

# Item 17



**For Action**

## **Audit, Risk and Compliance: Emergency Management Program Update**

**Date:** December 12, 2019

**To:** TTC Board

### **Summary**

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The subject report, to be considered by the TTC Audit and Risk Management Committee on December 12, 2019, is forwarded to the TTC Board for information.

### **Contact**

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## **Audit, Risk and Compliance: Emergency Management Program Update**

**Date:** December 12, 2019  
**To:** TTC Audit and Risk Management Committee  
**From:** Tara Bal, Head of Audit, Risk and Compliance

### **Summary**

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This Report highlights the major initiatives undertaken by Emergency Management and supported by all Departments in 2019 to progress the readiness and resiliency of the TTC. These initiatives have been carried out as part of a comprehensive program to build a solid foundation.

### **Recommendations**

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It is recommended that the TTC Audit and Risk Management Committee:

1. Receive this report for information.
2. Forward a copy of this report to the TTC Board for information.

### **Financial Summary**

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There are no funding implications from the adoption of the report recommendations.

The Chief Financial Officer has reviewed this report and agrees with the financial summary information.

### **Equity/Accessibility Matters**

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There are no accessibility or equity impacts associated with this report.

## Decision History

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The Emergency Management Program was integrated into the Audit, Risk and Compliance Department in early 2019. The major findings in the Emergency Management and Business Continuity Gap Analysis conducted in 2018 provided an understanding of the key initiatives to be undertaken for the TTC to enhance its resiliency and achieve a comprehensive program that meets the provincial standard (Ontario Regulation 380/04), and reflects best practice (CSA Z1600-17).

At the June 3, 2019 Audit and Risk Management Committee meeting, Emergency Management presented an overview of the three-year Emergency Management and Resiliency Program, beginning in 2019. This Report provides a status update on the Program initiatives undertaken in 2019.

## Issue Background

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The Emergency Management and Resiliency Program consists of a three-year Work Plan goal:

### **Year 1 - 2019**

#### **Build a Solid Foundation**

- From re-active to proactive
- Focus on addressing high-priority items

### **Year 2 – 2020**

#### **Full Program Implementation**

- Develop strategic decision-making guidance for leadership
- Operational direction for accomplishing major objectives
- Tactical procedures for carrying out essential activities

### **Year 3 – 2021**

#### **Steady State**

- Comprehensive Emergency Management, Business Continuity and Resiliency Program in place

Specifically, the 2019 Emergency Management and Resiliency Program initiatives were to:

1. Ensure alignment with the City of Toronto's Program, and Readiness for Emergency Operations Centre activation;
2. Update and conduct a corporate-level Hazard Analysis and Risk Assessment;
3. Prepare a new Corporate Emergency Plan (Emergency Operations Plan);
4. Train senior leadership on their emergency management roles;
5. Conduct an executive-level table top exercise using a high priority risk scenario; and

## 6. Establish a Business Continuity and Resilience Program.

### Comments

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TTC Emergency Management, in collaboration with various internal departments and external stakeholders have and continue to undertake a number of high-priority initiatives of the comprehensive Emergency Management Program in Year 1.

The following provides an overview of the TTC Emergency Management Program Year 1 Activities:

#### **1. Alignment with the City of Toronto Program, and Readiness for Emergency Operations Centre Activation**

Emergency Management is working closely with Toronto's Office of Emergency Management (OEM) to ensure Program alignment. As such, the Director of Emergency Management met with Toronto's new Director of OEM on December 4, 2019. Additionally, the CEO and Deputy CEO, Operations are members of Toronto's Emergency Management Program Committee (TEMPC) and the Director of Emergency Management is a member of Toronto's Emergency Management Working Committee. Both of these committees host quarterly meetings, and have been fully attended.

The TTC has fulfilled its requirement to have a Toronto Emergency Operations Centre (EOC) Liaison Roster, should the City activate their EOC. For major emergencies, TTC will staff their desk at the Toronto EOC in accordance with the deployment plan, which is Appendix F of the Emergency Operations Plan. The Transit Control Centre and the Director of Emergency Management will be notified by Toronto's EOC when they are activated. Also, Toronto EOC's Director will advise whether they are requesting the TTC to deploy a liaison to their EOC, or simply monitor the situation.

#### **2. Corporate-Level Hazard Identification and Risk Assessment**

The TTC is interested to know the true risks of all hazards, including those which may be considered rare, so that the organization can ensure effective mitigating controls, and preparedness and response measures. In reviewing hazards and risks, the CEO would like an updated Top List based on public transit trends and concerns, hazard history at the TTC, and known vulnerabilities.

