



## THE REGIONAL MUNICIPALITY OF PEEL

### AUDIT AND RISK COMMITTEE

#### AGENDA

ARC - 5/2019

**DATE:** Thursday, October 31, 2019

**TIME:** 11:00 AM – 12:30 PM

**LOCATION:** 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

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*Chaired by Councillor Starr or Vice Chair Councillor Santos*

#### 1. DECLARATIONS OF CONFLICTS OF INTEREST

#### 2. APPROVAL OF AGENDA

#### 3. DELEGATIONS

#### 4. REPORTS

- 4.1. Water and Wastewater Billing Audit (For information)
- 4.2. Energy Management Audit (For information)
- 4.3. Status of the 2019 Enterprise Audit Services Risk Based Work Plan (For information)
- 4.4. Status of Management Action Plans (For information)
- 4.5. Financial and Economic Risk to the Region Due to Flooding Events Exacerbated by Climate Change (For information)
- 4.6. Deloitte 2019 Audit Service Plan (For information)

#### 5. COMMUNICATIONS

**6. IN CAMERA MATTERS**

**7. OTHER BUSINESS**

**8. NEXT MEETING**

Thursday, February 6, 2020, 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**

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**For Information**


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DATE: October 22, 2019

REPORT TITLE: **WATER AND WASTEWATER BILLING AUDIT**

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

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## **OBJECTIVE**

To inform the Audit and Risk Committee of the results of the Water and Wastewater Billing Audit.

### **REPORT HIGHLIGHTS**

- Effective controls are in place to manage the risks related to the following objective:
  - Efficient and effective management of customer requests and activities.
- There are opportunities to strengthen the effectiveness of the controls in place related to the provision and the timely collection of water and wastewater bills in the following areas:
  - Establish policies and procedures for granting and monitoring authorized users' access to the billing system.
  - Enhance the monitoring and oversight of controls over billing exceptions.
- Management has developed action plans to address the risks identified. The action plan related to system access has been implemented by management.

## **DISCUSSION**

### **1. Background**

The Enterprise Audit Services Risk Based Work Plan 2018 included an audit of Water and Wastewater Billing.

The water and wastewater billing function is handled by two sections of the Operations Support division in Public Works. The billing section is responsible for providing billing services to Peel residences and businesses receiving water and wastewater services; this includes payment processing, management of collections, setting up new accounts and responding to inquiries through a call centre. In addition, the section calculates proposed utility rates and user fees and performs financial modeling. The Meter Operations section is responsible for the installation, repair and maintenance of meters; as well as providing the billing section with accurate and timely water meter readings.

The water and wastewater Customer Care and Billing system was implemented in November 2015. The system provides all the functionalities for billing, payments processing

**WATER AND WASTEWATER BILLING AUDIT**

and collections. In 2018, approximately 1,343,000 bills were distributed. In the same period, the Billing Operations Call Centre received approximately 92,000 calls.

**2. Audit Objectives and Scope**

The objective of the audit was to determine whether management has implemented effective and efficient controls over water and wastewater billing to manage the risks related to the following business objectives:

- To provide water and wastewater billing to residences and businesses in Peel and facilitate timely collection of bills
- Efficient and effective management of customer requests and activities

Specifically, the audit focused on assessing the processes in place to:

- Manage the collection of arrears for:
  - multi-unit properties and
  - landlords with tenanted properties
- Monitor the effectiveness and efficiency of the call centre
- Manage the distribution of water and wastewater bills
- Manage the access controls and system documentation for the Customer Care and Billing system

The scope of the audit included 2017 and 2018 transactions and specifically excluded looking at the Meter Operations section and Storm Water billing.

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

**3. Audit Observations and Management Response**

Overall management has implemented effective internal controls to manage the risks associated with water and wastewater billing to achieve the following objective:

- Efficient and effective management of customer requests and activities.

Specifically, there are controls in place to help ensure the:

- Collection of arrears from multi-unit properties and from landlords with tenanted properties is carried out efficiently and effectively
- Efficiency and effectiveness of the call centre is monitored
- Distribution of bills is managed
- System documentation is managed

There are opportunities to strengthen controls related to managing system access controls and actioning exceptions to the billing process.

**WATER AND WASTEWATER BILLING AUDIT****System Access Controls**

Policies and procedures for granting authorized users' access should be in place including effective controls to ensure that all forms of retirements, resignations, terminations, position changes and leaves of absence are addressed. Users' access rights should be monitored based on the established policy and procedures.

There were system users with access to the Customer Care and Billing system noted during the audit that no longer required access to the system. Based on a review of a sample of system users, three users had left the Region; seven users were on a leave of absence and four users had access whose current position did not require access. This is due to an absence of monitoring and oversight, supported by policies and procedures, of users in the Customer Care and Billing system.

There is a medium risk that allowing access to the Customer Care and Billing system by employees who no longer require access to perform their current jobs could result in unauthorized access to and disclosure of personal information by employees and/or former employees.

**Management Response**

Management has implemented an action plan to address this risk. An annual process to review and validate user access to the system has been developed and documented. Further, the annual process has been carried out. Enterprise Audit Services has verified that this action plan is implemented.

**Billing Exceptions**

There should be a process in place for monitoring and consistent actioning of exceptions to the billing process to help ensure all customer accounts are billed on a regular basis as appropriate.

Management created a report that can be used to help ensure all accounts are billed on a regular basis. This monthly report was reviewed for May 2019. There were approximately 230 exceptions noted on the report and overall there are approximately 1,343,000 customer bills. Based on a review of that report, a number of exceptions were identified that had not been previously addressed by management. It was noted that the report listed older, closed accounts and included accounts with pending bill status when the status was no longer applicable, and the bills should have been issued.

There is a risk that without regular monitoring and consistent actioning of the exceptions noted in the report, late billings or missed billings may occur, thereby impacting the timely and accurate collection of revenue.

**Management Response**

The Director, Operations Support will ensure that a process is put in place to review and address the exceptions noted on the report on a monthly basis. Further, the Director will ensure the report is amended to include additional information that will assist with promptly addressing the exceptions. This action plan is expected to be completed by November 30, 2019.

## **WATER AND WASTEWATER BILLING AUDIT**

### **CONCLUSION**

Management has implemented effective internal controls, over water and wastewater billing to mitigate the risks associated with the efficient and effective management of customer requests and activities. There are opportunities to strengthen the effectiveness of controls related to actioning exceptions to the billing process and managing system access controls.

Management has developed action plans to address the audit observations noted in this report. Enterprise Audit Services has reviewed the action plans and feels comfortable the action plans will address the risks noted during the audit. The action plan for the system access controls has been implemented by management. Enterprise Audit Services will follow up on the status of management action plan implementation for the billing exceptions observation and report back to the Audit and Risk Committee as part of the follow up process in 2020.



Michelle Morris, Director, Enterprise Risk and Audit Services

### **Approved for Submission:**



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N. Polsinelli, Interim Chief Administrative Officer

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

*Authored By: Jennifer Weinman, CPA, CA, CIA, CRMA; Carol Lyons, CPA, CGA, CIA*



**REPORT**  
**Meeting Date: 2019-10-31**  
**Audit and Risk Committee**

**For Information**

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DATE: October 22, 2019

REPORT TITLE: **ENERGY MANAGEMENT AUDIT**

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

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### **OBJECTIVE**

To inform the Audit and Risk Committee of the results of the Energy Management audit.

#### **REPORT HIGHLIGHTS**

- Effective controls are in place to help ensure the business objectives related to energy management are being achieved for both the Office of Climate Change and Energy Management and the Energy Finance section.
- There is an opportunity to review and update the policy and procedures related to commodity procurement to help ensure clear roles and responsibilities in the hedging program.
- Management has developed an action plan to address this observation.

### **DISCUSSION**

#### **1. Background**

The Energy Management audit was included in the 2018 Enterprise Audit Services Risk Based Work Plan.

The Office of Climate Change and Energy Management maintains the real time metering systems and provides technical support for staff using the energy management systems in the Region. The Energy Finance section coordinates the energy budgeting process and manages the procurement of energy commodities for the Region.

The Region purchases two types of energy commodities: natural gas and electricity. The procurement process follows the Region's Energy Commodity Procurement Policy and Energy Procurement Risk Framework which were approved by Regional Council in 2016. A hedging program was established to manage the market risk associated with commodity markets such as supplies and demands, and price fluctuation.

**ENERGY MANAGEMENT AUDIT****2. Audit Objective and Scope**

To determine if management has implemented effective controls to manage the risks related to the following business objectives:

- Provide enhanced energy data analytics, evaluation and system support to inform the continuous improvement of energy management
- Provide energy procurement services and energy planning strategies to enable clients to achieve their long-term goals and program objectives

Specifically, the audit focused on assessing processes in place to:

- Manage energy data analytics and metering system maintenance;
- Evaluate energy consumption and forecast energy requirements;
- Mitigate the energy market risk.

The scope of the audit specifically included transactions from January 1, 2018 to April 30, 2019.

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

**3. Audit Observations and Management Response**

Overall, there are effective controls in place to achieve the business objectives related to energy management for both the Office of Climate Change and Energy Management and the Energy Finance section.

Specifically, there are effective controls in place to provide system support for energy consumption and performance analysis. There are effective controls in place to manage energy requirement forecasting and energy procurement; and to mitigate the market risk associated with commodities. Further, there are effective controls in place to manage the metering system and data analytics.

