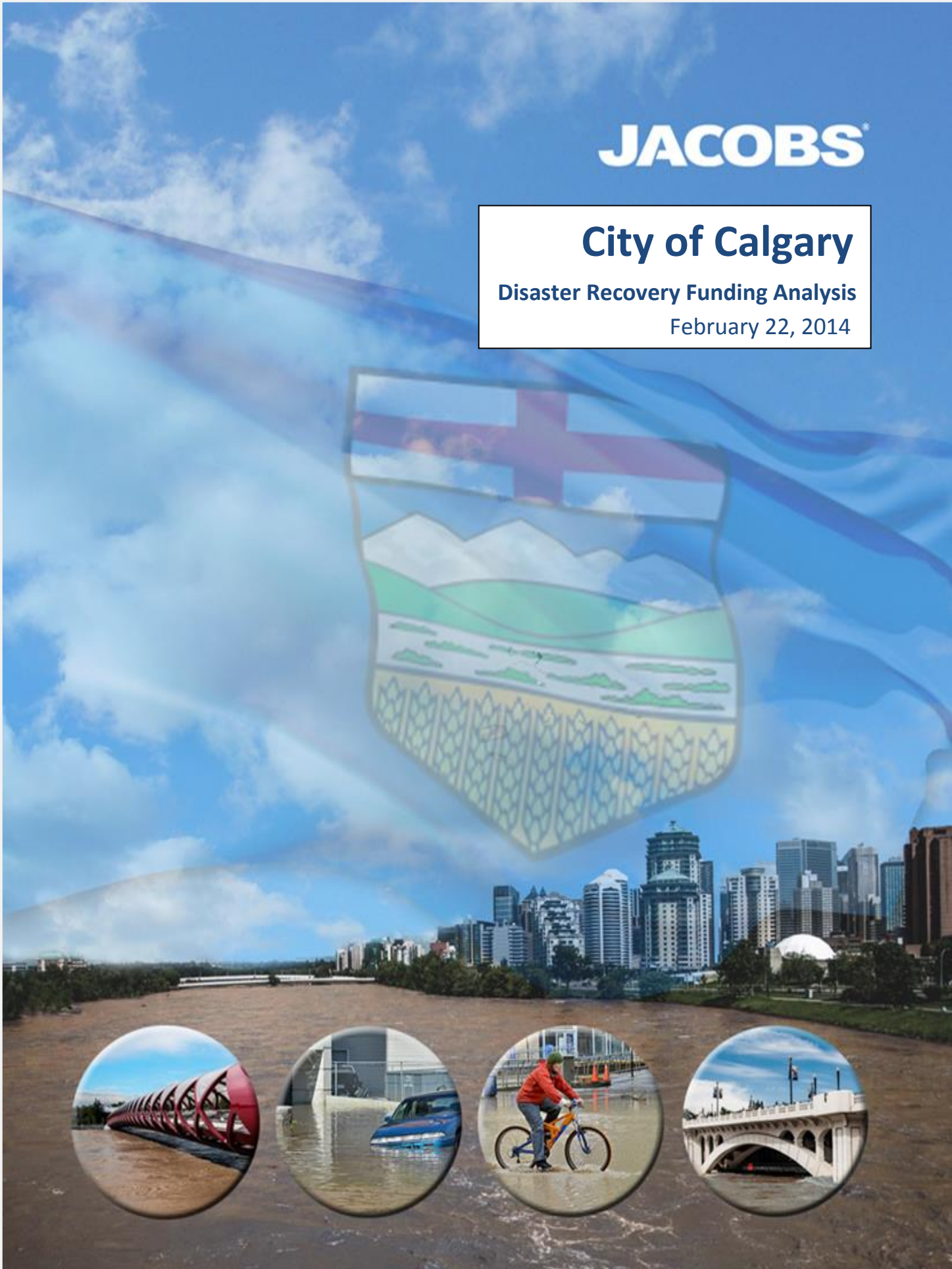


**JACOBS**

**City of Calgary**  
Disaster Recovery Funding Analysis  
February 22, 2014



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## Executive Summary

### Introduction

On June 20 and 21, 2013, Calgary experienced its worst recorded flood event in modern history. Heavy rainfall, compounded by ground saturation and heavy snow loads remaining on the front ranges of the Rocky Mountains, resulted in a rapid increase in the size and flow rates of several rivers. According to data from Alberta's Ministry of Environment and Sustainable Resource Development, the flow rates of the Bow and Elbow Rivers increased by 500%-1000% normal rates for June. When rivers overtopped their banks, 80,000 Calgarians had been evacuated. Flood impact estimates range from \$445-500 million to public and community infrastructure without community-wide resilience measures.

As part of its recovery, the City of Calgary engaged Jacobs to undertake a limited analysis of the City's disaster recovery from the June 2013 flood disaster with the primary objective of identifying opportunities for the City to obtain and maximize available Federal and Provincial disaster funding under law, promote regulation and policy to aid in the City's robust recovery, and mitigate against future threats. This Executive Summary and the full report consider Calgary's recovery in 6 themes as an outgrowth of meetings and interviews with staff:

- Theme 1: Disaster Operations & Long Term Recovery
- Theme 2: Maximizing Available Funding
- Theme 3: Maintaining Cash Flow & Mitigating Audit Risks
- Theme 4: Recovery Program Delivery
- Theme 5: Hazard Mitigation & Resilience Strategy
- Theme 6: Communications and Event Commemoration

The executive summary and full report conclude with a summary of key findings.

### Business Process Methods

Between January 9-15, 2014, Jacobs' Subject Matter Expert in Disaster Resilience, Nicole Boothman-Shepard, travelled to Calgary for an on-site review with City Recovery Operations Centre (ROC) staff and business unit leads, and also met with Provincial representatives in Edmonton to understand all available disaster funding resources for the City. This included attendance at the Calgary Infrastructure Recovery Meeting for business unit leads on January 9<sup>th</sup>, Recovery Task Force Meeting on January 10<sup>th</sup>, meetings with key staff responsible for each respective disaster funding stream at the Province's office on January 13<sup>th</sup>, and meeting the Calgary ROC team on January 14<sup>th</sup>. In addition, the engagement included a series of one-on-one meetings with Recovery Director, Gordon Stewart and Recovery Program Manager, Jim Duggan, as well as Calgary's recovery business unit leads from finance, insurance, and resilience, and the City's small team of dedicated recovery staff.

Information was also obtained from reports and financial data pertaining to budgets, and requested, authorized, and expended disaster recovery funding as well as general information on projects performed to date and anticipated as part of Calgary's recovery.

Further, Jacobs was asked to consider Calgary's disaster response and recovery efforts to date and recommend opportunities for Calgary to continue to strengthen its flood recovery and resilience based on experience in supporting other municipal governments to obtain and execute \$6B in recovery work for Hurricane Katrina, Superstorm Sandy, Colorado's 2013 flooding, and other major disasters.

## Themes

### Theme 1: Disaster Operations & Long Term Recovery

Calgary advanced a highly effective, centralized response operation through its Emergency Operation Centre (EOC). At the same time, Calgary laid the groundwork for permanent restoration of damaged infrastructure and initiated the Recovery Operations Centre (ROC). As part of the ROC, Calgary organized a Flood Recovery Task Force to provide leadership, where Department leads were engaged to manage disaster recovery. The decentralized approach provided integrated City-wide leadership and works within Calgary's structure for normal City business operations. The primary challenges to this system relate to disaster authority and responsibility, robust systems to provide assurance for program and financial monitoring and compliance, and contemporaneous data and information sharing.

#### Calgary Flood Recovery Framework

Calgary's *2013 Flood Recovery Framework* provided necessary goals and structures to provide guidance on how the City would manage the flood event as it transitioned from a response to recovery operation. The Framework provides critical transparency by lining out key objectives and timelines for recovery progress.

In my experience, **the City's recovery effort is tracking three to six months ahead of sister municipalities that have experienced similarly impactful flood conditions.**

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. It is important that Calgary understand where it sits - seven months out of the disaster event - on a recovery horizon of four to five years. Staff involved in the recovery operation across departments is expressing the need for relief. The City should ensure that the ROC is fully constituted with an intact group of talented staff throughout the recovery.

Further, operational systems should be calibrated to systematically integrate all facets of disaster recovery program delivery - including all project performance data and documentation from each procurement through construction closeout, final reconciliation of reimbursement funds, and allocation of disaster funds to the General Ledger. If the ROC management team does not have a system to monitor all requirements, including detailed project and financial documentation across the entire recovery program, recovery funds will be a risk.

Further, with a recovery program of this size and complexity, best program management practices should be utilized include master scheduling and cost estimating, consideration of available resources in the market for professional and construction services and impacts on market costs, project controls including detailed disaster funding reviews and document management, design and engineering peer reviews, as-needed claims management support, consideration of alternate delivery methods if design-bid-build is not the preferred course, and overall program management to facilitate on-time, on-budget program delivery.

In addition, steps should be taken to anticipate and mitigate complex challenges that are inherent in any disaster recovery. If unmanaged, these challenges will pull management focus away from assuring overall program success and thwart on-time, on-budget recovery program delivery.

#### Data Management & GIS

The ROC has taken an active role in developing a data management solution in recognition of the volume and complexity of data to be tracked as well as the need for dashboard reporting, consistent with the City's corporate program management framework. The Microsoft Project application will track the full disaster recovery and resiliency portfolio. It is advantageous if the system maintains granular project data so it can serve as an end to end tool for disaster data and reporting. To the extent possible, data maintained by finance should be integrated in the tool electronically to marry funding and infrastructure program delivery data at the portfolio and project level. This data management framework will be an invaluable tool throughout the lifecycle of the disaster recovery.

Calgary may wish to consider geocoding (including GPS coordinates) in its extensive documentation of photographs and including them in the public domain to memorialize the disaster impacts. Similarly, it may wish to geocode and post recovery project progress photos and dashboard data into GIS maps to keep everyone centered on the recovery's progress, to promote disaster awareness and provide additional transparency in the recovery effort.

#### Theme 2: Maximizing Available Funding

Calgary's recovery team has been highly engaged in monitoring availability and requesting funding from the diverse disaster funding sources.

#### Provincial Approvals of Eligible Damages & Disaster Repairs

The City's requests for eligible project scope of emergency and permanent repairs have been slow to process through the Province. During the week of January 13<sup>th</sup>, only a handful of over 70 requests for eligible work submitted in November 2013 to the Province had been processed for approval. This issue must be elevated for resolution by the Province.

#### Summary of Each Funding Stream

##### Funding stream 1: Disaster Recovery Program (DRP)

The Province's representatives are demonstrating stringency on approving disaster repairs that exceed similar reviews from the 2005 flood event. The Province will assuredly be under great political, process

and audit scrutiny by the Federal Government on the DRP. The City should consider engaging Provincial recovery executives on eligibility, particularly for high-value projects.

#### Funding stream 2: Municipal Affairs – Property Tax Relief

Designated municipalities are eligible to participate in a *Property Tax Relief Program* to offset lost tax revenue for tax forgiveness offered to impacted residential and commercial property owners. *Calgary is eligible to participate in this program*, and the Province has set aside \$84 million to support this effort. The City would be provided a 100% property tax offset for tax forgiveness. The deadline for election to participate in the program is the end of March 2014.

#### Funding stream 3: Municipal Affairs – Staff Not Funded by DRP

At the meeting with Provincial staff in Edmonton, key Municipal Affairs staff expressed an openness to further discussing fair reimbursement of disaster staffing. However, follow-up inquiries by the City did not yield additional eligibility. Given the importance of this funding to the City's recovery strategy, the City may wish to elevate this issue to Provincial executives responsible for the recovery.

#### Funding stream 4: Hazard Mitigation and Resiliency

Proposed projects for hazard mitigation and resiliencies related to the watershed are due at the end of March 2014. The Province expects an appropriation of approximately \$2 billion for this effort and will run a competitive process at the end of March. There is currently a critical resilience funding gap amongst all funding streams for the protection of buildings and other infrastructure. This issue must be elevated for resolution with the Province.

