

Review of the City of Toronto's Emergency Response to the December 2013 Ice Storm

Date:	June 17, 2014
To:	Executive Committee
From:	City Manager and Deputy City Managers
Wards:	All
Reference Number:	

SUMMARY

In response to the extreme ice storm that occurred on the evening of December 21, 2013 through December 22, 2013, a Special City Council meeting was held on January 10 and 13, 2014, at which time a number of resolutions were adopted following Council's consideration of the City Manager's report entitled *Impacts from the December 2013 Extreme Winter Storm Event on the City of Toronto (CC46.1)*.

The City Manager's report entitled *December 2013 Extreme Winter Storm Event – Provincial Funding Request and Structure of Comprehensive Reviews (EX39.3)* was considered on April 1, 2 and 3, 2014 and provided an update on the City's request for financial assistance from the Province and outlined the City's process to review its emergency response to the Ice Storm.

This report responds to Council's requests and provides the outcomes of the City's review of the emergency response. Included are a series of recommendations in six broad categories to improve the City's ability to mitigate, prepare for, respond to and recover from future emergencies. Additional information is provided on changes to the City's Emergency Plan and on the status of the City's request to the Province for reimbursement of Ice Storm related costs through the Ice Storm Assistance Program.

1. Emergency Preparedness and Response

Emergency preparedness is a shared responsibility amongst the City, its divisions, agencies and corporations, the Province, businesses, and individual residents. To increase preparedness for future emergencies, including power outages, this report recommends

enhanced public education and awareness initiatives that provide critical information to City of Toronto residents and businesses.

To ensure there are sufficient resources available to manage prolonged city-wide emergencies, this report also recommends enhanced staff training and a commitment from City divisions, agencies and corporations for staffing plans that, at a minimum, provide a five-deep staffing redundancy for positions within the Emergency Operation Centre and at Reception Centres.

Following the review of the City's emergency response, which included an evaluation of the effectiveness of the Emergency Plan and its Operational Support Functions and Risk Specific Plan for Power Outages, this report recommends that the Emergency Plan be updated to incorporate lessons learned and that the City's process for the review of future emergencies be further enhanced and standardized.

2. *Supports for Vulnerable Populations*

To more effectively meet the needs of the City's most vulnerable, and recognizing that this responsibility is shared with the Province, this report recommends the establishing an Emergency Human Services working group and exploring the development of an Emergency Response Agreement with the Toronto Central Local Health Integration Network, Findhelp Information Services (211), and other community-based health and social service agencies.

In addition, this report recommends that City staff pre-identify appropriate City-owned facilities to be used as Emergency Reception Centres for future emergencies using appropriate site selection criteria. The sites selected will be equipped with back-up power and have supplies and equipment pre-assigned, and facility specific plans will be developed to more effectively respond to broader and prolonged emergency situations.

3. *Emergency Communications*

The ability to communicate broadly to the public during prolonged and widespread power outages is a significant concern for our residents and Council. This report recommends the development of new and enhanced tactics and channels to more effectively communicate to the public during power outages, including broader messaging through traditional media and social media and posting of emergency notices in community facilities. City staff will also engage building operators and the business community to co-ordinate the posting of emergency information for their residents and customers.

In response to requests to improve communications with City Councillors, this report recommends the development of a new Emergency Plan Operational Support Function that will provide greater clarity on the role of City Councillors during emergencies and establish clear communication protocols.

4. 311 Toronto and Toronto Hydro Contact Centre Co-ordination

A number of areas have been identified in which co-ordination can be improved between 311 Toronto and Toronto Hydro's Contact Centre. This report recommends that Toronto Hydro and 311 Toronto develop a Memorandum of Understanding that formally documents expectations during power outages to improve services to residents.

5. Urban Forestry and Infrastructure Resiliency

The Ice Storm resulted in wide-spread power outages primarily due to ice accumulation and fallen trees and tree limbs that damaged power distribution lines. In order to minimize potential impacts from similar future events, this report recommends that the City and Toronto Hydro work together to improve the resiliency of hydro distribution lines by:

- reviewing current line clearing practices to more effectively manage trees in close proximity to hydro lines;
- exploring the potential use of more resilient infrastructure when above ground hydro lines are replaced or newly installed; and
- identifying targeted priorities for the conversion of overhead hydro distribution lines to underground including critical facilities such as hospitals, water treatment plants, etc.

The City and Toronto Hydro will also co-ordinate on the implementation of recommended actions outlined in the Toronto Hydro Independent Review Panel Report, *The Response of Toronto Hydro-Electric System Limited to the December 2013 Ice Storm*. The Report's key areas of findings and recommendations include Communications, Information Systems, Vegetation Management, System Hardening, and Resilience.

6. Provincial Requests

In response to requests from Council regarding back-up power, particularly in high-rise buildings, this report recommends that the City request the Province to expand the existing provisions of the Building Code to require continuous back-up power in buildings more than six stories in height and/or in facilities such as hospitals and care centres.

The City has also submitted its Expression of Interest for reimbursement of ice storm related expenditures through the Province's Ice Storm Assistance Program. Current costs estimates for the City, excluding costs to Toronto Hydro, revenue losses, and tree replacement, are \$77.2 million. This report recommends that the Deputy City Manager and Chief Financial Officer report to Budget Committee once confirmation of reimbursements under the Program are received, including a funding plan for any submitted expenditures that are deemed ineligible.

This report focuses primarily on the City's emergency response to the December 2013 Ice Storm. Other reports prepared by City staff that relate to the City's resiliency to our changing climate and the City's response to cold weather emergencies will be considered along with this report at the Council Meeting scheduled for on July 8, 2014.

RECOMMENDATIONS

The City Manager recommends that:

Emergency Preparedness and Response

1. City Council direct the City Manager, in consultation with applicable City divisions, agencies and corporations, to update the City of Toronto Emergency Plan and its Operational Support Functions and Risk Specific Plans, as per the recommendations detailed in Appendix 1;
2. City Council direct the City Manager, in consultation with applicable City divisions, agencies and corporations, and partners, the Canadian Red Cross etc., to enhance emergency staffing capacity and maintain, at a minimum, five-deep staffing levels to ensure sufficient redundancy for the Emergency Operation Centre and at Emergency Reception Centres, and to advance training of required staff throughout the balance of 2014 using existing staff training resources;
3. City Council direct the Deputy City Manager of Cluster B to develop a proactive public education and awareness program to increase the awareness of residents and businesses on emergency preparedness measures and information in consultation with Toronto Hydro and other partners as appropriate;
4. City Council request that the Toronto Police Service Board direct the Chief of the Toronto Police Service to work with the City Manager to develop emergency response protocols to ensure Police Officers are available to direct and control the City's highest priority traffic intersections in the event of power outages during emergency events;
5. City Council direct the Deputy City Manager for Cluster B, in consultation with all relevant City divisions, agencies and corporations, to develop a standardized process for the post-emergency review and evaluation of the City of Toronto's response to emergency events, incorporating elements recommended through the third party peer review;

Supports for Vulnerable Populations

6. City Council direct the Deputy City Manager of Cluster A and the Director, Office of Emergency Management, in consultation with all relevant City divisions, agencies and corporations, to establish an Emergency Human Services working group and to explore the formation of an Emergency Response Agreement with the Toronto Central Local Health Integration Network, Findhelp Information Services (211), and other community-based agencies to improve implementation of the Vulnerable Persons Protocol and increase access to services for vulnerable residents during an emergency situation;
7. City Council direct the Deputy City Manager of Cluster A to pre-identify appropriate Community Recreation facilities to be used as Emergency Reception Centres and

develop facility specific plans, including the provision of back-up power, for operational response during an emergency event;

Emergency Communications

8. City Council direct the City Manager to continue to work in collaboration with staff from Toronto Hydro, the Red Cross and other members of the City's Emergency Risk communicators' network to identify opportunities to expand and strengthen the communications tactics and communications channels that can be utilized to more effectively communicate with the public, particularly vulnerable populations, during an extended power disruption;
9. City Council direct the City Manager and City Clerk, in consultation with City of Toronto Councillors, the Office of Emergency Management and Strategic Communications, to develop a new Councillor Co-ordination Operational Support Function (OSF) document to define the role of Councillors during an emergency event including protocols for the co-ordination and dissemination of information and the development of appropriate processes for training;

311 Toronto and Toronto Hydro Contact Centre Co-ordination

10. City Council request that City of Toronto (311 Toronto) and Toronto Hydro expedite the development and execution of a Memorandum of Understanding that formally documents the expectations and actions of both organizations to ensure co-ordination of communications, information and requests for service related to power outages for localized and widespread events;

Urban Forestry and Infrastructure Resiliency

11. City Council direct the Deputy City Manager of Cluster A, in consultation with Urban Forestry, to work with Toronto Hydro to review current line clearing programs with respect to best practices and report back to Council in the second quarter of 2015 on identified opportunities to enhance co-ordination of activities to more effectively manage the potential impact of trees in close proximity to hydro lines;
12. City Council request Toronto Hydro, in consultation with the City of Toronto (Urban Forestry) to explore the use of infrastructure that is resilient to power outages associated with tree contact, which reduces line clearing requirements and the associated adverse impact on trees, when replacing or installing new above ground infrastructure;
13. City Council support Toronto Hydro's inclusion of \$70 to \$75 million over five years for the conversion of overhead hydro lines to underground as part of its 2015-2019 rate application to the Ontario Energy Board, and request that Toronto Hydro work with the City of Toronto (Urban Forestry) to review and identify potential future priorities, where conversion of overhead lines to underground would most significantly improve the resiliency of the electrical-supply in Toronto;

Provincial Requests

14. City Council request that the Province of Ontario expand the existing provisions in the Ontario Building Code to require continuous power supply for back-up generators in certain building types (i.e. buildings more than six storeys, care occupancies and hospitals); and
15. City Council direct the Deputy City Manager and Chief Financial Officer to report to Budget Committee once confirmation of Ice Storm expenditure reimbursements through the Provincial Ice Storm Assistance Program are received, including a funding plan for any submitted expenditures that are deemed ineligible for reimbursement under the Program.

Financial Impact

Included below are details related to the financial impacts arising from the City's review of the emergency response to the 2013 Ice Storm, an update on the City's submission to the Province of Ontario for the reimbursement of Ice Storm related expenditures through the Ice Storm Assistance Program, and details on previous requests from Council related to the funding of Ice Storm related expenditures.

a) City's Review of Emergency Response

The implementation of recommendations in this report will have a financial impact for the City of Toronto. A detailed funding analysis related to climate change resiliency and emergency preparedness and response will be outlined in the 2015 – 2024 Capital Plan and incorporated into future operating and capital budgets for consideration by Council during the budget process for 2015 and future years.

b) Provincial Ice Storm Assistance Program

On February 26, 2014, the Province of Ontario announced a one-time Ice Storm Assistance Program to assist municipalities to fund storm related costs for tree debris removal, providing emergency response, shelter, immediate and long-term cleanup, and repairs to sidewalks and roadways.

On May 29, 2014 the Province issued a May 2014 Program Update to municipalities, included as Appendix 5, which provided:

- deadline for Expression of Interest (June 16, 2014);
- target date for Incurring Eligible Program Costs (June 22, 2014);
- release date for Program Guidelines and Claims Forms (Summer 2014);
- Deadline for Claim Submission (October 31, 2014); and
- eligible and ineligible costs.

Detailed below are the actual and estimated costs of \$77.2 million for City divisions, Agencies and Corporations. Please note that the Ice Storm Assistance excludes Toronto Hydro costs, revenue losses and tree replacement.

Table 1: City of Toronto Ice Storm Assistance Program Request

City of Toronto Services	Emergency Response (\$)	Immediate Clean-up / Hazard Abatement (\$)	Hidden Hazard Clean-up (\$)	Total (\$)
Parks, Forestry and Recreation	2,412,000	40,655,000	3,286,000	46,353,000
Solid Waste Management Services	14,713	16,520,744	0	16,535,457
Transportation Services	2,802,522	5,993,635	0	8,796,157
Other City Divisions	1,164,046	2,140,966	0	3,305,012
TOTAL CITY DIVISIONS	6,393,281	65,310,345	3,286,000	74,989,626
Toronto Community Housing	966,822	568,845	0	1,535,667
Toronto Transit Commission	500,000	0	0	500,000
Other Agencies and Corporations	117,728	56,711	0	174,439
TOTAL AGENCIES AND CORPORATIONS	1,584,550	625,556	0	2,210,106
TOTAL RECOVERABLE	7,977,831	65,935,901	3,286,000	77,199,732

As required by the Program and as authorized by Council, the City Manager has submitted to the Province the City of Toronto's Expression of Interest submission for the Ice Storm Assistance Program.

With the exception of Urban Forestry, the above costs noted for City divisions, Agencies and Corporations are substantively final. Urban Forestry's response to the Ice Storm has progressed in three phases. The first phase, Emergency Response, and the second phase, Immediate Clean-up, are now complete. The third phase, Hidden Hazard Clean-up, is anticipated to be complete in late 2014 with costs currently estimated at \$3.3 million.

While the City anticipates that most of the submitted storm related costs will be eligible for reimbursement under the Ice Storm Assistance Program, there remains a risk that costs put forward could be denied through the Provincial audit. The most significant area of concern for the City is the potential ineligibility of salaries for staff, primarily in Urban Forestry, assigned to ice storm related work, which was a reassignment from regular forestry responsibilities.

Due to the sheer magnitude of the post-ice storm forestry work required combined with a shortage of both trained arborists and available contractors and equipment, Urban Forestry had no option but to redirect City crews from regular work to address, on a priority basis, health and safety hazards caused by the Ice Storm. The City has identified these regular hour costs as incremental given they are directly related to the storm and that the City will incur additional costs in the latter half of 2014 for staff overtime and retention of contractors

(i.e. non-regular hours) to address the backlog of unfilled work orders that have not been completed due to ice storm priorities.

The financial risk to the City should costs for regular staff hours be deemed ineligible is approximately \$5 million. City staff continue to meet with the Province on the incremental nature of staff salary costs, and while discussions have been positive, this issue has not yet been resolved.

The Province has not identified when municipalities will be notified of cost reimbursement guidelines under the Ice Storm Assistance Program. Given that final costs are not required to be submitted until October 31, 2014 and will be subject to an audit, it is likely that the City will not be notified of reimbursements until 2015. Once notification is received from the Province, the Deputy City Manager and Chief Financial Officer will report to Budget Committee on amounts received under the Program and a funding plan for any costs deemed ineligible.

c) *Funding Ice Storm Related Costs*

Based on information available to date, there are no additional storm funding impacts on the 2014 Operating and Capital budgets.

As there has been no drawdown of the Corporate Extreme Weather Reserve Fund, there is no need to consider allocating the Toronto Hydro dividend variance to this reserve fund at this time. As previously directed by Council, City staff will report to Budget Committee during the 2015 Operating Budget on a recommended target level for the City's Corporate Extreme Weather Reserve to ensure sufficient reserves to help mitigate the impact of any future extreme weather events.

The Deputy City Manager and Chief Financial Officer has reviewed this report and agrees with the financial impact information.

DECISION HISTORY

The report from Toronto Hydro's Independent Review Panel entitled *The Response of Toronto Hydro-Electric System Limited to the December 2013 Ice Storm* was released on June 18, 2014. The Report outlines a series of findings related to the loss of electricity following the ice storm on December 22/23, 2013 and makes recommendations to improve Toronto Hydro's ability to respond to future emergencies. The City Manager will transmit the Independent Review Panel's report to the Executive Committee for information on July 2, 2014. The Independent Review Panel Report is available on Toronto Hydro's website at the following link:

<https://www.torontohydro.com/sites/corporate/newsroom/Pages/Newsroom.aspx>

At its meeting on April 1, 2 and 3, 2014, City Council considered the report entitled *December 2013 Extreme Winter Storm Event – Provincial Funding Request and Structure of Comprehensive Reviews (EX39.3)*. The report provided details on the Province's announcement of a one-time Ice Storm Assistance Program; the scope and structure of the City's review of the

December 2013 Ice Storm, and the scope and membership of Toronto Hydro's Independent Review Panel.

