



# June 2013 Interim Flood Debrief & 2014 Emergency Event Preparedness

April 30, 2014



# Introduction

This is an update report on the preliminary results of the June 2013 flood debriefs conducted between 2013 September and 2014 March with The City's Administrative Leadership Team; Calgary Emergency Management Agency (CEMA) and CEMA members, partners and staff. It focuses on The City's emergency response and early recovery efforts between 2013 June 20 and 2013 July 4, the timeframe during which a State of Local Emergency was declared. It highlights early findings, strengths and progress on preparedness to date in the six core areas:

1. Community response;
2. Communications;
3. Business continuity;
4. Resource management;
5. Workforce safety and wellbeing; and
6. Cutting red tape.

*"The City's recovery effort is tracking three to six months ahead of sister municipalities that have experienced similarly impactful flood conditions."*

*Jacobs Consulting Report, 2014*

## Strengthening Calgary's emergency response and initial recovery efforts

A comprehensive debrief report detailing strategies for improvement identified during the debrief process will be submitted in June 2014 for inclusion in the 2015-2018 business planning and budget cycle, in conjunction with the emergency response findings offered by the Conference Board of Canada.

*"Nothing strengthens efforts to address our present more than understanding the lessons learned from our past."*

*Tom Sampson  
Deputy Chief, CEMA*

## Continued recovery and mitigation

Following the initial recovery efforts that took place under the State of Local Emergency, a Flood Recovery Task Force, consisting of representatives from across City business units, was established by the Recovery Operations Centre Steering Committee. The Flood Recovery Task Force's mandate is to provide leadership, within the City of Calgary and the Calgary community, to identify and resource immediate flood

recovery activities, and support the delivery of recovery, mitigation and resilience recommendations for Action Plan 2015-2018.



## Community response

*Strengthening community relationships to support their ability to be partners in their own success.*

### Proven strengths

- Calgarians demonstrated a strong willingness, desire and ability to provide assistance to others and support neighbours and communities during an emergency.
- The success of the Emergency Social Services and the member and partner agency model ensured staff and resources were available to provide necessities for citizens displaced from their homes during an emergency.
- Emergency Social Services was able to staff and resource nine registration and reception centre sites as well as four dormitories to provide shelter and accommodations for evacuees.
- In support of community responders, The City's Volunteer Accident Insurance Program was extended to cover over one thousand volunteers who completed City registration forms.
- The Community Support Centre model was quickly developed and implemented to provide grassroots support to affected citizens by mobilizing resources at the community level.

#### *By the numbers*

*32 communities representing approximately 80,000 citizens were evacuated in 15 hours.*

*Emergency Social Services registered 3,800 citizens, provided shelter for 2,800 Calgarians and served 68,450 meals to evacuees.*

*Approximately 6,000 people showed up to offer their assistance at a volunteer drive at McMahon Stadium.*

### Disaster readiness

The City has:

- a. Continued to engage community associations and agencies to identify emergency preparedness needs and resiliency opportunities.
- b. Developed ongoing community training opportunities to support emergency preparedness and resiliency.
- c. Presented individual and community preparedness information at community open houses and workshops to educate Calgarians regarding preparedness.
- d. Identified and continue to collaborate with appropriate non-government organizations with the capacity and capabilities to provide volunteer and donation management support during a large-scale emergency.
- e. Enhanced community collaboration through expanded relationships with non-profit and community organizations to strengthen the resiliency of vulnerable populations and neighbourhoods.
- f. Drafted a multi-agency vulnerable population plan to support the relocation of shelters in the event business continuity plans for agencies serving these individuals encounter logistical challenges.
- g. Strengthened relationships with post-secondary institutions to support academic involvement in the development of strategies and tactics to support vulnerable populations.

