DATE: Thursday, April 4, 2019
TIME: 11:00 AM – 12:30 PM
LOCATION: Regional Council Chamber, 5th Floor
Regional Administrative Headquarters
10 Peel Centre Drive, Suite A
Brampton, Ontario
MEMBERS: S. Dasko; N. Fairhead; C. Fonseca; N. Iannicca; K. Ras; R. Santos; I. Sinclair; R. Starr; H. Zuberi

Chaired by Councillor R. Starr or Vice-Chair Councillor R. Santos

1. DECLARATIONS OF CONFLICTS OF INTEREST

2. APPROVAL OF AGENDA

3. DELEGATIONS

4. REPORTS
   4.1. Sewer Inspection and Surcharge Collection Process Audit (For information)
   4.2. 2018 Fraud Information (For information)
   4.3. Enterprise Audit Services Information Technology Risk Assessment and 2019 Risk Based Work Plan Update (For information)
   4.4. Asset Management Policy Update
        Presentation by Sam Sidawi, Director, Enterprise Asset Management

5. COMMUNICATIONS

6. IN CAMERA MATTERS
7. OTHER BUSINESS

8. NEXT MEETING

Thursday, May 2, 2019, 11:00 a.m. – 12:30 p.m.
Council Chamber, 5th Floor
Regional Administrative Headquarters
10 Peel Centre Drive, Suite A
Brampton, Ontario

9. ADJOURNMENT
DATE: March 26, 2019

REPORT TITLE: SEWER INSPECTION AND SURCHARGE COLLECTION PROCESS AUDIT

FROM: Michelle Morris, Director, Enterprise Risk and Audit Services

OBJECTIVE

To inform the Audit and Risk Committee of the results of the audit of the Sewer Inspection and Surcharge Collection Process.

REPORT HIGHLIGHTS

- Overall effective controls are in place to help ensure the business goal of the Wastewater By-law enforcement is being achieved.
- Opportunities for improvement were identified in three areas. Management has implemented action plans to address the risks identified. The observations and management action plan status are as follows:
  - An action plan has been implemented to ensure timely and accurate inspection outcome information is documented and uploaded in the system.
  - An action plan has been implemented to ensure inspection staff no longer accept gifts.
  - The employee Code of Conduct policy has been updated to reflect that staff cannot accept gifts.
  - Enterprise Audit Services has verified all management action plans are implemented.

DISCUSSION

1. Background

An audit of the Sewer Inspection and Surcharge Collection Process was included in the 2018 Internal Audit Risk Based Work Plan.

The Wastewater By-Law 53-2010 regulates the discharge of matter into the sanitary and storm sewage systems of the Region of Peel. The By-law further sets out the agreements with businesses for discharging and how sewer surcharges are to be collected. The focus of the By-law is to protect the natural environment and the wastewater treatment plants from the adverse effects of discharged material that may be detrimental to the environment.
SEWER INSPECTION AND SURCHARGE COLLECTION PROCESS AUDIT

The Environmental Control section under the Wastewater division is responsible for enforcing the By-Law. This happens through regular inspection of businesses operating in the Region and monitoring their discharge of matters into the sewer system. During 2018, approximately 510 businesses were on a discharge monitoring program. The total surcharges collected in 2018 were approximately $11,000,000.

The Corporate Reporting and Receivables section within Finance collects surcharges from businesses that have a surcharge agreement with the Region.

2. Audit Objectives and Scope

The objectives of the audit were to determine if management has implemented effective controls to help ensure the goal of enforcing the Region’s Wastewater By-law 53-2010 is being achieved.

The audit specifically focused on assessing:

- Whether there are effective controls in place to help ensure compliance inspections and laboratory analysis results are effectively followed up to support the By-law enforcement;
- Whether there are effective controls in place to help ensure surcharges from businesses that have surcharge agreements with the Region are collected effectively and timely.

The audit reviewed related business transactions from May 2017 to May 2018.

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

3. Audit Observations and Management Response

Overall, effective controls are in place to help ensure the business goal of the Wastewater By-law 53-2010 enforcement is being achieved. Specifically, there are effective controls in place to help ensure compliance inspections and laboratory analysis are followed up and surcharges are being collected in a timely manner.

Opportunities for improvement were identified in three areas.

Inspection and Follow up Activities

Timely and accurate inspection input of inspection information in the Liquid Waste Management system helps management determine whether the monthly and annual inspection targets are being met and whether the section is achieving its business goal.

Inspectors do not document the business circumstances and the outcome of the inspection while conducting their inspection. Further, there was not a consistent practice in place to upload the outcomes of inspection and follow up activities in the system in a timely manner.

There is a need to help ensure inspectors document the outcome of the inspection and follow up activities and upload the information in the system accurately and in a timely manner.
SEWER INSPECTION AND SURCHARGE COLLECTION PROCESS AUDIT

Without accurate and timely information about inspections and follow up activities, there is a risk that management may not be able to determine whether the monthly and annual inspection targets are being met, and whether the section is achieving its business goal.

Management Response

Management has implemented an action plan to ensure inspectors document and upload the outcome of inspections and follow up activities accurately and timely in the system. Enterprise Audit Services has reviewed the action plan implemented and is satisfied that the actions address the risk.

Acceptance of Gifts

Inspectors hold a position of public trust when inspecting businesses and enforcing the Region's Wastewater By-law. As such, inspectors should exercise a level of independence and objectivity to avoid any potential or perceived bias or partiality.

Inspectors accept gifts from businesses they inspect. Management confirmed that inspectors may accept gifts with a value less than $50 as stated in the employee Code of Conduct.

There is a need for management to review the gift acceptance practice, regardless of the value of a gift. There is a risk that staff accepting gifts may be perceived to be in conflict of interest.

Management Response

Management has provided directions to staff that they can no longer accept gifts. Enterprise Audit Services has reviewed the email communication to staff and considers the action plan implemented.

Employee Code of Conduct – Acceptance of Gift

The employee Code of Conduct policy (the Code) sets out the corporate guidelines and expectations of staff conduct for all Regional employees.

The current Code has not been updated to reflect recent directions from executive leadership about gift acceptance practices and doesn’t provide clear guidelines on gift acceptance.