<http://app.toronto.ca/tmmis/viewPublishedReport.do?function=getCouncilDecisionDocumentReport&meetingId=7851>

During its consideration of the 2014 Capital and Operating Budgets on January 29 and 30, 2014, City Council adopted a number of recommendations related to the supplementary report entitled *Proposed Funding of 2013 Extreme Weather Events (EX37.1, 1av)*. The report outlined the strategy to fund the City's one-third share of the two extreme weather events in 2013 and requested City staff to report back to Executive Committee once the City receives confirmation of any funding provided by the Provincial and Federal governments.

<http://app.toronto.ca/tmmis/viewPublishedReport.do?function=getCouncilDecisionDocumentReport&meetingId=7848>

At its meeting on January 10 and 13, 2014, Council considered the report entitled *Impacts from the December 2013 Extreme Winter Storm Event on the City of Toronto (CC46.1)*. Council approved a series of motions related to the storm, including a request that "the City Manager provide the terms of reference, scope and membership for the City led comprehensive review and for the Toronto Hydro Third Party Independent Panel".

<http://app.toronto.ca/tmmis/viewPublishedReport.do?function=getCouncilDecisionDocumentReport&meetingId=8828>

On January 9, 2014, Anthony Haines, Toronto Hydro President and Chief Executive Officer, announced the establishment of a Panel to review Toronto Hydro's storm response, including electricity grid design and emergency response, urban forestry issues, and customer communications.

ISSUE BACKGROUND

On January 10 and 13, 2014, City Council considered the report *Impacts from the December 2013 Extreme Weather Event* on the City of Toronto and authorized the City Manager to seek financial assistance from the Provincial and Federal governments. In addition, Council adopted a series of motions and requested the City Manager, in consultation with Agencies and Corporations, including Toronto Hydro, to review the City's emergency response to the ice storm and develop recommendations to improve the management of future emergency events.

At its meeting on April 1, 2 and 3, 2014, City Council adopted the recommendations in the report entitled *December 2013 Extreme Winter Storm Event – Provincial Funding Request and Structure of Comprehensive Reviews (EX3)*. The report detailed the process City staff would follow to review the City's response to the Ice Storm emergency response and develop recommendations and necessary next steps to improve the management and response to future emergencies.

Outlined below is a summary of the efforts of City divisions, agencies and corporations, and other partners, to review the overall response to the 2013 Ice Storm and develop recommendations to improve the City's preparedness for and response to future emergencies.

The City's review of the emergency response included:

1. Preparation of an After Action Report for consideration and adoption by the Toronto Emergency Management Program Committee (TEMPC);
2. An assessment and review of the Operational Support Functions and Risk Specific Plans that underpin the City's Emergency Plan that were activated or related to the City's Ice Storm response;
3. Public consultations on weather emergencies, Weather Proof Toronto, which solicited feedback from residents on their experiences with recent extreme weather emergencies; and
4. Review and development of recommendations responding to the motions adopted by Council.

As identified to Council in April, Toronto Hydro, in response to the Ice Storm, established an Independent Review Panel to assess, evaluate and make recommendations related to Toronto Hydro's emergency planning and power restoration response. The Independent Panel has completed its work. As requested by Council, Toronto Hydro has committed to providing the City Manager with a copy of the findings of the Independent Review Panel for transmittal to the Executive Committee for consideration at its meeting on July 2, 2014.

1. TEMPC Emergency Response Review

Following an emergency exercise or actual emergency event, the Office of Emergency Management, on behalf of the Toronto Emergency Management Program Committee (TEMPC), undertakes a process to review the City's response to the event.

Staff directly involved in the activation and operation of the Emergency Operations Centre (EOC), City divisions, Agencies or Corporations, representatives of the Toronto Emergency Management Program Committee and the Emergency Management Working Group, and any external partners and stakeholders who were involved in the emergency response such as utility providers and non-governmental organizations, provide feedback about what went well, what could have gone better, and any specific recommendations for improvement from their unique perspectives.

The feedback is consolidated in a document to analyze the performance of personnel and agencies. This is commonly referred to as an After Action Report, which includes recommendations to improve co-ordination of the City's emergency response through its centralized command at the EOC. Recommendations make reference to improving operational processes and procedures rather than the guiding principles around how the city responds to an emergency. A primary goal of the After Action Report is to identify ways in which the actual response might be improved in future.

The final draft After Action Report is then tabled for review and adoption by the TEMPC, which will give direction for the implementation of acceptable recommendations for improvement.

The After Action Report following the Ice Storm was tabled at the June 5, 2014 meeting of TEMPC and all recommendations were adopted by its members. Implementation of the recommendations will begin immediately and will be led by the Office of Emergency Management, in consultation with members of the Emergency Management Working Group and other relevant City divisions, agencies and appropriate community partners.

2. Emergency Plan Review: Operational Support Functions & Risk Specific Plan

The City's Emergency Plan is the policy document that outlines the City's response to emergencies. The Plan outlines how the City will mitigate, prepare for, respond to and recover from the impact of an emergency or disaster. Underpinning the Emergency Plan are sixteen Operational Support Functions (OSFs) and three Risk-Specific Plans (RSPs), which are supporting documents that outline the structure and framework for integrated support by lead and supporting City divisions, Agencies and Corporations.

The following eight OSFs and one Risk Specific Plan were activated or relate to the City response to the Ice Storm:

1. Damage Assessment
2. Debris Management
3. Emergency Donations Management
4. Emergency Human Services
5. Emergency Information & Media Relations
6. Emergency Operations Centre
7. Traffic Management
8. Volunteer Management
9. Power Disruption (Electricity) Risk Specific Plan

Following the event, Senior Management and division head leads were assigned to review each OSF and the Risk Specific Plan and, in consultation with other City divisions, Agencies and Corporations, and partners, tasked with assessing the effectiveness of each and identifying recommendations that would improve the application of the OSFs and Risk Specific Plan in future.

Appendix 1 of this report entitled, *Emergency Plan – Operational Support Functions and Risk Specific Plans*, provides a summary of the outcome of the review for each of the emergency plan policy reviews and includes recommendations and/or next steps. This report recommends that the OEM and lead City divisions implement recommendations to the City's OSF and Risk specific plans for consideration and approval through TEMPC.

The City obtained independent third party expertise to provide a peer review of the City's review of applicable emergency policies. Overall, the consultant's findings identified a number of strengths including comprehensive stakeholder engagement, thorough review of incident, and a consistent review approach. The feedback received on the review of OSFs and the RSP will enable divisions to strengthen and enhance recommendations. A number of opportunities for improvement were also noted that relate to the process for reviewing the

City's response to future emergencies. These recommendations are discussed further under the Comments section of the report.

The Consultant's Peer Review of the City Emergency Management Program Review is included as Appendix 4 of this report.

3. Public Consultation on Weather Emergencies – Weather Proof Toronto

One hundred and sixty people attended the consultation's four public sessions. During the sessions, the City Manager or Deputy City Manager gave a brief presentation followed by questions and comments from individual participants about the City's emergency weather management and services. Senior City staff answered questions, then participants continued to provide their input in greater detail at small table discussions, facilitated by City staff.

Sessions were held at City Hall, Scarborough Civic Centre, Etobicoke Civic Centre and North York Civic Centre during the week of May 12, 2014. Sessions included displays and information from the City's programs and service areas that are involved in emergency management, as well as a number of external partners.

A Feedback Form was created to gather the public input on past emergencies, and to help the City plan for the future. The form was available online and in hard copy, on a laptop and paper format at the public sessions, and by mail and e-mail. Online versions were translated into 10 languages, and a large-print hardcopy was also provided to participants. Three hundred and ninety one Feedback Forms were submitted. The City also received feedback from residents by e-mail, phone and written submissions.

The Executive Summary from the Public Consultation is included in Appendix 2 and the full report can be accessed at the following link: [WeatherProofToronto](#).

4. Review of Additional Council Motions

At its meeting on January 10 and 13, 2014 City Council adopted a series of motions requesting the City Manager and other Toronto Public Service staff to review, investigate and respond to opportunities and concerns arising from the response to the Ice Storm. The City's responses to Council motions are addressed in the Comments section below. For a full reference of all motions adopted by Council, please refer to Appendix 3.

COMMENTS

Senior Management and division head leads were assigned to undertake the review of the motions adopted by Council during its consideration of the City Manager's report entitled *Impacts from the December 2013 Extreme Winter Storm Event on the City of Toronto (CC46.1)*. City staff consulted with relevant City divisions, Agencies and Corporations, and other partners such as the Canadian Red Cross.

The City's responses to Council motions have been categorized into the following themes:

1. Emergency Preparedness and Education
2. Emergency Management Communications
3. 311 Toronto & Toronto Hydro Contact Centre Coordination
4. Forestry Management
5. Improving the Resiliency of Toronto Hydro Distribution Lines
6. Emergency Reception Centres & Support for Vulnerable Persons
7. Emergency Building Systems
8. Consumer Protection Information

Outlined below are details on the outcome of the review including related recommendations and next steps.

1. Emergency Preparedness and Education

The December 2013 ice storm affected the entire City of Toronto and highlighted the resiliency of its residents. Despite a power loss to approximately 1 million residents at the peak of the emergency, only a small number (5,201 registered individuals) required assistance with accommodation, food or personal services. Most residents coped with assistance from family and friends and ultimately there was no loss of life or serious injury resulting from this severe weather event. However, the prolonged nature of the event underscores the continuing need for an emphasis to be placed on public education related to personal emergency preparedness.

As part of its legislated mandate, the City of Toronto's Office of Emergency Management (OEM) has developed a public education and awareness program that promotes the need for personal preparedness to help build strong and resilient communities. The program provides detailed information on how the public can "Get Emergency Ready". There is no authority that would enable the City to require mandatory emergency preparedness awareness and education for residents and businesses, however, the City endeavours to reach residents and businesses through multiple channels to raise awareness and understanding about the importance of emergency preparedness. Currently, efforts to disseminate information include the production of printed personal preparedness guides and business continuity information, use of the web-site and social media channels, and the staging of annual promotional events and personal preparedness workshops.

OEM's current public education and awareness program provides detailed information in three steps:

- know the risks within your community;
- create a personal emergency plan; and
- prepare a 72 hour emergency kit.

The program outlines that emergencies have the potential to put one's health, safety and security at risk and following these simple steps can help provide protection before, during, and after an emergency.

The OEM continues to increase the resources available to the public and is in the process of developing public education material for residents of multi-residential high-rise buildings with City partners. A multi-agency communications group, the Emergency Risk Communicators' Network, co-chaired by the OEM and Strategic Communications, meets regularly with utilities, private sector and volunteer agencies to build effective working relationships among emergency risk communicators, coordinate messaging on risks such as flooding, power failures and utility disruptions, and promote pro-active emergency preparedness messaging. As part of the recent Memorandum of Understanding with the Canadian Red Cross, the Red Cross will conduct 24 personal preparedness workshops per year for residents of the City of Toronto.

To increase the reach of these various efforts and to raise awareness about the vital importance of emergency preparedness, a more comprehensive and extensive public education strategy needs to be developed and associated funding dedicated to mount a broader, more visible and higher profile campaign. Every emergency brings with it specific challenges to overcome and it is difficult to prepare for every eventuality. However, the magnitude of the 2013 ice storm placed a spotlight on the need for more proactive promotion and communication to better educate and raise awareness about emergency preparedness measures.

In recognition of the need to educate residents and business of the importance of emergency preparedness, this report recommends that the OEM and Strategic Communications work through their Emergency Risk Communicators' Network to develop a comprehensive public education and awareness campaign. This strategic campaign will be closely integrated with the public education presented in the Resilient City staff report, which will be considered by the Parks and Environment committee at its meeting of June 23, 2014. Integration of the two campaigns will promote a broader, more robust, understanding of the significant need for residents and businesses to prepare for extreme weather events as a result of a changing climate, and to be effectively prepared in the event of an emergency situation. Leveraging this opportunity will increase awareness and ensure integrated and comprehensive outreach through a wide variety of communications tools..

2. Emergency Management Communications

Throughout the ice storm, Strategic Communications staff managed communications efforts on behalf of the City of Toronto to ensure that vital information was provided to City of Toronto staff, Councillors, partners, the public and media about storm impacts and the City's emergency response. Staff from Strategic Communications worked collaboratively with Toronto Hydro, which was responsible for communicating directly to residents about hydro outages and restoration.

The Strategic Communications has completed an extensive review of its response to the Ice Storm and has investigated and identified recommendations and next steps to respond to related Motions adopted by Council at its meeting on January 10 and 13, 2014. The Council Motions related to the use of manual forms of communications during an extended power outage, the establishment of an emergency social media coordinator, enhanced engagement

with Councillors, media access to the Emergency Operations Centre (EOC), and enhanced collaboration with Toronto Hydro and other agencies and partners.

Given the recent ice storm experience and in response to the Council motions, this report recommends that Strategic Communications, in consultation with the Office of Emergency Management, Toronto Hydro, the Canadian Red Cross and other partners, enhance communications tactics and communications channels to communicate more effectively with the general public and vulnerable populations during extreme or extended emergencies, particularly those with power disruptions.

a) Enhanced Emergency Communications Channels

Strategic Communications has identified the following tactics that could be implemented as required in addition to the City's regular communications channels during emergencies with extended power disruptions:

- Advertising in print and digital media
- Radio spots
- Public Service Announcements
- Dissemination of information via amateur ham radio operators clubs
- Messaging on electronic overhead roadway signs
- In-person briefings at reception centres led by local ward Councillors
- Posting of hardcopy emergency notices and updates in local community facilities and venues including recreation centres, arenas, libraries, etc.
- Working with building operators and landlords to develop template messaging that can be printed and posted throughout the building
- Working with BIAs and businesses such as coffee shops and grocery stores to post emergency information on their premises, in consultation with Economic Development and Culture

b) Website

Given the City's website is one of the primary communications vehicles to gather and disseminate information to a wide range of audiences, the Division is working on a number of enhancements including a redesign of the City's homepage to more effectively convey emergency alerts and information for the public, design of a dedicated emergency information webpage as a repository for all incident-related information across all divisions, procedures to notify Communications staff at the EOC when City divisions update their web pages with emergency information, and working with Information Technology to provide dedicated staffing support to enhance the City's ability to more effectively use its website in the event of a significant emergency.