To meet this request, the Audit, Risk and Compliance Department conducted risk identification sessions between May and November 2019 with executive senior management, both with the group as a whole, and individually with the Chiefs. At present, there is a substantial list of 25 identified risks that requires further refinement. This will involve a second-round session with executive senior management. This activity will be undertaken in Q1 2020.

Emergency Management is currently procuring a consultant to develop a corporate-level Hazard Identification and Risk Assessment (HIRA) Summary Report that builds from the Top Risk List. This will entail an overview of each risk, describing the impacts those threats or risks would have on the TTC if they occurred, and based on those impacts, what capabilities we should or currently have in place. This HIRA Summary Report will include strategic recommendations for each risk so that the TTC can continue to enhance the organizational capability to mitigate/control those hazards and risks. This macro-level HIRA Summary Report will broadly evaluate the impacts of various hazards at a high level, however, it is not intended to be readily applicable to all individual components of the entire TTC at the micro-level. This HIRA Summary Report will inform which specific hazards or risks necessitate their own specific plan, and it will also assist in prioritizing the schedule for preparing such plans.

### **3. Prepare a New Emergency Operations Plan**

Most emergencies are local in nature with most internal incidents being managed by the TTC. The City of Toronto or applicable local municipality can become involved where it has primary jurisdiction and responsibility, as well as when requests for assistance are received by the municipality or the province due to capacity limitations and the scope and nature of the emergency. However, certain risk factors increase the potential for catastrophes to transcend geographical or jurisdictional boundaries and to challenge the capacity of the TTC and the City to manage emergencies. These risk factors include critical infrastructure dependencies and interdependencies, climate change, and terrorism.

The Emergency Operations Plan (EOP) serves as the foundation for the TTC's response to and recovery from major incidents and disasters of all types, magnitudes, durations, and levels of complexity. The EOP outlines the processes and mechanisms to facilitate an integrated TTC response to an emergency. The "all-hazards" EOP consists of a Base Plan, Functional Annexes, Hazard or Incident-Specific Annexes, and Appendices. The EOP is based on the annual Hazard Identification and Risk Assessment (HIRA) that determines which hazards could greatly impact the TTC. The EOP is designed to harmonize TTC emergency response efforts with those of the municipal governments.

Emergency Management has developed a new draft EOP, as the current TTC Corporate Emergency Plan is outdated (March 13, 2014). This new EOP is reflective of the current organizational structure, and how the TTC operates. It also establishes an Incident Management System (IMS) that is consistent with both the provincial IMS and Toronto's IMS, and is compliant with applicable statutes, codes, and commonly accepted emergency management standards of practice.

The draft EOP has been provided to internal and external stakeholders for consultation. Senior Management will be attending an orientation workshop in early January 2020. Emergency Management are meeting with Departments and outside organizations to obtain their feedback, as well as utilizing a consultant to provide additional subject matter review. It is anticipated that the EOP will be finalized by the end of Q1 2020.

#### **4. Train Senior Leadership on their Emergency Management Roles**

Senior Leadership and Employees will be trained on the new EOP once it is approved. A training module will be developed in Q1 2020. This will be a targeted and tiered training program. Also, the Operations Training Centre will be revising their RTS 513 Incident Command Course for Supervisors to incorporate the new TTC Incident Management System (TIMS). This will progress the development of an Incident Commander Roster (Appendix E in the EOP) which provides a listing of qualified Supervisors that can be appointed as an Incident Commander.

#### **5. Conduct an Executive-level Table Top Exercise**

Emergency Management is hosting an Executive-level Table Top Exercise (TTX) on January 17, 2020. This will involve senior staff, and other key personnel in an informal group discussion centred on a hypothetical scenario that depicts an actual or assumed real-life situation.

This TTX is a test to validate the new draft EOP and enhance the understanding of new concepts contained within the Plan.

Following the TTX, the EOP will be revised to incorporate any necessary changes, then prepared for the CEO's approval. Lastly it will be disseminated internally and externally to all stakeholders.

#### **6. Establish a Business Continuity and Resilience Program**

This activity was not undertaken in 2019 due to program understaffing but will be launched in Q2 2020. This will involve developing a Continuity of Operations Plan (COOP) that meets the APTA-SS-SEM-001-08 Standard and the CSA Z1600-17 Standard.

At a departmental-level, Operations is enhancing their business continuity plan for the Transit Control Centre.

The following provides an overview of the [Additional 2019 Emergency Management Program Activities](#) undertaken beyond the priority program initiatives:

#### **7. Flood Risk Management and Toronto's First Resiliency Strategy**

There has been a great deal of flood risk mitigation projects undertaken to date by the TTC to protect the infrastructure and to ensure uninterrupted service delivery. Details were reported at the September 19, 2019 Audit and Risk Management Committee meeting.