There is a need to:
- Review and update the Code to reflect leadership directions;
- Provide clear guidelines with regard to gift acceptance for staff.

Without clear guidelines on the acceptance of gifts, there is a risk that staff may be perceived to be in a conflict of interest, which represents a reputational risk to the Region.

Management Response

Management has reviewed and updated the employee Code of Conduct policy. Further, management has developed a rollout and awareness plan to ensure staff do not accept
SEWER INSPECTION AND SURCHARGE COLLECTION PROCESS AUDIT

gifts. Enterprise Audit Services has reviewed the revised employee Code of Conduct and the rollout plan and considers the action plan implemented.

CONCLUSION

Overall, effective controls are in place to help ensure the business goal of Wastewater By-law enforcement is being achieved. Opportunities for improvement were identified and management has taken actions to address the risks for all three observations made during the audit. Enterprise Audit Services has verified the management action plans and considers them implemented.

Michelle Morris, Director, Enterprise Risk and Audit Services

Approved for Submission:

D. Szwarc, Chief Administrative Officer

For further information regarding this report, please contact Michelle Morris, Director, Enterprise Risk and Audit Services, at extension 4247 or via email at michelle.morris@peelregion.ca.

Authored By: Jennifer Weinman, CPA, CA, CIA CRMA, Lynn Guo, MBA, CMA (US), CIA.
DATE: March 25, 2019
REPORT TITLE: 2018 FRAUD INFORMATION
FROM: Michelle Morris, Director, Enterprise Risk and Audit Services

OBJECTIVE

To provide the members of the Audit and Risk Committee with information to respond to fraud related enquiries from the external auditor.

REPORT HIGHLIGHTS

- The external auditors are required to obtain feedback from members of the Audit and Risk Committee on their perception of fraud risk, fraud allegations and anti-fraud programs at the Region of Peel.
- Enterprise Risk and Audit Services conducted a survey on fraud risk and fraud allegations to assist the members of the Audit and Risk Committee to respond to the enquiry from the external auditor.
- Ninety-eight percent of survey respondents agreed there are effective controls and oversight that may detect or prevent fraud in their areas of responsibility and 87 percent agreed the risk of fraud in their areas was low.
- There were five confirmed occupational fraud allegations in 2018.
- In 2018, nine subsidy fraud allegations were referred to Peel Regional Police for police investigation.

DISCUSSION

1. Background

The external auditors are required by their professional standards to gather feedback from members of the Audit and Risk Committee on their perception of fraud risk, fraud allegations and anti-fraud programs at the Region.

The Audit and Risk Committee Charter (February 2019) outlines the role of the Committee that includes:

- Review the results of the annual fraud survey on fraud risk and fraud allegations
- Respond to the external auditor’s questions related to the Committee Members’ views of the fraud risk, fraud allegations and the Committee’s role in the Region’s anti-fraud program
At the May 2, 2019 meeting of the Audit and Risk Committee, the external audit firm Deloitte LLP will be asking members of the Audit and Risk Committee questions related to the following:

- Their views of the risk of fraud at the Region
- Their knowledge of any actual, suspected or alleged fraud incident
- The role that the Audit and Risk Committee exercise in the oversight of management fraud prevention programs

Enterprise Risk and Audit Services conducted a fraud risk survey across the organization in 2018 to gather information to assist the members of the Audit and Risk Committee to address the external auditor’s questions.

2. Survey Results and Analysis

A definition of fraud can be found in the Region’s Fraud Prevention policy (G00-22):

“Fraud is an act of using dishonesty as a tool for personal gain. Fraud includes any misuse or attempt to misuse the Region’s assets for personal gain or purpose unrelated to the Region’s business.”

a) Results

A total of 45 Directors, four Managers and five Associate Medical Officers of Health were surveyed and we received a 100 percent response rate. Three questions were asked in the survey. The results are as follows:

1. “There is a high risk of fraud occurring in my area of responsibilities.”
   - Disagree: 87 percent
   - Agree: 13 percent

2. “There are effective controls and oversight that will detect or prevent fraud in my area.”
   - Agree: 98 percent
   - Disagree: 2 percent

3. “Has there been any actual suspected or alleged fraud in your area over the past year?”

Nine respondents indicated on the survey that there was an allegation of fraud in their area. Enterprise Risk and Audit Services followed up on the allegations with management. As a result of that follow up, there were five confirmed fraud allegations. Details of the confirmed allegations and outcomes of the related investigations are in the section that follows.

b) Analysis

Seven respondents indicated they agree there is a high risk of fraud occurring in their area of responsibility, all oversee areas with significant financial transactions. These
areas have an inherently higher risk of fraud occurring by virtue of these financial transactions. In all cases, those respondents indicated, in response to the second survey question, they agree there are effective controls and oversight in their area that will detect or prevent fraud.

Ninety-eight percent of the respondents to the second survey question indicated that there were effective controls and oversight that will detect or prevent fraud in their areas. One respondent indicated they disagree there are effective controls and oversight in place in their area of responsibility that will detect or prevent fraud. There is an inherently lower risk of fraud occurring in this area due to the nature of the services provided. As such, it is reasonable to see that fraud controls may not be as heightened in this area.

3. 2018 Confirmed Fraud Allegations Information

Theft of Materials

There were two instances of misappropriated materials from Regional job sites in 2018. Investigations into these allegations confirmed that in one case an employee removed scrap material, while in another case an employee removed building materials. Management has addressed the matters with employees including appropriate disciplinary actions as well as strengthening controls by rolling out education and awareness program to increase staff’s knowledge of policies pertaining to handling Regional assets and inventory.

Time Theft

Three instances of time theft were reported in 2018. Two of the instances involved the falsification of time records where the employees were not in attendance at work during hours they reported working. Management has exercised appropriate disciplinary action and has increased controls surrounding time reporting including enhancing the time clock system and implementing random auditing.

The third instance involved the falsification of time and work order records where several employees were observed away from the job site when their work records indicated they were at the job site. Management has addressed the matter with employees including appropriate disciplinary actions and is developing a plan to undertake regular random field audits to strengthen controls.

