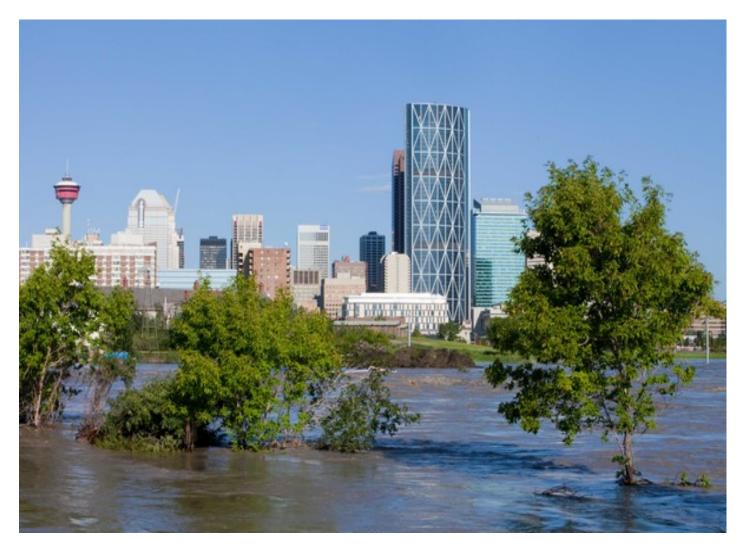
EM2015-0610 ATTACHMENT 1

2013 FLOOD RECOVERY INTERNAL LESSONS LEARNED HIGHLIGHTS



Contents

1	1 FOREWORD	3	
2	EXECUTIVE SUMMARY		
	2.1 Next steps	6	
3	3 INTRODUCTION	7	
4	4 KEY RESULT AREAS	9	
5	5 RECOMMENDATION HIGHLIGHTS	21	
	6 CONCLUSION		
-			

CALGARY



1 FOREWORD

The 2013 flood in Calgary was a significant event for our city. The response supported by the City was commendable and we have been recognized for demonstrating our resiliency through neighbours helping neighbours and the opening of the Calgary Stampede as planned on July 4th. An important part of emergency management is the recovery phase. This report will cover The City's recovery efforts from July 2013 until May 2015.

The recovery efforts were supported by a cross corporate team that have provided input into this report through the Recovery Operations Centre (ROC). The recommendations within the report are based on comprehensive efforts across The Corporation and include actions underway and planned for future recovery work.

"We live in a place where government works and public servants go to work every single day to keep us safe and make our community better" - Calgary Mayor Naheed Nenshi

City employees are committed to implement the

necessary measures to ensure our ability to successful recovery from future events. Investments have been made to assist our city to be more resilient since the 2013 flood. Of specific note is the investment in infrastructure and flood mitigation.

I am satisfied with The City's flood recovery program – that is, The City's long term plan to restore and rebuild City services and infrastructure impacted by the flood. – **95** per cent strongly agreed or somewhat agreed - from the 2013 Citizen Satisfaction Survey Calgarians reported high support of The City's flood recovery program, based on the results from the 2013 Citizen Satisfaction Survey that was conducted.

Calgary City Council has been very supportive of our recovery efforts since the beginning of the journey. As mentioned in the 2015-2018 Council Priorities – a city of inspiring neighbourhoods, we are committed to build resiliency to flooding. The lessons learned will support the success of future response and recovery from any

disruptive event. Council's direction to create a corporate resiliency framework further demonstrates the strategic strength that Calgary is known for across Canada.

2 EXECUTIVE SUMMARY

In June of 2013 Calgary experienced one of the largest floods in its history. The increased volume of water in both the Bow and the Elbow Rivers was unprecedented in modern record. Both rivers reached rare levels within the city concurrently, overwhelming artificial and natural barriers that historically kept the river waters within their banks. The resulting overland flooding inundated dozens of communities. Due to the number of people displaced and amount of property damaged, the magnitude of this event ranks as one of the worst in Canadian history. The event affected much of south-western Alberta resulting in the declaration of nearly thirty State of Local Emergency (SOLE) by various local authorities in late June, including Calgary.

This Recovery Lessons Learned Report is a high-level summary of recommended improvements to The City's operations during the recovery phase and was developed with the input of The City's Business Units and Partners.