Since then, Emergency Management has participated at the Flood Resilience Working Group, as the City and the TTC develop their implementation plan for operationalizing the Charter. This will entail the TTC establishing a Flood Resilient Project Plan, and finalizing the TTC's participation in the action items contained within Toronto's First Resiliency Strategy. (See Attachment 1 for the Toronto's First Resiliency Strategy: Goals with TTC Involvement). The City Manager will be reporting back to the Infrastructure and Environment Committee in March

2020 advising of the implementation of the recommendations in the Resilience Strategy. Emergency Management will provide a progress update at the June 3, 2020 Audit and Risk Management Committee meeting.

## **8. Building Emergency Response Plan Program**

The safety and security of employees in the workplace is a high priority for the TTC. There are numerous hazards in the workplace, and many incidents have occurred, including flooding, power outage, suspicious packages, bomb threats, workplace violence, gas leaks, and more. Most are minor and have been addressed with appropriate mitigation, response procedures, and training. However, some are more serious and complex such as fires, security incidents, and medical emergencies. These all require immediate response by employees exercising effective communications with the Transit Control Centre and sometimes the 9-1-1 Public Safety Answering Point, evacuation coordination, liaison with emergency services, and command and control at the scene.

It is for this reason that an “all-hazards” Building Emergency Response Plan (BERP) Program has been developed by an internal Working Group consisting of representatives from Emergency Management (Lead), the Transit Control Centre, Plant Maintenance, the Operations Training Centre, Human Resources, Safety and Environment, Engineering, Construction and Expansion, and the Transit Enforcement Unit, and supported by Design and Wayfinding, and Information Technology Services.

The Building Emergency Response Plan can be used by all employees at every building and Complex in which they work. It provides specific guidance about what they need to know, and the actions to be taken when an emergency incident occurs in their workplace. This Plan can be used for any type of emergency incident regardless of its nature or complexity. The BERP complements the building fire safety plan, and the Fire Warden program. It uses the same approach of detection, reporting, evacuation, and site management.

This Plan can easily be replicated for all work locations, however requires an implementation strategy across the TTC’s facilities. The Inglis Building will be the initial pilot site, followed by all buildings at the Hillcrest Complex, then implemented across all other Complexes (Wilson, McCowan, Davisville, Greenwood, Keele), followed by all other locations (Leslie Barns, McBrien, Roncesvalles, Bus Garages, Subway Stations).

The Working Group is currently determining the cost-benefits of enhancing the TTC’s emergency alerting and mass notification platforms, the creation of emergency response quick reference guides for supervisors, and an employee “badge buddy” containing vital information. In addition to the site-specific BERP Plans, this Program will require developing and conducting staff training.

In early January 2020, senior executive leadership will focus on application and implementation of the Building Emergency Response Plan Program.

## **9. Next Steps - 2020**

There are a number of Comprehensive Emergency Management Program initiatives currently underway that will be completed in 2020 as described above. Additionally, once staffing vacancies are filled, and consulting resources are in-place in Q2 2020, a prioritized schedule for preparing hazard or incident-specific plans will be developed, as well as an annual Exercise calendar to test such plans.

### **Contact**

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### **Signature**

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Tara Bal  
Head – Audit, Risk and Compliance

### **Attachments**

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Attachment 1 – Toronto’s First Resiliency Strategy: Goals with TTC Involvement





**Toronto's First Resiliency Strategy**  
**Goals with TTC Involvement**  
**December 12, 2019**

<b>Focus Area B: Infrastructure</b>					
<b>Goal</b>	<b>Action</b>	<b>Lead and Partners</b>	<b>TTC Involvement</b>	<b>Next Step – To Be Undertaken by the Leads</b>	<b>Due Date</b>
<b>#1</b>  Toronto is more resilient to climate change, including the hazards of flooding and heat	1.2 Priority Action: Flood Resilience: Centralize resources towards a city-wide flood planning and prioritization tool (pp. 92-95)	<b>Lead:</b> Toronto Resilience Office  Key Partner: Flood Resilience Working Group	Marg Verbeek, Director, Emergency Management is a member of the Flood Resilience Working Group	Finalize the terms of reference and develop the technical scope for the mapping tool.  Procure a partner to support development of the tool.	2020
	1.3 Review and update existing flood mitigation programs to account for resilience (pp. 98-100)	<b>Leads:</b> Toronto Resilience Office and Toronto Water  Support: TTC (as per request of Toronto Water)	Stan Bertoia, Chief Civil Engineer, EC&E is a member of the Downtown Basement Flooding Protection Program.	Hold a workshop with key stakeholders to determine the overall scope and timelines for integrating resilience into flood mitigation strategies.  Develop an operational framework for completion in 2020 that defines an approach based on cross-divisional understanding, risk and level of service.	2021
	1.5 Communicate, synthesize and scale up ongoing City efforts to advance a system of green and blue infrastructure (pp. 105-106)	<b>Lead:</b> Toronto Resilience Office  Key Partner: Flood Resilience Working Group	TTC rep – TBD  (service Planning and/or Bus Operations)	Continue to prioritize implementation of green streets throughout the city.  By 2020, establish a framework for collaboration on blue and green infrastructure to further advance this action.	2020