4. Human Services Subsidy Fraud

All material subsidy fraud allegations are referred to the Human Services Eligibility Review Unit for investigation. Cases demonstrating a clear intent to commit fraud are measured against an established set of Police referral criteria. If an investigation is determined to have met the referral criteria, the case is reviewed by the Eligibility Review Unit Supervisor and the Peel Regional Police-Fraud Unit. Following Peel Regional Police endorsement of a referral, the Eligibility Review Unit schedules formal intake of the referral with Peel Regional Police.

In 2018, nine referrals were made to Peel Regional Police. Seven referrals related to Ontario Works subsidy with the remaining two referrals relating to Children Services subsidies. Of the nine referrals made to Peel Regional Police, all have been endorsed for
2018 FRAUD INFORMATION

formal police investigation with two referrals currently assigned by Peel Regional Police to investigating fraud officers.

CONCLUSION

The 2018 fraud risk survey results captured in this report provide members of Audit and Risk Committee the information related to fraud risk and fraud allegations at the Region of Peel in order to meet the requirements of the external audit.

Michelle Morris, Director, Enterprise Risk and Audit Services

Approved for Submission:

D. Szwarc, Chief Administrative Officer

For further information regarding this report, please contact Michelle Morris, Director, Enterprise Risk and Audit Services. Ext. 4247, michelle.morris@peelregion.ca

Authored By: Jennifer Weinman, CPA, CA, CIA and Jayrani Bungsy, CIA, FCCA
OBJECTIVE

To inform the Audit and Risk Committee (the Committee) of the results of the information technology risk assessment and the 2019 - 2022 information technology work plan; and further, to inform the Committee of the information technology specific audit project to be included in the 2019 Enterprise Audit Services Risk Based Work Plan.

REPORT HIGHLIGHTS

- The Enterprise Risk and Audit Services division is adding an information technology specific focus to the risk based audit work plan.
- KPMG performed an information technology risk assessment and developed an information technology specific risk based audit work plan covering the period 2019 - 2022.
- The results of the risk assessment identified 11 high risk areas for audit projects and nine medium risk areas.
- The audit of IT Security Governance and Management was selected for inclusion in the 2019 Enterprise Audit Services Risk Based Work Plan based on assessment results and the potential audits identified.

DISCUSSION

1. Background

The Enterprise Risk and Audit Services division is adding an information technology specific focus to the risk based audit work plan for the years 2019 - 2022. Enterprise Risk and Audit Services have not conducted information systems and technology audits for the past number of years due primarily to the on-going changes to technology and processes which have occurred over this time. The Region has had a Digital Strategy in place for some time, and as such, it is now appropriate to undertake audits in the information technology areas.

Technology continues to evolve bringing with it new opportunities and risk. Changing technology provides opportunities, but also exposes the Region to different risks that may not have existed in the past. Information security in particular has grown to be one of the most significant risk challenges facing virtually every organization. Information and privacy
breaches may result in negative public reaction and potential damage to the Region’s reputation.

These emerging information and technology risks, threats, and change should be managed proactively. Risks include cyber security risks; data loss and privacy breaches; additional third-party risk including cloud services vendors; social media risks; ransomeware and malware risks. The Enterprise Audit Services Risk Based Work Plan will focus on these emerging risks. The complexity of today’s information technology environment requires specialized expertise and technical knowledge in multiple areas including a thorough understanding of the applications; the systems; and the supporting technologies involved such as network routers and firewalls.

2. Information Technology Risk Assessment Highlights

Enterprise Risk and Audit Services obtained the services of KPMG to perform an information technology risk assessment and based on the assessment results develop an information technology specific risk based audit work plan covering the period 2019 - 2022. KPMG used a risk assessment framework which assessed the information technology (IT) risk levels across the following 17 risk areas:

- IT Governance Framework
- IT Strategy and Architecture
- Project Portfolio Management
- Business-IT Relationship
- IT Operational Governance
- Procurement and Contract Management
- People and Capability Management
- IT Security Management
- Opportunity Development
- Project Management
- Solutions Development
- Application Maintenance
- IT Infrastructure Management
- IT Support Service
- Configuration Change
- Systems Availability
- Information Management

The risk assessment involved conducting a strategic analysis to gain an understanding of the business and the information technology environment, and then a detailed analysis to assess the effectiveness and efficiency of the delivery of information technology services. This was achieved in part through interviews and facilitated discussions with key internal stakeholders; and reviewing key documents including the Digital Strategy, various stocktakes, and prior audit reports. The risk assessment and related audit work plan were then developed.

KPMG used a risk rating guidance to assign risk ratings in the risk assessment. Ratings were classified as critical (detrimental impact on operations); high (severe impact on operations); medium (moderate impact on operations); and low (minor impact on operations) based on the potential business impact and the likelihood of occurrence.

The risk assessment was grouped into six broad risk groupings that capture the high and medium risks. The results of the assessment indicated that there were no risk areas assessed as critical. A total of 20 projects with a high or medium risk level were identified from the risk assessment.
Risk Grouping | High Risk Projects | Medium Risk Projects
---|---|---
IT Direction and Oversight | 1 | |
IT Management | 2 | |
IT Infrastructure Management | 2 | 1
IT Security and Risk Management | 5 | 1
IT Operations | 1 | 4
IT Projects | | 3
**Total** | **11** | **9**

The risk assessment will contribute to the understanding of information and technology risks from a Regional perspective. Further, it will assist the Enterprise Risk and Audit Services team in incorporating information and technology audits into the risk based audit work plans over the next few years.

3. **Information Technology Work Plan Highlights**

Using the results of the risk assessment, KPMG developed an information technology work plan (work plan) covering period 2019 - 2022. The work plan prioritized by year the 20 projects assessed as high and medium risk from the risk assessment. The projects included 17 potential audits and three consulting projects. Additionally, the work plan proposed three audits for consideration which are not specific to information technology. Eleven of the proposed 17 audits were classified as ‘high’ risk and the remainder as ‘medium’ risk. For each proposed project, the work plan includes:

- details on the potential scope of work
- the reason for inclusion in the audit plan
- type of audit
- the proposed timing by year
- estimated work effort level
- auditor experience and expertise requirements

Enterprise Risk and Audit Services anticipate completing approximately six projects from this work plan over the period 2019 - 2022. Projects will be selected based on the identified risk exposure; resources available in Digital and Information Services to participate in the audits; as well as resources available in Enterprise Risk and Audit Services to conduct the audits.
4. 2019 Enterprise Audit Services Risk Based Work Plan

Results of the assessment and audit plan, including the identified risks and their proposed priority, will be used to update the 2019 Enterprise Audit Services Risk Based Work Plan presented at the February 21, 2019 Audit and Risk Committee meeting.