There is an opportunity to review and update the policy and procedures supporting energy procurement to ensure roles and responsibilities of staff responsible for the hedging program are clearly defined. Without an updated policy and procedures to effectively guide and support staff, there is a medium risk that practices may not align with management expectations.

**Management Response**

Management will review and update the Energy Commodity Procurement Policy. The action plan is expected to be completed by October 31, 2020.

## **ENERGY MANAGEMENT AUDIT**

### **CONCLUSION**

Overall, there are effective controls in place to help ensure the business objectives of energy management are being achieved. There is an opportunity to review and update the policy and procedures related to energy commodity procurement to clearly define roles and responsibilities of staff in the hedging program. Enterprise Audit Services has reviewed the action plan developed by management and is satisfied it addresses the risk noted during the audit. Enterprise Audit Services will monitor the implementation of the management action plan and report back to this committee on the status of the implementation as part of the semiannual follow up process.



Michelle Morris, Director, Enterprise Risk and Audit Services

### **Approved for Submission:**



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N. Polsinelli, Interim Chief Administrative Officer

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

*Authored By: Jennifer Weinman, CPA, CA, CIA, CRMA; Lynn Guo, MBA,CMA (US), CIA Senior Internal Auditor*



**REPORT**  
**Meeting Date: 2019-10-31**  
**Audit and Risk Committee**

**For Information**

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DATE: October 22, 2019

REPORT TITLE: **STATUS OF THE 2019 ENTERPRISE AUDIT SERVICES RISK BASED WORK PLAN**

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

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**OBJECTIVE**

To inform the Audit and Risk Committee on the status of the approved 2019 Enterprise Audit Services Risk Based Work Plan.

**REPORT HIGHLIGHTS**

- The 2019 Enterprise Audit Services Risk Based Work Plan was approved at the February 21, 2019 Audit and Risk Committee.
- Enterprise Audit Services has completed or is in the process of completing eight audit projects from the approved Work Plan.
- This report outlines changes to the Work Plan to respond to requests for services.

**DISCUSSION**

**1. Background**

The Audit and Risk Committee Charter states that the Committee is responsible to recommend that Regional Council approve the Enterprise Audit Services Risk Based Work Plan recommended by the Director of Enterprise Risk and Audit Services. The Enterprise Risk and Audit Services Charter states that the Director, Enterprise Risk and Audit Services is authorized to make changes to the annual Enterprise Audit Services Risk Based Work Plan as needed and report such changes to the Audit and Risk Committee annually.

The 2019 Enterprise Audit Services Risk Based Work Plan (“Work Plan”) was approved at the February 21, 2019 Audit and Risk Committee meeting. Enterprise Audit Services noted the Work Plan as presented may need to be amended based on risks and issues that occur during the year. The current status of the approved Work Plan is outlined in the subject report.

**2. Revised Plan Highlights and Comments**

The 2019 Work Plan was revised based on shifting priorities. The approved 2019 Work Plan included 14 audit projects, of which five commenced in 2018. To date, Enterprise Audit Services has completed or is in the process of completing, eight projects from the 2019

## **STATUS OF THE 2019 ENTERPRISE AUDIT SERVICES RISK BASED WORK PLAN**

Enterprise Audit Services Risk Based Work Plan. Further, one audit project added during the year has been completed. It is anticipated that three remaining projects will commence before year end.

Listed below are the specific changes to the approved 2019 work plan:

- Driver Certification Program – was added to the work plan. Once every three years, the Ministry of Transportation requires a compliance audit be conducted of the Driver Certification Program administered by the Region. The audit can be completed by those delegated authority by the Ministry to conduct the audit. The Region's Enterprise Risk and Audit Services division has conducted regular compliance audits of this program since 2014. This audit was conducted in the spring and reported to the Audit and Risk Committee at the September 19, 2019 meeting of the Committee.
- Meter Operations – was added to the work plan. As per Regional Council resolution #2019-696, Enterprise Audit Services has commenced an audit of the Region's water meter system. This audit is currently in the planning phase.
- The following projects were deferred to accommodate the additional audit projects added to the Work Plan:
  - Infectious Disease Prevention – Immunization and Disease Control
  - Financial Management – Financial Reporting and Accounting (Development Charges). The Development Charges By-law is scheduled for update in 2020.
  - Financial Management – Financial Reporting and Accounting (Accounts Payable)

### **CONCLUSION**

Enterprise Audit Services will continue to update the Audit and Risk Committee each year with the status of the approved Work Plan including any significant changes that may occur.



Michelle Morris, Director, Enterprise Risk and Audit Services

### **Approved for Submission:**



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N. Polsinelli, Interim Chief Administrative Officer

**STATUS OF THE 2019 ENTERPRISE AUDIT SERVICES RISK BASED WORK PLAN**

**APPENDICES**

Appendix I - Status of 2019 Work Plan Projects

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

*Authored By: Michelle Morris, CPA, CGA, FCCA, CIA, CRMA, Jennifer Weinman, CPA, CA, CIA, CRMA and Nicole Lewis*

**APPENDIX I****STATUS OF THE 2019 ENTERPRISE AUDIT SERVICES RISK BASED WORK PLAN****Table 1 – Status of 2019 Work Plan Projects as of September 19, 2019**

| <b>Strategic Plan Area of Focus</b>                                | <b>Audit Project</b>  | <b>Status</b>  |
|--|---|--|
| <b>Living</b><br>People's lives are improved in their time of need | Peel Living Property Management   | Completed (results presented at the May 2, 2019 Audit and Risk Committee)  |
|  | Homelessness Support – Shelter Operations                                       | In progress (currently conducting fieldwork, results of the audit will be presented at the February 6, 2020 Audit and Risk Committee)            |
| <b>Thriving</b><br>Communities are integrated, safe and complete   | Sewer Inspection and Surcharge Collection Process                               | Completed (results presented at the April 4, 2019 Audit and Risk Committee)  |
|  | Roads Resurfacing   | Completed (results presented at the May 2, 2019 Audit and Risk Committee)  |
|  | Water and Wastewater Billing  | Completed (results will be presented at the October 31, 2019 Audit and Risk Committee)   |
|  | Roads and Transportation – Transportation Management                            | In progress (currently conducting planning, results of the audit will be presented at the April 16, 2020 Audit and Risk Committee)               |
|  | Infectious Disease Prevention – Food and Recreational Water Safety              | To commence in 2019  |
|  | Land Use Planning – Land Use Development  | To commence in 2019  |
|  | Infectious Disease Prevention – Immunization and Disease Control                | Deferred<br>See Report Section 2<br>(Revised Plan Highlights and Comment)  |
|  | Driver Certification Program  | New Project - Completed (results presented at the September 19, 2019 Audit and Risk Committee)   |
|  | Meter Operations  | New Project - In progress (currently conducting planning, results of the audit will be presented at the April 16, 2020 Audit and Risk Committee) |
| <b>Leading</b><br>Government is future-oriented and accountable    | Corporate Performance – Energy Management                                       | Completed (results will be presented at the October 31, 2019 Audit and Risk Committee)   |
|  | Information and Technology – IT Security Governance and Management              | In progress (currently conducting fieldwork, results of the audit will be presented at the February 6, 2020 Audit and Risk Committee)            |
|  | Asset Management – Capital Construction   | To commence in 2019  |
|  | Financial Management – Financial Reporting and Accounting (Development Charges) | Deferred<br>Development Charges By-law Update in 2020  |
|  | Financial Management – Financial Reporting and Accounting (Accounts Payable)    | Deferred – See Report Section 2<br>(Revised Plan Highlights and Comment)   |

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**For Information**


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DATE: October 22, 2019

REPORT TITLE: **STATUS OF MANAGEMENT ACTION PLANS**

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

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### **OBJECTIVE**

To provide the Audit and Risk Committee with an update on the status of management action plans which were developed to address audit observations.

#### **REPORT HIGHLIGHTS**

- Professional auditing standards require that Enterprise Audit Services have a process in place to monitor the implementation of management action plans.
- Management implemented 95 per cent of the management action plans that were due to be implemented on or before June 30, 2019.
- The current risk exposure on the one remaining management action plan that was due but not fully implemented is high and is specific to the process objective of inventory management in Long Term Care.

### **DISCUSSION**

#### **1. Background**

Standard 2500.A1 of the *International Standards for the Professional Practice of Internal Auditing* states that Enterprise Audit Services “must establish a follow-up process to monitor and ensure that management actions have been effectively implemented”. Enterprise Audit Services has a process in place to monitor the implementation of management action plans and reports bi-annually to the Audit and Risk Committee on the results.

Commissioners are provided with reports on the status of management action plans throughout the year. These reports provide information to assist with monitoring department specific management action plans.

#### **2. Analysis of Results**

Nineteen management action plans due to be implemented on or before June 30, 2019 were reviewed. Enterprise Audit Services verified that 95 per cent of the plans that were due by June 30, 2019 were implemented. In the prior reporting period, ended December 31, 2018, 68 per cent of the plans that were due were implemented.

## **STATUS OF MANAGEMENT ACTION PLANS**

In addition to the management action plans that were due by June 30, 2019, a total of six plans with completion dates after June 30, 2019 were implemented within our January to June 2019 reporting timeline. They included five management action plans from the Purchasing Card Usage audit; and one from the Peel Living Property Management audit.