This report is not an exhaustive list of all lessons learned. Many more internal operational adjustments have been made at the business unit level across The Corporation. An external third party review of the 2013 Flood Recovery Framework will complement this report in highlighting the best practices that should continue as well as recommendations for improvement. The Conference Board of Canada will be presenting their findings to Council in July 2015.

The goal of the recommendations in this report is to strengthen The City's overall recovery. The focus of this report will highlight lessons learned within each of the key result areas of the 2013 Flood Recovery Framework:

- a) People
- b) Housing & Property
- c) Services
- d) Infrastructure
- e) Funding

The 2013 Flood Recovery Lessons Learned Report is the culmination of several formats:

- debriefs from business units across The Corporation
- individual interviews with ROC Administrative team members
- facilitated session with ROC Task Force members
- individual interviews with ROC Steering Committee members

""We proved the importance of public service to all Calgarians; we were there when they needed us, we continue to do great work"
Calgary mayor Naheed Nenshi June 2015

- Executive Outreach survey with Government of Alberta and City of Calgary staff
- documentation provided by cross corporation work units on operational debriefs and facilitated session

Best Practices and areas for improvement have been identified for each key result area from the 2013 Flood Recovery Framework. A brief description and focus of each of the five areas are as follows:

People

Supporting Calgarians who will still need our help, ensuring City staff have what they need to serve citizens, and ensuring community needs are met, The Citizens and Their Communities key result area (KRA) focuses on the needs of individuals and communities as they recover from the flood and build resiliency including preparation for future disaster events. The City Employees KRA focuses on creating an environment that supports City employees' access to the tools and resources required to be productive subsequent to the flood and through the recovery period.

• Housing and Property

Assisting highly impacted citizens and property owners in their recovery. The Housing and Property key result area focuses on stabilizing and short-term housing and reconstruction needs of displaced citizens and property owners.

Services

Working on returning regular City services back to citizens. The City Services key result area focuses on ensuring that service levels meet the needs of Calgarians as they

recover from this event while also assisting internal stakeholders to measure and report progress on recovery initiatives. The Governance and Policy key result area focuses on collaborating with different orders of government and external stakeholders to identify opportunities for legislative, regulatory, and policy amendments while also developing long-term risk reduction and resiliency recommendations.

• Infrastructure

Working on assessing and rebuilding roads, bridges, river banks, parks and other City infrastructure that was damaged by the flood. The Infrastructure key result area has been initiated in order to ensure there is a coordinated and comprehensive effort to assess impacts to municipal infrastructure, provide a financial estimate to restore impacted infrastructure, and follow the required processes to recover funds from available sources. These sources are insurance companies and the Alberta Disaster Recovery Program (DRP).

"Calgary has surpassed its peers in similarly complex disaster in terms of overall recovery performance. The City's recovery effort is tracking three to six months ahead of sister municipalities that have experienced similarly impactful flood conditions." - Jacobs Consulting February 2014

• Funding

Balancing our flood recovery with Council priorities. The Financial key result area focuses on tracking expenditures, reporting costs, securing recovery funding, and updating budget adjustments related to the flood event.

2.1 Next steps

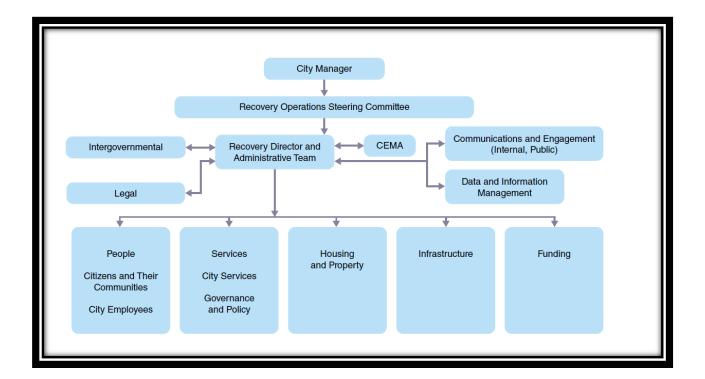
The 2013 Flood was an event that will have lasting impacts on Calgary and in the memory of many citizens. Now is the time to capitalize on the all the learnings as we prepare for the next incident. The strengths and areas for improvement presented in this report are crucial for improving our ability to recover from future incidents. Many business units have already made improvements at an operational level as well as planned actions which are identified in this report.



3 INTRODUCTION

Almost two years after the flood, many Calgarians would be surprised that recovery efforts are continuing and will continue for several years specifically related to infrastructure and finance. This report will aim to inform citizens and Council that recovery has been a journey and while the volume of activities is decreasing, critical aspects such as infrastructure projects and financial accounting will remain for the long term.