The 2019 Enterprise Audit Services Risk Based Work Plan will be updated to include an audit of IT Security Governance and Management. The potential scope for this audit includes information security governance; information security risk management; security risk assessment and vulnerability identification; and the reporting of information security metrics. The audit will be scheduled during 2019 based on audit and client resources available.

CONCLUSION

Results of the externally conducted information technology risk assessment identified and prioritized information and technology related audits to include in the Enterprise Audit Services Risk Based Work Plans. Based on the assessment, one audit was selected for inclusion in the 2019 Enterprise Audit Services Risk Based Work Plan.

Michelle Morris, Director, Enterprise Risk and Audit Services

Approved for Submission:

D. Szwarc, Chief Administrative Officer

For further information regarding this report, please contact Michelle Morris, Director, Enterprise Risk and Audit Services, at extension 4247 or via email at michelle.morris@peelregion.ca.

Authored By: Jennifer Weinman, CPA, CA, CIA, CRMA, Sean Lee, CPA, CGA, CIA, CISA, CGAP, CRMA, PMP, Carol Lyons, CPA, CGA, CIA.
DATE: March 26, 2019

REPORT TITLE: ASSET MANAGEMENT POLICY UPDATE

FROM: Stephen VanOfwegen, Commissioner of Finance and Chief Financial Officer

RECOMMENDATION

That the updated Asset Management Policy (F10-06), outlined in Appendix I of the report from the Commissioner of Finance and Chief Financial Officer, titled “Asset Management Policy Update,” be approved.

REPORT HIGHLIGHTS

- The Region of Peel’s long-term asset management program has been in place for over ten years.
- In 2017 the Province passed an asset management Regulation that requires municipalities to adopt asset management planning.
- The Finance Department has updated the existing Asset Management Policy (F10-06) to ensure compliance with O. Reg. 588/17: Asset Management Planning for Municipal Infrastructure.
- The updated policy ensures that decision makers are doing the right things on the right assets, at the right cost and time, and for the right reason.
- Regional Council’s proactive practice of ensuring adequate revenue to support Peel’s long-term infrastructure needs, coupled with an Enterprise Asset Management Program has well-positioned the organization to manage the risks and challenges for the foreseeable future.
- The updated policy provides guidance for the consistent asset management practices for all Regional asset classes.

DISCUSSION

1. Background

The Region of Peel’s infrastructure is a public investment worth over $27.8 billion (excludes Peel Living properties, Police and land assets), and the Region recognizes that keeping these assets in good working order is essential to providing high quality and affordable municipal services. The Region of Peel, through the Enterprise Asset Management team, has had many long standing Asset Management practices that includes but are not limited to; the development of an Asset Management Strategy, Asset Management Policy and an Asset Management Framework. Although these practices have been in place for almost ten...
years, the Region is committed to continuous improvement initiatives that increase the maturity of the Asset Management program.

Region’s Enterprise Asset Management Program

Enterprise Asset Management is an integral part of the Region of Peel’s strategic and long-term planning practices. In 2007, the Enterprise Asset Management Program was introduced to assess the current state and project future needs of existing capital assets to promote informed and proactive decision-making. This program is committed to effective stewardship of the Region's public assets through cost effective and timely maintenance. The program also focuses on developing sustainable plans to repair the assets over a planning horizon that can be as long as 100 years. Guided by the principle of continuous improvement, these plans support Council's level of service targets and long-term financial strategies. The Region’s Enterprise Asset Management Program is also guided by industry best practices and regulatory requirements. As such, the program is continuously evolving in order to leverage opportunities and address challenges.

Due to lack of adequate information, Peel Police and Peel Living assets are not currently incorporated into the Region's asset management analysis. Regional staff, in collaboration with staff from each of the respective Boards, are jointly working on incorporating these assets into the asset management program.

Strategic Asset Management Policy Requirements

In December 2017, the Province passed an asset management planning regulation under the *Infrastructure for Jobs and Prosperity Act, 2015* that requires municipalities adopt asset management planning in order to optimize infrastructure investment decisions. The regulation focuses on the following two, key components:

- Creating or updating an Asset Management Policy, and
- Creating or updating an Asset Management Plan, through a three-phase approach.

By complying with the asset management regulation, all municipalities will have a consistent, up-to-date policy and plan that informs investment decisions. The plan will incorporate strategies to maintain established levels of service, address growth and mitigate climate change impacts. The first requirement of the regulation is to have municipalities adopt, by July 1, 2019, a policy that outlines their commitment to best practices and continuous improvement to sustain their assets.

The Province provided 12 requirements that each municipality must address in their Asset Management Policy. Regional staff completed a gap analysis and confirmed that the Region’s existing Asset Management Policy (F10-06) specifically addressed six out of the 12 requirements. The remaining six requirements were mostly addressed in other Regional plans or policies. These requirements were incorporated in the updated version (see Appendix I and II). This draft policy was then reviewed by Legal Services, key program stakeholders, and updated to reflect provided feedback.