<p>#2</p> <p>Infrastructure and buildings are resilient to a changing climate and reduce greenhouse gas emissions</p>	<p>2.1 Develop a Resilience Lens and apply it to City investments, with a focus on infrastructure (pp. 110 – 112)</p>	<p><b>Leads:</b> Toronto Energy and Environment Division and the Toronto Resilience Office</p> <p>Key Partner: TTC</p>	<p>TTC rep - TBD</p>	<p>In 2019, undertake consultation at the City and with stakeholders in the private sector in order to apply lessons learned from the use of the Federal Climate Lens and technical industry know-how to the development of the City’s new Lens.</p> <p>In 2020, develop the City’s new Lens and conduct workshops and training events to build the capacity of staff on resilience and how to use the new Lens.</p>	<p>2020</p>
<p>#3</p> <p>Toronto has multiple reliable, affordable, and safe mobility options that reduce the amount of time it takes to get around</p>	<p>3.1 Create a city-wide mobility action plan through synthesis of ongoing mobility initiatives and priorities, and identification of resilience gaps (pp. 120-122)</p>	<p><b>Leads:</b> Toronto-City Planning and Transportation Services, and the TTC</p>	<p>Kathleen Llewellyn-Thomas, Chief Customer Officer</p>	<p>An inter-divisional working group has been created and initial work on a city-wide mobility strategy has commenced.</p> <p>Update the TTC’s service standards to include equity considerations.</p>	<p>2021</p>
	<p>3.2 Continue to prioritize service and capital improvements to the TTC that make the system safer, more affordable, more reliable, and less crowded (pp. 123 -124)</p>	<p><b>Lead:</b> TTC</p> <p>Key Partners: Gregg Lintern, Chief Planner, Toronto, and Barbara Gray, Toronto General Manager of Transportation</p> <p>City Manager’s Mobility Strategy</p>		<p>Building on the success of the 5-Year Corporate Plan, the TTC will develop a complementary and overarching 5-Year Service Plan and 10-Year Transit Outlook. The purpose of the Plan is to set a vision and identify actionable and meaningful transit improvements that will significantly enhance mobility and advance the economic, social, and environmental vitality of Toronto.</p>	<p>2021</p>

	3.3 Move more people more efficiently within the existing rights of way by expanding demonstration projects (pp. 125 – 126)	<b>Leads:</b> TTC and Toronto Transportation Services		The City and TTC to consider this action within the planned Surface Transit Network Implementation Study.	2021
<b>Focus Area C: Leading a Resilient City</b>					
#4 Institutionalize resilience into the City's decision-making and take leadership on resilience	4.1 Embed resilience as a practice across the City and partners (pp.143-144)	<b>Lead:</b> Toronto Resilience Office  Partners: All Divisions as well as select Agencies, Boards, and Commissions	Led by Senior Executive Management, and supported by Emergency Management	Identify and partner with Divisions to deliver resilience capacity-building workshops.  Develop business cases for 2020 budget process required to implement the Resilience Strategy.	2021
	4.3 Integrate resilience into emergency management (pp. 148)	Lead: Toronto Office of Emergency Management (OEM)  Partners: TTC	CEO/ Deputy CEO: TEMPC members.  Director, Emergency Management: Emergency Management Working Group (EMWG) member	Establish a terms of reference, mandate, and action plan for the Corporate Business Continuity and Resilience Task Force.  Report to the Toronto Emergency Management Program Committee (TEMPC) on progress against the action plan on a quarterly basis.	2021
	4.4 Improve risk management and communication to residents (pp. 149-150)	<b>Leads:</b> Toronto OEM and Energy and Environment (EED) Division  Partners: TEMPC, EMWG	CEO/ Deputy CEO: TEMPC members.  Director, Emergency Management: EMWG member	In 2019, EED will report on its Task Force on Climate Related Financial Disclosure (TFCD), which could include recommendations around the use of HIRA.  In 2019, EED will conduct a series of senior level multi-stakeholder "Interdependencies Workshops" for internal and external critical infrastructure sectors.	2020

				In 2019, OEM and the Resilience Office will pilot community-level risk assessments in Neighborhood Improvement Areas, as per Action A2.1.	
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