Given work currently underway as part of the City's web revitalization project, the above initiatives are being scheduled and coordinated within that overarching initiative.

c) Coordination with Toronto Hydro

While staff from Strategic Communications and Toronto Hydro worked well together during the ice storm, there are opportunities to improve coordination and formalize the relationship between the two organizations. Both organizations agree that attendance by Toronto Hydro communications staff and spokespersons at the City's daily emergency briefings during the Ice Storm was very effective and are committed to continuing this practice during any future EOC activation with significant hydro impacts. Other work underway includes updating the City's Risk Specific Plan for Power Disruptions to better articulate the working relationships and emergency communication protocols.

d) Coordination with 311

Strategic Communications and 311 have a formal Service Level Agreement (SLA) that outlines the relationship between the two divisions for both day-to-day operations and emergency situations. 311 staff are also members of the Emergency Risk Communicators' Network. As a proactive measure, the 311 management team has been provided with pre-drafted risk specific messaging that can be rolled out quickly and effectively to 311 customer service representatives during the initial stages of an emergency. Strategic Communications and 311 staff are working on better capturing data from 311 with respect to issue identification and communications needs and communicating it to EOC and communications staff, recognizing that 311 call volumes and trends are often the first indication of emerging issues. Procedures are also being developed to better utilize on-hold messaging which can be played to callers as they wait on hold for a representative.

e) Media Relations

Strategic Communications staff have had several discussions with the president of the City Hall Press Gallery to discuss additional ideas and media relations efforts that can benefit the City in reaching target audiences and to address reporters' ongoing needs for information. Given many media outlets are based at City Hall and have access to work space and live feeds throughout the building as well as proximity to their downtown head offices and that the EOC is not equipped to host media, staff are not recommending providing media with access to the EOC during an emergency. Staff will schedule a media tour of the EOC when renovations are complete.

f) Social media

Strategic Communications effectively managed the City's main Twitter feed @TorontoComms throughout the ice storm event. A number of issues arose, however, with respect to the City's other divisionally-operated social media accounts. Policy and training work is underway to help ensure that social media channels are fully operational during activation and that efforts are well-coordinated and messages are consistent. To enhance social media communications Strategic Communications will assign a dedicated social media specialist during EOC activation as part of its emergency staffing plan. The division is also developing guidelines for staff who

operate social media accounts to address their roles and responsibilities during an emergency, developing a staff training module to support the new guidelines for operating social media accounts during an emergency and revising the Emergency Information and Media Relations Operational Support Function to clarify Strategic Communications and divisional staff responsibilities during an emergency.

g) Communication and coordination with City Councillors

Typically, emergencies that occur are localized events and engagement with members of Council is direct and limited in scope. However, the December 2013 Ice Storm event presented a unique, citywide emergency which highlighted the need for a more definitive strategy for engaging Councillors when a situation involves all city residents.

To improve the coordination with councillors during future emergency events, to leverage their networks, and provide timely information that can be disseminated to their local communities, this report recommends the development of a Councillor Co-ordination Operational Support Function (OSF) document. The OSF would formalize the communications protocols and provide clarity on the role of Councillors during emergency events.

The City Clerk's Office will lead the development of the Councillor Co-ordination OSF, in collaboration with the Office of Emergency Management and Strategic Communications. At a high level, the OSF will formalize:

- The role of Councillors during the various levels of emergency events (i.e. Level 1-Minor, Level 2-Major, and Level 3-Emergency);
- Emergency Notification to Councillors on the activation of the Emergency Operations Centre;
- Protocols for regular communications with Councillors (i.e. status updates, communications materials, and other pertinent information);
- Protocols for receiving information from Councillors (i.e. constituency feedback, local issues/needs, and other requirements); and
- Training curriculum for Councillors and their staff.

During its development and prior to consideration of the Councillor Co-ordination OSF by TEMPC, the City Clerk's Office will establish a consultation process to engage and solicit feedback from councillors and their staff.

Strategic Communications also recognizes that there are opportunities to better leverage Councillors' local knowledge and both formal and informal community networks and efforts are underway in coordination with the City Clerk's Office and the OEM to identify and leverage these local connections. This work will include the development of communication tools to support Councillors, including daily messages, short news items, and appropriate notices suitable for posting in hardcopy at local facilities or venues, or which can be used on Councillor websites, and distributed electronically via email or through Councillors' Twitter accounts.

3. 311 Toronto & Toronto Hydro Contact Centre Co-ordination

As 311 Toronto continues to develop and gain experience with unplanned events, its response to managing these events continues to improve. In working with its divisional partners to better manage sudden incidents, 311 Toronto has implemented a variety of changes that will enable it to provide improved levels of service in the future.

During the December 2013 ice storm, Toronto Hydro's call centre was overwhelmed. Toronto Hydro received 374,000 calls within 10 days, 100 times the normal call volume, which flooded its telephone system. 311 Contact Centre volumes increased dramatically as well primarily due to reports of hydro outages, downed trees and fallen limbs, debris removal, warming/reception centres, food vouchers and frozen pipes.

During this time, Toronto Hydro staff were in contact with 311 staff on a continuous basis offering the most up to date information on electricity system restoration times. The communication was managed electronically, with 311 staff using Toronto Hydro's information to provide the most up to date information on Hydro outages and restoration. Both 311 Toronto and Toronto Hydro continued to experience extremely high call volumes with very long wait times throughout the aftermath of the storm.

In response to motions adopted by Council at its meeting on January 10 and 13, 2014, staff from 311 Toronto have met with representatives from Toronto Hydro to discuss and explore the potential integration of the services and alternative options that will enhance co-ordination and improve service to customers.

a) Contact Centre Integration

Toronto Hydro's customer service contact centre manages approximately 600,000 non-power outage related calls and 100,000 written enquiries annually. To maintain a high level of service quality to customers, Toronto Hydro uses a combination of internal Toronto Hydro staff and external Customer Service Representatives (CSRs), supplied by a contracted call centre service provider, under a five-year contract with Toronto Hydro.

The external CSRs manage simple transactional types of inquiries, while internal staff manage the more complex customer issues and inquiries, often associated with business customer accounts. It should be noted that even the simple transactional enquiries require electricity distribution system knowledge, billing and rate background knowledge, and some degree of technical expertise. In addition, Toronto Hydro's regulator, the Ontario Energy Board, sets out service standards that must be met on an annual basis for call response, written response, and abandoned calls to the call centre.

311 staff will be trained on Toronto Hydro's on-line reporting tool to report a Hydro outage in the event that a resident calls 311 directly. 311 Toronto will receive regular briefings on Toronto Hydro's key messages that support their capital plan, emergency preparedness and conservation programs.

311 Toronto provides access to non-emergency City Services. 311 Contact Centre Services Representatives answer general enquiries on behalf of City Divisions and take service requests for five divisions (Toronto Water, Solid Waste, Transportation Services, Urban Forestry and Municipal Licensing & Standards). Enquiries requiring technical expertise or counselling are considered to be tier two services and are handled by staff in City Divisions with expert knowledge. Toronto Hydro's general enquiries and service request transactions have been contracted to a call centre service provider for the next five years, limiting the ability of 311 Toronto to handle these services.

Also, in order to effectively integrate the two services, 311 Toronto would need to comply with the Ontario Energy Board requirements. Other requirements, including privacy protection of customer information, pose significant challenges for call centre integration. Given these impediments, neither City staff nor Toronto Hydro staffs are recommending full contact centre integration at this time.

b) Enhanced 311/Toronto Hydro Co-ordination

During periods of wide-spread power outages, Toronto residents call Toronto Hydro, 311 Toronto or both to report a power outage. Additional calls associated with power outages that are received by 311 result in longer than normal wait times, and when Hydro related calls are received via 311, customers are asked to call Toronto Hydro directly to report the incident.

From both a customer service and an efficiency perspective, 311 Toronto should be able to manage calls from residents associated with power outages. This will result in lower wait times and better customer service. Residents should not have to make an additional call to Toronto Hydro to report their power outage, similar to the co-ordination of reporting streetlight outages that was established between 311 and Toronto Hydro in the fall of 2013.

(<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2013.GM25.9>)

311 Toronto and Toronto Hydro are working together to establish a coordinated approach regarding system integration challenges, customer privacy regulations, cost and associated resource impacts. The following are activities that 311 Toronto and Toronto Hydro have recently implemented collectively and/or independently.

- Protocols have been enhanced to enable 311 to obtain real time operation information, pre-storm alerts and approved customer messaging resulting in residents having better information.
- 311 will provide residents with the phone number for Toronto Hydro's emergency line and where possible 311 staff will transfer the call to Toronto Hydro avoiding residents having to hang up and call Toronto Hydro.
- 311 staff will be trained on Toronto Hydro's on-line reporting tool to report a Hydro outage in the event that a resident calls 311 directly.

- Using this on-line tool will not require system integration, however, 311 will not be able to provide a service standard or tracking number to the resident, therefore 311 will not be able to provide status updates during follow-up calls from the customer.
- Toronto Hydro's outage reporting methodology uses addresses and not ticket numbers to minimize the risk of multiple tickets being issued for the same address. For example, in a multi-residential property or on the same street, during an outage, a number of residents may report the outage. However, to efficiently restore the power, these calls are translated to a single outage event in the outage management system so that only one crew is sent to the location. Toronto Hydro is exploring future upgrades to its outage management system to be able to provide individual updates to outages submitted via 311 Toronto.
- Toronto Hydro is now the source of information to 311 Toronto for all pertinent information coming from Hydro One.

This report recommends that the action items listed above be documented and formalized through a Memorandum of Understanding (MOU) between 311 Toronto and Toronto Hydro outlining the expectations and actions of both organizations to ensure a co-ordination of communications, information and requests for service related to power outages for localized and widespread events. The MOU will outline the working relationships going forward, including future integration plans and service level agreements. Toronto Hydro and 311 Toronto will review the MOU on an on-going basis to continue to improve the services provided to customers.

c) 311 Co-ordination with City Divisions

Over the past few years, the working relationship between 311 Toronto and the service divisions has evolved to the point where divisions now fully appreciate the critical importance of keeping 311 Toronto informed about changes to services or service standards during times of peak volume.

During major events, 311 Toronto is closely connected to the Office of Emergency Management (OEM) and relies on the co-ordinated efforts of the OEM, Strategic Communications and service divisions to ensure that accurate, timely information is provided to customers by phone, email or through social media. For other times of peak demands for service, that is, when the OEM is not involved, 311 has developed protocols with the service divisions to ensure that 311 Toronto is informed of changes to services or service standards.

To ensure that co-ordination is regularly reviewed and opportunities explored for improvement, 311 Toronto has established monthly meetings with the integrated service divisions (ISD) to discuss and resolve arising issues. A Partnership Agreement/Scorecard was also developed which is reviewed annually at the Integrated Service Divisions-Divisional Committee.

Since the July 8, 2013 flood and the December ice storm, 311 has met with ISDs to improve 311's ability to respond to events. The Division continues to work on strategies

to meet peak demands and the ability to provide timely information to residents during unplanned events.

4. Forestry Management

The City has an estimated 10.2 million trees and is responsible for the maintenance of over 4 million trees located on streets and in parklands. The damage caused by the Ice Storm to the City's tree canopy was unprecedented and its full impact is not yet known. Preliminary information has demonstrated that damage was widespread and that trees of all species, age and condition were impacted. The severity of damage to City owned trees can only be determined following further recovery work and an analysis of data to identify trends and any correlation that might be discovered with respect to severity of damage, species, age, condition and location, etc.

a) Emergency Response and Damage Assessment

Urban Forestry's response to the Ice Storm has progressed in three phases. Phase 1, Emergency Response, was initiated immediately after the Ice Storm. Staff removed trees and tree limbs affecting power lines, cleared tree debris from roads and sidewalks and removed broken or split limbs that could fall and cause further damage. Phase 2, Hazard Abatement, focused on addressing visible hazards on the public right-of-ways, in parks, along pathways and roadways to make safe and eliminate overhead hazards that posed an immediate risk. Phase 1 and 2 are now complete.

The strategy for identifying canopy repair and recovery requirements is currently being implemented in Phase 3, Hidden Hazard Clean-up, and is targeted to be completed by October 31, 2014. Phase 3 includes a detailed assessment of the structural integrity of street trees and select trees in parkland to identify hidden hazards that pose a liability and risk to public safety. The assessment will focus on heavily impacted areas first and will identify trees that are suitable to be retained and maintained and others that have been damaged to the point where they are hazardous and must be removed. Tree maintenance will be scheduled for implementation on a priority basis where trees have been structurally compromised. Non-emergency tree maintenance work will be scheduled to be completed as part of the regular area maintenance program. Implementation of this strategy was informed by a review of past practice and experiences in other jurisdictions and best management practices for risk assessment.

Urban Forestry's phased work plan is estimated at \$40 million. All expenditures have been included in the City's request to the Provincial Government for reimbursement under the Ice Storm Assistance Program.

b) Tree Canopy Maintenance Program

The City's tree maintenance program has largely and traditionally been implemented in a reactive manner, however, a proactive and systematic area-based maintenance regime is recognized as an industry best practice that is more efficient and results in well

maintained trees, reduced risk of tree failure, fewer complaints and improved customer service.

Since 2009, a transition of the forestry maintenance program has been underway to move to a target objective of a seven year average pruning cycle and includes proactive maintenance of newly planted trees and maintenance of established trees on streets and in parklands to maximize tree canopy potential and ensure healthier trees and forests. The progress to implement the program has been delayed due in part to Emerald Ash Borer (EAB) and related operational pressures.

City Council approved a revised Service Plan in 2012, which identified the financial strategy to both manage EAB and implement the Service Plan. One of the key components of the Service Plan is full implementation of a proactive area-based maintenance program with a target objective of a seven-year average pruning cycle. The revised Service Plan's funding strategy will enable Urban Forestry to maintain the 2011 core service levels until 2016 while diverting resources to implement the EAB management strategy. After that time, EAB is expected to subside and focus will then be on resuming implementation of the service delivery strategy to achieve the City's tree canopy goals.

c) Maintenance Standards for Privately Owned Trees

The City enforces hazardous trees on private property through the City's Private Tree By-law (*City of Toronto Municipal Code Chapter 813, Trees, Article III*) and by-law respecting Property, Vacant and Hazardous (*City of Toronto Municipal Code Chapter 632*). The Private Tree bylaw provides exceptions from the permit requirement when a property owner identifies a hazardous tree but does not require property owners to obtain permits for pruning. The bylaw respecting Property, Vacant and Hazardous requires that property owners eliminate hazards and enables the City to order the removal of a hazardous tree or branch when property owners fails to do so.

Hazardous trees and branches are the highest priority for maintenance and the bylaw respecting Property, Vacant and Hazardous has been effective at addressing maintenance of hazardous trees on private property. Through visual inspection, city staff can readily identify external signs of hazardous tree condition and the bylaw provides the necessary tools for enforcement. A standard that includes non-hazard abatement maintenance would not be enforceable and the existing mechanisms available to address hazard trees and branches are effective.

d) Reuse of Tree Debris

The Ice Storm resulted in large quantities of storm-damaged debris from trees that required immediate clearing to address health and safety hazards and to clear hydro lines, emergency routes, sidewalks, paths and roadways. Based on the large volume and lower quality of the debris, the short timeframe for conducting debris management, and the absence of appropriate facilities for both storing and sorting the material for

potentially salvageable items, tub grinding was the most economical and efficient way of managing the debris. The majority of the debris was used as landscape mulch.

The Debris Management Operational Support Function has been reviewed by Solid Waste Management and Urban Forestry. During an emergency situation, public safety is the first priority and diverting staff and resources for specialised collection and sorting of woody debris for re-use for high value products could delay and negatively impact the emergency clean-up response. Temporary debris storage sites and the equipment required to move and manipulate the large volumes of debris do not offer a controlled environment to enable safe access by the public who might be interested in viewing the debris for the purpose of re-using the wood. The recommended plan during an emergency situation, such as was experienced during the Ice Storm is to tub grind and re-use the debris for landscape mulch.

Urban Forestry has and continues to explore options for higher end uses for wood by-products generated from the City's regular tree maintenance program. Other City divisions also have an interest in wood products and the economic and environmental opportunities this resource represents. In view of this, the establishment of a new multi-divisional working group on the use of residual wood was approved in late 2013 by the Executive Environment Team. The working group will provide a forum for exchange of ideas and collaboration with other divisions, municipalities and regional organizations. This will further an understanding of where the best market growth opportunities are and how to strengthen and encourage growth and increased capacity of the wood-using industry in the city.

5. Improving the Resiliency of Toronto Hydro Distribution Lines

The widespread power outages that occurred as a result of the 2013 Ice Storm were primarily due to significant ice accumulation and fallen trees and limbs that damaged power distribution lines. In response to concerns about the potential for similar impacts from future events, City Council at its meeting on January 10 and 13, 2014, adopted a number of motions related to the conversion of Toronto Hydro overhead lines to underground.

a) Conversion of Overhead Lines to Underground

Toronto Hydro's system includes a mix of both underground and overhead distribution lines. Based on kilometres of total primary circuits, approximately 40 percent of Toronto Hydro's system is underground and 60 percent is overhead.