2. Next Steps

Upon approval of the updated Asset Management Policy, Regional staff will communicate the key elements of the updated policy to both internal and external stakeholders.
Staff has assessed the Region’s current state of compliance and have devised a plan to meet full compliance for these three phases:

<table>
<thead>
<tr>
<th>Asset Management Plan Phases</th>
<th>Regulation Requirements Deadline</th>
<th>Regulation Requirements</th>
<th>Regional Compliance Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phase 1</td>
<td>July 1, 2021</td>
<td>• For core assets*:</td>
<td>• Currently compliant for all core assets except stormwater</td>
</tr>
<tr>
<td></td>
<td></td>
<td>o Inventory of assets</td>
<td>• Anticipate full compliance once stormwater is incorporated into Infrastructure Status &amp; Outlook report prior to end of 2020</td>
</tr>
<tr>
<td></td>
<td></td>
<td>o Current levels of service measured by standard metrics</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>o Costs to maintain levels of service</td>
<td></td>
</tr>
<tr>
<td>Phase 2</td>
<td>July 1, 2023</td>
<td>• Would build out the Phase 1 plan to include all assets</td>
<td>• Compliant for most remaining assets except Peel Police, Peel Living and Information Technology</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Anticipate full compliance by end of 2022.</td>
</tr>
<tr>
<td>Phase 3</td>
<td>July 1, 2024</td>
<td>• Would build on Phase 1 and 2 by adding:</td>
<td>• Acquire a lifecycle decision support technology system for lifecycle assessments by end of 2021</td>
</tr>
<tr>
<td></td>
<td></td>
<td>o Proposed levels of service</td>
<td>• Utilize system to model lifecycle cost for Council’s approved levels of service by end of 2022</td>
</tr>
<tr>
<td></td>
<td></td>
<td>o Lifecycle management strategy</td>
<td>• Complete a financial strategy for approved levels of service by end of 2023</td>
</tr>
<tr>
<td></td>
<td></td>
<td>o Financial strategy</td>
<td></td>
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</tbody>
</table>

* As per the regulation O. Reg. 588/17, core assets consist of water, wastewater, stormwater, roads, bridges and culverts.
CONCLUSION

By adopting the recommendation of the report, the Region of Peel will have a more robust Asset Management Policy which fulfills the provincial regulation policy requirements. This policy will help guide and manage Regional assets for years to come.

Stephen VanOfwegen, Commissioner of Finance and Chief Financial Officer

Approved for Submission:

D. Szwarc, Chief Administrative Officer

APPENDICES

Appendix I – Asset Management Policy
Appendix II – Provincial Strategic Asset Management Policy Requirements

For further information regarding this report, please contact Sam Sidawi, P.Eng., Director of Enterprise Asset Management, ext. 3627, or by email at sam.sidawi@peelregion.ca.

Authored By: Sam Sidawi, Director of Enterprise Asset Management
The goal of the Region of Peel’s Strategic Asset Management Policy is to ensure sustainable asset management plans and practices to support the achievement of Regional outcomes and the delivery of services to the public. Enterprise Asset Management is an integrated part of the Region of Peel’s annual, strategic, and long-term planning practices and takes into consideration appropriate stakeholder engagement through the Integrated Planning Framework (IPF), including but not limited to, plans such as:

- Region of Peel Strategic Plan
- Official Plan
- Master Plans
- Long Term Financial Planning Strategy

The Asset Management Policy supports the Long Term Financial Planning Strategy principles, with a particular focus on; “Ensure the capital plan is sustainable” and “Maintain Assets”. The strategy is founded on balancing the three fiscal pillars of Financial Sustainability, Financial Vulnerability and Financial Flexibility.

This policy also supports the principles outlined in the Infrastructure for Jobs and Prosperity Act, 2015.

A. PURPOSE

The policy is required to establish management controls for the responsible stewardship of the Region of Peel’s capital infrastructure throughout the lifecycle of the assets in a manner which follows the principles of the Long Term Financial Planning Strategy and Infrastructure for Jobs and Prosperity Act, 2015.

B. SCOPE

The policy establishes the requirements to maintain an asset management program at the Region of Peel and the requirements of the program. The policy covers the management processes for assets throughout their entire life cycle including identifying, planning, designing, installing, maintaining, inspecting, operating, rehabilitation/refurbishing, disposing, decommissioning and reporting. This policy applies directly to assets which have a significant monetary value and an economic life greater than 12 months. The specific applications of this policy are as follows:
1. Region of Peel owned assets, operated by Regional programs or external agencies – Fully covered by this policy. The policy applies to all existing Regional infrastructure where ownership is that of the Region of Peel, including where ownership has been assumed by the Region of Peel.

2. Region of Peel owned assets operated by external vendors or other parties – Fully covered by this policy. Adherence is to be specified in the vendor contracts and is to be an obligation of the operating vendor.

3. Assets not owned by the Region of Peel but are included in the Region of Peel Financial Statements (e.g. affordable housing provided by Peel Living) – Fully covered by this policy.

4. Infrastructure to service growth, not yet owned by the Region of Peel – Not covered by this policy. New infrastructure to service growth, whether financed through Development Charges or Internal Reserves or donated by other parties is not covered by this policy until ownership is assumed by the Region of Peel.

5. Assets not owned by the Region of Peel and not included in the Region of Peel Financial Statements, that provide a service which the Region is obligated to provide – Not covered by this policy. Asset management of such infrastructure is to be managed through separate policies, agreements and contracts by Peel’s service/program managers/providers.

6. Infrastructure owned and operated by external agencies which are financed by Region of Peel through levies made upon the Region of Peel – Not covered by this policy. The management policies and practices for such infrastructure (e.g. Conservation Authorities infrastructure) are subject to separate review and approval of governing boards and Council.

7. All lands owned by the Region of Peel other than affixed infrastructure – Not covered under this policy.

C. DEFINITIONS

a) Terminology
• “Asset” means a component of a facility, program or service which has value, enables services to be provided and has an economic life greater than 12 months. Also referred to as a “capital asset”. Land is excluded from this definition. For further information on land assets, please refer to the B00-20-01 Land Acquisition & Land Inventory Management policy and By-Law 23-95 Surplus and Disposal.

• “Asset Class” means a group of interrelated or like assets that collectively; represent a substantial value, support a common service or service area, are measured by common asset level of service targets and impart common levels of risk to the service(s) it supports.

• “Asset Enhancements” means additions to/of assets intended to improve asset performance in order to improve service level quality or quantity, manage asset/service risks and/or meet new regulatory requirements. Note that the scope of this policy does not include asset enhancements that are financed from Development Charges or donated by developers until such time as ownership is assumed by the Region of Peel.

• “Asset Life Cycle” means the entire life span of the asset from conception to disposal and includes such stages/activities as identification, planning, design, acquisition, construction, operating, maintenance, regular condition and performance assessments, rehabilitation, upgrades and disposal.