Further, **the compressed deadline for resiliency funding does not provide for a comprehensive or data driven response by Calgary.** Given the importance of this funding stream to Calgary's protection against future disaster threats, the City should actively engage and negotiate submission targets and/or schedules.

#### Funding stream 5: Regional Collaborative Project

Up to \$250,000 in funding is available for planning with adjacent and regional agencies and is not limited to disasters. Applications are due October 1 per Municipal staff and end November in written guidance, but applications are accepted on a rolling basis.

#### Funding stream 6: Transportation

##### Funding stream 6.1: Gas Tax - Local Provincial and Federal Funding

##### Funding stream 6.2: Green Transit Initiatives (Green Trip)

No new funding outside of the DRP is available for disaster-specific transportation infrastructure. However, the Province will allow the City to designate some transportation funding for resiliency.

#### Funding stream 7: Cultural Assets

On January 27, 2014 and January 28, 2014, the Province announced funding for the protection of cultural and historic assets.

The Province has allocated \$6 million to the following efforts:

- 7.1 Funding for conservation of historic buildings (\$3 million total) is available through the Alberta Historical Resources Foundation.
- 7.2 Funding is available to impacted museums through the Alberta Museums Association.
- 7.3 Funding may be available to remediate impacted archives, through the Archives Society of Alberta.

**However, deadline for the latter two programs is February 14 2014, both of which accept requests for funding only from member institutions.**

#### Funding stream 8: Water for Life

No new funding outside of the DRP and resilience funding focused on watershed and drought management is available. The Province will allow the City to designate some water infrastructure funding for resiliency.

#### Funding stream 9: Erosion Control

The City has successfully applied for erosion control grants associated with flood recovery.

Municipality	Project	*Amount
City of Calgary	Home Road and 52nd Street (on the Bow River)	\$6,275,000
City of Calgary	Inglewood (on the Bow River)	\$1,900,000
City of Calgary	Memorial Drive and 19th Street NW (on the Bow River)	\$1,469,400
City of Calgary	Memorial Drive and Sunnyside NW (on the Bow River)	\$1,909,400
City of Calgary	Diamond Cove (on the Bow River)	\$1,091,400

\* As of December 20, 2013

#### Funding Stream 10: MSI Capital (general/non-disaster specific)

No new funding outside of the DRP is available for disaster-specific capital infrastructure. However, MSI Capital may include resilience projects as part of Calgary's request for funding.

#### Capital Infrastructure Support

The Province has indicated that it would be willing to provide the City with technical assistance on the disaster recovery. Preliminary discussions suggested that such technical assistance would take the form of professional consultations by current Provincial staff on the City's overarching recovery approach or project specific feedback (e.g. design peer review). However, there is no available funding outside of the DRP.

#### Theme 3: Maintaining Cash Flow & Mitigating Audit Risks

In a disaster event of this magnitude, the importance of adequate staff in finance is proportionate to government audit finding and fund deobligations - within reason, the smaller the team, the larger the



audit findings. I have three overarching recommendations concerning the financial management of the disaster to mitigate audit risk.

1. **Additional Finance Staff**

The disaster staffing level should be commensurate with supporting an intensive and expensive infrastructure program and should provide for additional time, effort and oversight of detailed monitoring reviews.

2. **Ready and Unfettered Access to Infrastructure Recovery Program Data and Documentation**

A decentralized program delivery structure creates natural challenges to proper and full financial monitoring and accountability.

3. **Fully Document Disaster Damages**

Eligibility goes back to the disaster event as the baseline justification for grant awards. As such, disaster damage documentation must be well defined. The absence of this data results in grant deobligations.

#### Cash Flow

The City should establish timetables for the reimbursement of funds incurred. Where the Province wishes to undertake detailed reviews of invoices resulting in delayed reimbursements of approved project costs, the following solutions could be proposed:

1. Partial electronic fund transfer payment upon submission of the invoices and the full balance is paid upon completion of detailed review.
2. The City engages an independent external firm to review disaster expenditures, to evaluate eligibility, reasonable and allowable costs, proper project performance, and proper allocation of costs to the General Ledger on behalf of the Province.

#### Adequate and Accessible Documentation

It is important to marry documentation that resides within departments delivering projects to finance in order to facilitate accurate financial monitoring

Another audit risk is the inability to access electronic files many years after construction project closeout. For example, data stored on floppy discs cannot be retrieved, or documentation captured in outmoded software versions becomes corrupted. Therefore, quarterly (or other interval) tests of document availability is recommended to make sure that electronic documentation remains viable.

#### Procurement and Contracting

Procurement standards that provide for free and open competition are required. Proof of competitive bids provide assurance that costs are reasonable on a base contract and protect against audit risks.

#### Reasonable Project Costs

Reasonable costs are typically established through competitive price letting or industry standard rates for professional services. Change orders allocated to disaster funding must be approved by the Province

for concurrence that the change orders are reasonable and necessary to repair disaster damages or for eligible code and standard improvements. Processes must be developed to route change order requests to ROC staff to negotiate eligibility for DRP funding.

#### Invoice Reviews

The City should include an additional layer of invoice review for disaster funding eligibility to optimize compliance. Payment - alone - when relied upon as proof of eligibility - is often coded as "overpayment" by auditors in the absence of written eligibility by the funder and can be subsequently deobligated.

#### Allocation of Funds to General Ledger

The most frequent reason for deobligation of disaster funds, surprisingly, relates to improper allocation of funds to the General Ledger. It is a necessary, important and cost-saving approach to implement a comprehensive monitoring program.

#### Document Control & Monitoring

It is essential that a common set of documentation be maintained across the disaster infrastructure recovery program. Working within existing systems and adding in additional disaster-required documentation may reduce the burden on staff and promote higher compliance than a new system. However, an honest appraisal of exist systems to meet all of the eligibility, monitoring and compliance needs for disaster funding should be undertaken.

#### Reporting

Existing financial reporting on disaster expenditures are instrumental in providing situational awareness to the Recovery Task Force and the ROC for strategic, operational and tactical decision making.

### Theme 4: Recovery Program Delivery

#### Quality Assurance

The ROC and departmental recovery staff are not joined via chain of command. In certain circumstances, it may be difficult for the ROC to ensure accountability for timely disaster related activities.

#### Disaster-specific Program Risks

Disasters bring about the best and worst in people. The following intentional and unintentional practices by construction contractors have been found, in my experience, to introduce risks to a recovery program:

- *Extremely low bids* that do not allow for proper completion of work in the local market/environment.
- *Overcommitted contractors.*
- *"Below the line" bid rigging* where contractors agree to pricing or competition prior to bid submission to either escalates market pricing or influence awards.
- *Failure to make adequate progress.*

- *Predatory scope creep.*

#### Segregating Disaster and Non-disaster Eligible Costs

It is important to segregate project scopes of work and costs where the City elects to perform additional scope on top of eligible disaster repairs. This is best delineated in the design phase so that bid costs are segregated by contracts and therefore easily tracked.

#### Change Order Management

It is important that any change orders to be allocated to disaster funds be reviewed for eligibility by the ROC so that additional disaster eligibility can be negotiated with the Province.

#### Theme 5: Hazard Mitigation & Resilience Strategy

The Province has established a deadline for the completion of cost-benefit analyses and asset resilience by the end of March 2014. Calgary should consider engaging a dedicated "strike team" of engineers and resilience experts to provide high-level evaluations of infrastructure assets for potential hazard mitigations as well as community-wide strategies along with rough order or magnitude cost estimates.

#### Cost-Benefit Analysis Methodologies

The increasing focus on climate resilience and adaptation has driven a triple bottom-line approach that considers human, environmental and financial costs. The model that has borne out the most reliability and success is the one used for the EU Climate Compact, which should be considered by Calgary for its submission to the Province.

#### Maximizing Calgary's Share of Available Funding

Due to the enormous sum of funding at stake, Calgary should invest in its presentation of resilience options to the Province through both the presentation of data and the soundness of the technical approach.

#### Theme 6: Communications & Event Commemoration

The Recovery Steering Committee discussed commemoration and disaster resilience messaging at its meeting on January 10, 2014. This highly productive meeting, as well as follow up discussions on January 14, 2014, focused on communicating risk data to the community and commemorating the one year anniversary of the flood event.

City staff generated effective recommendations to reach out to the community. The most effective ways to mitigate loss of life and damages to improved property in a future event balance land use planning/code changes to encourage building outside of the floodplain (and hardening facilities within the flood plain if necessary), and reinforcing clear and simple messages that help community members help themselves. Such messages include information on evacuation, sheltering in place, and flood mitigation measures for home and business. A range of ideas were discussed to get out the disaster resilience message and are reflected in the full report.

Considerable discussion about commemorating the event for the one year anniversary took place at these meetings. Overall, it was generally agreed that the best approach - in keeping with effective commemoration events from Katrina, Sandy and other major disasters - would be to engage the corporate community to support a cost effective event or a series of events that:

1. Deeply engages the community;
2. Avoids flashy events;
3. Recognizes the losses and hardships that Calgarians have and continue to endure due to the flood event;
4. Acknowledge and demonstrate gratitude to the many first responders and citizen heroes who helped others in the face of adversity;
5. Celebrate accomplishments on the recovery progress to date and the fortitude of Calgarians;
6. Asks for continued community support in the recovery;
7. Build towards the City's full recovery and resilience;
8. Collaborate, rather than compete with, organizations hosting commemoration events throughout the City and in nearby communities.

## Summary

Based on a limited-scope review of the City's disaster response and recovery from the devastating June 2013 flood event, Calgary is successfully moving forward on a highly aggressive and effective recovery effort. Appropriate executive leadership is engaged and willing to make pragmatic decisions with the best data available. Senior management across key departments is providing both strategic and operational advisement to the recovery director. The Recovery Operations Center provides a critical nexus point where strategic decisions shape recovery operations and tactical decision making in coordination with departments and business units.

Staff leading and managing the effort are looking at the recovery both at the program level (macro) and the project level (micro) which is critical to define goals that are achievable. ROC staff facilitates consistent recovery operations, while staff within departments, managing the recovery at the business unit level, supports recovery integration.

I have been extremely impressed with the dedication, competency, institutional knowledge, and drive of City staff to accomplish ambitious recovery objectives. I have also been impressed with the level of staff cooperation, and the sheer talent of those involved in the recovery effort.

The decentralized approach to long-term recovery will need dedicated support and great care to ensure that, over time, departments and business units do not lose focus and momentum on recovery. Ensuring there is adequate staff to share the load and building the long term staff structure to anticipate and solve sticky challenges will be important for long-term recovery success.

The lack of authority of ROC staff to require compliance on centralized recovery decisions should be monitored. The Recovery Task Force is essential to ensuring that everyone is making progress on a common set of recovery objectives and to provide top-down encouragement for full and timely participation in critical path recovery tasks. Adequate staff dedicated to the recovery effort is also critical to provide quality assurance in both program delivery and financial management of the disaster.

Operational systems appear robust, but linkages between departments need to continue to develop. The current data management effort to centralize and manage disaster data will be fundamental to maintaining situational awareness across the program through dashboard and detail reporting and monitoring trends for course correction. It is important that monitoring systems with timetables be defined for the validation of information, expenditures and fund allocations to ensure that all activities both maximize eligible disaster funding and mitigate audit risks.

One of the most important keys to success in moving into long-term recovery is to maintain open formal and informal communications and data sharing to provide for consistent messaging. This includes identifying clear opportunities for information exchange and sharing of best practices and challenges as well as keeping decision-makers continuously engaged in the recovery progress.

The community will continue to support the effort in the near and mid-term as long as they are acknowledged for contributing to the success and for bearing the burdens of the recovery. Providing good visibility about recovery progress, and the inconveniences to be tolerated along the way, will allow the community to thrive. Providing transparency in government and giving the whole community the opportunity to celebrate in the City's recovery progress is important. Calgary is making critical strides towards success in this area.