One management action plan due to be implemented on or before June 30, 2019 remains outstanding.

### Long Term Care Audit

One management action plan is outstanding which relates to policies and procedures to support inventory and supplies management. The inventory management program has been implemented at one centre with plans to roll out the program across all five centres. Management will also be piloting the new policies and procedures that support inventory management which is expected to be completed by Spring 2020. The risk exposure for this service delivery risk is high and is specific to the process objective of inventory management

## **CONCLUSION**

Enterprise Audit Services will continue to work with Long Term Care management in their efforts toward implementing the management action plan in a timely manner.



Michelle Morris, Director, Enterprise Risk and Audit Services

### **Approved for Submission:**



N. Polsinelli, Interim Chief Administrative Officer

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

*Authored By: Jennifer Weinman, CPA, CA, CIA, Sean Lee, CPA, CGA, CIA, CISA, CGAP, CRMA, PMP and Nicole Lewis*



**REPORT**  
**Meeting Date: 2019-10-31**  
**Audit and Risk Committee**

**For Information**

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DATE: October 23, 2019

REPORT TITLE: **FINANCIAL AND ECONOMIC RISK TO THE REGION DUE TO FLOODING EVENTS EXACERBATED BY CLIMATE CHANGE**

FROM: Stephen VanOfwegen, Commissioner of Finance and Chief Financial Officer  
 Catherine Matheson, Commissioner of Corporate Services

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**OBJECTIVE**

To provide the Audit and Risk Committee with an overview of the financial and economic risks for the Region that can result from the increasing incidence and severity of flooding events caused by climate change.

**REPORT HIGHLIGHTS**

- Increased incidence of flooding and intense rain events accounted for more than half of the catastrophic insured losses in Canada between 2008 and 2017.
- Such events can increase insurance costs for the Region and for all businesses and homeowners, not just those directly affected by the events; further these extreme events can result in uninsured losses, a decline in real estate values for those properties directly impacted, the potential for litigation against the Region and its partners based on allegations that not enough has been done to enhance the resiliency of communities, and it can lead to an impact on a municipality's credit rating.
- In parts of Canada, the loss experience derived from climate change water-based loss is evident. However, despite the increasing incidence and impacts, the Region has not yet experienced a significant impact to tax revenues tied specifically to the indirect financial and economic consequence of flooding.
- While the Region and its partners have worked to increase the resiliency of the public infrastructure to manage impacts from flooding and to educate and support property owners to enhance the resiliency of their own property, this focus and effort must continue as climate change impacts are expected to worsen in the coming decades.
- Through the Region's Climate Change Master Plan implementation, the Region's Office of Climate Change and Energy Management will coordinate the completion of a detailed risk analysis to identify and address the financial and economic risks that climate change water-based events pose to the Region and its residents.

**FINANCIAL AND ECONOMIC RISK TO THE REGION DUE TO FLOODING EVENTS EXACERBATED BY CLIMATE CHANGE****DISCUSSION****1. Background**

At the April 4, 2019 Audit and Risk Committee meeting, observation was made regarding the increasing incidence and severity of water damage connected to climate change over recent decades and the upward pressure such experience is putting on insurance premiums as well as the potential for further financial and economic impact resulting from uninsured damage and whether such increasing financial pressure on property owners is a factor considered in the Region's long term financial planning.

Climate change has been increasingly impacting communities worldwide in a variety of ways including the increased frequency, severity, intensity or duration of heat waves, droughts, wildfires, precipitation patterns, floods, sea level rise and biodiversity loss; and the Region is not immune. Greenhouse gas (GHG) emissions are driving the rise in global temperature and that, in turn, is increasing the frequency, duration and intensity of extreme weather.

Flooding events, which are amplified by climate change, are typically the result of the following sources:

- riverine flooding: high natural watercourse levels, due to higher than historical normal spring run-off or annual water levels, resulting in a breach of its shores, and
- overland or urban flooding: intense rain falls that result in significant overland flow and/or sanitary sewer flow backup as the volume of rain that falls within a short duration overwhelms private, municipal and natural storm water management systems and/or sanitary sewer infrastructure.

**2. Findings**

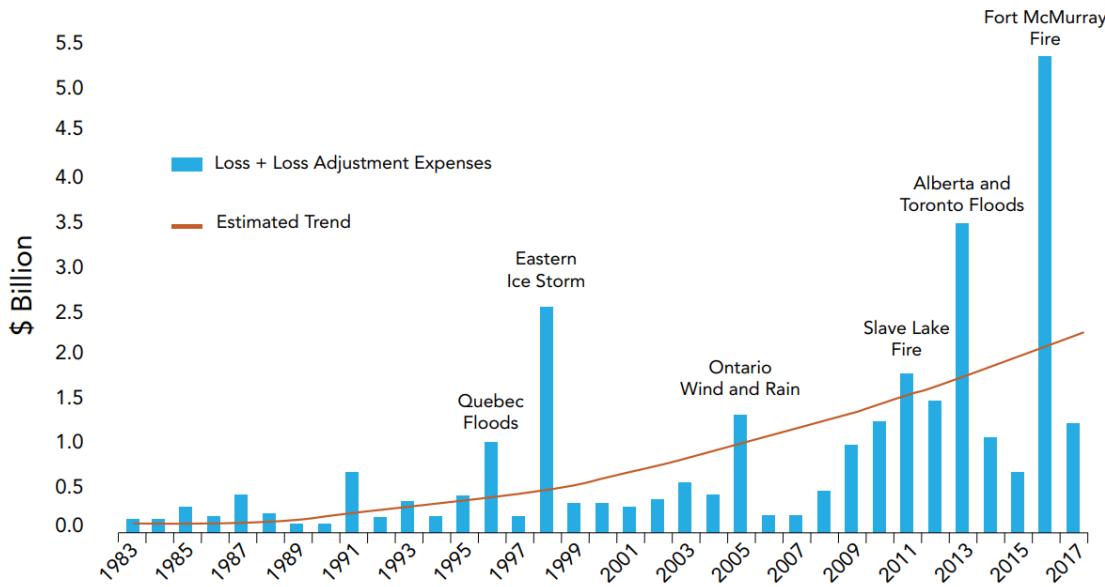
Increased incidence of flooding and intense rain events accounted for more than half of the catastrophic insured losses in Canada between 2008 and 2017.<sup>1</sup> The following illustration illustrates the rise in insured losses over recent decades, including several significant flooding events, such as the 2005 and 2013 Ontario and GTA floods, resulting from significant rainfalls:

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<sup>1</sup> IBC's 2018 Facts of the Property and Casualty Insurance Industry in Canada

## FINANCIAL AND ECONOMIC RISK TO THE REGION DUE TO FLOODING EVENTS EXACERBATED BY CLIMATE CHANGE

Figure 1: Catastrophic Insured Losses in Canada (1983 – 2017)<sup>2</sup>



Further, it has been estimated that for every dollar of loss borne by insurers in Canada, three to four dollars are borne by governments, home and business owners.<sup>3</sup>

Between 2008 and 2017, approximately \$11B of claims costs were incurred as a result of storm related water damage or flooding. This suggests that roughly \$33B to \$44B was incurred in uninsured losses by governments, home and business owners over that same ten-year period. The Federation of Canadian Municipalities (FCM) has estimated that the annual cost of extreme weather events in Canada would be \$5 billion by 2020.<sup>4</sup>

The majority of research indicates that the net damage costs of climate change are likely to be significant and to increase over time.

Property insurance pays for the restoration or loss of property damaged by unexpected events that are covered by the insurance policy (the fortuity principle). Typically flooding results in damage at or below grade, such as in basements. As the frequency and severity of climate change water-based damage continues to increase, the unexpected nature of such losses erodes, leading insurance companies to either increase the cost of the insurance or limit or altogether eliminate the availability of coverage for such a peril.

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<sup>2</sup> Moudrak, N., Feltmate, B. 2019. Weathering the Storm: Developing a Canadian Standard for Flood-Resilient Existing Communities. Intact Centre on Climate Adaptation, University of Waterloo.

<sup>3</sup> Ibid

<sup>4</sup> Federation of Canadian Municipalities (2017) “Seizing the Moment: Budget 2017 Recommendations from Canada’s Local Order of Government.” pp. 8. [https://fcm.ca/Documents/issues/2017\\_FCM\\_Budget-SeizingTheMoment\\_EN.pdf](https://fcm.ca/Documents/issues/2017_FCM_Budget-SeizingTheMoment_EN.pdf)

**FINANCIAL AND ECONOMIC RISK TO THE REGION DUE TO FLOODING EVENTS EXACERBATED BY CLIMATE CHANGE**

Through the 1990s and into 2000, as intense rain events increasingly impacted urban areas, insurance companies started to separate sewer back-up coverage from the main policy coverage. In addition, sub-limits were introduced to the sewer back-up coverage. Therefore, the cost of the insurance went up and the amount of coverage was limited. In certain areas prone to flooding or the impacts of intense rain events, the sewer back-up coverage was not offered.

Further, it is not just the areas directly affected by such water-based climate change events: as such events increase in frequency throughout the Country and the world, the insurance market bears the cost of such damage and in order to maintain the insurance pool as a whole, all policy holders eventually bear the cost. The insurance principle “where the many pay the losses of the few” is put under increasing pressure: either increase the cost for those to pay into the insurance pool or limit what is paid out.