This variation is driven by technology advancements over time and the different approaches employed by the former six utilities which served Toronto prior to 1998 and embraced underground lines to differing degrees. For example, Scarborough made greater use of underground lines than Etobicoke. Generally, areas of the City that were developed prior to the mid-1960s were built using overhead construction while areas constructed afterwards are typically underground.

For new developments, the City, in consultation with Toronto Hydro, considers the appropriateness of above ground versus underground installation of hydro distribution lines based on the site specific circumstances through precinct planning and development review processes. Given the City does not levy for hydro services, revenues from Development Charges cannot be used for the purpose of burying hydro lines.

More than half of all power interruptions occur on overhead lines and of those, approximately 20 per cent are tree related. While underground lines are more vulnerable to flooding conditions than overhead lines, they are generally more reliable than overhead lines primarily due to the reduced exposure to wildlife, motor vehicle collisions, extreme weather, and tree contact. However, when interruptions do occur, power restoration takes longer on underground lines than on overhead lines. Interruptions on overhead lines can typically be restored within one hour, while interruptions on underground lines take on average four times longer.

The negative impact that trees can have on overhead hydro lines varies significantly across the City and is more pronounced in those areas with the greatest tree density. Toronto Hydro currently spends approximately \$3 million per year in tree trimming to proactively address potential impacts of vegetation.

Costs to build underground lines are typically five times more than building overhead and Toronto Hydro estimates that the conversion of all existing overhead lines to underground would cost between \$11 and \$16 billion. In general, the financial benefits associated with burying overhead lines are nominal as savings in on-going maintenance costs are only approximately \$500 per kilometre annually. Similarly, nominal benefits could be achieved by co-ordinating conversion to underground in conjunction with planned road construction and repair by the City. Limitations arise due to the fact that underground distribution lines are most often placed well below the grade of road resurfacing/reconstruction and hydro lines are typically buried in the boulevard as opposed to the roadways themselves.

Despite the high capital costs and the nominal financial benefits, it is prudent to convert overhead lines to underground in a number of situations. As a result, Toronto Hydro has and will continue to convert overhead lines to underground using a targeted approach as discussed below. Toronto Hydro plans to spend approximately \$70 to \$75 million on conversions during the 2015 to 2019 period (i.e. \$14 to \$15 million annually) subject to Ontario Energy Board approval. Toronto Hydro's focus is on specific areas where the benefits of converting overhead lines to underground are greatest. This is based on asset management criteria that includes, among other things, power interruptions due to systemic tree canopy contacts and maintenance issues.

One of the priority areas for Toronto Hydro is Rear Lot Conversion. This involves residential neighbourhoods that are supplied by overhead lines located in the rear portion of properties. This infrastructure is typically older and approaching the end of its useful life. The lines are vulnerable to privately owned trees and other obstructions on private property where access to address power interruptions or to complete

necessary maintenance is difficult. In addition, Toronto Hydro undertakes conversions on arterial or collector roads where poor reliability is being experienced due to overhead system disruption, or with significant line clearance issues that represent potential safety hazards. These projects typically involve smaller line sections as opposed to wholesale conversion of entire neighbourhoods.

This report recommends that City Council support Toronto Hydro efforts to obtain annual funding from the OEB for the conversion of overhead lines to underground, and requests that Toronto Hydro staff work with the City of Toronto (Urban Forestry) to review and identify potential future overhead hydro line priorities that should be considered for conversion to underground.

b) Other Measures to Improve Resiliency

When considering whether converting an overhead line to underground is appropriate, Toronto Hydro's asset management criteria considers a number of factors including: age and condition of assets, reliability of the system, demands on the system and load forecasts, characteristics of the geographical area, future development and local needs. For each project, Toronto Hydro also conducts a cost-benefit analysis and examines potential alternatives that could result in improved system resiliency. Examples include:

- Implementing Feeder Automation to increase monitoring and control capabilities on power lines and reduce the impact of power interruptions when they do occur;
- Relocating the power line to minimize exposure to potential disruptions including those caused by trees;
- Installing more specialized components and equipment, such as Tree-Proof Conductors, which can minimize the number of power interruptions caused by brush or minor tree branch contacts; and
- More aggressive tree trimming that increases the clearance of vegetation around power lines and reduces the potential of tree contacts.

Both Toronto Hydro and Urban Forestry have programs that incorporate line clearing. In the case of Urban Forestry, line clearing is one component of the work performed when pruning a tree. There is the potential to improve system resiliency through enhanced planning and co-ordination to maximize the benefits of efforts and to ensure that vegetation that is planted in proximity to power lines does not cause any negative impacts on lines (e.g. planting appropriate species at appropriate distances from lines). Discussions between Urban Forestry and Toronto Hydro have been initiated to improve co-ordination and reduce the potential impact of tree-related outages.

Discussions have also been initiated between Toronto Hydro and Urban Forestry to examine whether current standard line clearing distances can and should be increased to help mitigate the risk that trees will damage power lines. These efforts will consider factors such as: impact on trees, predominant tree species growth rates, risk to system performance, and line clearing cycle frequency.

This report recommends that Toronto Hydro and Urban Forestry continue their efforts to enhance co-ordination regarding tree clearance and the potential to use other measures, such as undertaking more aggressive tree pruning and installing components and equipment (e.g. tree-proof conductors) that will further enhance the resiliency of overhead hydro lines.

6. Emergency Reception Centres & Support for Vulnerable Persons

The Emergency Human Services Operational Support Function (OSF) provides the framework for the City's provision of human services during an emergency event, including the provision of information, emergency shelter, food, water, and personal services at emergency reception centres. The Emergency Human Services OSF is complemented by a Vulnerable Population Protocol to guide the City's response to vulnerable individuals at emergency reception centres. The Vulnerable Population Protocol (VPP) does not address long-term supports nor does it replace the need for individuals to take personal responsibilities for emergency preparedness. Individuals identified as vulnerable can be referred to on-site supports provided by Toronto Central Community Care Access Centre (CCAC), other agencies, or transferred to a facility offering a higher level of care.

The 2013 Ice Storm was the first time emergency human services were required over such a vast geographical area and for an extended duration. During this response, the City opened 13 reception centres in areas in close proximity to areas without power. With the assistance of the Canadian Red Cross and City staff, a total of 2,550 households (5,201 registered people) received services. The highest number reported overnight at reception centres was 1,000 people.

At its meeting on January 10 and 13, 2014 Council adopted a number of motions regarding support for vulnerable populations during emergencies and the identification of appropriate locations for reception centres throughout the City.

a) Support for Vulnerable Populations

The Emergency Human Services OSF includes a Vulnerable Population Protocol (VPP), intended to assist vulnerable persons during a response. Staff at reception centres are to complete a short functional assessment with each evacuee to identify barriers they may face to access services. People with barriers can then be referred to onsite supports or transferred to a higher level of care.

The City defines vulnerability as the intersection between the barriers a person faces and the resources that can be accessed when facing those challenges. A person's vulnerability or resiliency is not a static situation and must be understood in relation to changing circumstances and conditions. It is not the case that every person with a pre-existing risk factor will be vulnerable during an emergency. Likewise, people who were not known to be at risk may well become vulnerable when faced with the stresses of an emergency.

In response to Council direction, staff investigated the potential of developing a Vulnerable Persons Registry (VPR), which included a review of existing data resources to locate vulnerable persons, a review of VPR in use in Ontario, and an assessment of the effectiveness of a registry.

Researchers from the University of Waterloo's InterRAI collaboration on vulnerability measurement estimate that between 70 and 80 percent of Torontonians with risk conditions are already identified in existing databases, which are maintained by diverse service providers (i.e. health care providers, housing providers, community based service providers, utilities, etc).

Staff identified six limitations and risks of a Vulnerable Populations Registry (VPR):

- would not ensure everyone on the list will be assisted during an emergency event;
- could create false expectations of security among registrants and their families;
- cannot improve identification of individuals who do not perceive themselves as potentially vulnerable;
- cannot assist responders to identify individuals who unexpectedly become vulnerable during an emergency;
- could duplicate efforts with existing lists maintained by community and health organizations (i.e. CCAC) and Toronto Hydro, who may have ongoing and active relationships with potential registrants; and
- would result in significant costs to the City to establish, implement and maintain an up to date and regularly monitored list.

For the reasons listed above, City staff is not recommending the creation and maintenance of a City of Toronto VPR. Staff have identified other related strategies to improve the effectiveness of supports and outcomes for vulnerable individuals during an emergency.

This report recommends establishing an Emergency Human Services Working Group and to explore the formation of an Emergency Response Agreement with the Toronto Central Local Health Integration Network, Findhelp Information Services (211), and other community-based agencies to improve implementation of the VPP and support services to vulnerable residents during an emergency situation through:

- Strengthening emergency service capacity and improving communication and coordination among emergency responders and partner organizations who provide health care, mental health supports, or social services to vulnerable populations to ensure effective implementation of the VPP
- Harmonizing staff training on the VPP and the Functional Assessment Tool with staff emergency response training and the Standard Operating Procedures for the provision of Emergency Human Services;

- Explore methods of better engaging community, faith-based, or similar organizations (i.e. Salvation Army, OSPCA, St. John's Ambulance, Volunteer Toronto, Samaritan's Purse, Mennonite Disaster Service, Aga Khan Development Network, Centre for Israel & Jewish Affairs, etc.) to assist with emergency response at the local level'
- Consider partnering with 311 Toronto and FindHelp Information Services (211) call centre operators to connect vulnerable callers who are sheltering at home with the social services or health care supports they need. Adaptation of the VPP for Call Centres should consider including:
 - Functional assessment tool appropriate for telephone use;
 - Relevant knowledge base on emergency services provided in the community;
 - Direct link to emergency response managers through Toronto Central Local Health Integration Network;
 - Direct link to the City's Emergency Operations Centre;
 - Participation of Findhelp Information Services (211) leadership at the Emergency Operations Centre; and
 - Transportation for residents who need to move to receive support.

b) Emergency Reception Centres

In response to emergency events that require the establishment of an Emergency Reception Centre, the Office of Emergency Management identifies an existing City facility (i.e. community centre, civic centre, school, library, etc.) for use, based on the location and needs of the particular event.

One of the key lessons learned from the 2013 Ice Storm was that more pre-planning is required to respond effectively to broader and prolonged emergency situations where multiple reception centre locations are required.

This report recommends that the City establish multiple, pre-staged and pre-equipped reception centre sites at City owned facilities geographically distributed across the City. The City's preference is to utilize City owned recreation facilities for emergency reception centres because they have appropriate amenities and can be transformed for emergencies with less impact on other ongoing services. Some City libraries and also some schools, however, have been used in the past when needed for additional support. The selection of appropriate facilities is to be guided by the following criteria:

- Facility can be quickly transformed to accommodate needs of a Reception Centre with emergency human services trained staff;
- Of sufficient size to accommodate large numbers of people and meet established space standards;
- Amenities to support food preparation and storage;
- Sufficient washroom/shower facilities;
- Proximity to public transit (preferably 24-hour routes);
- Meets standards of accessibility;

- Limited impact on regular delivery of service; and
- Meets Fire Code requirements.

Once appropriate sites are identified, a site specific plan would be developed to identify all equipment and supplies needed. Each facility would be prioritized to be equipped with sufficient emergency back-up power, pre-staged with necessary equipment and supplies required during an emergency, site specific training would also be developed for City staff and Canadian Red Cross volunteers.

In addition, a transportation plan will be developed to address the needs of individuals who cannot self-transport to emergency reception centres. This will be developed in consultation with 311 Toronto, Toronto Fire Services, Toronto Police Services, Toronto Emergency Medical Services, Toronto Transit Commission - WheelTrans, and relevant community or private-sector transportation providers.

7. Emergency Building Systems

During the Ice Storm, power outages affected broad areas of the City including the Emergency Operations Centre (EOC). Residents of multi-unit buildings were especially vulnerable when they stayed in their units with no power. Toronto Community Housing (TCH) alone reported that over 68 locations were without power at the same time. When power is out for extended periods of time, emergency back-up power is not sufficient for elevator access, water, emergency lighting and alarm systems. In considering the impact of the Ice Storm, City Council asked staff to provide an analysis of existing requirements for emergency back-up power, to provide a summary of TCH buildings that were without emergency power outages during the Ice Storm event, and measures to ensure that the EOC is tested and measure put in place to ensure continuous back-up power during emergencies.

a) Ontario Building Code

The Ontario Building Code and the Ontario Fire Code are the primary mechanisms by which building safety is regulated and enforced in the Province of Ontario.

The Ontario Building Code (OBC) is a regulation under the Ontario Building Act, 1992 that sets out requirements to be met when a building is constructed, renovated, or undergoes a change of use. The purposes of the OBC include public health and safety and fire protection. Municipalities have no power to pass by-laws which would exceed or conflict with the requirements of the Act and its regulations.

The OBC specifies the type and duration of the required emergency supply intended to accommodate the safe evacuation of occupants from buildings and contains additional emergency requirements for high rise buildings including the requirement for a two hour supply of emergency power for building evacuation and to assist first responders.

The OBC does not require that residents have access to elevators for an extended period of time, as is required during prolonged power outages.

b) Ontario Fire Code

The Ontario Fire Code (OFC) establishes fire safety standards for equipment, systems, and buildings and sets standards for the maintenance of emergency power for lighting, fire alarm and voice communication, elevators and pumps (for standpipes and sprinklers) and fans (for exhaust and smoke control), buildings, structures, lands, and premises. Where the OBC only applies to new construction, renovations and change of use, the OFC is applicable to existing buildings.

c) Continuous Power Supply for Back-up Generators

The emergency back-up power requirements of the OBC and OFC were developed to assist first responders and not to assist high-rise residents remain safely in their home during power failures. Severe weather events such as the Ice Storm have identified that there is a broader need to maintain emergency back-up power in certain buildings for extended power outages.

Back-up power is most often provided through diesel generators, which provide the limited supply of back-up power required by provincial legislation. Natural gas supplied generators are appropriate in some situations and provide the benefit of enabling a continuous source of back-up power, which is less likely to be impacted during severe weather events.

As the City does not have authority to require emergency power beyond the time frames currently in the OBC and OFC, this report recommends that City Council request the Province to expand the existing provisions to require continuous power supply for back-up generators in high-rise buildings and buildings that serve particularly vulnerable groups.

d) Back-up Power at Toronto Community Housing Buildings

Toronto Community Housing (TCH) is the City's largest landlord, with over 58,500 units across the City. TCH's portfolio consists of a number of building types including high rise buildings which have emergency generators designed to meet the requirements of the OBC and OFC but which lack the capacity to maintain access for residents to elevators and potable water during extended power outages.

At various times through the duration of the Ice Storm, TCH identified 68 locations without power at one time and 252 different locations without power at some point during the event. This represents 19,400 units and 50,000 residents or over one-third of the TCH portfolio. High-rise buildings had back-up generators that had sufficient fuel to provide standby power lighting for two hours. Site staff monitored fuel tank levels and TCH relied on its existing vendor and on the assistance of the City's Facilities Division to co-ordinate additional sourcing and delivery of replacement diesel fuel.

TCH mobilized its emergency response team and activated emergency planning protocols to respond to the Ice Storm. TCH was able to mobilize the required support to

affected buildings and communities including: distribution of critical supplies (i.e. food, water, blankets, flashlights, etc.), door-to-door wellness checks, information and transportation to reception centres. The provision of support to residents in high rise buildings without power was particularly challenging as the back-up generators are not designed for the continuous operation of elevators.