The Recovery Director, appointed on 2013 July 04, reports to the Recovery Operations Centre Steering Committee (the Steering Committee). The Steering Committee is comprised of the Administrative Leadership Team as well as legal, communications, Fire Chief, CEMA Director and liaison to the Mayor's office. The Flood Recovery Task Force (the Task Force) was established in July under the direction of a Recovery Director. The mission of the Task Force is to provide leadership and resource immediate flood recovery activities and support delivery of recovery, mitigation and resilience recommendations for the 2015-2018 business plan and budget cycle. Members of the Task Force are Directors, managers and subject matter experts from across The Corporation.



The 2013 Flood Recovery Framework, identifying recovery objectives, was developed and subsequently approved by Council on 2013 September 03. The recovery office aids in the central coordination of projects and programs, central reporting and liaison on flood related items with the Government of Alberta (GOA). The Flood Recovery Task Force was established 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 the 2015-2018 business cycle.

In closing, this graphic from PFC2014-0948 *Flood Recovery Task Force Update Report* presented to Council in December 2014, is intended to demonstrate the breadth and scope of recovery and resiliency activities that have been undertaken since the flood, and those that are anticipated to continue into future years.

BUILDING FOR RESILIENCY				
EVENT	RECOVER	RESTORE/REHABILITATE	BUILD RESILIENCE	
2013 June 20- 2013 July 07	2013 July 08 – 2013 December 31	2014 January 01 — 2015 December 31	2015 January 01 - 2018 December 31	
Life safety, Protect property environment and economy	✓ Stabilize service to citizens; community safety and support, housing plan	 ✓Identify business continuity impacts into 2015 ✓Align resources to restore normal operations 	Budget and business plans in line with flood mitigation and preparedness activities	
	 ✓ Business Continuity Internal Recovery ✓ Repair "quick wins" (i.e. paths / roadways) 	 ✓ Repair immediate infrastructure and environmental impacts (safety, service, revenue, cost criteria) ✓ Complete Hazard assessment 	Community engagement in mitigation programs and activities / education Complete DRP and insurance recovery	
	 ✓Impact and Damage Assessment ✓Prioritization criteria developed 	 ✓Identify and implement policy changes to support resiliency ✓Contribute to Action Plan recommendations 	Construct infrastructure to reduce future impacts	
	 ✓ 2014 Budget Adjustments ✓ Identify potential funding sources 	Confirm Disaster Recovery Funding 2015 Budget Adjustment Ongoing recovery activities transition to business units	 Build Inter-governmental relationships Confirm Disaster Recovery Funding future Budget 	



4 Key Result Areas

People:

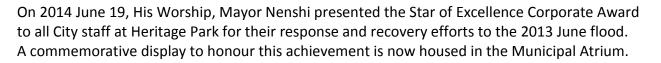
Supporting Calgarians who will still need our help, ensuring City staff have what they need to serve citizens, and ensuring community needs are met.

Administration has worked diligently to remain aware of citizen information and resource needs. The establishment of the flood recovery website was key to keep citizens informed in the components of recovery. Staff have supported the following: participation in community open houses, correspondence with Council members, continued monitoring through direct work with communities, information offered through partners such as the Canadian Red Cross Society and correspondence with the GOA. Administration has worked collaboratively with the GOA and our corporate partners such as Calgary Police Service and Alberta Health Services, to understand, monitor and support our citizens' well being.

A commemoration event for the 2013 flood was held on 2014 June 20, involving more than 200 attendees in the Municipal Atrium. This cross business unit collaboration met all declared deliverables along with very positive feedback from Calgarians.

His Worship, Mayor Naheed Nenshi announced 2014 June 21 as "Neighbour Day" in Calgary. Numerous community events of varying scale were held across the entire city. Positive comments were received from both the public and the media on this inaugural event. "Neighbour Day" website views and downloads surpassed 10,000. These events helped to manage the anxiety normally felt by citizens during the one year anniversary time frame of their recovery. The second anniversary of Neighbour Day demonstrated the continued success of this initiative.

The Flood Permit Grant Program was launched by The City of Calgary and the Canadian Red Cross on 2014 May 01 with the intent to support residential property owners that have reached their financial capacity to pay for City permits associated with making repairs to a flood damaged property. The program is scheduled to run until the end of December 2015 with over \$600,000 in funding available.