The Canadian insurance market has only recently started to offer insurance for overland flooding to residential home owners (commercial flood insurance has long since been available) but its availability is subject to flood mapping. Where properties are within a flood plain, it is highly unlikely such a property owner could purchase this type of insurance. Further, the effects of climate change are redefining and increasing the extent of existing flood plains as more water becomes available within the hydrologic system; this will increase the number of properties within a given flood plain. It is therefore foreseeable that the availability of flood insurance could become more restricted as more properties fall within flood zones.

The inability to obtain insurance can affect the ability to obtain or maintain a mortgage: lenders typically require the borrower to maintain and evidence property insurance as a condition to extending a mortgage.

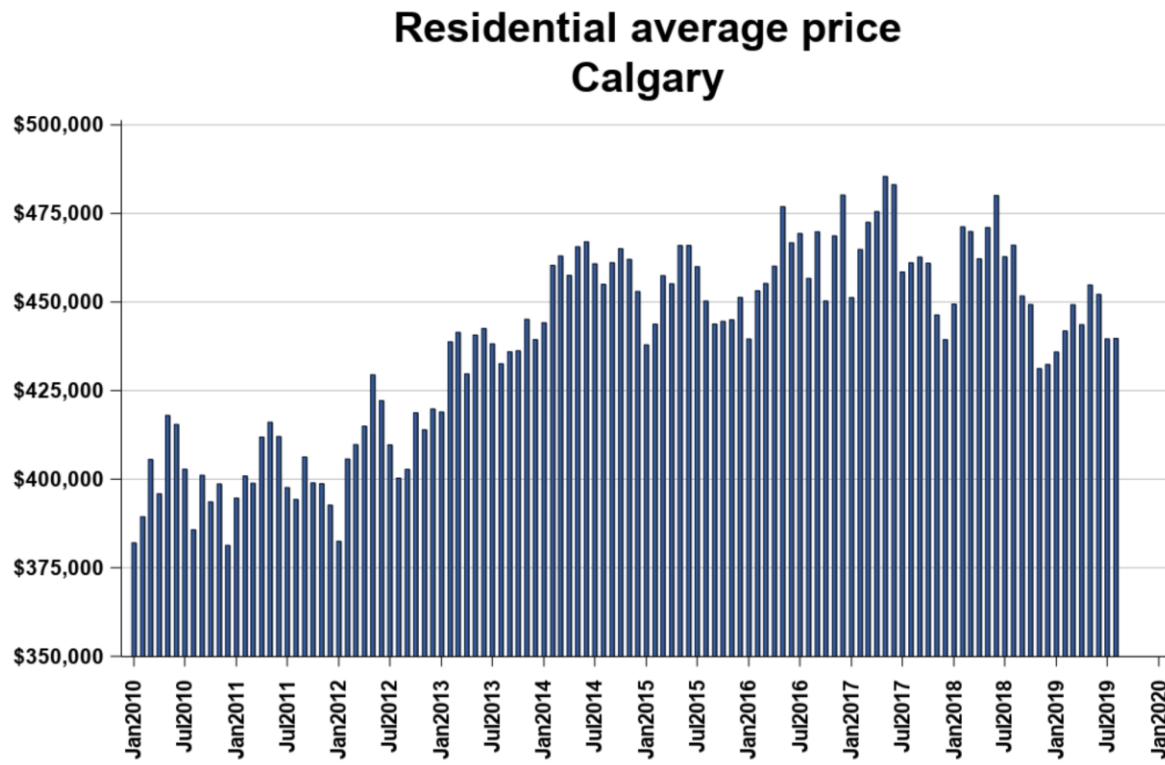
Flood water damage risk can also impact a property's real estate value to varying degrees. The demand for a given urban area and the desire to maintain a residence in that area may incentivize property owners to mitigate the flood risk while at the same time the value of properties that are not at as great of risk to flooding will invariably increase.

As to a recent example of the effect of flooding on a real estate market, the 2013 Bow River flood in Calgary resulted in real estate drops from 10% to 25% for affected areas and saw a reduction in assessed value for 1,939 of 450,314 residential properties, with an average loss of \$208,870 in assessed value for each home damaged (2014).<sup>5</sup> Accordingly, the directly affected areas experience adverse real estate impacts while the broader market remains stable or even increases in time (Figure 2):

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<sup>5</sup> Chris Chopik, 2019. Property Value in an Era of Climate Change

**FINANCIAL AND ECONOMIC RISK TO THE REGION DUE TO FLOODING EVENTS EXACERBATED BY CLIMATE CHANGE**



Source: The Canadian Real Estate Association

Figure 2: Trend over time of average residential property sale prices in Calgary, Alberta, Canada

In addition to the forgoing financial and economic costs, municipalities face the potential of declining credit ratings, lawsuits, and even their own insurance costs increasing should they be slow to take steps to mitigate the effects of climate change water-based loss.<sup>6</sup>

The loss experience derived from climate change water-based loss is evident. However, despite the increasing incidence and impacts, the Region has not yet experienced a significant impact to tax revenues tied specifically to the indirect financial and economic consequence of climate change water-based losses. At present, there is no widespread indication that real estate, and thus assessed values, in the Region of Peel have been adversely impacted by such historical experience or the potential for recurrence in the future.

Though a multitude of factors govern a real estate market, as an example, the strength of the Mississauga real estate market indicates the community as a whole has remained resilient despite the climate change water-based events that have occurred in recent years (Figure 3):

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<sup>6</sup> Moudrak and Feltmate, 2017. Preventing Disaster Before it Strikes

**FINANCIAL AND ECONOMIC RISK TO THE REGION DUE TO FLOODING EVENTS EXACERBATED BY CLIMATE CHANGE**

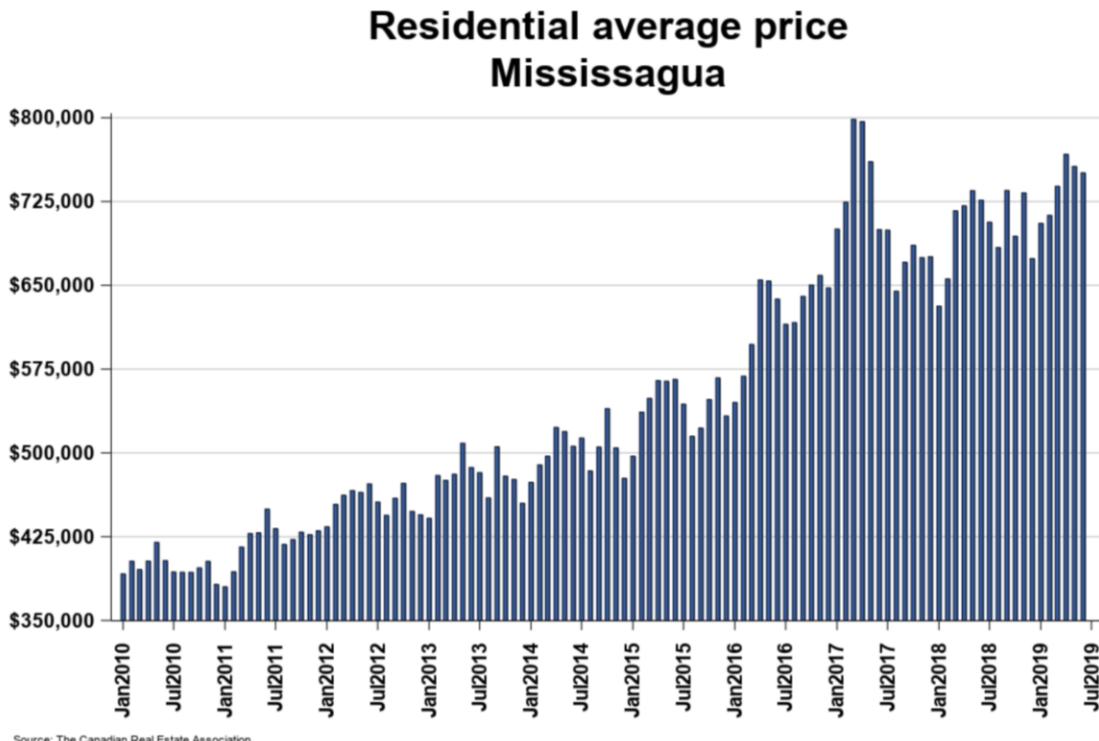


Figure 3: Trend over time of average residential property sale prices in Mississauga, Ontario, Canada

However, the foregoing findings can obscure the impacts to specific neighborhoods. Further analysis should be done for neighborhoods within the Region that have been directly impacted by recent flooding events as some have undoubtedly experienced a level of adverse financial consequence. For example, residents of Mississauga have experienced financial loss following the July 8, 2013 intense rain event and questioned whether they would sell their property to avoid another such experience and loss.<sup>7</sup> Residents of Bolton have indicated they have been faced with significant increases in their insurance premium following the March 2019 river flooding event.<sup>8</sup>

### 3. Building on the Region's Climate Change Leadership

The Region continues to work with local municipalities, conservation authorities and other stakeholders to strengthen the resiliency of municipal and natural storm water management systems in an effort to reduce the potential for intense rain events to overwhelm such systems.