TCH has completed an internal post incident review of its emergency response and has identified 47 recommendations. Included is a recommendation to investigate opportunities to improve and prolong critical building systems during prolonged power outages, which will include an assessment of potential conversion to natural gas emergency generators.

TCHC is in discussions with the Environment and Energy Division to develop a strategy to replace its 86 diesel emergency generators with emergency generators using natural gas over the next 10 years. Although power outages will create inconvenience for residents, with these generators in place, residents will be able to remain in their buildings during power outages.

e) Back-up Power at Emergency Operations Centre (EOC)

During the Ice Storm, the primary site of the EOC lost power and emergency back-up generators failed. This required a relocation of the City's EOC in the early stages of the emergency.

Facilities Staff identified and corrected the source of this failure and installed appropriate monitoring alarms to safeguard against future events.

To further review the facilities resiliency and testing frequencies, an engineering firm was engaged to complete a comprehensive assessment of the critical infrastructure supporting this site. This assessment evaluated key infrastructure components and support programs such as current maintenance and testing of critical systems to identify potential weaknesses and to propose upgrade options to improve system resiliency.

The above noted review has confirmed that current maintenance activities and testing frequencies on critical systems are consistent with industry practice. However, in some instances, due to design limitations and operational requirements, maintenance cannot be performed. The report further identifies system vulnerabilities and potential single points of failure within the current infrastructure that should be corrected.

To mitigate identified issues, several engineered solutions have been proposed. Staff will review these proposed changes and make recommendations through the capital budget process.

As identified in the staff report, Resilient City: Strategy to Prepare for Changing Extreme Weather Events (PE28.6), the City's Chief Corporate Officer, in consultation with City divisions, Agencies and Corporations, is developing financing options to install back-up power at other critical City facilities.

8. Consumer Protection Information

During and immediately following the Ice Storm, there were reports from some residents of excessive rates charged by contractors who were retained by property owners to complete necessary work to restore electricity. Council requested that City staff identify opportunities to ensure residents had access to good information to better protect themselves.

The Province's Consumer Protection Act is designed to protect the rights of consumers and contains provisions to deal with false or misleading presentation, unfair practices and pricing which grossly exceeds the price of similar goods or services readily available to like customers. Residents may lodge a complaint with the Ontario Ministry of Consumer Services after first attempting to resolve the issue with the alleged offender. A link to the Ministry's website follows: <https://www.ontario.ca/consumers/filing-consumer-complaint>.

Under the City of Toronto Act, the City of Toronto has general authority to pass by-laws related to consumer protection and can adopt by-laws or policies, however, City policies cannot conflict with the Province's legislated purpose. Under Chapter 545, Licensing, the City requires a number of different contractors to be licensed; however, electrical contractors are not included as they are regulated by Electrical Safety Authority, which falls under Provincial jurisdiction.

The Municipal Licensing and Standards Division (MLS), through its website, newsletters, social media channels, and 311, provides a number of channels for the public to access information on consumer protection. Residents with consumer protection related complaints or inquiries can contact MLS, which will either follow-up directly, or if they do not have the authority to do so, will direct residents to the appropriate authority.

City staff will be undertaking a review of the licensing by-law in 2015 and will be reporting out on amendments that will include provisions to improve and enhance consumer protection for residents of Toronto.

9. Enhanced Processes to Review and Evaluate Emergency Responses

Following an emergency exercise or actual event, the Office of Emergency Management coordinates the review of the City's emergency response to the event. City divisions, Agencies and Corporations, along with external partners and stakeholders who were involved in the emergency response participate in the process. Feedback is solicited and input received is incorporated into an After Action Report that contains specific recommendations related to improving future responses. The Final Report is then tabled for approval by the Toronto Emergency Management Planning Committee (TEMPC).

In response to the Ice Storm, the City, in addition to the development of an After Action Report and its recommendations, implemented further processes to evaluate the City's response to the Ice Storm. In addition to city-wide consultation and a review of specific motions adopted by Council, the City undertook a review of the Emergency Plan and the policies which underpin the plan and guide the City's emergency response. In total, eight

Operational Support Functions (OSFs) and one Risk Specific Plan were reviewed. A summary of the outcome of these reviews is included in Appendix 1.

In an effort to ensure these reviews were comprehensive and to solicit additional measures that would strengthen the City's response to future similar events, the City engaged a third party independent contractor to complete a Peer Review. The consultant was tasked with evaluating the effectiveness of the City's Emergency Plans, including the OSFs and Risk Specific Plan for Power Outages, and assessing the adequacy and effectiveness of the review process and the related recommendations for improving emergency response.

The Consultant determined that the City completed a thorough review of the incident, was comprehensive in terms of its engagement with stakeholders and applied a consistent approach for its review process.

The Consultant not only provided comments for each of the reviews undertaken by staff, which have informed recommendations, but made a number of suggestions to improve the City's overall process for the post-emergency review of the emergency response including:

- **Prioritization:** develop consistent criteria to outline how best to prioritize recommendations to minimize conflicting objectives and assist in determining funding priorities
- **Risk Analysis:** establish risk assessment methodology to enable a consistent cost / benefit approach to enable decision makers to understand the impact of implementing one recommendation over others
- **Scoping:** enhance the scope of the emergency response review process to include all aspects, and not just select or critical issues, are reviewed thoroughly to ensure a comprehensive approach when assessing the City's capability to respond to emergency events.
- **Dependencies:** Ensure mechanisms are established to link or map recommendations arising from one functional area of the review that may impact, related or be of benefit to other areas.

In keeping with the Consultant's findings as detailed in Appendix 4, this report recommends that City staff enhance and formalize its process for the review of emergency events.

CONTACTS

Loretta Chandler
Director
Office of Emergency Management
416-338-8746
lchandl@toronto.ca

Gwen McIntosh
Director, Executive Management
City Manager's Office
416-392-4995
mcintosh@toronto.ca

SIGNATURE

Joseph P. Pennachetti
City Manager

Brenda Patterson
Deputy City Manager – Cluster A

John Livey
Deputy City Manager – Cluster B

Roberto Rossini
Deputy City Manager and Chief
Financial Officer

ATTACHMENTS

- Appendix 1: Review of Emergency Plan – Operational Support Functions and Risk Specific Plan
- Appendix 2: Public Consultation on Emergency Weather (May 2014) – Executive Summary
- Appendix 3: Summary of Council Motions and Related References in Staff Report
- Appendix 4: PWC Peer Review of the City's Emergency Management Program Review
- Appendix 5: Province of Ontario May 2014 Program Update

Appendix 1

Review of Emergency Plan – Operational Support Functions & Risk Specific Plan

The aim of the City of Toronto Emergency Plan is to provide the framework within which extraordinary arrangements and measures can be taken to protect the health, safety, and welfare of the inhabitants of the City of Toronto when faced with an emergency.

The plan unifies the efforts of City organizations (ABCDs) for a comprehensive and effective approach for responding to and reducing the impacts of a public emergency. It is intended to increase the emergency response capability of the City of Toronto by establishing a plan of action to efficiently and effectively deploy emergency services.

Underpinning the Emergency Plan are sixteen (16) Operational Support Functions (OSFs) and three Risk Specific Plans, which are supporting documents that outline the structure and framework for integrated support by lead and supporting City divisions, Agencies and Corporations, and external City partners such as the Canadian Red Cross.

Outlined below are summaries of the reviews undertaken by City staff, in consultation with relevant stakeholders, on the eight (8) Operational Support Functions (OSFs) and one (1) Risk Specific Plan which were implemented or related to the City's emergency response to the Ice Storm:

Category	Policy
Operational Support Functions (OSFs)	1. Damage Assessment
	2. Debris Management
	3. Emergency Donations Management
	4. Emergency Human Services
	5. Emergency Information and Media Relations
	6. Emergency Operations Centre
	7. Traffic Management
	8. Volunteer Management
Risk-Specific Plans	9. Power Disruption (Electricity)

City staff will update the Emergency Plan as recommended and seek approval through the Toronto Emergency Management Program Committee (TEMPC).

1. Damage Assessment OSF

OSF Summary

This Operational Support Function defines the roles and responsibilities of Toronto Building and provides guidance to Toronto Building Division staff related to the inspection and reporting on the condition of buildings and designated structures (hereafter referred to as a structure(s) as referenced in the Ontario Building Code that due to an Emergency Incident (hereafter referred to as an incident) are: safe, need repair or require demolition.

Implementation

The Damage Assessment Operational Support Function as it is currently written was not activated during the December 2013 Ice Storm. The Damage Assessment Operational Support Function typically deals with damage to building and structures which may include but are not limited to partial or complete collapse. Therefore actions as a result of this Operational Support Function would be in response to inspections, reporting and remedial actions, as a result of any major incident that could result in an immediate danger or hazard to any person(s).

Extensive damage and impact assessments were conducted throughout the December 2013 Ice Storm by a number of stakeholders. In fact initial impact assessments were asked of all Divisions starting at 2:30 pm on December 21, 2013, almost 5 hours before the freezing rain started. For the first few days of the incident, damage and impact assessment were requested every two hours.

Analysis

Although not activated during the December 2013 Ice Storm, an administrative review was undertaken to assess potential strengths and weaknesses.

The Damage Assessment Operational Support Function currently has defined the roles and responsibilities of Toronto Building and provides guidance to Toronto Building Division staff related to the inspection and reporting on the condition of buildings and structures that due to an Incident are: safe, need repair or require demolition.

The purpose, scope and assumptions of the Damage Assessment Operational Support Function is too narrowly focused on the role that Toronto Building plays in a damage assessment when it is much larger than this one Division. It also does not include the other stakeholders who have traditionally conducted damage and impact assessments as a routine matter of operations.

Additionally, the categories of damage being assessed need further clarity to assist with better defining the roles and responsibilities of all stakeholders. There is also a need to define and connect how site damage assessments are collected and provided back to the Emergency Operations Centre. This could include a standardized checklist form similar to the Emergency Operation Form: a Damage Assessment Summary Form that is used in a number of other municipal, provincial and federal jurisdictions

Recommendations

1. That the Damage Assessment Operational Support Function purpose, scope and assumptions, roles and responsibilities be reviewed and updated to include additional stakeholders.
2. The Office of Emergency Management, in consultation with relevant city divisions, develops applicable procedures and checklists to assist with conducting damage assessments at city facilities and operations.
3. That the Toronto Building After Hour Emergency Response Plan be updated to address the activation of additional inspection resources for wide-scale events, such as extreme weather, that may have potential impacts for many buildings and structures.

2. Debris Management OSF

OSF Summary

The primary purpose of the Debris Management OSF is to define roles and responsibilities and provide guidance for the removal and disposition of debris caused during an emergency incident. The OSF outlines the coordinated effort for the management of debris following an incident to mitigate against any potential threat to lives, health, safety and welfare of the impacted citizens and to expedite the recovery efforts of the impacted area(s).

It also sets out high level requirements including pre-planning activities, needs/damage assessment, identification and deployment of equipment and personnel, temporary debris storage sites, site preparation, debris removal phases, hazardous waste removal (if applicable) and public messaging.

Implementation

The OSF was activated as the scope of the debris clean up required was beyond the resource capacity of the City divisions if the clean up was to be done as part of the divisional core business and within a reasonable timeframe.

Response to the emergency progressed through three phases including power restoration, restore public safety, and clean-up.

As per the OSF, City staff worked in close co-operation with Toronto Hydro to assist and facilitate their power restoration efforts through removal of trees/limbs that were affecting power lines and removed downed branches and trees on roadways to eliminate hazards and re-open roads to traffic. Debris was prioritized, with any new or previously undetected hazards taking immediate priority, followed by locations that had an impact on public safety.

The Debris Management OSF provided the foundation to establish the Debris Management Plan which was developed by a senior-level Incident Management Team led by the General Manager of Solid Waste Management Services (SWMS). Beginning January 3, 2014, the debris was collected, removed and processed at 15 Temporary Debris Management (TDM) sites. Material too large to be chipped on site was removed and processed at the TDM sites using tub grinders. It was estimated that the work would be completed in 8 weeks (actual was 6 weeks) and an organizational structure was established to support coordinated interdivisional efforts for debris clean up operations. Resource requirements were identified and procured largely through the use of private contractors. Operations management resources were obtained internally and initial training of assigned supervisors and inspectors was conducted.

Identification of work was initially completed by completing assessment forms (provided by Forestry) by grid area that covered the entire City, with any visible aerial hazards being immediately communicated to Forestry for response. Once the grid area assessment was completed, contract resources were assigned to specific grids to undertake the work required.

A public communication strategy was developed to advise the public of the ongoing progress and status of cleanup efforts, including visual references displayed as a map on the public website. In addition, advertisements were placed in newspapers, Councillor e-messages were sent and a list of FAQs was posted on the City's website to educate the public on actions they can/should perform to assist with the cleanup effort.

Analysis

Overall, the City's response achieved the outcomes envisioned by the OSF. It provided the foundation for the Ice Storm Debris Management Plan and its overall success was largely due to:

- Efficient coordination of debris removal despite damage and the amount of debris being in excess to what City resources could normally manage.
- Strong organizational structure clearly defining roles and responsibilities and reporting relationships.
- Solid communication strategy through the use of press conferences, daily updates to the City's website and 311, briefing notes and email updates to Councillors and Incident Management Team conference calls and meetings.
- Ability to leverage personnel and equipment from other municipalities and private contractors which greatly expedited cleanup efforts.
- Establishment of an Incident Management Team which met frequently, as needed to address critical issues, set work priorities and ensure the overall execution of the Plan.

The City's response to the management of the debris was operationally successful, however some duplication of functions became evident between the Debris Management OSF and the Traffic Management OSF.

Recommendations

1. That an administrative review of both the Debris Management and Traffic Management OSFs be completed to compare content, eliminate any duplication and clearly define the roles and responsibilities for debris management during (1) an emergency and (2) in the clean up/recovery phase following an emergency.

3. Emergency Donations Management OSF

OSF Summary

The Emergency Donations Management OSF provides a working strategy on how to properly manage solicited and unsolicited donations from concerned groups, residents, or businesses following a disaster or during an emergency situation occurring within Toronto. This OSF is designed to complement the City's own response to emergencies, and supplements the current "Donations to the City of Toronto for Community Benefits" and the "Council Member-Organized Community Events" policies which provide staff with the necessary decision-making frameworks. The Toronto Office of Partnerships (TOP) is the lead Division responsible for this OSF.

Implementation

While the City did initial actions in accordance with the Emergency Donations Management OSF, the City did not determine that there was a need to solicit financial donations during the ice storm as provided within the OSF.

Surveyed Divisions identified that the general public did offer unsolicited financial and in-kind donations at reception centres. In response, such donations were referred to the Canadian Red Cross (CRC). While spontaneous deliveries of home-made food and beverages were not served due to food safety concerns, donations of healthy, non-allergenic, non-perishable foods were being accepted, as communicated in a City news release.

Analysis

As part of this review, key City Divisions and agencies (TOP, PFR, Strategic Communications, 311, Revenue Services, OEM and TCHC) were surveyed and provided feedback regarding perceived strengths and weaknesses of this OSF.

Divisions felt that the OSF provides a central information resource for staff and adequately identifies responsibilities, actions and protocols to be followed during an emergency event. However, Divisions also noted that this OSF does not provide clear direction on how to manage the donations that spontaneously arrived at reception centres and does not identify the need to communicate at the start of the event about how residents can assist.

TOP responded to the lessons learned from the apartment fires at 2 Second and 200 Wellesley Streets by advising on and advocating for the OSF's position and by

developing new tools such as an emergency donation management kit for field staff and an Emergency Donation Management Information Note for Councillors, which is soon to be finalized. In collaboration with Parks, Forestry and Recreation (PFR), TOP is also preparing to implement an online, cross-divisional, Donation and Volunteer Management System. A key feature of this system will be the ability to efficiently manage emergency donations.