The flood has encouraged a new level of preparedness among community groups and social service networks. One strategy being implemented based on lessons learned and case studies from the June 2013 flood is the development of well-coordinated and community led disaster preparedness. This initiative includes The City's Community & Neighbourhood Services and, CEMA business units, The United Way, the Canadian Red Cross Society and the Calgary Chamber of Voluntary Organizations (CCVO). As a result, the "Prepare for the Future, Learn from the Past" has been initiated. The Emergency Preparedness Initiative of Calgary (EPIC) attempts to ensure social service organizations and neighbourhood associations have disaster preparedness plans of their own, and also have a plan to provide quality services to their members (either residents or service recipients including vulnerable population) during any disaster.

Strengths:

- Spirit and camaraderie of Calgarians to support each other during their recovery.
- Collaboration and hard work of Calgary Non Government Organizations (NGO) with The City of Calgary in the creation of the Emergency Preparedness Initiative of Calgary (EPIC).
- Development of a skills inventory database for city employees.

Recommendations:

- i. Explore the role of an NGO liaison within the EOC to ensure the two-way sharing of critical information during emergencies (CNS/CEMA).
- ii. Continued municipal support to EPIC to better meet the needs of Calgary's vulnerable populations during an event (CEMA/CNS).
- iii. Training and testing of the skills inventory database to ensure application meets intended needs during an event (HR).

Actions completed:

- Investigation completed and draft role of an NGO liaison within the EOC to ensure the two-way sharing of critical information during emergencies created (CNS/CEMA).
- EPIC website (<u>getpreparednonprofit.com</u>), in partnership with City of Calgary, launched May 27, 2015to support non-profit sector business continuity and emergency preparedness plans.
- CEMA launched **READY**Calgary in spring 2015, which is a comprehensive, all-hazards emergency management program to build community resilience for community leaders and citizens. It is designed to inform and educate individuals, families and communities to the impacts of and ways to assist in emergencies and disasters in Calgary.
- Exercise framework, date, and scenario is set for the Fall of 2015.

- During a future mock exercise, test the role of the NGO liaison.
- Training and testing of the skills inventory database to ensure application meets intended needs during an event (HR).
- Continued municipal support to EPIC to better meet the needs of Calgary's vulnerable populations during an event (CEMA/CNS).
- Support resiliency development in the NGO sector by providing business continuity templates and guides (CEMA).
- A representative from City of Calgary (CNS or CEMA) will continue to participate in the Psychosocial Disaster Network to monitor recovery and integrate lessons learned into emergency preparedness and resiliency.
- CEMA has scheduled 8 additional **READY**Calgary workshops through the end of the year, bringing the total to 13 for 2015.



Housing and Property

Assisting highly impacted citizens and property owners in their recovery.

Council approved the *Property Tax Relief Program* to provide relief to impacted property owners by cancelling a portion of their 2013-15 property tax for property owners who have lost the use of their residential and non-residential properties either permanently or for a prolonged period due to the flood. As of 2015 June, 709 applications were processed for a dollar value of \$2.5million. The City of Calgary has applied to recover these funds through the provincial Southern Alberta Flood Response: Property Tax Relief Program.

The City continues to support the GOA in educating Calgarians about the Floodway Relocation Buyout program. City staff are working with the GOA to ensure safety and community standards are met throughout this process. The GOA has committed to managing the vacant properties for safety, and Administration continues to offer support through 311 and direct resources when required.

Strengths:

- Ability to work cross corporately efficiently to allow residents to return to their properties as soon as safely possible.
- Streamline and expedite recovery permits, including reaching out to citizens with regards to Development Permit and Building Permit processes.
- Collaboration with external providers such as Canadian Red Cross Society in the creation of the Flood Permit Grant program to assist Calgarians with rebuilding their properties.
- Refinement of the assessment process and tracking of impacted properties post disaster event to ensure better accuracy and direction of appropriate resources where needed most.

Recommendations:

- I. Continue to build on cross corporate relationships, keeping networks active should an emergency occur (PDA –Inspections & Permit Services).
- II. Establish a template and process for external partnerships to quickly launch grants or programs (ROC).

- III. Development of a file management system to track impacted properties at the earliest possible stage of an emergency response (PDA City Wide Planning).
- IV. Creation of procedures to implement post disaster with regards to impacted properties and lack of progress towards repair or demolition (PDA –Inspections & Permit Services).