<sup>7</sup> Toronto's July flood listed as Ontario's most costly natural disaster by Carys Mills, Aug. 14, 2013, Toronto Star  
([https://www.thestar.com/business/2013/08/14/july\\_flood\\_ontarios\\_most\\_costly\\_natural\\_disaster.html](https://www.thestar.com/business/2013/08/14/july_flood_ontarios_most_costly_natural_disaster.html))

<sup>8</sup> ANALYSIS: Are insurance rates going through the roof because of the 2019 Bolton flood? by Matthew Strader, Aug 25, 2019, Caledon Enterprise (<https://www.caledonenterprise.com/news-story/9527261-analysis-are-insurance-rates-going-through-the-roof-because-of-the-2019-bolton-flood-/>)

## **FINANCIAL AND ECONOMIC RISK TO THE REGION DUE TO FLOODING EVENTS EXACERBATED BY CLIMATE CHANGE**

The Region's Public Works Department has upsized the diameter of wastewater pipes in certain areas historically affected by intense rain events and has and will continue to address inflow and infiltration factors through the Wastewater Inflow and Infiltration (I&I) Reduction and Mitigation Strategy, which includes the promotion of downspout disconnection and backflow installation programs with private property owners<sup>9</sup> as well as indirect efforts with local municipalities (storm water charge in Mississauga).

Further, local municipalities and conservation authorities have instituted strategies and measures to enhance the flood resilience of communities.

These combined and concerted efforts have strengthened the Region's resiliency but the focus and effort must continue, with improved coordination across all levels of government, as the impacts of climate change are anticipated to worsen in the coming decades. Unless climate change strategies are identified, sustainably financed and implemented, this could lead to significant climate-related financial and economic disruption within the Region.

More generally, the Region has been addressing climate change impacts in the community through collaboration for many years.

The Peel Climate Change Partnership (the "Partnership") was formed to develop and support the implementation of the *Peel Community Climate Change Strategy* (2011). The Partnership is a collaborative effort between the Town of Caledon, City of Brampton, City of Mississauga, Region of Peel, Toronto and Region Conservation Authority and Credit Valley Conservation. The strategy identified three desired outcomes: to reduce community GHG emissions, to reduce community vulnerability to the impacts of climate change and to enhance capacity.

In 2017, the Partnership refined its priorities and developed a five-year implementation plan (2018 – 2022) around four specific strategies, including a Flood Resiliency Strategy. The purpose of the Flood Resiliency Strategy is to strengthen the integrated approach to water management and reduce flood risk in priority areas.

In 2017, Regional Council demonstrated its ongoing climate change leadership by endorsing the *Climate Change Statement of Commitment*. The Statement of Commitment ensures concrete action is taken to mitigate and adapt to the effects of climate change and sets forth the guiding principles and desired outcomes for the transition to a low carbon and resilient future. It also calls for the development of a Climate Change Master Plan to further define the Region's corporate responsibility and formalize the Region's position of leadership and comprehensive action plan for addressing climate change.

The Region's Office of Climate Change and Energy Management has developed a comprehensive, corporate Climate Change Master Plan (the "Plan") and the Plan was brought to Regional Council for approval on October 24, 2019.

<sup>9</sup> Region of Peel Council endorses Inflow & Infiltration, Reduction & Mitigation Strategy, Brampton, ON.  
(May 23, 2019)  
(<https://www.peelregion.ca/news/archiveitem.asp?year=2019&month=4&day=23&file=2019423a.xml>)

**FINANCIAL AND ECONOMIC RISK TO THE REGION DUE TO FLOODING EVENTS  
EXACERBATED BY CLIMATE CHANGE**

The Plan will provide strategic guidance on what climate actions are needed to meet the 2030 corporate GHG emission reduction target and have Regional services and assets more resilient to climate impacts.

The Plan will also enable more robust and transparent decision-making that embeds climate change considerations; accelerate achievements towards a resilient Community for Life; and deliver those benefits to residents and generations to come. In doing so, one of the indirect benefits of this work will be the continued reduction of financial and economic risk posed by climate change water-based events.

**4. Next Steps**

As indicated in a recent joint report prepared by the Federation of Canadian Municipalities (FCM) and Insurance Bureau of Canada (IBC) there is urgent need for new investments in local climate adaptation, the areas where that investment is needed most and there is more to be done to estimate the cost of adapting to climate change.<sup>10</sup>

To better understand and address the regional financial and economic risks arising from water-based climate change events, and as part of the implementation of the Plan, the Region of Peel's Office of Climate Change and Energy Management will coordinate the completion of a detailed risk analysis and bring back the findings to the Audit and Risk Committee in the future.

**CONCLUSION**

Climate change presents a fast evolving risk to the world, with local impacts affecting the Region. In the absence of a well-coordinated and combined effort amongst local, provincial, national and international stakeholders to significantly and rapidly reduce local and global GHG emissions, while at the same time strengthening the resiliency of communities, the effects of climate change are expected to intensify.

While the risk of adverse disruption to the Region's tax base, due to the indirect effects of climate change water-based loss, appears low in the near to moderate future, the focus to reduce GHG emissions, build capacity, develop resiliency, invest and monitor the progress of such efforts must continue.



Stephen VanOfwegen, Commissioner of Finance and Chief Financial Officer

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<sup>10</sup> Investing in Canada's Future: The Cost of Climate Adaptation, Federation of Canadian Municipalities and the Insurance Bureau of Canada, Sept. 2019

**FINANCIAL AND ECONOMIC RISK TO THE REGION DUE TO FLOODING EVENTS  
EXACERBATED BY CLIMATE CHANGE**

*C. Math*

Catherine Matheson, Commissioner of Corporate Services

**Approved for Submission:**

*Nancy Polsinelli*

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N. Polsinelli, Interim Chief Administrative Officer

*For further information regarding this report, please contact Stephanie Nagel, Treasurer & Director of Corporate Finance, extension 7105, [Stephanie.Nagel@peelregion.ca](mailto:Stephanie.Nagel@peelregion.ca) and Christine Tu, Director, Office of Climate Change and Energy Management, extension 4084, [Christine.Tu@peelregion.ca](mailto:Christine.Tu@peelregion.ca)*

*Authored By: John McDonald, Manager, Loss Management and Insurance Services*



**For Information**

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DATE: October 20, 2019

REPORT TITLE: **DELOITTE 2019 AUDIT SERVICE PLAN**

FROM: Stephen VanOfwegen, Commissioner of Finance and Chief Financial Officer  
Stephanie Nagel, Treasurer, Peel Living

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**OBJECTIVE**

To present the 2019 Audit Service Plan prepared by the Region's external auditors, Deloitte, for the upcoming audit of the fiscal year ending December 31, 2019.

**REPORT HIGHLIGHTS**

- The attached 2019 Deloitte Audit Service Plan has been prepared by the external auditors, Deloitte, for the upcoming audit of the Region of Peel and of Peel Housing Corporation, for the fiscal year ending December 31, 2019.
- The audit plan provides detailed information regarding the audit approach, audit scope, materiality, audit risks and communication requirements to the Audit and Risk Committee.
- There are no major changes from the 2018 audit plan.

**DISCUSSION**

Regional Council, on June 23, 2016, approved the appointment of Deloitte LLP as the external auditors for fiscal years 2016 to 2020. At the June 27, 2019 Peel Housing Corporation Annual General Meeting of the Shareholder, Deloitte LLP was appointed as the Corporation's auditors for fiscal year 2019. Deloitte has been the external auditors for both the Region and Peel Housing Corporation for the past nine years.

Deloitte has prepared the attached audit planning report to provide the Audit and Risk Committee with an overview of the external audit approach, audit scope, materiality, audit risks and communication requirements. The audit approach is similar to the one presented last year.

A new accounting standard, *PS 3430 Restructuring Transactions*, is in effect for the 2019 year-end. This accounting standard provides guidance on how to account for and report restructuring transactions by both transferors and recipients of assets and/or liabilities, together with related program or operating responsibilities. Accounting staff are currently assessing the impact of this new standard on the financial statements. Appendix 3 of the attached report provides further information on this new standard and future accounting standards that are in effect over the next several years.

## **DELOITTE 2019 AUDIT SERVICE PLAN**

The audit for fiscal 2019 for both the Region of Peel and Peel Housing Corporation will commence in the fall. It is expected that the 2019 consolidated financial statements for the Region of Peel and the 2019 financial statements for Peel Housing Corporation will be presented to the Audit and Risk Committee on April 16, 2020.

### **CONCLUSION**

The 2019 external audit is expected to proceed as per the 2019 Audit Service Plan, as prepared by Deloitte, the external auditors for both the Region of Peel and Peel Housing Corporation.

Stephen VanOfwegen, Commissioner of Finance and Chief Financial Officer

Stephanie Nagel, Treasurer, Peel Living

### **Approved for Submission:**

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N. Polsinelli, Interim Chief Administrative Officer

### **APPENDICES**

Appendix I – Regional Municipality of Peel and Peel Housing Corporation 2019 Audit Service Plan

*For further information regarding this report, please contact Stephanie Nagel at 905-791-7800 ext. 7105 via email at [stephanie.nagel@peelregion.ca](mailto:stephanie.nagel@peelregion.ca).*

*Authored By: Sandy Calandra*



**Regional Municipality of Peel and  
Peel Housing Corporation  
2019 Audit service plan**

For the year ending December 31, 2019  
Presented to the Audit and Risk Committee  
October 31, 2019

**APPENDIX I**  
**DELOITTE 2019 AUDIT SERVICE PLAN**



Deloitte LLP  
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 Canada

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[www.deloitte.ca](http://www.deloitte.ca)

July 31, 2019

**Private and confidential**

To the Members of the Audit and Risk Committee  
 Regional Municipality of Peel  
 10 Peel Centre Drive  
 Brampton ON L6T 4B9

**2019 Audit service plan**

Dear Audit and Risk Committee Members,

We are pleased to provide you with our audit service plan for the Regional Municipality of Peel ("the Region") and Peel Housing Corporation ("PHC") for the year ending December 31, 2019. This document describes the key features of our plan including our audit scope and approach, our planned communications with you, and our team.