Recommendations

1. In accordance with this OSF, in-kind donations should not be accepted by the City. However, policies and procedures should be created to support field staff in effectively responding to donations and food which may be offered unexpectedly, including spontaneous offers of food and clothing.
2. TOP and Strategic Communications, through ongoing consultations with TEMPC, to ensure that the City's protocol not to accept donations but rather to refer such offers to community partners, is clearly communicated to the public and to staff at the start of the emergency response as a proactive measure to manage donations.

4. Emergency Human Services OSF & Vulnerable Persons Protocol

OSF Summary

The OSF describes how the City responds to the urgent needs of residents once they are out of immediate danger, by assisting evacuees to make arrangements to look after themselves. The Vulnerable Populations Protocol describes steps the City will take to ensure that individuals of all abilities can access the temporary Emergency Human Services available to them.

Implementation

On December 22 and 23, thirteen Reception Centres were activated across Toronto, staffed by City staff and Red Cross volunteers. Over a period of eleven days, 5,201 registered individuals received emergency food and shelter. Most people did not sleep overnight at the Reception Centres but dropped in to eat, shower, charge their cell phones, and get information. In addition to Reception Centres, Toronto Police and Toronto Community Housing staff went door to door in affected neighbourhoods to conduct wellness checks. Emergency Medical Services and Toronto Fire Services helped people who asked for support in leaving their homes. Long-Term Care Homes and Services, and Shelter Support and Housing Administration maintained continuity of service, despite outages at some facilities.

Analysis

Despite exceptional circumstances, the City and partners mounted a cooperative, interdivisional response. The overall intent, concept and parties identified in the OSF are sound and partners responded with a high degree of support to all aspects of the

response. The OSF outlines clearly the service provision roles of different divisions. The Incident Management System for emergency response provides a strategy for a scalable response to emergency events and the resumption of normal operations. A framework for best communication practices is laid out. The inclusion of a Vulnerable Populations Protocol provides for an approach that is responsive to special and emergent needs of individuals who may face barriers to accessing appropriate services.

The City's preparedness to implement the Emergency Human Services guidelines on such a wide scale was challenging. Although in principle the guidelines are scalable, the City's Emergency Human Services preparation to date has presupposed emergencies that were smaller in scope (such as the evacuation of single building or neighbourhood), that are manageable by specialist staff from the Office of Emergency Management and do not generally require multiple response sites.

Provisions such as: improving communication between the Office of Emergency Management and the City Divisions responsible for human services; pre-training a much larger contingent of non-specialist, redeployed City staff to lead or participate in the response; pre-positioning emergency supplies, tools, and protocols at multiple locations to ensure Reception Centre readiness; and establishing back-up options for meeting the needs of vulnerable populations in the absence of a full complement of CCAC providers had been considered but not implemented at the time of the Ice Storm. Staff training had been started by the OEM but was still being rolled out on a larger scale across all supporting Divisions.

Consequently the strengths of the guidance contained in the EHS OSF and VPP were not utilized to their potential and a number of actions outlined in the OSF and VPP were not implemented according to the protocols.

Notably, less than 1% of Toronto residents used a Reception Centre during the Ice Storm. A much larger emergency could require an even larger response in the future. Therefore careful efforts to strengthen the City's preparedness to mount a major, multi-site Emergency Human Services response is recommended.

Recommendations

1. Deputy City Manager of Cluster A, in consultation with the Office of Emergency Management, to establish a Cluster A leadership role as part of the Emergency Human Services OSF through the establishment of an Emergency Human Services Working Group to implement better regular communication mechanisms to ensure effective access to the City's substantial human services expertise, resources, and community networks during emergency situations.
2. The Emergency Human Services Working Group, once established, regularly report on its activities through the Emergency Management Working Group and the Toronto Emergency Management Program Committee (TEMPC).
3. Human Resources Division, in consultation with the Office of Emergency Management, and City divisions, establish and monitor cross-corporate Minimum Standards for Staff Training in Emergency Human Service Response for unionized and non-unionized employees and to design and implement emergency response

training that includes, as appropriate, practical exercises to test the City's emergency human services response.

4. Deputy City Manager of Cluster A and the Office of Emergency Management, in consultation with relevant City divisions, Agencies and Corporations, explore the establishment of a formal Emergency Response Agreement between the City and (i) the Toronto Central Local Health Integration Network; and (ii) 211-Find Help Toronto; and to explore options for relevant service agreements with community-based agencies in order to ensure that the City can effectively execute the Vulnerable Persons Protocol and support vulnerable residents to access appropriate health care, mental health services, translation services, and related supports during an emergency situation.
5. City Council direct the Director of the Office of Emergency Management and the General Manager of Parks, Forestry and Recreation to pre-identify a list of City facilities that meet relevant criteria and should be used for Emergency Reception Centres and to recommend options for pre-positioning emergency supplies at these facilities.

5. Emergency Information & Media Relations OSF

OSF Summary

The Emergency Information & Media Relations Operational Support Function (OSF) is a high-level document that sets out a framework to ensure dissemination of information to target audiences in the event of a level two (major) or level three (emergency) incident declared by the City's Office of Emergency Management.

The OSF outlines the role of the Strategic Communications Division during an emergency incident and supports the City of Toronto's efforts to assist Toronto residents in coping with and recovering from a major emergency incident.

This function addresses the principles, planning assumptions and concept of operations for emergency information, issues management and media relations for a potential or imminent emergency incident during and after an emergency incident, whether declared or not.

Implementation

On December 21, the City of Toronto's Emergency Operations Centre was activated to manage the incident.

Strategic Communications attended the EOC on December 21 and remained onsite throughout the 11-day activation to lead the communications function as outlined in the OSF.

At a high level, the communications response included:

- 19 news releases, 12 media advisories and 10 press conferences
- 14,500 unique visitors and 40,506 page visits to the City's website, which was updated daily
- 60 calls to the Councillors' hotline
- 200+ media inquiries and the coordination of interviews and photo opportunities
- 210 tweets from the City's main twitter feed, @TorontoComms
- 43 updates to the Mayor, Deputy Mayor, Members of Council and TEMPC

Analysis

As a framework, the OSF document functioned well. Throughout the activation, communications efforts adhered closely to the document. Some minor revisions are required to the OSF, and that work is well underway.

The OSF document works in concert with the Strategic Communications Division's emergency binder, which is a one-stop resource for the division's management team that gathers together all pertinent operating procedures, protocols and related information. The binder was developed following the City's July 8 flood, and contributed significantly to the division's ability to respond quickly and effectively to the December ice storm. The binder is also available electronically in a designated folder on the division's shared computer drive. Updates are sent out to the division's management team twice annually, or more frequently as required.

Similar to the OSF, some minor additions to enhance the binder have been identified and that work is currently underway.

Recommendations

1. Staff from the City Clerk's Office and the Office of Emergency Management lead the development of a new Operational Support Function document with respect to a) the role of councillors, b) councillor coordination, and c) communication with councillors during an EOC activation, in collaboration with staff from Strategic Communications, and that councillors be provided an opportunity to provide feedback on this new OSF prior to approval by TEMPC.
2. Strategic Communications staff review and revise the Emergency Information and Media Relations Operational Support Function (OSF) and clarify coordination of the City's social media accounts during an EOC activation and take forward the revised OSF to TEMPC for approval.
3. Strategic Communications and IT staff develop an 'alert' for the homepage of the City's web site for use during future EOC activations.
4. Strategic Communications staff meet with the president of the City Hall Press Gallery to review any opportunities to more effectively communicate to the public through the media during an EOC activation.

6. Emergency Operation Centre OSF

OSF Summary

The Emergency Operations Centre Operational Support Function is a supporting document to the City of Toronto Emergency Plan (COTEP). It describes the structure and framework for the activation, mobilization and coordinated management of resources, personnel and incident information.

The scope of the Emergency Operations Centre OSF includes:

- Effective policy and strategic direction to the emergency
- Support of emergency operations at the Site(s)
- Coordinating management links to other Command / Operations Centres, Divisions, Agencies, Boards and Commissions
- Providing information to the public and news media
- Maintaining business continuity for the rest of the City

Implementation

On December 21, the City of Toronto's Emergency Operations Centre was activated to manage the incident and remained operational for the next 11 days. Critical infrastructure facilities including Hospitals, Police, Fire and Ambulance stations, Water and Wastewater Treatment and pumping facilities were affected; as were numerous Toronto Community Housing Corporation facilities. The EOC, with its operational partners mounted the single largest coordinated Emergency Human Services Response in its history to provide relief to affected residents.

The City simultaneously opened and operated 13 community reception centres and 13 Toronto Police facility community warming centres assisting over 5200 registered individuals, delivering more than 1,000 cots and blankets, delivering more than 2,000 hygiene kits, and providing more than 18,000 meals.

Analysis

The current OSF is a high-level concept of operations that clearly spells out what is supposed to happen during the activation of the Emergency Operations Centre. Its greatest strength lies in the fact that it is an all-hazards document, i.e. it does not stipulate specific protocols relative to a given hazard and, therefore, does not impede effective response and operations in circumstances where the exact nature of the event is changeable or debatable. Response operations are aligned with the Incident

Management System which is sufficiently scalable and flexible to adhere to any type of hazard or emergency.

Given the current staffing level of the Office of Emergency Management (18 permanent staff), there is an ongoing requirement to leverage staff from other city divisions and agencies to staff the EOC during an emergency response. The OSF speaks to how "ideally, the 5-deep Staffing Plan for positions within the EOC will overcome issues

associated with prolonged EOC activation". However, a more formal commitment needs to be made by city divisions and agencies involved in responding to emergency events with respect to the 5-deep staffing and to establish minimum staffing levels for all positions within the EOC.

The only significant weakness of the OSF relates to the roles and responsibilities described for some internal and external entities which may be out of date (example: the current commitment of the Geospatial Competency Centre or of the Toronto Emergency Communications, Toronto Amateur Radio Emergency Services to emergency operations).

Recommendations

1. City Divisions, Agencies, Boards and Commissions formally commit to the 5-deep staffing plan and establishment of minimum staffing levels for the Emergency Operations Centre for Level 2 Major Incidents and Level 3 Emergency Incident Responses. These staff will be drawn from Divisions, Agencies, Boards and Commissions who have a defined emergency response role in the Emergency Operations Centre and will complete the training requirements.
2. Establish minimum training requirements for all identified Emergency Operations Centre staff to complete. Those requirements include Incident Management System Levels 100/200 and Emergency Operations Centre.
3. Request all Divisions supporting the response who are not in the Emergency Operations Centre to designate a Division Liaison to establish communications and coordination within their Division and the Emergency Operations Centre.
4. Locate a back up facility suited to Emergency Operations Centre operations and test through an exercise.
5. Within the EOC itself (not the building systems), conduct regular monthly checks of equipment, connectivity and supplies to ensure full functionality and restock as necessary.
6. Establish more effective protocols and procedures to support the activities and functions of the City's Emergency Operations Centre to ensure that the EOC remains fully operational during any emergency situation.

7. Traffic Management OSF

OSF Summary

The purpose of the Traffic Management OSF is to define roles and responsibilities and provide guidance for the safe movement of vehicular, pedestrian and cyclist travel during an emergency incident. The OSF outlines the coordinated effort for the management of vehicular, pedestrian and cyclist movement following an incident to mitigate against any

potential threat to lives, health, safety and welfare of the impacted citizens and to expedite the recovery efforts of the impacted area(s).

The OSF also sets out high level requirements of the Traffic Management Plan including planning and preparation for an emergency in the City of Toronto and the impact it might have on the City's Transportation Services Division.

Implementation

During the December 2013 ice storm event, freezing rain resulted in a large number of downed wires, trees and branches across the city and widespread power outages. The downed trees and hydro wires posed a risk to public safety as well as restricting vehicular movement along roadways and pedestrian travel along sidewalks. Therefore the Traffic Management Operational Support Function (OSF) plan was activated to initiate the following activities during the emergency:

Stage 1 - Emergency Response – Power Outage:

- Widespread salting on major arteries, collectors, local roads, sidewalks and bus stops.
- Sidewalk clearing for Seniors
- Fallen branches removal to clear roadways
- Activated Divisional Operations Centre and attended the EOC to provide coordinated response and assisted with supplying cots and supplies to emergency reception centres

Stage 2 - Clean Up:

- Utilized contracted resources along with in-house staff to remove or relocate debris from arterial roads and transit routes.
- Continued response to Service Requests for roadway salting, sidewalk salting and potholes
- Traffic Management Debris Removal for Priority Streets, TTC Priority Routes, Arterial Roads, School Zones and Sidewalks on arterial roads
Citywide pothole repair

Analysis

Activation of the Traffic Management OSF allowed Transportation staff to immediately address the need to open up arterial roadways blocked with trees and branches, preventing vehicles, including emergency vehicles, from travelling through. The OSF worked well with respect to successful communication between Transportation Services DOC, the EOC and with staff out in the field – facilitating immediate reporting on the number of blocked roads and non-functioning traffic signals. There were some challenges with respect to coordinating with the Toronto Police Service for the management of traffic at major intersections with non-functioning traffic signals. Requests were submitted to EOC Planning to provide assistance to those intersections, however Toronto Police Service staff were primarily deployed to attend to downed wires and conduct wellness checks.

Recommendations

1. The City's Transportation Division, Office of Emergency Management and the Toronto Police Service should work together to develop emergency response protocols to ensure Police Officers are available to be dispatched to direct and control the City's highest priority traffic intersections in the event of power outages during emergency events.

8. Volunteer Management OSF

OSF Summary

The intent of the Volunteer Management OSF is to facilitate and coordinate the recruitment, selection and placement of unaffiliated volunteers (i.e., volunteers not associated with any recognized disaster response agency, but who may possess other training, skills and experience and appear on the scene or call to offer assistance), in order to augment staff resources during a Level 2 (Major Incident), Level 3 (Emergency Incident) or a declared emergency. It is also intended to define roles and responsibilities for executing a volunteer management plan and to provide guidance to Human Resources as the lead division for volunteer management.

Implementation

During the December 2013 ice storm, no requests were received by Human Resources from any City Division for unaffiliated volunteers. As a result, no volunteer applications were managed, nor was any volunteer recruitment, screening or placement initiated. However, Divisions did indicate that there was an overwhelming interest from members of the public who arrived at reception centres of their own accord, wanting to help. In these instances, individuals were referred to the Canadian Red Cross which had already initiated its response to the ice storm to assist the City's emergency response.

The Canadian Red Cross provided emergency lodging services, working with Parks, Forestry and Recreation (PFR) in the opening of reception centres; intake registration services at reception centres; and emergency food services. In Toronto alone, the CRC assisted 3,167 people, delivered more than 1,000 cots and blankets, and more than 2,000 hygiene kits, and provided more than 18,000 meals. In addition, the City's Community Crisis Response Program (CCRP) utilized its networks to disseminate information and assess how communities were responding beyond the City's own supports.

Analysis

While the City did not undertake a recruitment campaign for unaffiliated volunteers, the City's use of affiliated volunteers (e.g., Canadian Red Cross) was consistent with this OSF. As part of this OSF review, key City Divisions (Human Resources, OEM, PFR, EMS, and SDFA) and the CRC were surveyed, and provided feedback regarding

perceived strengths and weaknesses of this OSF.

Divisions felt that, in an emergency response, the OSF does provide guidance on affiliated and unaffiliated volunteers, and that the OSF's provisions for entering into agreements with volunteer agencies (e.g. Canadian Red Cross) ensures that roles are pre-defined for relevant parties involved in the response. However, divisions also observed that this OSF does not address the issue of spontaneous offers of volunteer support from community members or from non-emergency community organizations during times of emergency, nor is there a specific role articulated in the OSF for volunteer community organizations (e.g., places of worship, cadets, scouts, rate payer groups, etc.) or for apartment building owners, property managers or site staff.