Once infrastructure is restored, the long-term success of the effort will be defined by answering three questions:

- *Are Calgarians educated and prepared to take steps and accept responsibility for their own lives and protecting property?*
- *Did the City make reliable and strategic investments in resiliencies to avoid major damages from future events more severe than the flooding of 2013 along with impacts of climate adaptation?*
- *Did the City provide transparency and stewardship with the funding it received from the People?*

The City is tracking towards answering these questions in the affirmative. If Calgary follows through with its current level of effort, ambition and accomplishment, and provides adequate staffing, operational and data management systems to provide assurance on recovery quality and compliance, history will declare this recovery a lasting success and pivot point in moving Calgary – Onward.

## Introduction

On June 20 and 21, 2013, Calgary experienced its worst recorded flood event in modern history. Heavy rainfall, compounded by ground saturation and heavy snow loads remaining on the front ranges of the Rocky Mountains, resulted in a rapid increase in the size and flow rates of several rivers. According to data from Alberta's Ministry of Environment and Sustainable Resource Development, the flow rates of the Bow and Elbow Rivers increased by 500%-1000% normal rates for June. When rivers overtopped their banks, 80,000 Calgarians had been evacuated.

Calgary's effective and widespread pre and post-disaster communications were credited with saving lives. In its previous major flood event of 2005, Calgary refined Emergency Operations and hardened select infrastructure which helped attenuate flooding and mitigate catastrophic impacts. Nevertheless, flood impact estimates range from \$445-500 million to public and community infrastructure without community-wide resilience measures.

As part of its recovery, the City of Calgary engaged Jacobs to undertake a limited analysis of the City's disaster recovery from the June 2013 flood disaster with the primary objective of identifying opportunities for the City to obtain and maximize available Federal and Provincial disaster funding under law, regulation and policy to aid in the City's robust recovery and to mitigate against future threats. This report considers Calgary's recovery in 6 themes as an outgrowth of meetings and interviews with staff:

- Theme 1: Disaster Operations & Long Term Recovery
- Theme 2: Maximizing Available Funding
- Theme 3: Maintaining Cash Flow & Mitigating Audit Risks
- Theme 4: Recovery Program Delivery
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## Business Process Methods

Between January 9-15, 2014, Jacobs' Subject Matter Expert in Disaster Resilience, Nicole Boothman-Shepard, travelled to Calgary for an on-site review with City Recovery Operations Centre (ROC) staff and business unit leads and also met with Provincial representatives in Edmonton to understand all available disaster funding resources for the City.

This included attendance at the Recovery Task Force Meeting on January 10<sup>th</sup>, the Calgary Infrastructure Recovery meeting for business unit on January 9<sup>th</sup>, meetings with key staff responsible for each respective disaster funding stream at the Province's office on January 13<sup>th</sup>, and the Calgary ROC team on January 14<sup>th</sup>. In addition the engagement included a series of one-on-one meetings with Recovery Director, Gordon Stewart and Recovery Program Manager, Jim Duggan and Calgary's recovery business unit leads from finance, insurance, and resilience as well as the City's small team of dedicated recovery staff.

Information was also obtained from reports and financial data pertaining to budgets and requested, authorized and expended disaster recovery funding as well as general information on projects performed to date and anticipated as part of Calgary's recovery.

Further, Jacobs was asked to consider Calgary's disaster response and recovery efforts to date and recommend opportunities for Calgary to continue to strengthen its flood recovery and resilience based on experience in supporting other municipal governments to obtain and execute \$6B in recovery work for Hurricane Katrina, Superstorm Sandy, Colorado's 2013 flooding, and other major disasters.

## Themes

### Theme 1: Disaster Operations & Long Term Recovery

During the 2013 flood response operations, Calgary advanced a highly effective, centralized response operation through its Emergency Operation Centre (EOC) activation which lasted from June 20<sup>th</sup> through July 12<sup>th</sup>. At the same time, Calgary recognized the need for strong, internal resources to lay the groundwork for permanent restoration of damaged infrastructure and initiated the Recovery Operations Centre (ROC) on June 22<sup>nd</sup>.

As part of the ROC, Calgary organized a Flood Recovery Task Force to provide leadership and assigned director and acting management level staff to organize Calgary's disaster recovery on a day-to-day basis. Department leads and other key leaders within City government were engaged for the Recovery Task Force and Business Unit leads were either assigned to exclusively manage disaster recovery or to do so alongside day-to-day duties. The approach provides integrated City-wide leadership and a core ROC staff, but it is otherwise decentralized and works within Calgary's structure for normal City business operations.

There are many upsides to a decentralized recovery structure such as the consistent utilization of department-specific systems, processes and procedures, well-developed staff and oversight structures, and good institutional knowledge. The primary challenges to this system relate to disaster authority and responsibility, program and financial monitoring and compliance, and contemporaneous data and information sharing.

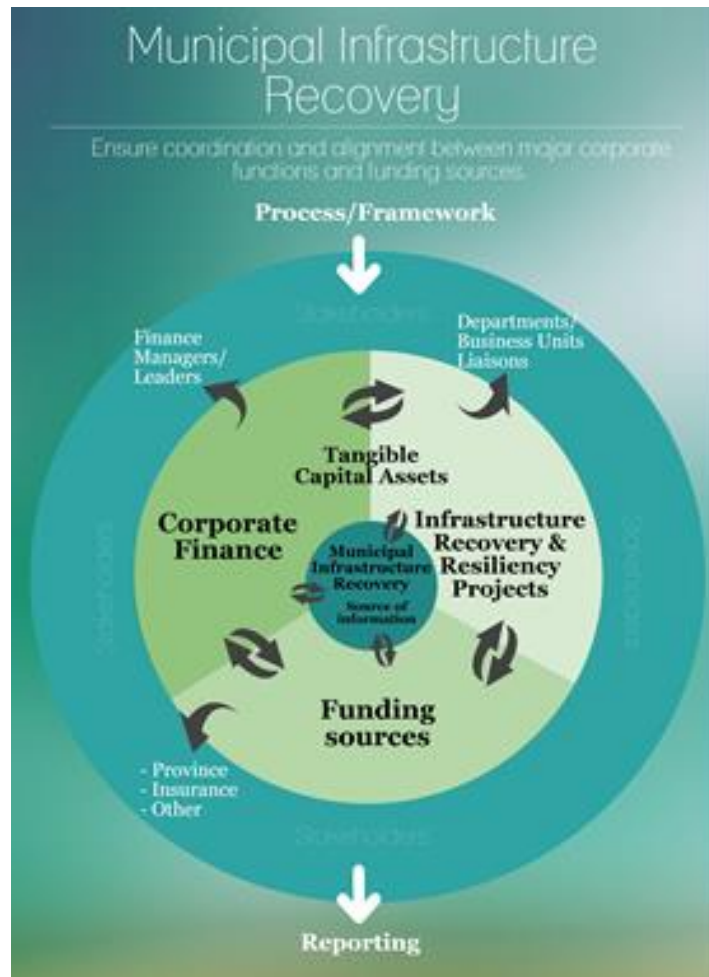
The ROC leadership and management team has done an effective job creating regular venues for relatively free and open information sharing and exchange amongst department and performance unit staff managing disaster recovery within their respective departments and with ROC staff. This is accomplished through weekly and bi-weekly meetings as well as one-on-one engagement.

### Calgary Flood Recovery Framework

The City developed and published a *Flood Recovery Operations: 2013 Flood Recovery Framework* (PFC2013-0646 Attachment) which provided necessary goals and structures needed to keep the public and City staff informed and to provide guidance on how the City would manage the flood event as it transitioned from a response to recovery operation. The inclusion of a mission statement and guiding principles in the Framework enables staff engaged in the recovery effort to align decision-making to the

City's core values on flood recovery in key areas such as People, Housing & Property, Infrastructure, Services, and Funding. Further, the Framework provides critical transparency by lining out key objectives and timelines for recovery progress.

Based on discussions with staff and information reviewed during the engagement, the recovery structure is well understood and largely accepted throughout the business units involved in the disaster recovery. Calgary has developed a thoughtful "infographic" (below) to distill and communicate its disaster recovery structure. The infographic also reinforces Calgary's structure for municipal infrastructure recovery which is dependent on cooperative and robust interactions amongst departments and business units.



Calgary has surpassed its peers in similarly complex disaster in terms of overall recovery performance.

In my experience, the City's recovery effort is tracking three to six months ahead of sister municipalities that have experienced similarly impactful flood conditions.



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 the integrity of its existing operational systems such as its risk-based financial management system.

Calgary's reliance on its own internal resources to direct and manage the disaster at the strategic, operational and tactical levels is unique in the disaster space. Typically, in a disaster of this scale, additional resources would be engaged to provide advisement on disaster recovery and to act as staff extension to request, track and manage both funding and program management of permanent disaster repairs and hazard mitigations.

While tremendous in both effort and delivery, it is important that Calgary understand where it sits - seven months out of the disaster event - on a recovery horizon of four to five years.

It is important to ensure that operational systems are calibrated to systematically integrate all facets of disaster recovery program delivery - including all project performance data and documentation from each procurement through construction closeout, final reconciliation of reimbursement funds, and allocation of disaster funds to the General Ledger. If the ROC management team does not have a system to monitor all requirements, including detailed project and financial documentation across the entire recovery program, recovery funds will be a risk.

Further, with a recovery program of this size and complexity, best program management practices should be utilized include Master Scheduling and cost estimating, consideration of available resources in the market for professional and construction services and impact on market costs, project controls including detailed disaster funding reviews and document management, design and engineering peer reviews, as-needed claims management support, consideration of alternate delivery methods if design-bid-build is not the preferred course, and overall program management to facilitate on-time, on-budget program delivery.

With respect to staffing, Calgary's team has been willing and able to contribute extraordinary levels of effort to build the gains realized to date. It is critical to the City's long-term recovery success to understand the need to shift from sprint to marathon pace.

Staff involved in the recovery operation across departments is expressing the need for relief, and with good reason. In my experience, staff who maintains highly intensive workloads on a long-term recovery effort, particularly when coupled with "day jobs," will slowly lose momentum, morale will decline, and staff will suffer burn out and/or become physically ill under the recovery's demands. In this circumstance, I have seen successful recovery efforts derail and government agencies exposed to unintended consequences resulting in human, political and financial costs.

To mitigate this risk, the City should ensure that the ROC is fully constituted with an intact group of staff throughout the recovery. The current team is outstanding and committed, but the need for additional resources should, nevertheless, be evaluated on a quarterly basis to provide for continued success. Over time, the engagement of the Recovery Task Force can normalize to monthly meetings and on an as-needed basis.

The department and business unit staff, particularly in finance, transportation, and water infrastructure/resilience, and other infrastructure must also be evaluated for the demands on department staff to manage this significant recovery effort. This is needed to provide for dedicated resources for quality assurance on infrastructure recovery program delivery and due diligence support to request, process, track, and manage Federal and Provincial funds. When overtaxed at the department level, staff that are otherwise quite competent and thorough make inadvertent errors (e.g. allowing projects to go over time and over budget, billing project expenses to the wrong fund, maintaining incomplete files, improperly authorizing change orders) and, most importantly, miss safety warning signs in the field. It should be noted that I have not seen these adverse impacts in Calgary, only that I have observed this risk on multiple other disaster recovery efforts.

The City demonstrated tremendous internal staff resiliency - staff pitched in for the response and recovery effort - and have absorbed significantly larger day to day responsibilities so that others could be entirely dedicated to the effort. This fortitude is attributable to the willingness of staff to meet the stewardship demands of the event, but also because of existing staff levels.

These existing staff levels were effectively leveraged in the City's disaster response and recovery, providing capacity for day-to-day activities to be managed while some staff moved into the disaster operation at the EOC and in support of the ROC. If staffing at the City should be reduced as part of an overarching government reform effort by Council, the City should recognize that it will not have the staff resources in a future disaster to provide the level of support utilized in the 2013 flood. Any staffing reductions should be reflected in the City's emergency preparedness plans, and if staff reductions take place, the City may wish to consider engaging pre-positioned contracts to support disaster response and recovery operations who work at the direction of City staff.