## Communications

*Keeping citizens, emergency responders and employees informed to support timely, meaningful decision making.*

### Proven strengths

- The City's 3-1-1 and 9-1-1 telephone lines maintained functionality despite strained infrastructure and had the capacity to meet the needs of citizens.
- Third-party communication providers supplied evacuees with access to phones and equipped reception centres with cable, Wi-Fi and free access to emergency text messaging.
- The City Manager's Office took on responsibility of coordinating requests and information from City Council directly with business units, allowing Directors to focus on coordinating response and recovery activities.
- Frequent messaging through various media channels kept citizens informed on The City's flood response.

#### *By the numbers (June 20 to July 4)*

*The City issued 141 media releases and fielded an estimated 100,000 calls through its 3-1-1 line.*

*The City's Twitter feed had 95,000 followers and visitors to YouTube viewed 900,000 minutes of City videos.*

*The City's web site received over 1.8 million visits.*

*The EOC distributed 1,000 maps to frontline staff conducting door-to-door community evacuations.*

### Disaster readiness

The City has:

- Completed a comprehensive Crisis Communications Plan to further support effective and timely communications for citizens and employees during a large-scale emergency.
- Implemented improvements to Corporate online mapping to allow faster mapping of information to support informed, timely decision making by operations staff and the creation of online maps for citizen use.
- Strengthened collection and integration of field data to be used by the Emergency Operations Centre (EOC) during a large-scale emergency to enhance situational awareness and support timelier, effective decision making.
- Expanded CEMA notification procedures to ensure timely notification of members and partners during a potential crisis.
- Hosted a joint CEMA-Defence Research and Development Canada event to identify best practices in social media for emergency management.
- CEMA is working on improved methods for communicating with the Emergency Management Committee of Council during large-scale disasters.

*"Analysis of the people, governance, technology, and implementation aspects of the use of social media during the 2013 Calgary flood indicates that it was a useful tool for augmenting traditional emergency capabilities."*

*Kate Kaminska  
Defence R&D Canada*

*"The success of tying the media into the EOC underlines their indispensable role in crisis management. During the 2013 flood, this enabled CEMA and the City of Calgary to leverage its strong leadership, speak with one voice, and effectively reassure the public."*

*Conference Board of Canada, 2014*

## Business continuity

*Maintaining the delivery of key services to citizens during a large-scale emergency.*

### Proven strengths

- The City successfully managed one of the largest and most diverse personnel deployments in its history.
- The majority of services for citizens located outside of flood-affected areas continued to operate as usual, including emergency response, water service, public transit and Canada Day activities.
- City Council maintained its ability to operate and govern through the establishment of secondary Council locations.

### *By the numbers*

*Business continuity workshops have been completed by 25 of 29 business units.*

*During the flood, 2,800 City employees were displaced.*

*Within 15 days of the declaration of the State of Local Emergency, 95 per cent of City sites were connected to the network and phone service.*

*"Calgary is the only EOC in the country where TELUS has a regular seat at the table for emergency response... Being able to communicate directly with ENMAX and the EOC allowed us to maintain communication infrastructure across the city."*

*Ivan Kusal*

*Director of Corporate Business Continuity, TELUS*

- Unions and collective agreements supported the reassignment of City staff to perform emergency tasks.
- Utilizing extended shifts, Calgary Transit increased bus and C-train service throughout the flood and early recovery period, including throughout the Stampede.
- By co-locating the Recovery Operations Centre Steering Committee at the EOC, business

continuity and recovery planning activities were established at the same time emergency response activities were underway. This provided for a seamless transition from emergency response to initial recovery efforts that focused on prolonged community restoration and rehabilitation.

### Disaster readiness

The City has:

- a. Distributed business continuity packages across the Corporation to support the development of consistent business continuity plans.
- b. Continued business impact analysis workshops with City business units to advance business continuity plan development.
- c. Updated staff call-out lists and designated off-site locations for hard copies for easy access by supervisors during an emergency.
- d. Completed a municipal self-assessment submission for accreditation by the Emergency Management Accreditation Program to support continuous

*"After a natural disaster, typically 50% of businesses fail, however, Calgary's flood-ravaged businesses have made a remarkable comeback with fewer than 1% of those damaged still shuttered."*

*Adam Legge,*

*President and Chief Executive, Calgary Chamber of Commerce*

evaluation against industry best practices and standards.