Our audit will include:

- Consolidated financial statements of the Region as at, and for the year ending, December 31, 2019, prepared in accordance with Canadian Public Sector Accounting Standards ("PSAS")
- Financial statements of PHC as at, and for the year ending, December 31, 2019, prepared in accordance with Canadian Public Sector Accounting Standards ("PSAS")
- Financial statements of the Regional Municipality of Peel Trust Funds (the "Trust Funds") as at, and for the year ending, December 31, 2019, and
- Financial statements of the Regional Municipality of Peel Debt Retirement and Sinking Funds (the "Debt Retirement and Sinking Funds") as at, and for the year ending, December 31, 2019.

herein after, collectively referred to as the "financial statements".

Our commitment to you is straightforward: we will provide you with outstanding professional services delivered by an experienced and dedicated team of specialists. Our professionals will continue providing you with best practices and insights to face the increasingly complex array of issues and challenges encountered by companies like the Region and PHC.

We look forward to discussing our audit service plan with you and answering any questions you may have.

Yours truly,

*Deloitte LLP*

Chartered Professional Accountants  
 Licensed Public Accountants

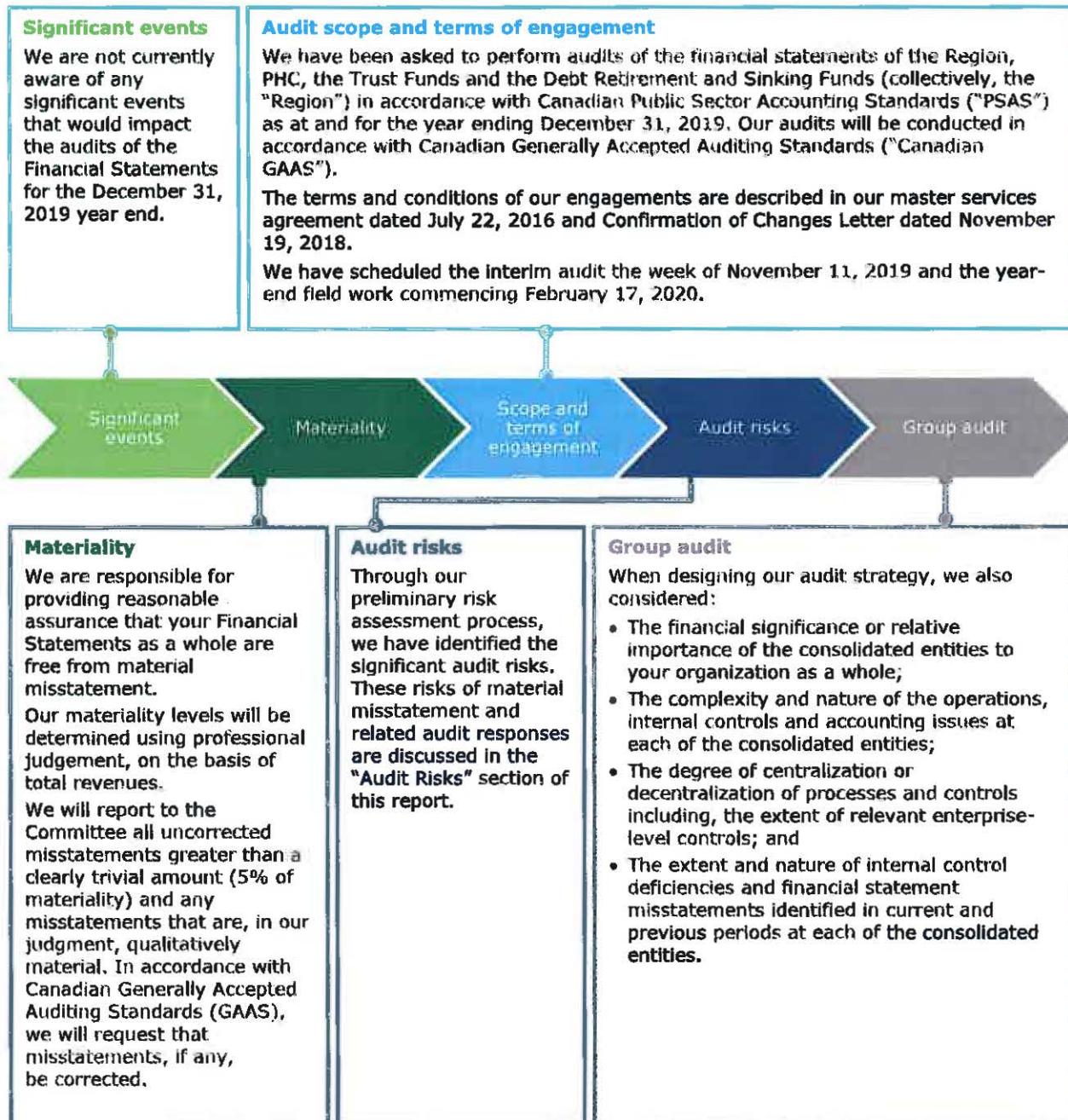
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DELOITTE 2019 AUDIT SERVICE PLAN**

Regional Municipality of Peel and Peel Housing Corporation | Table of contents

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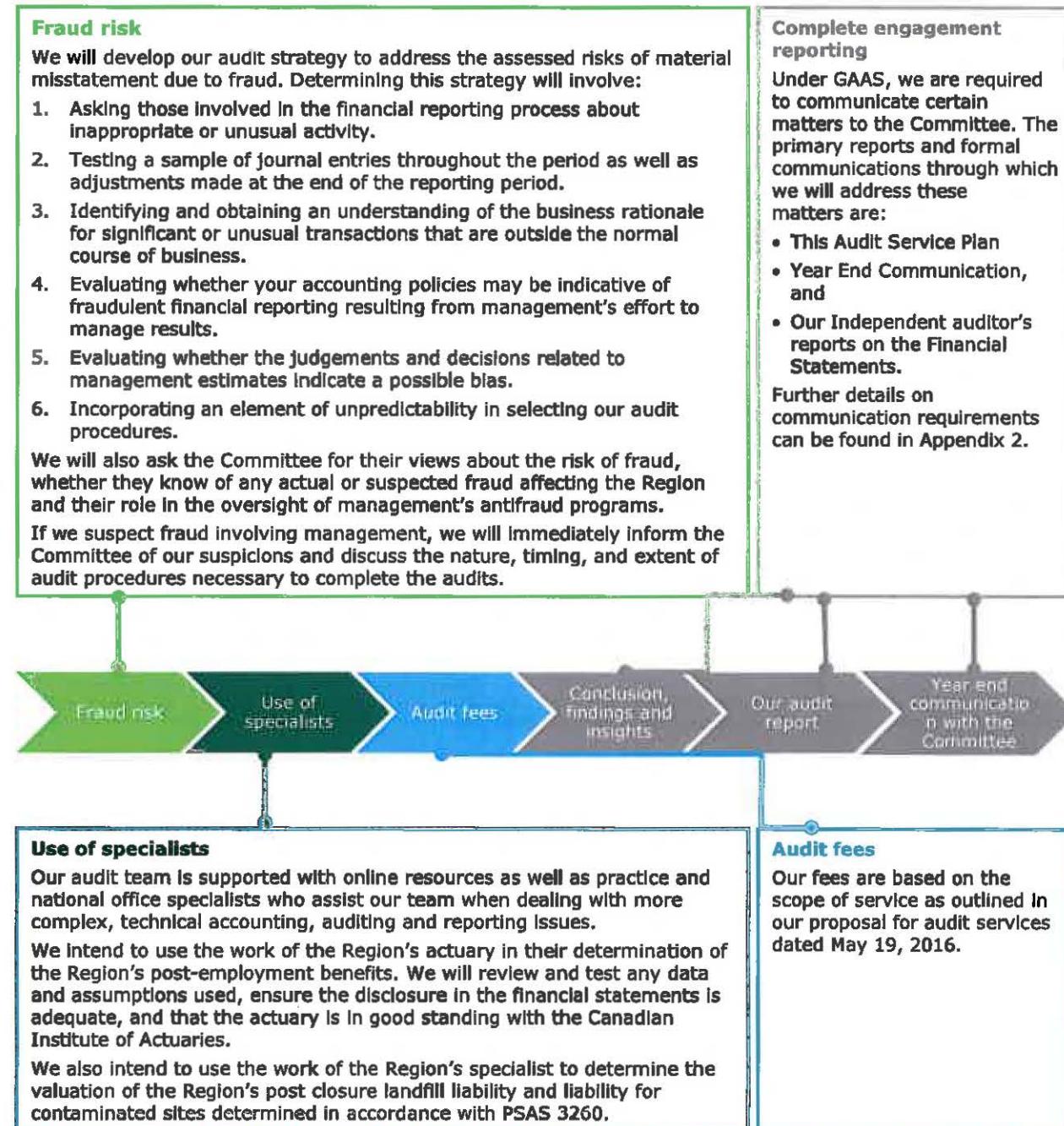
# Our audits explained



## APPENDIX I

### DELOITTE 2019 AUDIT SERVICE PLAN

Regional Municipality of Peel and Peel Housing Corporation | Our audits explained



**APPENDIX I****DELOITTE 2019 AUDIT SERVICE PLAN**

Regional Municipality of Peel and Peel Housing Corporation | Audit risks

# Audit risks

During our risk assessment, we identified some areas of audit risk that will require special audit consideration. These risks, together with our planned responses, are described below.