• “Asset Management” means the combination of management and technical practices and technology including engineering, finance, operations and other professional practices and activities which are applied to assets with the objective of achieving required levels of service and managing risks in the most cost-effective manner throughout the life cycle of the assets.

• “Asset Management Framework” means a set of documents, systems and processes that addresses an organization’s asset management responsibilities. An asset management framework is the sum of the Asset Management Policy, Asset Management Strategy and Asset Management Plans.

• “Asset Management Plan” means a plan applied to specific assets outlining a combination of management practices and the application of professional disciplines throughout each stage of the asset life cycle to achieve the specified levels of service in the most cost-effective manner.
“Asset Management Program” means the interrelated policies, practices and processes as defined and implemented by the Asset Management Policy and Asset Management Strategy.

“Asset Management Strategy” outlines specific actions, resources and accountabilities that cover the development and implementation of the Asset Management Plans and the Asset Management Programs in order to support the achievement of organizational service objectives at minimal costs.

“Capital Budget” means the annual Council approved plan of the Regional Corporation for expenditures and financing sources to acquire, improve, maintain or construct capital assets or to conduct studies.

“Capital Forecast” means the projection of expenditures and financing sources of capital projects for years beyond the Capital Budget approval year in which the forecast is made.

“Capital Plan” means the combined Capital Budget and Capital Forecast.

“Capital Project” means an undertaking for which expenditures of a capital nature are made or are to be made including expenditures to acquire, improve or maintain land, buildings, structures, machinery and equipment, to install computer software and to conduct studies relating to Corporate assets.

“Current Risk” means the risk that exists under current levels of controls/treatments.

“Day-to-day Business Rules” means regular/routine practices and processes described and implemented under the Asset Management Strategy.

“Development Charges” means the charge imposed pursuant to by-laws enacted by the Regional Council to the Development Charges Act, 1997, as amended.

“Inherent Risk” means the potential for an unwanted incident or outcome in the absence of controls.

“Level of Service” means a measure of quality or quantity of service which serves as a desired target for particular activity, asset or service area as determined by
Council. Peel’s asset management strategy categorizes levels of service as follows:
- “Customer Level of Service” – means the measures of how the stakeholder receives the service;
- “Asset Level of Service” means the measure of the assets’ capability to provide customer service as reflected by its condition, performance and/or maintenance requirements.

- "Operating Budget" means the annual Council approved plan of the Regional Corporation for expenditures, revenues, staffing levels and service levels for operations of the Regional Corporation taking place from January 1st to December 31st each year.

- "Reserve" means an accumulation, at the direction of Council, of appropriations from net revenues.

- "Reserve Fund" means the accumulation of appropriations from net revenues for purposes which are restricted by law or by the direction of Council contained in the by-law establishing the Reserve Fund.

- “Residual Risk” means the risk that remains after risk controls/treatments are put in place.

- “Risk” means the chance of something happening that will impact on the achievement of objectives. The level of risk can represent an opportunity or a threat to the achievement of objectives.

- “Risk Appetite” means the level of uncertainty an organization is willing to assume to achieve its expected outcomes.

- “Risk Controls” (“Controls”) means the actions taken to manage risk to predefined levels.

- “Risk Tolerance” means the limits of an organization’s capacity for taking on risk.

- “Risk Treatments” (“Treatments”) means actions taken to control risks.

- “Stakeholders” are any individual, group or organization that can affect, be affected by, or perceive itself to be affected by a program (i.e. local
municipalities, agencies, boards, residents, businesses, other governmental bodies, etc.).

- “State-of-Good Repair” means a measure of the condition of the asset relative to how it was initially designed to function to meet original performance requirements.

b) Organizational Structure

- "Chief Administrative Officer" means the employee designated as such by Council and any person who has been authorized to temporarily act as the Chief Administrative Officer during the incumbent's absence or during a vacancy in the office.

- "Chief Financial Officer" means the Commissioner of Finance and Chief Financial Officer of the Regional Municipality of Peel and any person who has been authorized to temporarily act as the Chief Financial Officer during the incumbent's absence or during a vacancy in the office.

- "Council" means the Council of The Regional Municipality of Peel.

- "External Agencies" means organizations that require annual approval from Council of the Regional budget for their Regionally financed budgeted expenditures or revenues taking place from January 1st to December 31st each year. These organizations include but are not limited to the Peel Regional Police, Ontario Provincial Police, Credit Valley Conservation, Toronto and Regional Conservation Area, Conservation Halton and the Municipal Property Assessment Corporation.

- "Region" means The Regional Municipality of Peel.

D. POLICY (Mandatory)

1.0 General

1. This policy is guided by the Financial Management By-law (FMBL), (By-law 49-2013).
2. This policy sets out the requirements for asset management and is subject to specific direction as provided by Council or as provided in a manner consistent with this policy by the Chief Administrative Officer (CAO) upon written recommendation of the Commissioner of Finance and Chief Financial Officer or as prescribed by a higher level of government.

3. Staff under the authority from the CAO, are authorized to carry on day-to-day business developing and employing rules related to asset management which are consistent with this policy.

4. The Commissioner of Finance and Chief Financial Officer, as the Executive lead is responsible for the municipality’s Asset Management Planning.

5. Council is the body that is the ultimate authority for Asset Management Program governance.

2.0 Asset Management Framework

The Region’s Asset Management Framework outlines the elements to achieve its long-term infrastructure risk management goal of finding the optimal balance between providing reliable, efficient services, and doing it at the lowest reasonable cost. The Region of Peel is committed to a culture of continuous improvement in all areas of the framework; employing management and monitoring processes to ensure that assets are providing effective and efficient public services at levels desired by Peel’s Council and meeting the needs of Peel’s stakeholders.

The Asset Management Framework will take into consideration a coordinated approach with Stakeholders that addresses Climate Change Action Plans, Land Use Planning, Master Plans and any other relevant plans.