#### Data Management & GIS

The ROC has taken an active role in developing a data management solution in recognition of the volume and complexity of data to be tracked as well as the need for dashboard reporting, consistent with the City's corporate program management framework.

The Microsoft Project application will track the full disaster recovery and resiliency portfolio. It is advantageous if the system maintains granular project data so it can serve as an end to end tool for disaster data and reporting. To the extent possible, data maintained by finance should be integrated in the tool electronically to marry funding and infrastructure program delivery data at the portfolio and project level.

The integration of intuitive tracking methods - such as charting project progress with green, yellow and red flags - are outstanding and focus management attention on resolving barriers to successful project delivery as well as program wide trend analysis.

Calgary may wish to consider geocoding its extensive documentation of photographs and including them in the public domain to memorialize the disaster impacts. Similarly, it may wish to geocode and post recovery project progress photos and dashboard data into GIS maps to keep everyone centered on the

recovery's progress, to promote disaster awareness and provide additional transparency in the recovery effort.

## Theme 2: Maximizing Available Funding

Calgary's recovery team has been highly engaged in monitoring availability (and requesting) funding from the diverse disaster funding sources available either directly through the Province or passed through the Province from the Federal Government.

### Provincial Approvals of Eligible Damages & Disaster Repairs

Despite focused efforts to submit documentation in a timely and efficient manner for DRP funding, the City's requests for approval of emergency and permanent repairs - requisite to establish proof of damages as the basis for eligibility - have been slow to process through the Province. There is consensus that the local liaison coordinating on behalf of the Province is cooperative and available, but that commitment has not translated into timely funding approvals.

During the week of January 13<sup>th</sup>, only a handful of over 70 requests for eligible work submitted in November 2013 to the Province had been processed for approval. While City staff are complementary about staff supporting the City's disaster recovery from the Province, demands on the Province's contract professional services firm exceeds capacity.

By not making timely eligibility decisions, the Province creates uncertainty about eligible response or recovery project funding and puts pressure on cash flow. If the Province does not expedite decisions on eligible damages and funding for infrastructure repairs, this will cause problems that will increase proportionately as recovery work unfolds.

It is recommended that the City elevate a request to Provincial executives for the assignment of additional staff *dedicated to the City* commensurate with the workload associated with the disaster.

It is also recommended that the City negotiate timetables for the Province's recovery team to catch up on requests and, going forward, to work within established turnaround times on decisions or requests for more information. In my experience, it is typical and reasonable for the Province to need two weeks to turn around determinations on eligibility requests on damages/repairs of less than \$250,000. Large requests, typically over \$1,000,000, need four to six weeks, and requests over \$20,000,000 often require three to six months for final approvals for eligible damages and repair scopes of work to be completely settled.

## Summary of Each Funding Stream

### Funding stream 1: Disaster Recovery Program (DRP)

The City has been efficient in requesting funds from the Province and is not expected to have difficulty maximizing eligibility within the DRP.

Nevertheless, the Province's representatives are demonstrating stringency on approving disaster repairs that exceed similar reviews from the 2005 flood event. The reason for this is unclear; however, the

Province will assuredly be under great political, process and audit scrutiny by the Federal Government on the DRP. That additional scrutiny can be expected to cascade to the City.

If Province authorizes eligible expenses to the City, but is not reimbursed by the Federal Government, the Province absorbs the financial burden. Calgary's ROC staff could assist the Province in maximizing its funding from Federal sources by voluntarily providing detailed damage assessments and a comprehensive and compliant document trail. This would enable the Province to meet its goals of full Federal disaster funds recovery while reinforcing the expectation of stellar performance by the City.

#### Funding stream 2: Municipal Affairs – Property Tax Relief

Through its Municipal Affairs Division, the Province has determined that designated municipalities impacted by the June 2013 flood event are eligible to participate in a *Property Tax Relief Program* to offset lost tax revenue for eligible property tax forgiveness offered to 2013 flood disaster-impacted residential and commercial property owners that meet the Province's criteria. *Calgary is eligible to participate in this program*, and the Province has set aside \$84 million to support this effort.

The City would be provided a 100% property tax offset for tax forgiveness offered to eligible property owners. The deadline for election to participate in the program is the end of March 2014.

The Province's Property Tax Relief Program offsets the City's lost tax revenue on severely flood damaged properties that were rendered uninhabitable for at least 90 days. A Council resolution is required to authorize allowable tax forgiveness to residential and commercial property owners meeting the Province's eligibility criteria and to authorize participation in the program. Further, Council resolution would be required to memorialize eligible property details such as roll number, legal description, and amount of taxes imposed and forgiven for each property.

#### Funding stream 3: Municipal Affairs – Staff Not Funded by DRP

This funding stream is available to support staff positions not funded by the DRP. Staff funded under the DRP must demonstrate the need for recovery resources through *new or temporary employees or for current staff overtime only*.

At the meeting with Provincial staff in Edmonton, key Municipal Affairs staff expressed an openness to further discussing fair reimbursement of disaster staffing. However, follow-up inquiries by the City did not yield additional eligibility. Given the importance of this funding to the City's recovery strategy, the City may wish to elevate this issue to Provincial executives responsible for the recovery.

#### Funding stream 4: Hazard Mitigation and Resiliency

Proposed projects for hazard mitigation and resiliencies related to the watershed are due at the end of March 2014.

**The Province expects an appropriation of approximately \$2 billion for disaster resilience efforts.** It will run a competitive process at the end of March with awards of funding expected in the second or third quarter of the year.

Because provincial funding has been dedicated for hazard mitigations and resiliency related to the *watershed only*, there is currently a critical resilience funding gap amongst all funding streams for the protection of buildings and other infrastructure. This issue must be elevated for resolution with the Province. The DRP allows for feasible hazard mitigations only for the repair of eligible damages and for no more than it costs to restore the damaged infrastructure to pre-disaster functional capabilities, with necessary code and standard upgrades, as applicable.

Based in written guidance that dated December 2013 and received by the Province in mid-January 2014 concerning the watershed-related hazard mitigations and resiliencies, the Province has requested a full listing of small, moderate and large hazard mitigation proposals to be requested by the City. The written guidance appears to call for the following by end March 2014:

- Comprehensive community engagement
- Feasibility assessments
- Full cost-benefit analyses
- Cost estimates

As a result of Calgary's quite reasonable concerns about the timeline to compete this work by the deadline, I conferred with Alberta's resiliency director, as a follow up to meetings on January 13<sup>th</sup>. In those meetings, I learned:

- Any and all mitigations should be included that impact the watershed, even those that build on top of a DRP funded repair;
- Soft approaches are strongly preferred to hard approaches;
- Drought must be considered as well as flood conditions;
- The Province will accept an interim report on the progress on the feasibility analysis of the "tunnel" project which is due to produce its analysis in late April;
- A strategic level assessment of infrastructure assets with probable mitigation approaches would be allowed as long as there was adequate information to make sound preliminary appraisals of proposed approaches. Detailed feasibility and substantive community engagement may occur after proposed mitigations are submitted;
- No specific cost-benefit analysis model is proposed so the City may select the best option to meet its needs;
- A triple bottom-line approach - people, environment and economic impacts - is preferable to economic cost driven models;
- Economic cost-benefit calculations should include adverse impacts to Calgary's economy and, therefore, may consider business impacts to reflect true costs of future disasters to the City;
- Engagement with communities impacted upstream and downstream is expected to be part of community-wide considerations.

**The Province should consider elevating a request to Province executives responsible for recovery to push the deadline back, particularly in light of the duration between the due date for proposals and project authorizations.** A recommended approach to a community-wide resilience assessment is discussed under Theme 5.

#### Funding stream 5: Regional Collaborative Project

Up to \$250,000 in funding is available for planning with adjacent communities and regional agencies. This funding is not limited to disasters but has not been accessed by the City in the past.

Applications are due to Municipal Affairs at the end of November according to written guidance, but applications are accepted on a rolling basis. Calgary has not tapped into this funding stream to date.

#### Funding stream 6: Transportation

- [Funding stream 6.1: Gas Tax - Local Provincial and Federal Funding](#)
- [Funding stream 6.2: Green Transit Initiatives \(Green Trip\)](#)

No new funding outside of the DRP is available for disaster-specific transportation infrastructure. However, the Province will allow the City to designate some transportation funding for resiliency.

#### Funding stream 7: Cultural Assets

On January 27, 2014, the Province announced funding for the protection of cultural and historic assets. While arts funding is restricted to non-profit organizations, limited heritage preservation funding may be available. Funding for conservation of historic buildings is available through the Alberta Historical Resources Foundation. Funding is available to impacted museums through the Alberta Museums Association. Funding may also be available to remediate impacted archives, through the Archives Society of Alberta.

#### **Alberta Historical Resources Foundation - Conservation of Flood-Impacted Historic Resources**

A total of \$4.5 million is available to owners of legally protected historic buildings whose properties were impacted by the floods for costs not covered through the Disaster Recovery Program and/or insurance. Funding will cover up to 100% of eligible cash expenditures per historic resource, excluding work eligible for funding through the Disaster Recovery Program and/or insurance.

Conservation includes actions or processes aimed at safeguarding the character-defining elements of a historic resource in order to retain its heritage value and extend its physical life. This may involve one or a combination of these conservation treatments: preservation, rehabilitation, and restoration. Funding is also provided for architectural and engineering studies and conservation plans associated with the conservation of the historic resource.

A Heritage Conservation Adviser with Alberta Culture will inspect the work to ensure that it conforms to the *Standards and Guidelines of Historic Places in Canada*.

#### **Application deadlines are:**

- **April 1, 2014**
- **July 2, 2014**
- **October 1, 2014**
- **January 2, 2015**

See appendix for detailed program information, FAQ and application form.

### Alberta Museums Association's (AMA) Museum Flood Funding Program

The Alberta Museums Association's (AMA) Museum Flood Funding Program aims to minimize the short- and long-term effects of the floods on museum collections and prepare institutions for future disaster planning. Funding is supported as part of the Provincial Government's flood recovery strategy, museums and archives were awarded \$6 million to aid in the recovery of Alberta's heritage community.

*AMA Institutional Members in good standing* affected by floods in Summer 2013 are eligible to apply.

#### **Application deadline: February 14, 2014**

Project Area Definitions:

- Salvage: direct costs to collections management not covered by the DRP or insurance;
- Recovery: Short-term recovery and conservation requirements for museum collections;
- Treatment \*Conservation: Long-term recovery and conservation requirements for museum collections;
- Preventive \*Conservation: Disaster planning, emergency management and other conservation assessment for future disaster planning, including storage and space requirements.

\*Conservation: "relates to the care of museum objects, and includes preventive measures as well as professional treatments."

The Intent to Apply Form is currently being collected via online format and requests information such as type of funding requested (see project area definitions, above), cost estimate(s) and timeline(s) and at the following web address:

<http://www.museums.ab.ca/what-we-do/museum-flood-funding/intent-to-apply.aspx>

### Archives Society of Alberta (ASA) Flood Relief

On January 27, 2014, Alberta Culture announced that it will be providing funding to the Archives Society of Alberta to assist with the proper care of archival collections impacted by the 2013 floods in Alberta.

#### **Application deadline: February 14, 2014**

The Archives Society of Alberta will be distributing this funding through the following programs:

For the 2014-2015 Access to Holdings grant, for which applications are due February 14 2014, the ASA included projects of conservation that could be used by archives impacted by floods. The Access to Holdings grant will continue to include disaster recovery priorities for the 2015-2016 grant years. These grants are only available to ASA Institutional members.

For the 2014-2015 and 2015-2016 years, the ASA will hire a paper conservator. The conservator will assess archives across the province to ensure they have a full disaster preparedness plan and will educate institutional members on how to respond to disaster. The conservator will also be available for institutional members affected by the floods to help assess damage.

The ASA will explore the possibilities of additional initiatives to address broad, long-term conservation strategies and efforts related to flood impacts.

No application for funding is available, despite the imminent deadline. Therefore, questions regarding these programs should be immediately directed to Rene Georgopolis, Executive Director and Archives Advisor of the ASA at [reneg@archivesalberta.org](mailto:reneg@archivesalberta.org) or 780-424-2697.