The following tables set out certain areas of audit risk that we identified during our preliminary planning activities, including our proposed response to each risk. Our planned audit response is based on our assessment of the likelihood of a risk's occurrence, the significance should a misstatement occur, our determination of materiality and our prior knowledge of the Region.

## Region of Peel

### Revenue and deferred revenue amounts\*

| <b>Audit risk</b>   | <b>Our proposed audit response</b>   |
|---|--|
| Canadian Auditing Standards include the presumption of a fraud risk involving improper revenue recognition. | <ul style="list-style-type: none"> <li>Substantive testing to determine if restricted contributions (i.e., development charges, gas tax, conditional grants, etc.) have been recognized as revenue in the appropriate period.</li> </ul> |

### Year-end cut-off

| <b>Audit risk</b>   | <b>Our proposed audit response</b>  |
|---|---|
| Determine if cut-off of revenues and expenses is appropriate. | <ul style="list-style-type: none"> <li>Substantive testing on accounts payable, accrued liabilities, deferred revenue and accounts receivable, and</li> <li>Test disbursements subsequent to year-end.</li> </ul> |

### Tangible capital assets

| <b>Audit risk</b>                      | <b>Our proposed audit response</b>   |
|--|--|
| Appropriate accounting and disclosure. | <ul style="list-style-type: none"> <li>Test assumptions used in determining completeness, valuation, recording and cut-off of 2019 additions and disposals, and</li> <li>Testing of calculations of amortization.</li> </ul> |

**APPENDIX I**  
**DELOITTE 2019 AUDIT SERVICE PLAN**

Regional Municipality of Peel and Peel Housing Corporation | Audit risks

**Year-end accruals and other estimates (including salaries, employee future benefits, landfill closure and post-closure liability, contaminated sites, and allowance for doubtful accounts)**

**Audit risk**

Estimates requiring management judgments and assumptions.

**Our proposed audit response**

- Obtain documentation on management's control over accounting estimates and assess risk
- Review and assess the consistency of major assumptions used to develop significant accounting estimates
- Compare actual historical experience to models employed in such calculations
- Obtain calculations from experts for accruals such as employee future benefit liability and landfill liability, and assess assumptions and data used to prepare the report, and
- Review actual outcome of prior year estimates.

**Management override of controls\***

**Audit risk**

Management override of controls is a presumed area of risk in a financial statement audit due to management's ability to override controls that otherwise appear to be operating effectively.

**Our proposed audit response**

- Our audit tests the appropriateness of journal entries recorded in the general ledger and other adjustments made in the preparation of financial statements
- We will obtain an understanding of the business rationale for significant transactions that we become aware of that are outside of the normal course of business, or that otherwise appear to be unusual given our understanding of the Region and its environment
- We will review accounting estimates for bias and evaluate whether the circumstances producing the bias, if any, represent a risk of material misstatement
- In addition, experienced Deloitte personnel will be assigned to the testing and review of journal entries and areas of estimates, and
- Professional skepticism will be maintained throughout the audit.

**Peel Housing Corporation**

**Tenant and other receivables/revenue\***

**Audit risk**

Canadian Auditing Standards include the presumption of a fraud risk involving improper revenue recognition. Valuation of tenant and other receivables.

**Our proposed audit response**

- Review aging reports and estimate allowance for doubtful tenant receivables for reasonableness
- Confirm subsidies received from the Service Manager, and
- Perform detail testing of tenant and other receivables and related revenue.

**APPENDIX I****DELOITTE 2019 AUDIT SERVICE PLAN**

Regional Municipality of Peel and Peel Housing Corporation | Audit risks

**Tangible capital assets****Audit risk**

Appropriate accounting and disclosure.

**Our proposed audit response**

- Substantive testing of capital asset additions and disposals, and
- Testing of calculations of amortization.

**Long-term debt****Audit risk**

Appropriate accounting and disclosure.

**Our proposed audit response**

- Confirm long-term debt balances, and
- Recalculate interest.

\* These areas have been identified as areas of significant risk.

We will inform you of any significant changes to the areas of audit risk discussed above and the reasons for those changes as part of our year end communication, or earlier if deemed necessary.

**APPENDIX I  
DELOITTE 2019 AUDIT SERVICE PLAN**

Regional Municipality of Peel and Peel Housing Corporation | Appendix 1 – Audit approach

# Appendix 1 – Audit approach

Deloitte's audit approach is a systematic methodology that enables us to tailor our audit scope and plan to address the unique issues facing the Region.

The following steps are not necessarily sequential nor are they mutually exclusive. For example, once we have developed our audit plan and the audits are being performed, we may become aware of a risk that was not identified during the planning phase. Based on that new information, we would reassess our planning activities and adjust the audit plan accordingly.

## **1. Initial planning**

The Deloitte audit approach begins with an extensive planning process that includes:

- Assessing your current business and operating conditions
- Understanding the composition and structure of your business and organization
- Understanding your accounting processes and internal controls
- Understanding your information technology systems
- Identifying potential engagement risks
- Planning the scope and timing of internal control and substantive testing that take into account the specific identified engagement risks

## **2. Assessing and responding to engagement risk**

Our Audit approach combines an ongoing identification of risks with the flexibility to adjust our approach when additional risks are identified. Since these risks may impact our audit objectives, we consider materiality in our planning to focus on those risks that could be significant to your financial reporting.

### **Consideration of the risk of fraud**

When we identify a misstatement or control deficiency, we consider whether it may be indicative of fraud and what the implications of fraud and significant error are in relation to other aspects of the audits, particularly the reliability of management representations.

In determining our audit strategy to address the assessed risks of material misstatement due to fraud, we will:

- Assign and supervise personnel, taking into account the knowledge, skill and ability of individuals with significant engagement responsibilities and our assessment of the risks of material misstatement due to fraud for the engagement.
- Evaluate whether the Region's selection and application of accounting policies, particularly those related to subjective measurements and complex transactions, may be indicative of fraudulent financial reporting resulting from management's effort to manage earnings.
- Incorporate an element of unpredictability when selecting the nature, timing and extent of our audit procedures.

We will inquire directly of the Audit and Risk Committee regarding:

- Its views about the risk of fraud
- Whether it has knowledge of any actual or suspected fraud affecting the Region, and

**APPENDIX I**  
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Regional Municipality of Peel and Peel Housing Corporation | Appendix 1 – Audit approach

- The role it exercises in the oversight of fraud risk assessment and the establishment of mitigating controls.

We will also inquire if the Audit and Risk Committee is aware of tips or complaints regarding the Region's financial reporting and, if so, the Audit and Risk Committee's responses to such tips and complaints and whether it is aware of matters relevant to the audits, including, but not limited to, violations or possible violations of laws or regulations.

If we suspect fraud involving management, we will communicate these suspicions to the Audit and Risk Committee and discuss the nature, timing, and extent of audit procedures necessary to complete the audits.

**Information technology**

An important part of our audit planning process involves gaining an understanding of:

1. The importance of the computer environment relative to the risks to financial reporting
2. The way in which that environment supports the control procedures we intend to rely on when conducting our audits, and
3. The computer-based information that supports our substantive procedures.

The objective of our review of computer controls is to identify potential areas of risk and assess the relevance, reliability, accuracy and completeness of the data produced by the systems. We also assess the operating effectiveness of the computer environment and determine the reliability of the financial information used to generate the financial statements. To accomplish this, we gain an up-to-date understanding of your organization's computer processing environment and our understanding of the relevant general computer controls. We then conduct tests to support our conclusion on the operating effectiveness of controls considered relevant to the audits.

**3. Developing and executing the audit plan**

The performance of an audit includes evaluating the design and determining the implementation of internal controls relevant to the audits, testing the operational effectiveness of the controls we intend to rely on, and performing substantive audit procedures.

**Audit procedures**

The timing of our audit procedures is dependent upon a number of factors including the need to coordinate with management for the provision of supporting analysis and other documentation. Generally, we perform our audit procedures to allow us sufficient time to identify significant issues early, thereby allowing more time for analysis and resolution.

**Tests of controls**

As part of our audits, we will review and evaluate certain aspects of the systems of internal control over financial reporting to the extent we consider necessary in accordance with Canadian GAAS. The main objective of our review is to enable us to determine the nature, extent and timing of our audit tests and establish the degree of reliance that we can place on selected controls. An audit of the financial statements is not designed to determine whether internal controls were adequate for management's purposes or to provide assurance on the design or operational effectiveness of internal control over financial reporting.

The extent to which deficiencies in internal control may be identified through an audit of financial statements is influenced by a variety of factors including our assessment of materiality, our preliminary assessment of the risks of material misstatement, our audit approach, and the nature, timing and extent of the auditing procedures that we conduct. Accordingly, we gain only a limited understanding of controls as a result of the procedures that we conduct during an audit of financial statements.