2.1 Establishing the Asset Levels of Service

Asset levels of service are measures of the assets’ minimum condition, performance and/or maintenance requirements to provide the desired levels of service. The degree to which asset levels of service are being met affects the levels of risk to the services and the relative importance to take asset management actions.
The asset levels of service may be established to achieve regulatory compliance (non-discretionary) or may be set by Council (discretionary). The discretionary asset levels of service as set out in Appendix 1 of this Policy, have been approved by Council and may be amended from time to time by Council.

The methods of establishing and maintaining asset levels of service are set out as follows:

- Service levels mandated by regulations and legislation are non-discretionary and will form the basis for a minimum allowable level of service.
- Discretionary asset levels of service and asset levels of service that exceed non-discretionary/mandated requirements are approved by Council.
- Asset levels of service have been pre-established in the Asset Management Strategy according to regulatory requirements, to protect public and employee health and safety, and to maintain current service levels.
- Where service levels change, the impacts to the asset levels of service, the capital and operating costs, the required changes to the capital plan and the consequences of failing to meet the new levels of service will be reported to Council.
- Where regulated standards or levels of service change but infrastructure can be “grandfathered” under previous regulations, the previous asset levels of service will apply until such time as the assets are replaced or rehabilitated to the new standards at which time the new asset levels of service will be applied to meet the new regulations.
- Within the context of Peel’s changing operating and natural environment, changes to the Strategic Plan and service objectives and emerging risks and technology, the approved discretionary asset levels of service may require amendments from time to time.
- When considering adjustments to the approved discretionary asset levels of service, the corresponding changes to levels of risk and the capital and operating costs associated with the service changes are to be calculated and considered.
2.2 Asset Life Cycle Management

The asset life cycle represents a series of stages through which the assets progress during their lifespans. The stages include identification of need, planning, design, installation/construction, operation, maintenance, monitoring, rehabilitation and disposal. Prescribed asset management activities support the information and planning required to take appropriate actions throughout the asset life cycle in order to maximize asset value to the organization and the public.

a) Data Management

Information on the assets will be brought up to date and thereafter kept up-to-date in secure data warehousing systems. Where there is data missing, data capture plans will be developed to close the data information gaps. The information to be maintained for the assets includes:

- Date of installation
- Material(s)
- Estimated life span
- Replacement value, including design, administration and contingency allowances
- Maintenance and inspection schedules
- The life cycle history and costs to maintain, operate and refurbish the assets
- Most recent condition rating(s)

b) Other Life Cycle Activities

Other activities required to proactively plan the most appropriate actions include:

- Conducting regular condition assessments and inspections at minimum recommended schedules according to industry benchmarks, regulations and/or manufacturers recommendations and warranties
- Maintaining current ratings on the condition of the infrastructure
- Implementing appropriate maintenance, operating and rehabilitation strategies to optimize asset life spans and return on investment for the infrastructure
2.3 Risk Management

Managing enterprise risks at all levels of the organization is essential to maintain the strength of an organization. Managing the risks to assets and services is the core focus of Peel's Asset Management Program and a function of direct service delivery. Insights into the levels of asset risks are the means to identify, quantify and prioritize the Region of Peel’s asset management requirements.

Processes to enable management of asset risk are set out as follows:

- Council approves the organization’s risk appetite and risk tolerances.
- Managing asset risks requires that the current, inherent and residual risks be monitored and reviewed annually within the context of approved risk tolerances, Peel’s changing operating and natural environment, changes to service objectives and emerging new risks and technology.
- ‘Current’ levels of risk at each asset class are to be updated annually based on the degree to which assets are meeting or not meeting approved asset levels of service.
- Where ‘current’ levels of asset risks are approaching, at, or exceeding approved tolerances, corrective asset management actions will be assessed, and the resultant actions reported to Council. The report will outline the reasons/drivers for the action(s), the anticipated level of risk reduction and the capital and operating costs for the proposed action(s). If such asset management action(s) require a change in the approved levels of service, approved capital plans and/or approved...
asset management plans, Council will be informed of those changes as well.

- All asset management actions for which Council approval is required will, once approved, be incorporated into the Region’s asset management plans and the annual capital budget and forecast.
- From time to time Council may desire a change to asset risk tolerances. Staff will demonstrate the corresponding change to the other asset parameters (levels of service, costs, life spans/cycles) and to the capital plan so that Council is completely aware of all the impacts before making a final decision on changing the asset risk tolerances.

2.4 Corporate Reporting on Asset Management

Reporting on levels of service, asset lifecycle and risk analysis gives a corporate-wide perspective on the Region of Peel’s infrastructure needs and priorities to enable better, more informed strategic planning and decision making for all levels of the organization. This corporate reporting system is facilitated by asset management analytics that:

- Reflect changes in Peel’s asset management processes and assumptions
- Utilize the most current asset information
- Provide analysis and reporting on the impacts of changing asset levels of service, levels of asset risks and risk tolerances, levels of financing, maintenance, rehabilitation and asset replacement strategies

Annually, the CFO will report to Council on:

- The status of Peel’s infrastructure
- The adequacy of the annual budget and forecast to meet state-of-good repair requirements and manage related risks

E. RESPONSIBILITIES (Mandatory)

Finance, Enterprise Asset Management shall review, and if necessary, update this policy at least every five (5) years.
F. PROCEDURES (Referencing Purposes Only)

Not applicable

G. GUIDELINES (Referencing Purposes Only)

The contents of this policy are to be managed in accordance with the Region of Peel's Asset Levels of Service as described in Schedule 1.

Irrespective of the capitalization thresholds stated in the Tangible Capital Asset Policy, assets as defined in the Scope (section B) will be considered as part of the Asset Management Framework.