## Resource management

*Understanding City resources, capabilities and location for effective and efficient reassignment, relocation or repurposing during emergencies.*

### Proven strengths

- The inclusion of critical infrastructure information, flood inundation maps and Civic Census data in the Common Operating Picture used in the EOC for emergency management allowed for quick identification of areas at risk where mitigation activities could be employed or immediate response and support were required.
- Procurement processes were adapted to allow for the expeditious acquisition of resources essential for emergency response and initial recovery.
- The utilization of the Tomorrow Workplace Team during the flood resulted in the timely development of strategies regarding alternative work options and locations for City staff.

### By the numbers

*The Common Operating Picture used by CEMA in the EOC to coordinate emergency response identifies 100 critical infrastructure requiring specialized mitigation and response strategies during an emergency event.*

*The City has access to over 3,500 vehicles – not including those from the Calgary Police Service, Fire Department or Transit – maintained by Fleet Services during a large-scale emergency.*

### Disaster readiness

The City has:

- a. Implemented an Emergency Procurement Plan that outlines emergency vendor resources across areas essential for response and initial recovery, contingency plans and a framework for Corporate procurement.
- b. Incorporated additional facility and other critical infrastructure data from CEMA members and partners into the Common Operating Picture used by EOC for emergency management.

*“Through this tragedy, we have seen the generous spirit of our whole city — individuals, businesses and entire communities have come together to support one another. It makes me proud to call Calgary home.”*

*Bruce Graham,  
President and CEO, Calgary Economic Development*

## Workforce safety and wellbeing

*Employing processes, programs and resources to address the impacts of physical and emotional stress associated with emergency response and recovery.*

### Proven strengths

- City staff willingly worked long hours and took on duties outside of their job descriptions to assist in the response and recovery.
- Human resource policies were quickly adapted to support the evolving needs of employees during the response and recovery, including providing flexible work options for those displaced from their homes and offices.

### *By the numbers*

*More than 10,000 City employees were engaged in flood response and initial recovery efforts.*

### Disaster readiness

The City has:

- a. Completed CEMA's Concept of Operations, which designates a Safety Officer during an emergency response who is responsible for City employee wellness, fatigue management and other hazards.
- b. Revised Human Resources policies to be used during an activation of the Municipal Emergency Plan based on learnings from the flood.
- c. Developed Human Resources FAQ templates to better support information sharing regarding personnel and workplace issues with City leaders during an emergency.

*"The mental health of an emergency management cadre is vital to maintaining preparedness and building resilience. Without the required financial commitments, one cannot expect a similarly effective crisis response next time."*

*Conference Board of Canada, 2014*

*"The strength of Calgary's response lay in its willingness to be strategic and decisive in recovery, the talent and commitment of its staff, and the quality and comprehensiveness of its operational systems."*

*Jacobs Consulting Report, 2014*

## Cutting red tape

*Leveraging strategies developed during the flood to reduce bureaucracy, streamline processes and expedite citizen access to City services.*

### Proven strengths

- Co-locating the Corporate Planning Application Group from business units across the city into a central office allowed for faster review and approval of building permits submitted by citizens.
- As a result of The City coordinating efforts with Alberta Health Services, health inspectors were reassigned to assist in Calgary and provide inspections using a redefined, streamlined process that supported the rapid recovery and opening of impacted businesses, ranging from restaurants to daycares.
- By convening a Municipal Infrastructure Recovery/Disaster Recovery Program group during the emergency response phase, The City was able to align infrastructure recovery activities and internal asset management reporting procedures with the requirements of the Provincial Disaster Recovery Program. The swift formation of this team has helped ensure The City recovers all eligible Disaster Recovery Program expenses while meeting its own internal reporting requirements.