#### Funding stream 8: Water for Life

No new funding outside of the DRP and resilience funding focused on watershed and drought management is available for disaster-specific water infrastructure. However, the Province will allow the City to designate some water infrastructure funding for resiliency.

#### Funding stream 9: Erosion Control

The City has successfully applied for erosion control grants associated with flood recovery. Awards are reflected in the box, below:

Municipality	Project	*Amount
City of Calgary	Home Road and 52nd Street (on the Bow River)	\$6,275,000
City of Calgary	Inglewood (on the Bow River)	\$1,900,000
City of Calgary	Memorial Drive and 19th Street NW (on the Bow River)	\$1,469,400
City of Calgary	Memorial Drive and Sunnyside NW (on the Bow River)	\$1,909,400
City of Calgary	Diamond Cove (on the Bow River)	\$1,091,400

\* As of December 20, 2013

#### Funding Stream 10: MSI Capital (general/non-disaster specific)

No new funding outside of the DRP is available for disaster-specific capital infrastructure. However, MSI Capital may include resilience projects as part of Calgary's request for funding. This program supports qualifying projects that result in the purchase, construction, development, betterment, rehabilitation, or non-routine maintenance of infrastructure that enhances long-term municipal sustainability.

#### Capital Infrastructure Support

The Province has indicated that it would be willing to provide the City with technical assistance on the disaster recovery, but there is no available funding outside of the DRP. While this technical assistance would need to be further explored with the Province, the offer of assistance largely involves Provincial staff consultations with Calgary staff to discuss the recovery program approach or review project-specific information.

#### Theme 3: Maintaining Cash Flow & Mitigating Audit Risks

In a disaster event of this magnitude, the importance of adequate staff in finance is mission-critical. In my experience, a lack dedicated leadership and staffing is nearly proportionate to government audit finding and fund deobligations.

The Finance staff supporting the disaster efforts are well qualified to advance the City's disaster management objectives.



I have three overarching recommendations concerning the financial management of the disaster to mitigate audit risk.

### 1. Additional Finance Staff

Despite the talent and dedication of project delivery unit management staff, the team will require additional, dedicated resources to meet the demands generated by disaster work. The disaster staffing level should be commensurate with supporting an intensive and expensive infrastructure program and should provide for additional time, effort and oversight of detailed monitoring reviews in order to be fully prepared to emerge from external audits with limited or no findings or fund deobligations. The need for additional staff is heightened due to an anticipated key staff transition which will require effort to compensate for lost talent, institutional memory and management of disaster funding requests and finances.

### 2. Ready and Unfettered Access to Infrastructure Recovery Program Data and Documentation

Calgary's largely decentralized program delivery structure creates natural challenges to proper and full financial monitoring and accountability.

If all infrastructure program delivery is maintained at the departmental level, then the City should seriously consider embedding dedicated recovery staff supporting document control/finance functions within each department (e.g. transportation, water infrastructure, and capital infrastructure). While this staff can work within the department's chain of command, dedicated recovery staff supporting finance should have dotted line responsibility to finance and should work and train as a team to ensure consistency across the corporate structure;

Finance must obtain data and documentation on disaster project delivery in real time;

Finance should recommend a common file structure for disaster infrastructure program in coordination with ROC leadership and in consultation with the Recovery Task Force, even if documentation is maintained using disparate software systems at the departmental level to allow for streamlined monitoring and so that audit data is consistent.

### 3. Fully Document Disaster Damages

Eligibility - and therefore all funding - for disaster response and recovery efforts goes back to the disaster event as the baseline justification for grant awards. It is crucial for the City to create irrefutable proof of the magnitude of the disaster event, the criticality of the response effort, and the specific damages to infrastructure for which funding is requested.

In the wake of a major disaster, it is nearly impossible to systematically organize disaster damage data - the goal during this period must always be forward motion to restore safety and get back to the new normal as quickly as possible. Calgary was exemplary in performing these tasks.

The City response and recovery staff are to be commended for instructing staff and contractors responding to the flood to take extensive photographic documentation of the event and its impacts and to produce initial damage assessment reports.

At seven months after the event, however, it is necessary to look at this documentation again to evaluate the quality, comprehensiveness, and specificity of disaster damage documentation and to generate detailed documentation about the event and its destructive impacts on Calgary's infrastructure before evidence and institutional memory is lost.

The team currently evaluating eligible disaster damages for the Province has seen the damages firsthand and does not need to be convinced of the disaster's terrible impacts on the City. Disaster damage documentation, therefore, is being prepared as part of the paper trail for auditors who will never see the flood destruction except through the reports generated by the City.

I have been present innumerable meetings with auditors who state that, "*while the scope of work appears properly performed, (I) have nothing that proves the work was necessary as a direct result of the disaster.*" Auditors will reduce or eliminate project-level funding when a damage assessment report is not available to substantiate the degree and dimensions of damages as well as the engineering impact of the floodwaters on infrastructure.

**Is this process time consuming and somewhat expensive?** Yes.

**What's the gain?** Damage assessments definitively establish the basis of eligibility for disaster funding. **All eligibility determinations begin with the questions: *Was the asset damaged by the disaster, and if so, how?***

Damage assessment reports must be refined to capture the breadth and depth of the damages to each impacted facility - reports must answer the questions:

- How was each component of the infrastructure specifically damaged by the flood?
- Was the work performed as a *direct* result of the disaster damages - and not because the City wanted to do additional work or had maintenance work that was already required?
- Was the work strictly performed (with DRP funds) within the limits of the flood damaged infrastructure?

### Cash Flow

With respect to reimbursements on expenses already incurred, the City should also work to establish timetables for the reimbursement of funds incurred. In disaster events of similar magnitude to the 2013 flood, it is not uncommon for a funder to have its capacity stretched. This can be substantially resolved through the assignment of additional, competent staff by the Province.

Where the Province wishes to undertake detailed reviews of invoices resulting in delayed reimbursements of approved project costs, the following solutions could be proposed:

- Partial electronic fund transfer payment (typically 75-90%) is paid upon submission of the invoices within ten days of submission, and the full balance is paid upon completion of detailed review or project completion. This model has been used successfully on Hurricanes Katrina and Sandy to maintain forward progress on recovery.
- The Province allow the City to validate disaster expenditures by a qualified firm or audit/engineering team to evaluate eligibility, reasonable and allowable costs, proper performance of engineering design and construction work, and proper allocation of costs. The Province would make payments based on a validation reviews of the qualified firm's assessments and certifications of proper and allowable disaster expenditures. This validation model is similar to one of the pilot projects established for FEMA by the US Congress in response to Superstorm Sandy for approval of eligible scope to repair disaster damages.

#### Adequate and Accessible Documentation

It is important to marry documentation that resides within departments delivering projects as well as finance. In my experience, the segregation of the audit trail between departments, many years after the performance of work, leads to audit findings because only part of a project's document is inadvertently provided to auditors. This is most often attributable to a lack of institutional memory due to staff changes (e.g. retirements). This is particularly important within Calgary's decentralized structure.

I recommend the following option to mitigate such audits risks:

- Physical location of duplicate hard copy files from department delivering work to reside permanently within finance;
- Location of duplicate electronic copies or shared electronic folders available in Finance;
- Development of an IT enterprise solution that can access electronic documentation maintained in multiple platforms (e.g. across People Soft, PrimaVera);

Another audit risk that I have encountered that can be avoided is the inability to access electronic files many years after construction project closeout. This is due to is due to the following causes:

- Technical support is no longer available or IT "architecture" code is lost for a customized IT software used to warehouse files;
- Proprietary products go out of business and information is no longer accessible;
- Outmoded software licenses are not maintained, or data is lost during IT conversions to new software platforms;
- Subsequent software versions of the same product do not allow access to files saved in old software versions - efforts to convert data in old versions to new fail;
- Hardware solutions become obsolete (e.g. "floppy disc" data);
- Cyber-attacks wipe out data storage.

Redundant data storage is understood to be in place within the City's existing IT business processes.

Complete "resting" data should be maintained on a schedule by IT (e.g. quarterly) to ensure that data not in use continues to be viable and properly backed up.

The use of data management systems that will stand the test of time is critical where there is a reliance on electronic files. That means that all systems used by departments should be evaluated for the likelihood that a product will remain solvent and in general use. For example, Project Wise is owned by AutoCad, and PrimaVera continues to be used for scheduling. These tools are, therefore, less likely to go out of business than lesser used competitors or new products to the market.

### Procurement and Contracting

Procurement standards that provide for free and open competition are required and conform with conventional practice in the City. It is recommended that procurement and contract documentation for competitively let professional services and construction contracts be included in the paper trail for future disaster audits. Proof of competitive bid provides for assurance that costs are reasonable on a base contract where there is adequate competition.

### Procurement and Contract Documentation to Retain with Project File

- Proof of advertising for the solicitation
- Copy of the solicitation
- Attestations of review committee members citing no conflicts of interest
- Winning proposal(s)/bid
- All submitted proposals/bid should be archived and available for audit review
- Reviewer ratings and/or bid tabulation rating all responding firms
- Narrative comments on proposals/recommendations, where maintained
- Recommendation to and action by Council or where approved via allowable delegation of authority to the Mayor or City executive staff
- Notice of intent to award, if applicable
- Notice to Proceed
- Executed contract and all executed amendments

### Reasonable Project Costs

Reasonable costs are typically established through competitive price letting or industry standard rates for professional services. As such, base contracts for such recovery projects are generally understood to be fair and reasonable within the market.

The area of risk, therefore, in duly capturing eligible funding and mitigating audit risks relates to reasonable costs introduced via change orders. Typically department leads and sometimes program managers on major infrastructure projects have the authority to authorize change orders - be they owner-directed, related to unforeseen conditions/discoveries, and in response to design errors or omissions.

However, any change order allocated to disaster funding must be approved by the Province for concurrence that the change order is reasonable and necessary to repair disaster related damages or is an allowable code and standard improvements. This process is not typical to project deliver processes and must be built in so that the City does not subsume responsibility for otherwise eligible recovery costs.

Processes must be developed to route change order requests to ROC staff to negotiate eligibility of the expense to disaster funding and provide documentation for the file that demonstrated approval for the change order and appropriation of funding. While the disaster program is reimbursement based, approval for change order eligibility should be elevated to the Province prior to change order approval if the City wants assurance of reimbursement and/or to understand its financial exposure for any unallowable change order costs.

#### Invoice Reviews

Invoices are reviewed as part of the City's normal business processes. An additional layer of invoice review for disaster funding eligibility should be included in this business process to optimize compliance. Finance is packaging documentation for reimbursements of disaster projects costs. As part of this effort, Finance should reconcile authorized project scope to project performance so that any inadvertent gaps in authorized costs are captured by the City.

It is important that any eligible work above the original, approved scope is memorialized in writing. Reimbursement by the Province should not be relied upon as de Facto eligibility approval; as payment - alone - without written proof of the funder's eligibility determination is often regarded as "overpayment" and is subsequently deobligated in external audits.

#### Allocation of Funds to General Ledger

The most frequent reason for deobligation of disaster funds, surprisingly, relates to improper allocation of funds to the General Ledger. For example, in the US this accounts for the deobligation of over 50% of Federal funds. Disaster funds are restricted funds by nature - they can be used for only the express purpose authorized under the conditions of the grant to repair eligible damages.

Due to the extraordinary pace of the recovery work, and the analogous pace of recovery payments and expense postings, and due to the reimbursement nature of disaster funding, a high-volume of journal voucher postings and adjustments are made. It is a necessary, important and cost-saving approach to implement a comprehensive monitoring program. This effort should involve review each disaster posting after disaster funds are reimbursed to ensure proper allocation of project-specific costs to the appropriate disaster funding stream/grant identification within the General Ledger.

#### Document Control & Monitoring

It is essential that a common set of documentation be maintained across the disaster infrastructure recovery program. This will assure that documentation needed to memorialize damages and otherwise establish eligibility for disaster funding is integrated into the documentation maintained as part of normal infrastructure program delivery.