Recommendations

1. In advance of and during an emergency, information should be made available to members of the public directing them on how and where they can volunteer with an accredited relief or volunteer agency (e.g., Canadian Red Cross) that can assist the City during an emergency.
2. Human Resources Division and the Office of Emergency Management should initiate discussions with the Canadian Red Cross on the potential to develop a process to recruit, train, and utilize unaffiliated (including walk-in) volunteers for any emergency event.
3. Human Resources, Social Development, Finance and Administration (SDFA), and OEM should undertake an environmental scan to identify city-wide community, faith-based, or similar organizations (i.e. Salvation Army, OSPCA, St. John's Ambulance, Volunteer Toronto, Samaritan's Purse, Mennonite Disaster Service, Aga Khan Development Network, etc.) that have provided or could provide volunteer support during an emergency and to consider, based on the City's operational needs, the development of formalized agreements with appropriate organizations to assist the City in its emergency response efforts.

9. Power Disruption (Electricity) Risk Specific Plan

Risk Specific Plan Summary

The purpose of this Risk Specific Plan (RSP) is to identify the general roles and responsibilities that City of Toronto divisions have in responding to a power failure event and, if necessary, to assist Toronto Hydro's efforts to coordinate a timely and effective response. In addition, this RSP identifies operational procedures among the participating city divisions with respect to their individual role(s) during a power interruption event. These procedures are intended to ensure the health and safety of responding personnel, and to contribute significantly to the organized management of a disaster recovery plan.

Implementation

On the evening of December 20, the Office of Emergency Management (OEM) stand-by Coordinator contacted the Emergency Management Unit of Toronto Hydro to advise that the OEM was in a 'monitoring mode' with respect to the impending storm.

On December 21, the Emergency Operations Centre was activated to proactively monitor the storm and impacts. In addition to notifying members of the Toronto Emergency Management Program Committee (TEMPC) and Working Group, Toronto Hydro, Hydro One, the Provincial Emergency Operations Centre, Toronto Police, Fire and Emergency Medical Services, Toronto Water and Transportation Services, 311 and Strategic Communications were also notified.

Communications linkages were established between the Liaison Officer in the Emergency Operations Centre and the assigned Emergency Management Unit contact at Toronto Hydro, as per the plan. Staff from Toronto Hydro also attended the Emergency Operations Centre as part of the Operations Section to work directly with staff at their Emergency Management Unit.

Analysis

Actions undertaken by City divisions in coordination with Hydro via the Emergency Operations Centre were all consistent with the intent and detail provided for in the Risk Specific Plan. No inconsistencies were identified. Communications protocols are well established and functioned extremely well between Toronto Hydro and the City's Emergency Operations Centre with respect to the response phase of the event. City divisions were all aware of their specific role in responding to the event from the perspective of the Risk Specific Plan.

However, some areas have been identified as needing revision. Specific notification levels (triggers) are not well established for all emergency events (smaller events – level 2 events and lower). The difficulty in differentiating between a Hydro 'customer' versus an individual consumer continue to present issues with identifying triggers for Hydro to initiate contact with the OEM to activate a response. Work is underway to correct this through a city wide demographic assessment to identify areas of concern to the OEM from an Emergency Human Services response perspective.

Although general communications are addressed, the linkages and protocols for the Strategic Communications sections of both the City and Toronto Hydro should be outlined within the risk specific plan (as opposed to the Emergency Information Operational Support Function which is intended to be a much more overarching / high-level document).

Recommendations

1. The OEM should investigate the feasibility of integrating Geospatial mapping as an in-house component of its operation to assist with the demographic assessment of the city to identify areas of concern to the OEM from an Emergency Human Services response perspective.
2. Identify and prioritize the City's 'priority loads' to provide better detail around the roles and responsibilities outlined in the plan.

3. Strategic Communications and Office of Emergency Management staff review the City's Risk Specific Plan for Power Disruptions in collaboration with staff from Toronto Hydro to strengthen and clarify the ways in which the City and Toronto Hydro will work together to more effectively communicate with the public, particularly vulnerable populations, during an EOC activation, and take forward the revised Risk Specific Plan for Power Disruptions to TEMPC for approval.

Appendix 2



City of Toronto, Public Consultation on Emergency Weather – May 2014

EXECUTIVE SUMMARY

Introduction

This report describes the City of Toronto's Public Consultation on Emergency Weather conducted in May 2014. This public consultation sought the public's feedback on the City's response to the July 2013 flooding and December 2013 ice storm, and their ideas on how the City can support residents in future weather emergencies.

There were three methods of input to the consultation: a Feedback Form, public sessions, and comments through phone, letter and email. This report summarizes the input received from each method and key findings across all of the public input.

Approximately 500 people participated in the consultation. Their input reflects their individual interests and insights on the topic, the strong impact that Toronto's recent weather had on their lives and added valuable insight on the issues. The information gathered during the consultation should not be interpreted as being demographically or statistically representative of the views of the Toronto population.

Key Findings

Given the severity of the storms, most respondents indicated that there was a threshold of tolerance for being negatively affected by disruptions such as power outages and road closures. In most cases participant satisfaction ratings for City services varied depending on the extent to which the following criteria was met:

- Were without power for fewer than three days
- They were able to access information and the information was clear, updated regularly and reliable
- Crews were responsive to individual requests on an emergency basis
- The public understood the City's plan, priority process and need to restore critical services first.
- Impact was limited to one or two issues – where people faced multiple concerns (e.g. power outage, fallen trees and no information) their level of satisfaction became low.

Communications

Communications was a critical theme across all questions and all methods used to collect input. The public provided input about the City's, and its partner's, communications in response to questions specifically focused on the issue of communications, and also in response to most other questions (e.g. how can the City help residents to prepare for weather emergencies).

Most respondents indicated that all channels of communications could be better, more timely, proactive, updated frequently, more accurate and extended to more, diverse methods of reaching the public. Many respondents asked for more local or neighbourhood-specific information. Participants frequently suggested that the City needs to work better with its partners (internal and external) and that all information sources needed to be more reliable, and increased to meet peak demand during an emergency. Many suggested that they could not connect, get a hold of, or get a response from whichever channel they tried.

Participants who were satisfied with the City's communications during the Ice Storm were able to access the channels of their choice (Web, radio, TV, and email were mentioned) and felt the information that was provided answered their questions.

Participants expressed frustration about:

- trying to get information through channels which required electricity, including being directed to the City's website when they had no power,
- co-ordination between the City and Toronto Hydro, including being unclear about who was the official source of information,
- wanting more detailed, local information about their situation, and
- being concerned about vulnerable residents who might have difficulty accessing any information.

Information

During the 2013 Ice Storm, Toronto Hydro was the source most respondents contacted for information (by phone or internet), and was also the source with which more respondents were "very unsatisfied" (40.6% very unsatisfied versus unsatisfactory ratings of 33.3% for 311 and 12.2% for City or Hydro crews on the street). Street crews scored highest on "very satisfied" ratings (22.4%), ahead of both 311 (7.1%) and Hydro by phone or internet (2.%). Information provided by street level and front-line crews was reported as more satisfactory, reliable and personal.

Many recommended that the City should develop information that the City already has. This included a City-wide emergency plan, information about roadwork and guides for personal emergency preparedness. This suggests that the public is unaware of the information or how to access it and that the City should increase promotion and make the information more readily available in multiple formats. Individuals also requested that the City continue its communications after an emergency situation ends, to help them deal with ongoing issues (e.g. clean up, food safety, basement flooding), and to plan for the future.

Leadership, Roles and Responsibilities

A key theme across the answers to most questions was a lack of clarity about the role of the various City departments, external organizations and other governments during an emergency weather situation. Many suggested:

- the Federal and Provincial governments should have played a bigger role (e.g. funding, or why the Army wasn't brought in),
- they weren't clear who was responsible for calling a State of Emergency (or not calling one in the case of the past storms),
- the relationship between Hydro and the City was unclear; many asked which one was responsible for what activities (who was tracking the outages, who was taking information about individual homes – was it 311 or Hydro?),
- it was unclear who the official spokesperson was for emergency information – with many suggesting there should have been one person appointed to this role,
- it would be helpful to know the role of the Mayor, Deputy Mayor and City Councillors during an emergency – so that the public didn't waste anyone's time going to the wrong source for information or to notify them of their concerns or issues, and
- it would be helpful to have better and more timely information about the responsibilities of individuals, homeowners and businesses including trees on private property, power connections to homes, insurance claims and coverage.

Several respondents suggested the City should formalize partnerships, including detailing roles and responsibilities, before an emergency occurred– with other levels of government, other cities in the region and with non-profit organizations – and develop a network of volunteers to supplement City staff during an emergency.

Loss of Power

The loss of power was a significant issue to the majority of respondents who indicated how the Ice Storm of December 2013 affected them. 68.7% of the 323 participants who indicated how they were affected by the ice storm chose "Lost Power", closely followed by "Difficulty travelling to work, school, appointments, home" at 51.4% (respondents could indicate multiple impacts).

Loss of power was also the most named impact (59.6%) of the 317 respondents who answered the question "Please let us know the ways you were affected by all other weather emergencies in the last 12 months" with another 48.3 % indicating they had "Difficulty travelling to work, school, appointments, home."

During the Ice Storm, residents reached out to Hydro, 311, and crews on the street for information about the power outage, timelines for getting power back on, and how to deal with hazards near their homes. Those who were satisfied with the help they got mentioned that there were frequent updates to the website (which they were able to access), and helpful and understanding interactions with City and Hydro staff over the phone and on the street.

Overall, people who were generally satisfied with the City's response to the loss of power mentioned having shorter power outages (from a few hours to 3 days), the unprecedented severity of the storm and the fact that they felt City and Hydro crews were working as hard as they could.

People who were unsatisfied with the City's response often mentioned the multiple ways they were impacted by the storm, including:

- Waiting too long for power to be restored (wait times of 4 days or longer were mentioned),
- Losing water, elevator service in addition to power in larger apartment buildings,
- Displacement from their homes, and the costs associated with losing food and paying for shelter,
- Difficulty caring for children, elderly family, and pets,
- A lack of communication in general and unclear or incorrect communication about timelines for restoring power and why some neighbourhoods, businesses, buildings or houses had power restored sooner than others,
- Lack of preparation and preventative measures such as tree-trimming and burying hydro lines
- Paying for electricity service while it was out, higher electricity bills after the storm, and repair costs to hydro lines on a homeowner's property.

Cleanup

Many respondents felt that considering the extent of the damage and the effort required, the City did a good job at clearing fallen trees and branches after the Ice Storm. However, better tree maintenance to prevent similar damage in the future, more support for seniors and vulnerable people with tree damage on private property, and further cleanup in the spring after the ice and snow had melted were important issues which many also raised.

A significant number of people shared similar feedback about the removal of ice and snow. While major roads were cleared fairly well, smaller roads took days to clear and the ice on sidewalks created hazards, especially for seniors and people with disabilities. Better coordination, more effective snow and ice removal, and the need for better enforcement of snow clearing were highlighted by many.

Other suggestions for future cleanup included better planning by the City to prepare for storms, better coordination with Toronto Hydro, better information through 311 on clearing debris, and that the City should have declared a State of Emergency and brought in further help (e.g. Armed Forces) to help clear snow, ice, and trees.

Emergency Resources

When it comes to choosing an emergency shelter, most people indicated they would feel most comfortable at a community centre, school or library. Safety and proximity to where the respondent lived were significantly rated as key criteria for selecting a shelter.

Many respondents suggested that the City should provide, or coordinate the provision of, emergency supplies. Generators, emergency kits, and charging stations were mentioned most frequently as resources the public would like to see the City coordinate in the future.

Many respondents who commented on City and Hydro staff recognized their long hours and difficult work, however this was primarily in relation to street-level and road crews.

Emergency Planning

Many participants wanted assurances that the City had a well developed, tested and communicated plan for responding to emergencies of all types. The public is interested in knowing that the City's plans are made at all levels – by building or high-rise towers, by neighbourhood, City-wide and regional; for all scales of urgency – minor, contained and short-term versus sustained, critical and extreme, and all types – heat, cold, flood, ice, nuclear, epidemic.

Respondents indicated that they felt the City's challenges during and following an emergency weather situation would be reduced if the City planning included:

- Burying hydro lines,
- Increasing the inspection, maintenance and planting of trees to promote a healthy tree canopy, keep branches away from hydro lines, and have a positive impact on climate change,
- Establishing priority list of individuals who may require additional assistance, and
- Ensuring the City's infrastructure could withstand future emergencies.

Consultation Process Summary

Public Sessions: Open Houses and Discussions

160 people attended the consultation's four public sessions. During the sessions, the City Manager or Deputy City Manager gave a brief presentation, followed by questions and comments from individual participants about the City's emergency weather management and services. Senior City staff answered the public's questions, and then participants continued to provide their input in greater detail at small table discussions, facilitated by City staff. Session facilitators provided very brief report-backs on the key topics of the table discussions at the end of each meeting, with closing remarks provided by the City Manager, or Deputy City Manager.

Sessions were held at City Hall, Scarborough Civic Centre, Etobicoke Civic Centre and North York Civic Centre during the week of May 12, 2014. Sessions included displays and information from the City's programs and service areas that are involved in emergency management, as well as a number of external partners.

Feedback Form

A Feedback Form was created to gather the public input on both past emergencies, and to help the City plan for the future. The form was available online and in hard copy; available on a laptop and paper format at the public sessions, and by post and e-mail as well. Online versions were translated into 10 languages, and a large-print hardcopy was also provided to participants. 391 Feedback Forms were submitted.

The consultation Feedback Form included questions about the impact of the July 2013 flooding, the December 2014 ice storm and asked for advice for the City for improving its response to future weather emergencies. Both open and closed questions were asked, allowing the public to not only state what their position was on each issue, but also provide an explanation or detailed response.

Questions were categorized into key topics including power and electricity, impact on business, water damage, cleanup, information and communication, community supports, emergency shelters, and emergency preparedness.

Some participants expressed their appreciation for the opportunity to provide their views during the public sessions and through the Feedback Forms, while others wondered why it took the City so long to ask them about weather emergencies that had happened 6-8 months earlier.

Phone, Letter and Email Comments

The City also received:

- 15 emails with comments sent to engagement@toronto.ca
- Two phone calls – comments were transcribed
- 3 submissions by mail not on the consultation feedback forms
- 5 people submitted questions to the City's general civic engagement email (engagement@toronto.ca) about the consultation and/or requesting a feedback form

The input across all processes and methods were generally consistent. Where there were differences, it is noted in the full consultation report available at www.toronto.ca/weatherprooftoronto.

Appendix 3

Summary of Council Motions and Related References in Staff Report

At its meeting on January 10 and 13, 2014, City Council adopted a series of motions during its consideration of the City Manager's report entitled Impact from the December 2013 Extreme Weather Event on the City of Toronto.

The table below details each motion adopted by Council and provides references to the related recommendations, sections and appendices in the staff report.