### Disaster readiness

The City has:

- a. Provided tax relief options for citizens impacted by the flood.
- b. Introduced changes to the Development Permit Application process to improve access and expedite development application processes for citizens impacted by the flood.
- c. Conducted an initial review of City involvement in the provincial Disaster Recovery Process to identify opportunities to work with the Government of Alberta to reduce bureaucracy and accelerate aid to citizens.

### *By the numbers*

*Four temporary customer service centres were established – one in each city quadrant – allowing 6,855 citizens to pay taxes and submit permits.*

*An estimated 6,000 rapid building inspections were completed on affected buildings to allow for citizen re-entry.*

*Roads through the entire downtown core were swept clean within six days of the declaration of State of Local Emergency.*

*Within nine days of the declaration of State of Local Emergency, 300 metres of new road were laid on Macleod Trail.*

*34 million litres of water was pumped from three LRT tunnels, 100 metres of new LRT track were fully rebuilt and full LRT service resumed within 13 days of the declaration of the State of Local Emergency.*

*“The remarkable unity of effort during the 2013 flood was facilitated by all stakeholders working towards a common long-term objective and strong leadership that championed outcomes, transparency, and the public’s immediate needs over bureaucratic process.”*

*Conference Board of Canada, 2014*



# Assessing emergency response and initial recovery efforts

## **Jacobs Consulting City of Calgary Disaster Recovery Funding Analysis**

As part of its recovery, The City engaged Jacobs to undertake a limited analysis of its disaster recovery operations from the June 2013 flood. The primary objective of the analysis was to identify opportunities for The City to obtain and maximize available federal and provincial disaster funding under law, and to promote regulation and policy to aid in the city's robust recovery to mitigate against future threats. While the report focuses primarily on recovery, it does make note of the contributions of Calgary's "highly effective, centralized response operation through its Emergency Operations Centre," and how The City "recognized the need for strong, internal resources to lay the groundwork for permanent restoration of damaged infrastructure and initiated the Recovery Operations Centre on June 22" (*Jacobs Consulting: City of Calgary – Disaster Recovery Funding Analysis, 2014 February 14*).

## **Defence Research & Development Canada Technical Advisory note**

This technical note analyzed the role of social media during the 2013 Calgary flood, including an evaluation of the people, governance, technology, and implementation associated with its use during this time. The review indicates social media was a useful tool for augmenting traditional emergency capabilities with room for growth and improvement in the areas situational awareness, engaging the public, coordinating and collaborating with stakeholders and leveraging intelligence and crowd-sourcing abilities (*Defence R&D Canada: #YYCflood: The role of social media during the 2013 Calgary flood, 2014 February 14*).

## **The Conference Board of Canada Report (preliminary results)**

In late 2013, The City, through CEMA, requested the Conference Board of Canada to conduct an independent review of its overall emergency response and initial recovery efforts during the flood. The report provides findings in five key areas: EOC and Incident Command System; crisis communications; social media; volunteer management; and preparedness and resilience.

Preliminary results closely align with the core areas identified during the Corporate-wide and CEMA debrief processes. Many of the initiatives identified in the report have already been implemented or are in progress, and will be detailed in a final report to be provided by June 2014 in conjunction with the findings the Conference Board of Canada report.

## **Conclusion**

While the flood's effects were devastating, CEMA recognizes that it must plan for more severe floods, storms and other disasters. The strengths and areas for improvement that will be outlined in the June report will help guide the Agency, Business Units and Partners to be better prepared. In 2013, The City of Calgary and its stakeholders' successful flood mitigation was the result of well developed situational awareness, planning and coordinated operations. The City is committed to maintaining these successes and will continue efforts to improve our future by understanding the lessons learned from our past.