Actions completed:

- Sample agreement template and process debrief with regarding the establishment of Flood Grant Permit Program.
- Project charter for Flood Impacted People and Property Recovery (FLIPPR) created to improve file management system and tracking procedures in long term community restoration.

- Regular meetings, exercises and training annually scheduled as part of business continuity
- Housing and property templates, processes and tools created and included in ROC manual update
- File management system created and ready for testing of recovery impacted properties
- Procedures created and ready for testing regarding long term recovery of impacted properties



Services:

Working on returning regular City services back to citizens.

The City continues to progress on flood recovery projects as the two year milestone has occurred. Based on the project complexity and ability to complete select phases of projects in a calendar year, many flood recovery projects will span several years. The future operating costs associated with the investments in infrastructure need to be considered, in particular the finance support required to complete documentation, analysis and processing are very complex and require meticulous tracking and attention to detail to be successful in maximizing our reimbursements from the various funding sources.

The ROC has acted as a central submission point for The City for grant funding focused on resiliency from the GOA. Ongoing liaison with GOA has been an important component of this work, as new programs are developed and the requirements are specified for each grant. The relationship with having a single point of contact for both GOA and The City has been critical to overall success. This single point has also allowed for a quicker response to questions and answers, providing clarification and benefiting both parties. Efforts towards a more resilient city will continue as part of the 2015-2018 Action Plan as expressed in Council Priority *N2: Build resiliency to flooding* and *N3: Enhance The City's capacity and resiliency to prepare for and respond to pandemics, natural disasters and emergency situations.*

On 2014 July 29, the Administrative Leadership Team approved a new Administration Policy regarding Business Continuity Planning that was put forth by the Calgary Emergency Management Agency (CEMA). This policy is designed to harmonize business continuity planning efforts by standardizing a corporate framework. This will lead to efficiencies as common vulnerabilities and hazards will be identified and solutions and workarounds are shared. In a response to an identified need from the public, CEMA in partnership with the Calgary Chamber of Commerce released a business continuity handbook to explain how businesses can prepare and create a plan to maintain their operations following emergency events. (Calgary.ca/CEMA)

The flood recovery offers an important opportunity to take stock in lessons learned and strengthen recovery procedures in future events, thus creating a more resilient city.

Strengths:

- Executive Outreach meetings between City of Calgary and GOA were effective and efficient.
- Executive Outreach meetings as a method to build relationships and networks
- Benefits of the initial Recovery Operations Centre co-located at the Emergency Operations Centre.
- The ROC Resource and Response Manual, recovery framework, and extended governance structure were critical to guiding recovery internally as well meeting the needs of the GOA as an accountability reporting mechanism.
- Information and data management tools, including recovery dashboards, maps, and infographics, proved effective in conveying recovery progress internally and to the public.

Recommendations:

- I. Continue to build on municipal and provincial relationships and networks (ROC/GOA)
- II. Establish a terms of reference for the Executive outreach meetings to follow in future emergency events (ROC/GOA).
- III. Refine the framework with clear measures of success and ownership (ROC).
- IV. Update the ROC Resource and Response Manual and corporate recovery program to incorporate recommendations, processes, tools, and networks that were identified during recovery from the flood (CEMA).

Actions completed:

- Evaluation of flood recovery executive outreach meetings.
- Discussions with GOA on establishing Community of Practice meetings.
- Support GOA with development of province wide recovery framework tools.
- Various after-action reports/debriefs (both internal and external) have been completed that will inform the update of the ROC manual and recovery program.

- Consider Community of Practice type meetings quarterly between The City and GOA staff
- Create an Executive Outreach terms of Reference template for future recovery activations
- Update the ROC Resource and Response Manual and overarching corporate recovery

program. Key deliverables and updates may include (but will not be limited to): recovery program charter, corporate recovery plan, functional recovery area plans, Recovery Steering Committee terms of reference, ROC Taskforce terms of reference, recovery tools and templates catalogue, recovery process maps, and recovery governance structure.

• Continue to work with the GOA to ensure corporate recovery plan aligns to Provincial Long-Term Recovery Framework.



Infrastructure

Working on assessing and rebuilding roads, bridges, river banks, parks and other City infrastructure that was damaged by the flood.

The Municipal Infrastructure Recovery Program (MIRP) focuses specifically on the municipal infrastructure projects of the recovery framework. It is in place to ensure alignment between projects initiated to repair municipal infrastructure, City budget processes and processes to recover funds from insurance, the Alberta DRP and other funding sources.