No.	Motion	Reference
1.	Given that, in 2013, in excess of \$171 million in storm related costs have been incurred by the City of Toronto, City Council request the Provincial and Federal governments to provide financial assistance to the City of Toronto and Toronto Hydro for 2013 storm events with a minimum of \$114 million in funding representing one third each from the Provincial and Federal governments and the City of Toronto.	Action completed. See Financial Implications b) Provincial Ice Storm Assistance Program.
2.	Since the City of Toronto recently experienced a severe winter storm event weather event on December 21 and 22, 2013 and has experienced substantial damage to municipal forestry infrastructure and related costs of approximately \$106 million and has received reported losses of private damage, City Council request that the Minister of Municipal Affairs and Housing declare the City of Toronto a "disaster area" for the purposes of the Ontario Disaster Relief Assistance Program.	Action completed. See Financial Implications section b) Provincial Ice Storm Assistance Program.
3.	City Council request the Provincial and Federal governments, to establish new programs and expand existing programs addressing disaster mitigation involving urban forestry, erosion control, winter storms, tree canopy, and other severe storm events, that reflect the reality of climate change and such programs to include funding for rehabilitation of municipal infrastructure to mitigate future environmental and storm event impacts.	Action completed.
4.	City Council request the City Manager in consultation with the Deputy City Managers, and the Deputy City Manager and Chief Financial Officer, to report to the January 22, 2014 meeting of Executive Committee on the financial impacts of the storm event on the 2014 Operating and Capital Budgets, and to provide options to finance the City's share of storm related costs.	Action completed. See Staff Report EX37.1 (331 – 339) – Proposed Funding of 2013 Extreme Weather Events.

No.	Motion	Reference
5.	City Council request the City Manager to report to Executive Committee no later than the second quarter of 2014 on the City's review of the emergency response to the ice storm, including recommended improvements to the management of future emergencies including the actions to enhance the resiliency of the interdependent infrastructure and services to extreme weather, such report to include the following:	See below (5. a - 5. oo.).
5. a.	a third party review of how the City, including Toronto Hydro, can learn from the 2013 Ice Storm;	Action completed. See Recommendation 5, Background section 2, and Comments section 9.
5. b.	a shareholder's resolution on behalf of Council as Toronto Hydro's sole shareholder to:	See below (5. b. i. – 5. b. ii.).
5. b. i.	integrate the Toronto Hydro Call Centre with the City's 311 system, which has much higher capacity, training, reporting ability, and online service options; and	See Recommendation 10 and Comments section 3 (a).
5. b. ii.	direct Toronto Hydro to work with the City's Transportation and Capital Planning staff, develop and implement a plan to bury Toronto Hydro power lines over the next 20-30 years, beginning with arterials roads and streets where major road reconstruction is planned;	See Recommendation 11 and Comments section 5 (a).
5. c.	communications protocols, both internally to Elected Officials, with City divisions, agencies and corporations, and with the public at-large, including use of technologies such as short wave radio, telephone broadcast messages, and email and social media capacities of local elected officials;	See Recommendations 8 and 9, Comments section 5, and Appendix 1 sections 15 and 9.
5. d.	a review of the effectiveness of the telephone and telecommunications system within the City of Toronto and on ways and means to ensure customers do not lose essential phone services during a prolonged power outage;	See Recommendation 3 and Comments section 1.
5. e.	how the City of Toronto and Toronto Hydro communicates with residents during emergencies, and requesting Toronto Hydro Corporation to:	See below (5. e. i. - 5. e. ii.).
5. e. i.	include, within their emergency communication response, mechanisms to reach residents who are without power; and	Recommendations 3, 8, and 9, Comments sections 1 and 2, and Appendix 1 sections 5 and 9.
5. e. ii.	include manual methods for communication which may include an onsite vehicle with speakers to drive through communities to update residents and request the Toronto Hydro Corporation report back to City	Recommendations 8 and 9, Comments section 2, and Appendix 1 sections 5 and 9.

No.	Motion	Reference
	Council on all manual methods to be included into their communications response in emergency situations;	
5. f.	exploring the establishment of a "Emergency Social Media Coordinator" position within Strategic Communications Office whose responsibilities would include coordinating with all relevant agencies and divisions during an emergency situation to ensure there is a one-stop location for residents to access pertinent information in real time for the duration of an emergency;	Recommendation 8 and Comments section 2 (f).
5. g.	all manual communication methods that can be considered for use in emergency situations, including a public notice to be distributed by Canada Post to inform residents about what is happening and what to expect in case of natural disasters or serious emergencies;	Recommendation 8 and 9, Comments section 2, and Appendix 1 sections 5 and 9.
5. h.	how the media can be given access to the Emergency Operations Centre for the duration of the emergency;	Recommendation 8, Comments section 2 (e), and Appendix 1 section 5.
5. i.	a communications strategy to ensure that those without access to a cellular phone, smart phone or the internet can be reached with essential information in emergency situations, such as the ice storm;	Recommendations 3, 8 and 9, Comments sections 1 and 2, and Appendix 1 sections 5 and 9.
5. j.	the feasibility for 311 to be the sole "brand" for information and phone inquiries in Toronto, recognizing the need for communication and the importance of getting our messages to the public to be clear and concise;	Recommendation 10 and Comments section 3.
5. k.	the role of Councillors and their offices during an Emergency Response and the identification of policy changes to ensure that Councillor efforts and their information are co-ordinated and consolidated with the central response;	Recommendation 9, Comments section 2 (g), and Appendix 1 section 5.
5. l.	best practices in other major cities across the world which have developed effective ways to deal with severe weather events, including heat waves, ice storms, floods and high winds;	See Staff Report PE28.6 – Resilient City: Strategy to Prepare for Changing Extreme Weather Events.
5. m.	proposals to ensure that residents have the information to better protect themselves from unscrupulous contractors and sales persons, and that residents have access to good information to protect their families and property;	Comments section 8.
5. n.	proposals to enhance the residents' resiliency in coping with future emergencies, including improved personal emergency preparedness and training;	Recommendation 3 and Comments section 1.

No.	Motion	Reference
5. o.	a review of strategies to mobilize and coordinate community resources and expertise, including volunteers;	Appendix 1 section 8.
5. p.	the feasibility of incorporating a role for volunteers and community organizations (such as places of worship, cadets, scouts, Ratepayer groups etc.) as part of an on-the-ground response and presence during an emergency;	Appendix 1 section 8.
5. q.	ways the City can engage volunteers and in-kind resources to assist in times of emergencies;	Appendix 1 sections 3 and 8.
5. r.	in consultation with the Deputy City Manager, Cluster A, the Toronto Police Service and other appropriate agencies, options for creating a confidential, voluntary and secure Vulnerable Persons Registry to be accessed in emergency situations with information on the following: <ul style="list-style-type: none"> i. which groups will be included in the Vulnerable Persons Registry; ii. how personal information will be secured to prevent unauthorized release; and iii. a communications plan to promote the registry emphasizing its voluntary and confidential nature; 	Recommendation 6, Comments section 6 (a), and Appendix 1 section 4.
5. s.	the findings of an investigation into the feasibility and legality of allowing residents who apply for the Low-Income Seniors and Low-Income Persons with a Disability Tax Relief Programs to voluntarily share their information with the Vulnerable Persons Registry;	Recommendation 6, Comments section 6 (a), and Appendix 1 section 4.
5. t.	in consultation with the Deputy City Manager, Cluster A, the Director, Office of Emergency Management, and partner agencies (such as the Canadian Red Cross), information on how residents may volunteer with an accredited relief or volunteer agency before an emergency occurs and become a trained volunteer that can assist during an emergency and having this information posted on the City website;	Appendix 1 section 8.
5. u.	the feasibility of linking community-based groups such as business improvement areas, Neighbourhood Watch, Ratepayer groups and associations in community-based relief, door knocking and communication strategies during civil emergencies;	Appendix 1 section 8.
5. v.	the feasibility of mandatory incorporation of education and awareness strategies for residential and business emergency preparedness;	Recommendation 3 and Comments section 1.
5. w.	a review of the appropriateness of Reception Centres and Warming Centres and the feasibility of utilizing the Toronto District School Boards sites which are located	Recommendation 7, Comments section 6 (b), and Appendix 1 section 4.

No.	Motion	Reference
	within communities, such review to include initiating discussions with the Province of Ontario, the Toronto District School Board and the Toronto Catholic District School Board to determine how local community schools can be utilized as sites in emergency situations, as these public buildings are easily accessible to residents and determining what services could be available at the local school sites during emergency situations;	
5. x.	working with the Toronto Transit Commission to explore the use of public transit buses to drive through communities in need during emergency situations to offer transportation to those who require access to a warming centre or a community information centre;	Recommendation 7 and Comments section 6 (b).
5. y.	an analysis of the existing City and Provincial legislation, regulations or policies related to mandatory or discretionary requirements to maintain emergency back-up power to enable life-systems such as emergency lighting, alarms, water, and elevators in high rise and other buildings;	Recommendation 14, section 7 (a), (b), and (c).
5. z.	a list of actions that can be taken to enhance the resiliency of our infrastructure and services to extreme weather events and the estimated costs for implementing these actions so that they can be considered for incorporation into the 2015 budget process;	See Staff Report PE28.6 – Resilient City: Strategy to Prepare for Changing Extreme Weather Events
5. aa.	the feasibility of establishing an emergency reserve fund equivalent to \$1.00 per month for the average assessed residential unit and the resulting equivalent amount for non-residential assessment;	Action completed. See Staff Report EX37.1 (331 – 339) – Proposed Funding of 2013 Extreme Weather Events.
5. bb.	the feasibility of any 2013 positive operating variance being dedicated to the disaster relief fund;	Action completed. See Staff Report EX37.1 (331 – 339) – Proposed Funding of 2013 Extreme Weather Events.
5. cc.	in consultation with the Director, Environment and Energy Office and Toronto Hydro, an evaluation on the viability of embedded energy solutions, including district energy, co-generation and renewable power, to improve reliability and energy security and how to apply it as part of Toronto's emergency response planning;	See Staff Report PE28.6 – Resilient City: Strategy to Prepare for Changing Extreme Weather Events
5. dd.	the potential options the City may have which could result in the increased undergrounding of overhead hydro and telecommunications plant, and that City staff consult with Toronto Hydro, telecommunications companies, the Ontario Energy Board and the	Recommendation 11 and Comments section 5 (a).

No.	Motion	Reference
	Provincial Government as appropriate;	
5. ee.	a policy that all future new developments be required to bury their hydro wires and the feasibility of using development charges as a source of financing;	Recommendation 11 and Comments section 5 (a).
5. ff.	consultation with the Deputy City Manager and Chief Financial Officer and the Chief Corporate Officer on all measures to be undertaken to ensure that the requisite support and systems for the Emergency Operations Centre (EOC) are tested and resilient, including the power, back-up power and systems of the consolidated data centre, and the establishment of more effective protocols and procedures to regularly test all emergency support equipment at the City's Emergency Operations Centre to ensure that the Centre is fully operational during any emergency situation;	Comments section 7 (e) and Appendix 1 section 6.
5. gg.	compiling and maintaining a list of major intersections across the City where, in the event of a power outage, the Toronto Police Service and Toronto Parking staff can be promptly assigned to direct traffic during the emergency period;	Recommendation 4 and Appendix 1 section 7.
5. hh.	in consultation with the General Manager, Solid Waste Management Services, the General Manager, Parks, Forestry and Recreation, the Director, Environment and Energy Office, and the General Manager, Economic Development and Culture, an operational plan to salvage as much wood as possible from the debris generated by the storm for reuse, and options for making use of this wood, including artisanal use, mulching, firewood, re-purposing for public parks, and other possible options;	Comments section 4 (c).
5. ii.	in consultation with the Deputy City Manager and Chief Financial Officer, a protocol in the City's Emergency Plan so that in the event of major urban canopy loss, considerations are made for the collection and reuse of tree debris as is possible;	Comments section 4 (c).
5. jj.	requesting the Chief Executive Officer, Toronto Community Housing Corporation (TCHC), to provide a summary of TCHC buildings without emergency power during the storm, such summary to include equipment, equipment failures, staff support etc.;	Comments section 7 (d).
5. kk.	an updated tree pruning and maintenance strategy to reduce the vulnerability of city trees to future ice storms, including estimated cost implications, financing options and best practices from other major cities;	Recommendations 12 and 13, and Comments sections 4 (b) and 5 (b).
5. ll.	a strategy to repair the damage sustained by Toronto's tree canopy, including a full assessment of that damage, estimated cost implications and financing	Recommendation 15 and Comments section 4 (a) and (b).

No.	Motion	Reference
	options;	
5. mm.	a review of the City's Tree Canopy Maintenance Program and possible updates based on lessons learned as a result of this past ice storm;	Recommendations 12 and 13, and Comments section 4 (b) and 5 (b).
5. nn.	the creation of a minimum standard for the maintenance of privately owned trees; and	Comments section 4 (c).
5. oo.	a review of the by-laws with respect to the removal of unhealthy or unsafe privately owned trees.	Comments section 4 (c)
6.	City Council authorize the City Manager, in the preparation of his report to the Executive Committee in the second quarter in 2014 requested in Part 5 above, to hire an independent third party consultant to participate in a comprehensive review of the December 2013 severe winter storm, the Emergency Operation Centre and the Emergency response system.	Background section 2, Comments section 9, and Appendix 2.
7.	City Council request the City Manager to provide the terms of reference, scope and membership for the City led comprehensive review and for the Toronto Hydro Third Party Independent Panel to the February 4, 2014 meeting of the Executive Committee.	Action completed. See Staff Report EX39.3 – Provincial Funding Request and Structure of Comprehensive Reviews.
8.	City Council request the City Manager, as a Member of the Toronto Hydro Third Party Independent Panel, to: <ul style="list-style-type: none"> a. seek input from City Councillors; and b. request the Toronto Hydro Board to ensure that CUPE Local One Hydro members on the ground during the ice storm are also asked to provide input; and to include as part of the report to Executive Committee in Part 5 above, a summary of the input received from both City Councillors and CUPE Local One members	Action completed. Lead Consultant for the Independent Review Panel interviewed the Deputy Mayor, members of the Executive Committee, and engaged with CUPE Local One. See Report from Toronto Hydro's Independent Review Panel.
9.	City Council request Toronto Hydro to provide a copy of the findings of the third party independent panel's review of Toronto Hydro's planning and power restoration response to the City Manager for report to City Council through the Executive Committee.	Action completed. See Report from Toronto Hydro's Independent Review Panel.
10.	City Council request the City Manager to make a presentation to Council on the City of Toronto Emergency Plan, Preparedness and Protocol.	City Manager to make a presentation at the July 2, 2014 Executive Committee meeting.
11.	City Council direct the City Manager, in consultation with the Deputy City Manager, Cluster A, to implement the Vulnerable Persons Protocol to ensure the safety of Toronto's vulnerable residents and report on the implementation of the Protocol as part of the report to	Recommendation 6, Comments section 6 (a) and Appendix 1 section 4.

No.	Motion	Reference
	Executive Committee in Part 5 above	
12.	City Council request the General Manager, Toronto Water to waive the water turn-on and/or turn-off fee for residents and businesses who requested this service from the start of the storm on Saturday, December 21, 2013 to January 3, 2014.	Action completed.
13.	<p>City Council direct the General Manager, Parks, Forestry and Recreation to provide permit credits, and on special request, permit refunds, in Parks, Forestry and Recreation facilities for the period December 22 to December 30, 2013 where:</p> <ul style="list-style-type: none"> a. facilities were closed during the power outage; and b. permit holders encountered undue hardship as a result of the storm and were unable to fulfil their permit obligations. 	Action completed.
14.	City Council request the Electrical Safety Authority (ESA) to waive the permit/certificate fees charged to residents for certifying repairs that allowed the restoration of power on private homes.	Action completed.
15.	City Council forward its request of the Provincial and Federal Governments outlined in Part 3 above to the Federation of Canadian Municipalities and the Association of Municipalities of Ontario and request their support for new and expanded funding programs to address disaster mitigation.	Action completed.
16.	City Council, on behalf of the residents of the City of Toronto, express its deepest thanks to all of the public servants, including Toronto Hydro crews, City staff, mutual aid crews, and contracted crews for their work and efforts in dealing with this emergency.	Action completed.
17.	City Council express a special thanks to the residents of Toronto who volunteered by taking in neighbours, clearing streets and sidewalks of debris, and volunteering at the City's Warming Centres, and truly showing the City's community spirit and caring sensibility.	Action completed.