This is particularly true in light of departmental differences in how documentation is maintained within the City. As long as documentation is consistently maintained by each department and all necessary documentation is included in the paper trail, documentation by department can be presented differently by each respective department.

Working within existing systems and procedures for infrastructure project delivery and adding in only additional disaster-required documentation may reduce the burden on staff and promote higher compliance than if a new system is implemented for the recovery. However, a careful review of existing systems should be evaluated, and systems should be adjusted to meet the stringent burdens of disaster funding and compliance.

It is mission-critical that documentation be strictly monitored and controlled for the disaster infrastructure recovery program at the project-level. Folder structures are often developed as part of disaster recovery efforts. **However, an absence of monitoring fails to identify and resolve documentation gaps that lead to material audit risks.**

In after-action assessments of multiple disasters, I have found a document control compliance rate of 30-40% in the absence of a monitoring and corrective action program. However, with diligent and corrective action, compliance rates just to 80-90% during project delivery.

Documents should be reviewed at 100% prior to final archive at the completion of project closeout and closeout of grants management/fund draws by project.

### Reporting

Existing financial reporting on disaster expenditures - and recovery of disaster funds - are instrumental in providing situational awareness to the Recovery Task Force and the ROC for strategic, operational and tactical decision making. The data management tool in development by the ROC (discussed under Theme 1, subsection Data and GIS) should incorporate financial data wherever possible to provide dashboard data that ties disaster funding directly to the infrastructure recovery program.

## Theme 4: Recovery Program Delivery

### Quality Assurance

The Recovery Task Force and the ROC provide for a common recovery vision and support to the City's decentralized management structure; however, this support is not reinforced through the current supervisory structure (the ROC and departmental recovery staff are not joined via chain of command). In certain circumstances, it may be difficult for the ROC to ensure accountability for timely disaster related activities (e.g. data reporting, document management) unless department leads continually reinforce the need for timely and full participation on recovery efforts, including administrative tasks.

The Microsoft Project data management tool should, in the long run, help simplify the relationship between department staff and ROC staff. Providing for adequate staff dedicated to the recovery effort at both the ROC and department/delivery unit levels, however, is the best assurance for a consistent and integrated recovery. This is particularly true where there is a hard line - or least a dotted line - reporting relationship between ROC and department staff.

The relationship between the ROC and department staff delivery recovery projects is also critical where compliance is a factor. Requirements must be communicated and enforced where there are contingencies for the eligibility of funds - such as environmental and historic compliance.

In addition to addressing staff coordination and integration, it is necessary for program management controls to be commensurate to the scale of the recovery effort. This includes the challenging task of integrating dynamic, multi-departmental design and construction schedules, tracking compliance requirements at the project level, assuring adequate design/engineering peer reviews, ensuring base contract and change order work performed is eligible under the disaster recovery programs, and portfolio-wide cost estimating and budget/cash flow and fund recovery projections.

#### Disaster-specific Program Risks

Calgary's response and recovery have been robust to date. Disasters, however, bring about the best and worst in people. While I hope that the City will not experience the following intentional and unintentional contractor behaviors that introduce risks to the recovery. These involve:

- *Extremely low bids* that do not allow for proper completion of work in the local market/environment. Contractors from outside the local area will be looking for work in Calgary - sometimes they will underestimate the cost of doing business in the market or the complexity of conditions (e.g. geo-tech, extreme cold weather). It is important that bids that appear too good to be true go through an internal due diligence analysis to ensure that work can be completed for the bid price;
- *Overcommitted contractors*. Contractors will sometimes bid on too much available work in the market without realistic appraisal of internal and subcontractor capacity. A management strategy is to request all original bids and final construction costs and schedules on major projects over the past 3-5 years. Also, designating the maximum volume of work that can be managed by any one contractor at any time also limits commitment risks;
- *"Below the line" big rigging* where contractors agree to pricing or competition to either escalates market pricing or control awards. Other than considering forensic analyses on fraud, waste and abuse, the best opportunity to undermine bid-rigging is wide advertisement of solicitations or pre-qualification of construction contractors;
- *Failure to make adequate progress*. Work does not progress on schedule and contractor recovery schedules are repeatedly missed. In my experience engaging claims support early and calling in bonds as necessary not only resolves projects that are floundering, but it sends a message to all contractors that you expect on-time progress for recovery projects;
- *Predatory scope creep*. In disaster circumstances, it is not unusual for the occasional predatory contractor to win work. In this case, the construction firm makes a legal case for every change order and works to manipulate the scope of work to encourage scope creep. In this situation, the best response is to pursue claims management and consider contract termination even though the City may incur contract termination penalties.

#### Optimizing On-time, on Budget Program Delivery

For a program of this scale, effective program management practice should be used. These conventionally include:

- Master scheduling
- Cost estimating

- Project scope development
- Procurement and contracting support
- Environmental and other compliance
- Project controls:
  - Detailed disaster funding eligibility reviews
  - Invoice review and approvals by project
  - Document management
  - Project and program-wide finance reporting
  - Budgeting
  - Cash flow forecasts
- Design and engineering peer reviews
- Commissioning
- As-needed claims management support
- Consideration of alternate delivery methods, if appropriate

A disaster recovery at the scale being undertaken by the City will inherently involve a greater degree of complexity and risk than an infrastructure program of similar size not involving a disaster.

One of the best practices I have used to help a recovery program stay on track is to assign a dedicated team to anticipate and continually work on solving sticky problems so that the program manager can remain focused on the big picture. I call these dedicated teams road block busters. Calgary's disaster recovery will have unique needs. However, I have most frequently observed predictable challenges in disaster recovery in the following areas:

- Rights of Way (ROW)
- Permitting
- Testing and resolving failures (e.g. materials performance)
- Environmental and historic structures compliance
- Hydraulics and hydrologic conditions (H&H) and flood plain elevations/watershed considerations
- Claims management
- Community engagement

#### Segregating Eligible Disaster Costs and Ineligible Costs

It is important to segregate project scopes of work and costs where the City elects to perform additional scope in addition to repairing eligible disaster damages.

The best time to delineate disaster eligible work and elective work unrelated to the disaster is during the design phase. Notifying engineers and designers to segregate scopes of work ensures that the bid set drawings instruct the contractor to track scope and costs separately. This is not different than program management processes that are currently in place when multiple funders support non-disaster infrastructure projects.



While segregating work and costs is more work for the contractor, it avoids protracted in-construction or post-construction negotiations with the designer, the contractor and the Province to delineate eligible from non-eligible scope and costs. If the City wishes to move into design and bid phase while considering a range of options, it may wish to utilize bid alternatives.

#### Change Order Management

As referenced in Theme 3, *invoice review subsection*, it is important that any change orders to be allocated to disaster funds be reviewed for eligibility so that the City understands what may or may not be eligible for reimbursement and to allow for proper allocation of any expenses not supported through disaster funding.

#### Theme 5: Hazard Mitigation & Resilience Strategy

The City is under great pressure by the Province to expedite its identification of all watershed-related resilience projects.

**The Province has established a deadline for the completion of asset surveys, the identification of hazard mitigation alternatives and the completion of cost-benefit analyses for proposed resiliencies by the end of March 2014.**

If Calgary is to meet this deadline, rather than pushing for an extension, it should consider an expedited City-wide asset resilience analysis of its own facilities and infrastructure.

This would involve engaging a dedicated "strike team" of engineers and resilience experts to provide high-level evaluations of infrastructure assets for potential hazard mitigations as well as community-wide strategies along with rough order or magnitude cost estimates.

Infrastructure resilience reports generated by the strike team could then be remanded to the City's technical expert panel on resiliency for consideration and proposal to the Council and the Province pending feasibility studies and community feedback. This would also provide a structured objective and dataset for expert discussion.

#### Cost-Benefit Analysis Methodologies

There are multiple cost-benefit analysis methods in use today. The increasing focus on climate resilience and adaptation have driven a triple bottom-line approach that considers human, environmental and financial costs into the model for considering alternative to protect the City from future disasters including the threats of floods and draughts. The Province has expressed interest in a triple bottom-line approach that relies primarily on natural or soft defenses - or letting the water in - and defaults only to hard defenses - fighting back the water - as necessary to protect critical City and community assets.

Because the City has strong hydrological modelling maps and resources, it has good hydraulic data to include in the cost-benefit analysis models it selects. The model that has borne out the most reliability and success using a triple bottom-line approach is the one used for the EU Climate Compact. This model, or a modification that is reviewed at the strategic rather than granular level, should be considered by Calgary for its submission to the Province.

### Maximizing Calgary's Share of Available Funding

Due to the enormous sum of funding at stake and the role the funding will take in shaping the City's resilience, Calgary should invest in its submission of resilience options to the Province through both the presentation of data and the soundness of the technical approach despite significant time constraints.

### Theme 6: Communications & Event Commemoration

The Recovery Steering Committee discussed commemoration and disaster resilience messaging at its meeting on January 10, 2014. This highly productive meeting, as well as follow up discussions on January 14, 2014, focused on communicating risk data to the community and commemorating the one year anniversary of the flood event.

City staff generated effective recommendations to reach out to the community. The most effective ways to mitigate loss of life and damages to improved property in a future event balance land use planning/code changes to encourage building outside of the floodplain (and hardening facilities within the flood plain if necessary), and reinforcing clear and simple messages that help community members help themselves. Such messages include information on evacuation, sheltering in place, and flood mitigation measures for home and business.

Ideas that were discussed to get out the disaster resilience message are as follows:

- Including succinct resilience messages on tax bills;
- Providing messages on municipal transportation, including buses and light rail;
- Co-branding resilience messages with community-based events;
- Displaying resilience messages in public spaces such as libraries, parks, and community centers;
- Negotiating an exhibit with the zoo demonstrating how the flood event impacted municipal infrastructure;
- Communicating recovery program information, including disaster impacts and progress, through GIS data providing dashboard information on project scope, costs and schedules along with pictures;
- Providing effective evacuation route signage;
- Providing signage for any pre-established shelter sites;
- Negotiating age-appropriate "family" homework assignments through the school system on disaster preparedness;
- Requiring recovery project contractors to provide outdoor signage with information on recovery project progress and post key resilience messages.
- Post modest plaques (or bronzed boots) at the completion of recovery projects to remind the community of the event and the recovery.

Considerable discussion about commemorating the event for the one year anniversary took place at these meetings. Overall, it was generally agreed that the best approach - in keeping with effective commemoration events from Katrina, Sandy and other major disasters - would be to engage the corporate community to support a cost effective event or a series of events that:

- Deeply engages the community;
- Avoids flashy events;
- Recognizes the losses and hardships that Calgarians have and continue to endure due to the flood event;
- Acknowledge and demonstrate gratitude to the many first responders and citizen heroes who helped others in the face of adversity;
- Celebrate accomplishments on the recovery to date;
- Asks for continued community support in the recovery;
- Build towards the City's full recovery and resilience;
- Collaborate, rather than compete with, organizations hosting commemoration events throughout the City and in nearby communities.

Ideas under discussion include:

- Citizen-sourced art exhibit featuring photographs and other memorabilia;
- Wall of windows information or art display;
- Co-branded event with Stampede;
- Youth art projects - such as a handmade tile installation(s) - in a public space;
- Youth engagement at lead-up and the anniversary commemoration event such as choirs and bands;
- A "recovery program" ribbon cutting to provide a tailored opportunity for political engagement;
- Community-based memory books that document the flood and allow people share their experiences with the flood - through drawings, pictures, poetry, or prose - and are housed in the community or exhibited together;
- Structured community service projects that support resilience such as installing plantings that help absorb surface water and help slow down waters in flood events;
- Voluntary help-your-neighbor day;
- Educational roadshow (disaster resilience in a box) that is mobilized to educate the public on disaster preparations and hazard mitigations at community-based events;
- A community barbeque in tandem with commemoration activities.