<table>
<thead>
<tr>
<th>APPROVAL SOURCE:</th>
<th>tbd</th>
</tr>
</thead>
<tbody>
<tr>
<td>ORIGINAL DATE:</td>
<td>tbd</td>
</tr>
<tr>
<td>LAST REVIEW DATE:</td>
<td>tbd</td>
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<tr>
<td>LAST UPDATE:</td>
<td>tbd</td>
</tr>
<tr>
<td>EFFECTIVE DATE:</td>
<td>tbd</td>
</tr>
<tr>
<td>RESPONSIBILITY:</td>
<td>Finance Department, Enterprise Asset Management</td>
</tr>
</tbody>
</table>

Further assistance: Contact ZZG-Corporate Policies
### Provincial Strategic Asset Management Policy Requirements

Every municipality shall prepare a strategic asset management policy that includes the following:

<table>
<thead>
<tr>
<th>Strategic Asset Management Policy Requirements</th>
<th>Existing Asset Management Policy (F10-06)</th>
<th>Updated Asset Management Policy</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Any of the municipality’s goals, policies or plans that are supported by its asset management plan</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>2. The process by which the asset management plan is to be considered in the development of the municipality’s budget or of any long-term financial plans of the municipality that take into account municipal infrastructure assets.</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>3. The municipality’s approach to continuous improvement and adoption of appropriate practices regarding asset management planning.</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>4. The principles to be followed by the municipality in its asset management planning, which must include the principles set out in section 3 of the Act.</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>5. The municipality’s commitment to consider, as part of its asset management planning,</td>
<td></td>
<td></td>
</tr>
<tr>
<td>i. the actions that may be required to address the vulnerabilities that may be caused by climate change to the municipality’s infrastructure assets, in respect of such matters as,</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A. operations, such as increased maintenance schedules,</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>B. levels of service, and</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C. lifecycle management,</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ii. the anticipated costs that could arise from the vulnerabilities described in subparagraph i,</td>
<td></td>
<td></td>
</tr>
<tr>
<td>iii. adaptation opportunities that may be undertaken to manage the vulnerabilities described in subparagraph i,</td>
<td></td>
<td></td>
</tr>
<tr>
<td>iv. mitigation approaches to climate change, such as greenhouse gas emission reduction goals and targets, and</td>
<td></td>
<td></td>
</tr>
<tr>
<td>v. disaster planning and contingency funding.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. A process to ensure that the municipality’s asset management planning is aligned with any of the following financial plans:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>i. Financial plans related to the municipality’s water assets including any financial plans prepared under the Safe Drinking Water Act, 2002.</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>ii. Financial plans related to the municipality’s wastewater assets.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. A process to ensure that the municipality’s asset management planning is aligned with Ontario’s land-use planning framework, including any relevant policy statements issued under subsection 3 (1) of the Planning Act, any provincial plans as defined in the Planning Act and the municipality’s official plan.</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Description</td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>---</td>
</tr>
<tr>
<td>8</td>
<td>An explanation of the capitalization thresholds used to determine which assets are to be included in the municipality’s asset management plan and how the thresholds compare to those in the municipality’s tangible capital asset policy, if it has one.</td>
<td>✓</td>
</tr>
<tr>
<td>9</td>
<td>The municipality’s commitment to coordinate planning for asset management, where municipal infrastructure assets connect or are interrelated with those of its upper-tier municipality, neighbouring municipalities or jointly-owned municipal bodies.</td>
<td>✓</td>
</tr>
<tr>
<td>10</td>
<td>The persons responsible for the municipality’s asset management planning, including the executive lead.</td>
<td>✓</td>
</tr>
<tr>
<td>11</td>
<td>An explanation of the municipal council’s involvement in the municipality’s asset management planning.</td>
<td>✓</td>
</tr>
<tr>
<td>12</td>
<td>The municipality’s commitment to provide opportunities for municipal residents and other interested parties to provide input into the municipality’s asset management planning.</td>
<td>✓</td>
</tr>
</tbody>
</table>
Enterprise Asset Management

Audit and Risk Committee Presentation

Sam Sidawi,
Director, Enterprise Asset Management
Region of Peel
Assets and Service Delivery

• The Region of Peel’s long-term asset management program has been in place for over ten years.

• The Enterprise Asset Management Program facilitates the management of asset risks and challenges.

• The update of the existing Asset Management Policy ensures compliance with provincial regulation and provides guidance for the on-going management of assets.
Investing to Build our Community for Life

Infrastructure Replacement Value

- $17.1B in 2012
- $27.8B in 2019
-+$9B new assets in 2041
Increasing Capital Needs

• Aging infrastructure
• Increase in portfolio due to growth
• Climate change
• Regulatory compliance
Provincial Regulatory Requirement
O.Reg 588/17

• Full Regulatory compliance prior to July 2024
  • Update Asset Management Policy
  • Inventory and cost to maintain all assets
  • Financial strategy to maintain all assets
  • Climate change impact assessment and action plan
# Provincial Regulatory Compliance

<table>
<thead>
<tr>
<th>Asset Management Plan Phases</th>
<th>Regulation Requirements Deadline</th>
<th>Requirements</th>
<th>Regional Compliance Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Policy</td>
<td>July 1, 2019</td>
<td>• Requires municipalities to outline commitments to best practices and continuous improvement</td>
<td>• Updated policy meets all 12 requirements set forth by the Province</td>
</tr>
<tr>
<td>Phase 1</td>
<td>July 1, 2021</td>
<td>• For core assets:&lt;br&gt;  o Inventory of assets&lt;br&gt;  o Current levels of service measured by standard metrics&lt;br&gt;  o Costs to maintain levels of service</td>
<td>• Currently compliant for all core assets except stormwater&lt;br&gt;  • Anticipate full compliance once stormwater is incorporated into Infrastructure Status &amp; Outlook report prior to end of 2020</td>
</tr>
<tr>
<td>Phase 2</td>
<td>July 1, 2023</td>
<td>• Would build out the Phase 1 plan to include all assets</td>
<td>• Compliant for most assets except Peel Police, Peel Living and Information Technology&lt;br&gt;  • Anticipated full compliance by end of 2022</td>
</tr>
<tr>
<td>Phase 3</td>
<td>July 1, 2024</td>
<td>• Would build on Phase 1 and 2 by adding:&lt;br&gt;  o Proposed levels of service&lt;br&gt;  o Lifecycle management strategy&lt;br&gt;  o Financial strategy</td>
<td>• Acquire a lifecycle decision support technology system for lifecycle assessments by end of 2021&lt;br&gt;  • Utilize system to model lifecycle cost for Council’s approved levels of service by end of 2022&lt;br&gt;  • Complete a financial strategy for approved levels of service by end of 2023</td>
</tr>
</tbody>
</table>
Questions