Flood recovery work is continuing and Administration is making every effort to minimize impact to city facility and amenity users, and regularly provides updated information on recovery activities. Recovery project updates are provided monthly on the Calgary.ca/floodrecovery link to the interactive map and will continue to be updated.

Some fluctuation continues to occur with the official number of flood related projects undertaken for several reasons. Original estimates were done in the very early days and weeks after the flood. Some larger projects have been subdivided into smaller projects within a program, for purposes of progress tracking and timely financial submission to the DRP program. Given the rapid assessment of damage following the flood, Administration worked quickly to identify the extent of the damage and to provide educated estimates regarding recovery costs. Intensive work around the program cost management and tracking of project schedules has occurred in order to ensure maximum reimbursement of costs from funding sources available to The City and reduce financial risks. Current recovery reimbursements are tracking quite high and are expected to meet performance targets.

Strengths:

- Creation of a recovery program team to facilitate Corporate coordination of projects that overlap business units
- Having SME's involved early in the process to complete reports and early cost estimates
- Application of mapping and Tangible Capital Assets (TCA) to identify assets and values
- Establishment of Recovery Administration System, SharePoint site and interactive online map to facilitate collection, management and sharing of information across the business units and with other stakeholders

Recommendations:

- I. Establish a Corporate level infrastructure program to coordinate recovery, facilitate collaboration and provide consistent, effective and comprehensive progress reporting (ROC/CEMA).
- II. Set up a central financial recovery team to work closely with the recovery program team and to support financial recovery (Finance).
- III. Dedicate sufficient resources for recovery that parallel with response (ROC/CEMA).
- IV. Develop an infrastructure program communication strategy and plan (ROC/CS&C).
- V. Develop an Infrastructure Recovery Program Toolkit (ROC/CEMA).

Actions completed:

- Calgary Emergency Management Agency (CEMA) engaged to review opportunities to provide additional guidance through the Recovery Operations Centre Resource and Response Manual.
- Review of current Recovery Operations Centre Resource and Response Manual.

- Investigate opportunity to create Recovery "Tool Kit" for project managers.
- Collaborate with province on new "Long-Term Recovery Guidelines".
- Address recommendations specific to financial recovery and procurement as appropriate.



Funding

Balancing our flood recovery with Council priorities.

The original approved and forecasted budget of \$445.1M had been revised to \$409.6M at the 2015-2018 budget. As of 2015 May 31, \$200M of the total 2013 to 2015 recovery budgets had been spent. As the flood damage becomes better understood over time, Administration is identifying opportunities to refine the budget where possible through project re-estimates and completion of project phases. This revised budget information will be captured as part of mid and year end budget approvals during the 2015-18 timeframe.

Administration is tracking expenditures, reporting costs, securing recovery funding, and updating budget adjustments related to the flood. The City continues to seek flood recovery funding through a number of sources including the DRP. The return rate on these DRP submissions for flood operations is an average of 99 per cent as of 2015 May 31. Efforts will continue to maintain this high rate of return with the remaining submissions to come forward over the next few years.

The City also continues to work with our insurers to process a claim for flood damage for those properties for which insurance was in place. The insurers have provided to The City an advance of \$50M based on the early estimates of damage.

Strengths:

- Financial support resources were available and engaged early on during the State of Local Emergency (SOLE) period to support and provide advice on financial matters.
- Dedicated finance and insurance resources that were 100% allocated to recovery efforts
- Ability of Finance to accept advancements of funds immediately.
- The City has a strong financial position and was able to designate \$100 million from the Fiscal Stability Reserve (FSR) to finance The City's recovery capital projects.

Recommendations:

 Create a list of approved Project Managers or Prime Contractor vendors for recovery coordination, reporting, and general administration. Early engagement of Prime Contractors will allow external parties (subs) to be brought on sooner (Procurement & Supply)

- ii. Create a checklist of activities and documents required from the project manager for financial submissions (Finance).
- iii. Establish processes for finance information/tip sheets to be shared to appropriate staff when activation occurs (Finance).