## Summary of Findings

Based on a limited-scope review of the City's disaster response and recovery from the devastating June 2013 flood event, Calgary is successfully moving forward on a highly aggressive and effective recovery effort. Appropriate executive leadership is engaged and willing to make pragmatic decisions with the best data available. Senior management across key departments are providing both strategic and operational advisement to the recovery director. The Recovery Operations Center provides a critical nexus point where strategic decisions shape recovery operations and tactical decision making in coordination with departments and business units.

Staff leading and managing the effort are looking at the recovery both the program level (macro) and the project level (micro) which is critical to define goals that are achievable, and ROC staff facilitate consistency recovery operations. Staff within departments and managing the recovery at the business unit level support recovery integration.

I have been extremely impressed with the dedication, competency, institutional knowledge, and drive of City staff to accomplish ambitious recovery objectives. I also been impressed with the level of staff cooperation, and the sheer talent of those involved in the recovery effort.

The decentralized approach to long-term recovery will need dedicated support and great care to ensure that, over time, departments and business units do not lose focus and momentum on recovery.

Ensuring there is adequate staff for share the load and building the long term staff, operational, program and financial management structures to anticipate and mitigate challenges will be important for long-term recovery success.

The lack of authority of ROC staff to require compliance on centralized recovery decisions should be monitored. The Recovery Task Force is essential to ensuring that everyone is making progress on a common set of recovery objectives and to provide top-down encouragement for full and timely participation in critical path recovery tasks.

Adequate staff dedicated to the recovery effort is also critical to provide quality assurance in both program delivery and financial management of the disaster.

Operational systems appear robust, but linkages between departments need to continue to develop. The current data management effort to centralize and manage disaster data will be key to maintaining situational awareness across the program through dashboard and detail reporting and monitoring trends for course correction.

It is important that monitoring systems with timetables be defined for the validation of information, expenditures and fund allocations to ensure that all activities both maximize eligible disaster funding and mitigate audit risks.

One of the most important keys to success in moving into long-term recovery is to maintain open formal and informal communications and data sharing to provide for consistent messaging. This includes identifying clear opportunities for information exchange and sharing of best practices and challenges as well as keeping decision-makers continuously engaged in the recovery progress.

The community will continue to support the effort in the near and mid-term as long as they are acknowledged for contributing to the success and bearing the burdens of the recovery. Providing good visibility about recovery progress, and the inconveniences to be tolerated along the way, will allow the community to thrive. Providing transparency in government and giving the whole community the opportunity to celebrate in the City's recovery progress is important. Calgary is making critical strides towards success in this area.

Once infrastructure is restored, the history will measure long-term success of the recovery effort in response to the following three questions:

1. *Are Calgarians educated and prepared to take steps and accept responsibility for their own lives and protecting property?*
2. *Did the City make reliable and strategic investments in resiliencies to avoid major damages from future events as severe, or more severe, than the flooding of 2013 and in consideration of climate adaptation?*
3. *Did the City provide transparency and stewardship with the funding it received from the People?*

The City is tracking towards the accomplishment of answering these questions in the affirmative. If Calgary follows through with its current level of effort, ambition and accomplishment, and with the addition of necessary systems and staff to manage and monitor this significant flood recovery program, history will declare this recovery a long-term success and pivot point in moving Calgary – Onward.

## Appendices

Funding Stream 1: Disaster Recovery Program (DRP)

Funding Stream 2: Municipal Affairs – Property Tax Relief

Funding Stream 3: Municipal Affairs – Staff Not Funded by DRP

Funding Stream 4: Hazard Mitigations & Resiliency

Funding Stream 5: Regional Collaboration Program (RCP)

Funding Stream 6: Transportation (general/non-disaster specific)

Funding Stream 7: Cultural Assets

Funding Stream 8: Water for Life (general/non-disaster specific)

Funding Stream 9: Erosion Control

Funding Stream 10: MSI Capital (general/non-disaster specific)

### Funding Stream 1: Disaster Recovery Program (DRP)

Through Alberta Emergency Management Agency (EMA), the City is eligible for the reimbursement of eligible costs for disaster response, recovery and certain personnel reimbursement expenses as a result of direct disaster damages. DRP funding is a funder of last resort and therefore cover uninsurable losses only.

#### 1.1 Response

The DRP reimburses all reasonable, direct costs for responding to a declared disaster event. ROC staff have a well-developed understanding of the rules associated with this DRP response funding such as for the stand-up of the Calgary Emergency Operations Centre.

Response expenditures from the onset of the event to six months after its end are generally eligible. Exceptions to the time limit may be considered, on a case-by-case basis (e.g., if seasonal or other unavoidable delays extend damage assessment and stabilization operations beyond this period).

#### Eligible response costs may include:

- a) Delivery of emergency services to the affected population, including temporary relocation, shelter, food, potable water, clothing, rescue and transportation, and related social and inquiry services;
- b) Incremental costs of providing emergency medical care, treatment and evacuation, and return of casualties following a disaster;
- c) Incremental costs incurred to provide essential services, equipment, material and labour required to sustain the operability of public infrastructure;
- d) Incremental costs to provide short-term security measures in the affected area;
- e) Incremental costs to assess the safety of structures, including assessment of houses by a structural engineer;
- f) Short-term costs for setting-up and operating emergency operations centres, including the rental cost of temporary telecommunications equipment, facilities and services;
- g) Expenses and stipend payments associated with the use of volunteers registered with a recognized response agency in the response and initial recovery phases;
- h) Registration of displaced people (such as is done by recognized non-government organizations);
- i) Provision of mental and physical health counseling services to those affected by the disaster or its response. Such services include post-disaster critical incident stress management, counseling and other immediate post-incident psychological and health interventions;
- j) Provision of financial counseling services to those affected by the disaster or its response; and
- k) Costs associated with making public access and exit routes previously designated by the province or municipality safe.

## 1.2 Recovery

The DRP provides reimbursement of cost to pre-disaster functional capabilities and allows for repairs or replacement of disaster damaged infrastructure to up to current codes and standards. ROC staff have a well-developed understanding of the rules associated with recovery funding.

Recovery expenditures from the onset of the event to the program closure are generally eligible.

### Eligible recovery costs may include:

- a) Repairs or replacement to pre-disaster functional condition of GoA and municipal infrastructure and related equipment (see 4.3 for eligible road restoration costs);
- b) Restoration of, replacement of, or repairs to infrastructure directly related to the provision, distribution and treatment of potable water and sanitary sewage disposal;
- c) Costs of appraising and estimating damage, if they are additional to the work carried out by regular employees and occur within the immediate post-disaster period;
- d) The engagement of third parties for damage assessment and recovery cost appraisal with related professional service costs;
- e) Clearance of debris, wreckage and major silting caused by the disaster from channels of rivers and streams, intake and outlet points of sewer and storm drains, and water supply reservoirs where such blockages have the potential to significantly worsen the effects of the disaster. This does not include mitigation “scalping” of gravel beds unless it can be demonstrated that there has been an unusually heavy, disaster-related deposit. The eligible amount is the net cost of removing only the disaster-related deposition as closely as can be estimated by the AEMA, to allow a community to function or to preserve navigable channels;
- f) Making safe (including removal of trees and tree limbs) any public infrastructure and public facilities, including beaches, zoos and parks, which constitute a threat to public safety;
- g) Rental or rental equivalent costs of machinery and equipment required to deal with the immediate effects of a disaster, including leasing and operating costs, as well as repair and restoration expenses;
- h) Reasonable expenses for the restoration (to as close as practicable to the original state or capability) of property damaged by those authorized to take necessary actions in the course of disaster response; and
- i) Landscaping that is an essential element of the function of a facility, such as a public recreation facility may be eligible.

### Road Restoration

Costs associated with restoring roads, including associated guardrails, signage, signaling devices, sidewalks, bridges, tunnels, overpasses, underpasses, causeways, culverts, verges and drainage systems to their pre-disaster functional condition are eligible in the following categories:

- a) Roads and highways that are on the inventory of, and maintained by, a provincial government department;
- b) Roads and highways that are on the inventory of, and maintained by, a municipality;
- c) Multiple-use, privately constructed industrial roads (e.g., forestry or mining) used by both the



industry and the general public, particularly as evidenced by the province or a municipality formally undertaking to maintain such roads by agreement with the industry operators on a long-term or permanent basis (in other words, the roads are intended to survive the depletion or cessation-of-exploitation of the particular resource that they were built to access); and d) The clearance of debris, such as fallen trees and utility poles from a road right-of-way, will be eligible to the extent that the debris causes a direct impediment or potential hazard to those using the actual road surface, shoulder and adjacent paved or gravel pedestrian public pathways.

### Public equipment costs

Public equipment costs may be claimed at 50 percent of the current heavy equipment rental rate in the Province for heavy equipment, plus the actual operator's wages and benefits, for all hours of emergency response and recovery operations. Time sheets for the machinery and the operators must be carefully recorded to substantiate total hours of use.

Intra-governmental costs, such as those charged when the equipment of one government department or agency is used or "rented" by another, are not eligible. Contracted intergovernmental costs (e.g., mutual aid) are generally considered eligible.

The costs for equipment that is purchased and retained is not eligible (e.g., a portable electric power generator or cell phones), unless it can be demonstrated that it is more cost effective to purchase than it would be to rent the equipment. Where an item had to be purchased because it was essential and renting it was either not possible or practical, only the difference between the original purchase price and the item's residual market value immediately after its use during the disaster is eligible (generally 50 per cent as determined by the AEMA). While the rental or temporary acquisition of informatics equipment and off-the-shelf software needed to deal with administrative and operational aspects of disaster response are considered eligible, costs to develop special software are not eligible.

### 1.3 Personnel

For wage costs of operators who are public sector employees, eligible overtime wages may be determined in accordance with public employment union contracts and other employment contracts. Wages of contracted private sector operators are eligible for reimbursement.

The costs to staff positions with temporary employees (backfill) to perform the normal duties of full-time office and field staff reassigned to conduct disaster assistance surveys and assessments is eligible. Documentation must be provided specifying positions being backfilled, persons employed and actual time spent for up to a six-month period after the disaster. Hiring supplementary personnel to provide for operational response and immediate recovery activities is considered a direct incremental administrative expense and is also considered eligible for up to six months after the end of the disaster. Costs associated with the deployment of military personnel and equipment are eligible provided that the activities undertaken are eligible.

### Available Provincial Funding

Funding has been set aside by the Province in order to make eligible disaster awards to approved entities. Funding is not competitive and is awarded based on eligibility rather than availability of a designated pool of funds available. Calgary was provided with an approximately \$59 million disaster advance; however, because the program is reimbursement-based, Calgary could not use the funds to provide cash flow relief.

### Deadline

The City applied to participate in the DRP program by the approved deadline. A courtesy copy of the Memorandum of Agreement (MOA) was being transmitted from the Province to the City for its records on January 13<sup>th</sup>.

### Province of Alberta Requirements for Participation in Program

The City has triggered its eligibility for the program and has met basic participation guidelines. Calgary has submitted over 70 requests for reimbursement to support necessary temporary emergency repairs and/or restoration of infrastructure to pre-disaster functional condition such as Calgary's impacted roadways.

### Recommendation

The City of Calgary is compliant with the program, and has negotiated the essential documents needed for eligibility reviews and reimbursement requests for funding.

It is recommended that the City also consider packaging disaster damage assessments along with the full portfolio of disaster documentation - from project procurements through final construction closeout - and make this documentation available to the Province. This would enable the Province to provide due diligence assurance to the Federal government in support of Calgary's claims.

### Key Considerations for Program Participation

Program participation is in full force.

### Province of Alberta Emergency Management Agency Contact Information

For key decisions governing all Alberta Emergency Management Agency funding, contact:

Caroline Thompson, Director of Recovery Services

Alberta Emergency Management Agency (EMA)

14515 – 122 Avenue

Edmonton, Alberta, Canada, T5L 2W4

780.415.4824

Caroline.thompson@gov.ab.ca

[www.aema.alberta.ca](http://www.aema.alberta.ca)

### Funding Stream 2: Municipal Affairs – Property Tax Relief

Through its Municipal Affairs Division, the Province has determined that designated municipalities impacted by the June 2013 flood event are eligible to participate in a *Property Tax Relief Program* to offset lost tax revenue for eligible property tax forgiveness offered to 2013 flood disaster-impacted residential and commercial property owners that meet the Province’s criteria. *Calgary is eligible to participate in this program.* The City would be provided a 100% property tax offset for tax forgiveness offered to eligible property owners.