**APPENDIX I  
DELOITTE 2019 AUDIT SERVICE PLAN**

Regional Municipality of Peel and Peel Housing Corporation | Appendix 1 – Audit approach

We will inform the Audit and Risk Committee and management of any significant deficiencies that are identified in the course of conducting the audits.

**Substantive audit procedures**

Our substantive audit procedures consist of a tailored combination of analytical procedures and detailed tests of transactions and balances. These procedures take into account the results of our controls tests and are designed to enable us to obtain reasonable assurance that the financial statements are free from material misstatements. To obtain this assurance, misstatements that we identify while performing substantive auditing procedures will be considered in relation to the financial statements as a whole. Any misstatements that we identify, other than those that are clearly trivial (the clearly trivial threshold has been set at 5% of materiality), will be reported to management and the Audit and Risk Committee. In accordance with Canadian GAAS, we will request that misstatements be corrected.

**4. Reporting and assessing performance****Perform post-engagement activities**

We will analyze the results of the audit procedures performed throughout the year and, prior to rendering our report, we will conclude whether:

- The scope of the audits were sufficient to support our opinion, and
- The misstatements identified during the audits do not result in the financial statements being materially misstated.

**Independence**

We have developed important safeguards and procedures to protect our independence and objectivity. If, during the year, we identify a breach of independence, we will communicate it to you in writing. Our communication will describe the significance of the breach, including its nature and duration, the action taken or proposed to be taken, and our conclusion as to whether or not the action will satisfactorily address the consequences of the breach and have any impact on our ability to serve as independent auditor to the Region.

We are independent of the Region and we will reconfirm our independence in our final report to the Audit and Risk Committee.

**APPENDIX I**  
**DELOITTE 2019 AUDIT SERVICE PLAN**

Regional Municipality of Peel and Peel Housing Corporation | Appendix 2 – Communication requirements

# Appendix 2 – Communication requirements

| Required communication   | Reference                  |
|--|----------------------------|
| <b>Audit Service Plan</b>  |                            |
| 1. Our responsibilities under Canadian GAAS, including forming and expressing an opinion on the financial statements   | CAS <sup>1</sup> 260.14    |
| 2. An overview of the overall audit strategy, addressing:  | CAS 260.15                 |
| a. Timing of the audits  |                            |
| b. Significant risks, including fraud risks  |                            |
| c. Nature and extent of specialized skill or knowledge needed to perform the planned audit procedures related to significant risk, and   |                            |
| d. Names, locations, and planned responsibilities of other independent public accounting firms or others that perform audit procedures in the audits   |                            |
| 3. Significant transactions outside of the normal course of business, including related party transactions   | CAS 260 App. 2, CAS 550.27 |
| <b>Enquiries of those charged with governance</b>  |                            |
| 4. How those charged with governance exercise oversight over management's process for identifying and responding to the risk of fraud and the internal control that management has established to mitigate these risks | CAS 240.20                 |
| 5. Any known suspected or alleged fraud affecting the Region   | CAS 240.21                 |
| 6. Whether the Region is in compliance with laws and regulations   | CAS 250.14                 |
| <b>Year-end communication</b>  |                            |
| 7. Fraud or possible fraud identified through the audit process  | CAS 240.40-.42             |
| 8. Significant accounting policies, practices, unusual transactions, and our related conclusions   | CAS 260.16 a.              |
| 9. Alternative treatments for accounting policies and practices that have been discussed with management during the current audit period   | CAS 260.16 a.              |
| 10. Matters related to going concern   | CAS 570.23                 |
| 11. Management judgments and accounting estimates  | CAS 260.16 a.              |
| 12. Significant difficulties, if any, encountered during the audits  | CAS 260.16 b.              |
| 13. Material written communications between management and us, including management representation letters   | CAS 260.16 c.              |
| 14. Other matters that are significant to the oversight of the financial reporting process   | CAS 260.16d.               |
| 15. Modifications to our Independent Auditor's Reports   | CAS 260.A18                |
| 16. Our views of significant accounting or auditing matters for which management consulted with other accountants and about which we have concerns   | CAS 260.A19                |

<sup>1</sup> CAS: Canadian Auditing Standards – CAS are issued by the Auditing and Assurance Standards Board of CPA Canada

**APPENDIX I**  
**DELOITTE 2019 AUDIT SERVICE PLAN**

Regional Municipality of Peel and Peel Housing Corporation | Appendix 2 – Communication requirements

| <b>Required communication</b>   | <b>Reference</b> |
|---|------------------|
| 17. Significant matters discussed with management   | CAS 260.A.19     |
| 18. Matters involving non-compliance with laws and regulations that come to our attention   | CAS 250.23       |
| 19. Significant deficiencies in internal control, if any, Identified by us in the conduct of the audits of the financial statements | CAS 265          |
| 20. Uncorrected misstatements and disclosure items  | CAS 450.12-13    |
| 21. Any significant matters arising during the audits in connection with the Region's related parties                               | CAS 550.27       |

**APPENDIX I**  
**DELOITTE 2019 AUDIT SERVICE PLAN**

Regional Municipality of Peel and Peel Housing Corporation | Appendix 3 – New and Revised Accounting Standards

# Appendix 3 – New and Revised Accounting Standards

The following is a summary of certain new standards, amendments and proposals that will become effective in 2019 and beyond.

To review all recent amendments that will impact your organization in the foreseeable future, we invite you to review our revamped [Standard-setting Activities Digest](#), included in our Centre for Financial Reporting ([www.cfr.deloitte.ca](http://www.cfr.deloitte.ca)).

## Public Sector Accounting Standards

| Topic   | Description  | Effective Date  |
|---|--|---|
| <b>Section PS 3430 - Restructuring transactions</b>       | This new section was published by PSAB in June 2015. It establishes standards on how to account for and report restructuring transactions by both transferors and recipients of assets and/or liabilities, together with related program or operating responsibilities | This section applies to restructuring transactions occurring in fiscal years beginning on or after April 1, 2018. Earlier adoption is permitted.  |
| <b>Section PS 1201 - Financial statement presentation</b> | This Section establishes general reporting principles and standards for the disclosure of information in government financial statements.  | This Section applies in the period Section PS 2601 Foreign currency translation, and Section PS 3450 - Financial Instruments, are adopted. Earlier adoption is permitted.   |
| <b>Section PS 2601 Foreign currency translation.</b>      | This Section establishes standards on how to account for and report transactions that are denominated in a foreign currency in government financial statements.  | This Section is effective for (i) Government organizations – April 1, 2012; and (ii) Governments – April 1, 2021. Earlier adoption is permitted.  |
| <b>Section PS 3280 - Asset retirement obligations</b>     | This Section establishes standards on how to account for and report a liability for asset retirement obligations.  | Effective April 1, 2021, earlier application is permitted.  |
| <b>Section PS 3041 - Portfolio investments</b>            | This Section establishes standards on how to account for and report portfolio investments in government financial statements.  | This Section applies in the period Section PS 1201 - Financial statement presentation, Section PS 2601 Foreign currency translation, and Section PS 3450 - Financial instruments, earlier application is permitted. |
| <b>Section PS 3400 - Revenue</b>                          | This Section establishes standards on how to account for and report on revenue. Specifically, it differentiates between revenue arising from transactions that include performance obligations and transactions that do not have performance obligations.              | Effective for fiscal years beginning on or after April 1, 2022. Earlier adoption is permitted. The Section may be applied retroactively or prospectively.   |

**APPENDIX I**  
**DELOITTE 2019 AUDIT SERVICE PLAN**

Regional Municipality of Peel and Peel Housing Corporation | Appendix 3 – New and Revised Accounting Standards

| <b>Topic</b>                                   | <b>Description</b>  | <b>Effective Date</b>  |
|--|---|--|
| <b>Section PS 3450 - Financial instruments</b> | This Section establishes standards on how to account for and report all types of financial instruments including derivatives. | This section is effective for: (I) Government organizations - April 1, 2012 (II) Governments - April 1, 2021. Governments and government organizations would also adopt Section PS 2601 Foreign currency translation, at the same time. Earlier adoption is permitted. |

## APPENDIX I

## DELOITTE 2019 AUDIT SERVICE PLAN

Regional Municipality of Peel and Peel Housing Corporation | Appendix 4 – Deloitte resources a click away

# Appendix 4 – Deloitte resources a click away

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|---|--|--|
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| <input type="checkbox"/> Centre for financial reporting<br>( <a href="https://www.iasplus.com/en-ca/standards">https://www.iasplus.com/en-ca/standards</a> )                              | <ul style="list-style-type: none"> <li>• Directors</li> <li>• CEO/CFO</li> <li>• Controller</li> <li>• Financial reporting team</li> </ul> | Web site designed by Deloitte to provide the most comprehensive information on the web about financial reporting frameworks used in Canada.  |
| <input type="checkbox"/> Deloitte Viewpoints<br>( <a href="https://www.iasplus.com/en-ca/tag-types/deloitte-viewpoints">https://www.iasplus.com/en-ca/tag-types/deloitte-viewpoints</a> ) | <ul style="list-style-type: none"> <li>• CFO</li> <li>• Controller</li> <li>• Financial reporting team</li> </ul>                          | Electronic communications that helps you to stay on top of standard-setting initiatives impacting financial reporting in Canada.   |
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