Actions completed:

- Finance & Supply completed Equipment Rental Tabulation Index (HITS) to identify potential suppliers, contact info and rates.
- Updated Emergency Vendor Contact List (VCL): Strengthens The City's ability to identify, contact and procure resources during an emergency. This list of Vendors and their emergency contact information to be used as a reference during an emergency. Strengthens The City's ability to identify, contact and procure resources during an emergency.
- Implementation of myCity Contract search; strengthens The City's ability to identify contracted vendors from which we can procure and/or piggyback on existing contracts during recovery.
- Established a list of prequalified Restoration Contractors that can assume Prime Contractor status and are approved for use by insurance companies.
- Finance Lead education session developed and hosted on new flood related funding sources.
- Creation of a web-based software program called Catastrophe Claims Management System (CCMS) to support a standardized insurance claims administrative process.
- Simplified corporate financial coding for operating costs.
- Process map for insurance/DRP claims created.

- Expand Funding Sources education session from Finance Leads to Project Managers
- Create a checklist of eligibility guidelines and requirements for each of the funding sources specifically designed for project managers
- Create finance tip sheets for ROC Manual appendices update
- Potential expansion of CCMS to include support for other areas in the finance area

5 Recommendation Highlights

In summary this section combines the recommendation highlights from each key result area based on the internal findings.

PEOPLE

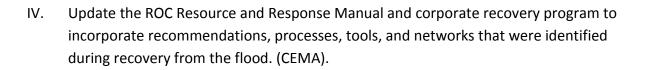
- I. Explore the role of an NGO liaison within the EOC to ensure the two-way sharing of critical information during emergencies (CNS/CEMA).
- II. Continued municipal support to EPIC to better meet the needs of Calgary's vulnerable populations during an event (CEMA/CNS).
- III. Training and testing of the skills inventory database to ensure its meets intended needs during an event (HR).

HOUSING & PROPERTY

- i. Continue to build on cross corporate relationships throughout the year, keeping networks active should an emergency occur (PDA –Inspections & Permit Services).
- ii. Establish a template and process for external partnerships to quickly launch grants or programs (ROC).
- iii. Development of a file management system to track impacted properties at the earliest possible stage of an emergency response (PDA City Wide Planning).
- iv. Create procedures to implement post disaster with regards to impacted properties and lack of recovery progress towards repair or demolition (PDA –Inspections & Permit Services).

SERVICES

- I. Continue to build on municipal and provincial relationships and networks (ROC/GOA)
- II. Establish a terms of reference for the Executive outreach meetings to follow in future emergency events (ROC/GOA).
- III. Refine the framework with clear measures of success and ownership (ROC).



INFRASTRUCTURE

- i. Establish a Corporate level infrastructure program to coordinate recovery, facilitate collaboration and provide consistent, effective and comprehensive progress reporting (ROC/CEMA).
- ii. Set up a central financial recovery team to work closely with the recovery program team and to support financial recovery (Finance).
- iii. Obtain dedicated resources for recovery early (ROC/CEMA).
- iv. Develop a recovery infrastructure program communication strategy and plan (ROC/CS&C).
- v. Develop a recovery infrastructure program toolkit (ROC/CEMA).

FUNDING

- Create a list of approved Project Managers or Prime Contractor vendors for recovery coordination, reporting, and general administration. Early engagement of Prime Contractors will allow external parties (subs) to be brought on sooner. (Procurement & Supply).
- II. Create a checklist of activities and documents required from the project manager for financial submissions (Finance).
- III. Establish processes for finance information/tip sheets to be shared to appropriate staff when activation occurs (Finance).



6 Conclusion

The flood allowed the City to demonstrate our ability to successfully recovery from a large scale event. On an individual, community and corporate level, Calgary's recovery was immediate and strong. Long term recovery efforts will continue to demonstrate our excellence in recovery.

As an organization centred on continuous improvement, combined with employees committed to excellence, we will strive to be a leader in emergency management with regards to recovery. The strengths and areas for improvement identified in this report will help to guide City business units to make Calgary a resilient city.

Commitment to strategic leadership as a municipality is evident in the Council Priorities set out in ACTION PLAN 2015-2018 including: "Build resiliency to flooding" and "Enhance The City's capacity and resiliency to prepare for and respond to pandemics, natural disasters and emergency situations". The commitment to being a leader in municipal recovery at an administrative level has been demonstrated by work already underway to address many of the areas for improvement as well as commitment to resilience activities and a corporate framework.

For many individuals, communities, businesses and partners affected severely by the flood, recovery will be measured in years. The City remains committed to working with the community and partners to deliver on long term recovery as well as supporting a resilient city for all Calgarians.