIT

- In Vaughan Fire & Rescue Service, ASE has been communicated to all staff (via email), including locations. Expectations on following all provisions of the Highway Traffic Act have been communicated. Any ticket(s) received for infractions are immediately paid internally by the VFRS, to save any late fees. In consultation with Human Resources/Legal, performance management will begin by the end of Q1 2025, with the individual who has caused the infraction, after an investigation has been concluded.
- The City's BCLPS department has identified all personnel requiring ASE program training. Training programs and materials are currently under development, including administrative policies and procedures, templated forms, and technical guides. The estimated timeline for completion is Q1 2025, before the anticipated ASE launch and penalty notices are expected to be issued. Key training sessions include supervisory staff training, administrative staff training, and onboarding for new Screening Officers.
- The Office of City Clerk and Service Vaughan also have identified all personnel within the departments who require training on the ASE Program. The necessary training programs and materials are being developed. The estimated timeline for the completion of all ASE training is set for Q1 2025, ensuring all staff are prepared for the Program's anticipated launch.

This various action plans will support the ASE stakeholder group in finalizing ASE operating procedures which will support the successful implementation of the program to align with regulatory requirements and City policies and practices. This will also ensure transparency, alignment with evolving regulations, coherent administration and training processes and standard data collection practices to ensure the on-going success of the ASE program. Identified processes include:

ASE Operating Procedures

Complete Procedure Development:

- Develop a central repository of information related to ASE programming and administration – outside of the City's webpage. Q1 2025.
- Finalize ASE operating procedures, and coordinate with all ASE working group stakeholders ensuring procedures and SOPs for ticket processing, adjudication, payment processing, collections, fleet policy, and communication plans are generated and executed. Q2 2025.
- Create a dashboard to monitor the program's performance based on specified metrics to satisfy legislative reporting requirements and ensure transparency. Q2 2025.
- Continue to collaborate with stakeholders to refine key performance metrics to be tracked on the ASE dashboard, including revenue and cost analysis Q2 2025.
- Develop a process for the regular review and updating of ASE procedures to adapt to evolving regulations and technologies. Q4 2025.

Stakeholder Training Q4-2024 to Q4-2025

- All Stakeholders to create appropriate training programs for all personnel involved in the ASE Program, focusing on roles and responsibilities. Currently underway and to be completed Q2 2025.

INTERNAL AUDIT REPORT

MOVESMART MOBILITY MANAGEMENT STRATEGY AUDIT

- All Stakeholders to schedule and deliver training sessions to ensure staff understand and execute the policies and procedures effectively. Currently underway and to be completed by Q2 2025.
- Maintain records of completed procedures, training attendance, and dashboard metrics for audit purposes. Q4 2025.

Internal Audit is satisfied with the actions management has already taken to address the risks identified in this observation and we have no further recommendations at this time.

6. *Continue to Develop Standard Operating Procedures (SOPs) for MoveSmart Projects and Policies*

A Standard Operating Procedure (SOP) is a set of written instructions documenting a routine or repetitive activity that staff follow. They document the way activities are to be performed to facilitate consistent conformance. SOPs serve as a key tool for standardizing processes, reducing errors, and ensuring all team members align with organizational goals and regulatory requirements.

The need for SOPs has become particularly pressing due to the expansion of the Division in recent years, which has brought new responsibilities and challenges such as the implementation of MoveSmart. The development and use of SOPs are an integral part of a successful quality system, as they provide individuals with the information to perform a job properly and facilitate consistent implementation of the quality and integrity of the result. Management has acknowledged the need to continue to develop and revisit their existing SOP documents to ensure that they are appropriate, up-to-date, and comprehensive to help ensure consistency and quality.

Management has begun to develop standard operating procedures (SOPs) for MoveSmart Programs and Policies and will continue to work on developing additional SOPs as programs become operational. Adhering to best practices is essential in this process. Furthermore, periodic reviews of these SOPs will be implemented and documented.

Internal Audit is satisfied with the actions management has already taken to address the risks identified in this observation and we have no further recommendations at this time.

AUDIT COMMITTEE**2025 SCHEDULE OF MEETINGS**

Meetings are held virtually at 10:00 a.m. on the last Monday of every other month
(unless specified otherwise)

2025 MEETING DATES

January 27

March 31

May 26

September 29

November 24

Note: These meeting dates may be subject to change if this is the consensus of the majority of the members.