The Province’s Property Tax Relief Program offsets the City’s lost tax revenue on severely flood damaged properties that were rendered uninhabitable for at least 90 days. A Council resolution is required to authorize allowable tax forgiveness to residential and commercial property owners meeting the Province’s eligibility criteria and to authorize participation in the program. Further, Council resolution would be required to memorialize eligible property details such as roll number, legal description, and amount of taxes imposed and forgiven for each property.

In November and December 2013, Calgary’s staff communicated the City’s interest in discussing Calgary’s participation in all sources of 2013 flood disaster recovery funding offered through the Province and the Federal government, including the Tax Relief Program. The City of Calgary engaged Jacobs to determine all funding sources available to the City and respective eligibility criteria. On January 13, 2014, Nicole Boothman-Shepard, Jacobs’ Subject Matter Expert in Disaster Resilience, travelled to Edmonton on behalf of the City of Calgary and met with Marie Juengel, Alberta’s Director of the Municipal Grants, to discuss the Property Tax Relief program.

The purpose of this meeting was to learn detailed eligibility criteria, timelines, and other critical information necessary for Calgary to make an informed decision about the Property Tax Relief program as well as discuss program compliance and effective practice in structuring program implementation, due diligence monitoring, and equitable property taxpayer participation. The following provides information obtained at this meeting as well as guidance published by the Province.

### Available Provincial Funding

The Province has set aside \$84M to support the following funding to support the program:

- 2014 – approximately \$42M (supports 2013 relief)
- 2015 – approximately \$28M
- 2016 – Approximately \$14M

### Deadline

The City must notify the Province of its intent to participate in the program by *early March for 2014 participation.*

### Province of Alberta Requirements for Participation in Program

- The City must elect to provide property tax forgiveness to eligible property owners and elect to participate in the tax offset program administered by Provincial Municipal Affairs through a City Council Resolution as well as submit an application;
- The City must provide the Province with a list of eligible properties, including roll number, legal description, and amount of taxes imposed and forgiven for each property which must be memorialized in a resolution;
- The City must provide evidence that property tax forgiveness was awarded in conformance with criteria to be eligible for the tax offset;
- Tax forgiveness for property owners must meet the program's eligibility criteria:
  1. Proof that the property was severely impacted by the June 2013 flood disaster;
  2. The property owner provides evidence that the property was uninhabited for not fewer than 90 days (criteria specified in appendix);
- The City should provide best available data to the Province on the tax offset it anticipates requesting in 2014, and preferably provide estimates for 2015 and 2016;
- The program does not apply to local improvement levies.

### Recommendation

The City of Calgary should seriously contemplate making tax relief available to its disaster impacted property owners as allowable within the program. It will provide real and durable relief to homeowners and business owners who bore the brunt of the flood devastating impacts.

The compliance criteria, while relatively simple and direct, are nevertheless staff intensive due to the document collection, review and validation of data as well as and year-over-year monitoring. Calgary should be eligible to recover some staffing costs to support this operation Municipal Affairs disaster funding for disaster staff support.

### Key Considerations for Program Participation

- The development of an end-to-end application and approval process;
- Oversight by staff evaluating documentation to assure severe damage through review of allowable documentation (e.g. insurance adjuster reports) and field inspections;
- Assurance that eligible property owners did, in fact, vacate properties for a minimum of 90 days;
- Certification and monitoring to determine if properties eligible for tax forgiveness for greater than 90 days were or are, in fact, continuously vacant;
- Allocation of tax benefits between tax years 2013 and 2014 as well as 2015 and 2016;
- Interaction of this benefit on any adjustments for property depreciation as a result of damages;
- Review, maintenance any archiving of project documentation for three years after project close;
- Data and reporting;
- Special consideration should be given by the recovery staff in consultation with the City's tax, finance and legal divisions concerning:
  - Consideration of benefit where properties are co-owned such as condominiums and corporate properties with multiple legal occupants/groups;

- Treatment of corporate property owners that benefit from any special tax incentives for conducting business in Calgary, if any;
- Eligibility negotiations with the Province for pro-rata forgiveness (e.g. based on square foot vacancy) where a downtown building was vacated on the first floor due to significant damages, but maintained partial operations on upper floors;
- Treatment of eligibility on residential properties that include freestanding or non-permanent structures (e.g. garage, detached art studio, conservatory);
- Eligibility if properties are determined to be eligible but are later bought out by the Province.

#### Province of Alberta Municipal Affairs Contact Information

For key decisions and complex questions governing the program, contact:

Marie Juengel, Director, Municipal Grants  
Grants and Education Property Tax  
Province of Alberta  
17<sup>th</sup> Floor, Commerce Place  
10155 – 102 Street  
Edmonton, Alberta T5J 4L4 Canada  
Tel. 780.422.8105  
Marie.juengel@gov.ab.ca

To initiate application for the program and with general questions about the program, contact:

JD Kliewer  
Manager, Accountability Framework  
Province of Alberta  
17<sup>th</sup> Floor, Commerce Place  
10155 – 102 Street  
Edmonton, Alberta T5J 4L4 Canada  
Tel. 780.422.8118  
Jd.kliewer@gov.ab.ca

## Funding Stream Provisions: Provincial Municipal Affairs – Property Tax Relief

### Information Bulletin: Southern Alberta Flood Response Program PROPERTY TAX RELIEF

#### Overview

- Property Tax Relief funding under the Southern Alberta Flood Response Program is available to offset lost revenues resulting from municipal councils deciding to forgive property tax for property owners who have lost the use of their homes or businesses either permanently or for a prolonged period due to the flood because the property is deemed uninhabitable.

#### Eligibility Criteria

- Funding is available to eligible municipalities for up to three years, beginning with property taxes payable in 2013.
- A property is defined as uninhabitable when it is located in a municipality that declared a State of Local Emergency or in an area where the Province declared a provincial state of emergency and; The building is severely damaged beyond economic repair; or,
- The building is damaged to the extent that a decision is made by the homeowner or business owner (in writing) to rebuild the building as a result of the extent of the costs of repair of damages; or,
- The property cannot be occupied as municipal services formerly available to the property are not accessible; or,
- The building is damaged, requiring extensive repairs or renovations that will make the building uninhabitable for a period of more than 90 days.
- The municipality may cancel or refund all or a part of the amount of taxes levied.
- The cancellation/refund can include both residential and non-residential taxes payable that are levied under Part 10 Division 2 of the *Municipal Government Act*, with the exception of taxable linear properties. Local improvement taxes are not eligible under this funding envelope.
- Municipalities are responsible for collecting appropriate documentation to ensure that properties whose property taxes are cancelled or refunded meet the definition of uninhabitable.
- This could include:
  - The insurance company adjuster's report.
  - A report from a licensed building inspector or appraiser indicating the building is beyond economic repair or damages require extensive repairs or renovations that will make the building uninhabitable for a period of more than 90 days.
  - A remediation report from a licensed expert dated more than 90 days following the flood indicating that the property is now fit for habitation.
  - A Closed Health Order (Order of an Executive Officer of Alberta Health Services) indicating the property was uninhabitable for more than 90 days following the flood.
  - An Active Health Order (Order of an Executive Officer of Alberta Health Services) indicating the property remains uninhabitable for more than 90 days following the flood, along with a certification from the property owner indicating the order has not been closed.
  - A Post Remediation Assessment of Flood Affected Homes completed by Alberta Health Services that lifts a Not Fit for Habitation declaration.
  - Disaster appraisals that were completed for individual properties immediately following the floods to determine the extent of the damage.
  - Other inspections or reports from licensed/certified experts.

- The documentation to be collected by the municipality from individual property owners may be a part of information already collected by the municipality, or submitted to provincial Ministries or agencies.
- The municipality must keep these documents on file for a period of three years, and must provide them to the Province if requested.
- Along with the grant application form, the municipality must provide a copy of the Council's resolution to cancel property taxes for uninhabitable properties.
- The resolution must include roll number, legal description, and amount of taxes imposed and forgiven for each property.

#### Process

- Municipalities must sign a funding agreement with the Province before applications will be reviewed.
- All eligible municipalities with qualifying properties may apply.
- Municipalities are requested to notify Municipal Affairs at the contact information below by October 31, 2013 if they intend to submit an application for property tax relief funding.
- Municipalities must submit an application, along with the council resolution and list of properties with cancelled/refunded taxes, to Municipal Affairs each year to receive funding, once property tax rolls have been finalized and resolutions passed to cancel/refund property taxes.
- Municipal Affairs will review the application, and provide funding if the application meets the eligibility criteria.
- Municipalities must report on the use of the funds received in the previous fiscal year.

Municipal Affairs Local Government Services Division Grants and Education Property Tax Branch Phone: 780-427-2225 Fax: 780-427-9133 Email: [ma.recoverygrants@gov.ab.ca](mailto:ma.recoverygrants@gov.ab.ca) 17th Floor, Commerce Place, 10155 – 102 Street, Edmonton, AB T5J4L4 [www.municipalaffairs.alberta.ca](http://www.municipalaffairs.alberta.ca)

### Funding Stream 3: Municipal Affairs – Municipal Staffing Capacity Not Funded by DRP

#### Overview

- Municipal Staffing Cost funding under the Southern Alberta Flood Response Program is available to assist with *additional staffing* costs relating to flood recovery initiatives.
- This assists with the long term recovery efforts of the community while allowing current staff to continue to provide necessary day-to-day municipal services.
- It appears that Municipal Staffing capacity resources are available for *new hires* to the City to support recovery operations; whereas backfill positions using existing City resources are funding by the DRP. It is recommended that ROC staff reach out to Provincial Municipal Affairs to further clarify the limits of available funding. The following is drawn from publically available resources:

#### Eligibility Criteria

- Flood recovery positions may include, among others: flood recovery managers, public works operators, utility operators, engineers, planners and planning support staff, FCSS and youth workers, and additional financial support staff.
- Municipalities must indicate how the municipality lacks sufficient capacity to manage the flood recovery using their own resources.
- While the application collects estimated costs for three years, grant approvals will be provided for one year at a time, and municipalities will have to apply in subsequent years for continued funding.
- Funding is available in 2013 and 2014 for reasonable incremental staffing costs related to the flood recovery.
- Employees must be utilized for flood recovery-related activities or be used to backfill positions where existing staff have been seconded from the normal duties to address flood-related priorities.
- Support may be provided for any of the following costs:
  - Incremental costs of short-term (up to three months) municipal volunteers (personnel from other municipalities on loan) such as overtime, accommodation, travel and food costs. (Note: the base salary for short-term municipal volunteers is paid by the originating municipality.)
  - Reimbursement of base wage and incremental costs of municipal personnel from other municipalities through secondments or other deployment options that are longer than three months.
  - Hiring of additional full-time or part-time staff for the duration of the recovery.

#### Process

- Municipalities must sign a funding agreement with the Province before applications will be reviewed.
- Municipalities must submit an application to Municipal Affairs to receive funding.
  - The application may request funding for multiple positions on a single application.
  - The application must include a brief description of each position, the period of time the position will be required and supported by provincial funding, and the estimated costs for each position.
- Municipal Affairs will review the application, and provide funding if the application meets the eligibility criteria.
- Municipalities must report on the use of the funds received in the previous fiscal year.



**Province of Alberta Municipal Affairs Contact Information**

For key decisions and complex questions governing the program, contact:

Marie Juengel, Director, Municipal Grants  
Grants and Education Property Tax  
Province of Alberta  
17<sup>th</sup> Floor, Commerce Place  
10155 – 102 Street  
Edmonton, Alberta T5J 4L4 Canada  
Tel. 780.422.8105  
Marie.juengel@gov.ab.ca

To initiate application for the program and with general questions about the program, contact:

JD Kliewer  
Manager, Accountability Framework  
Province of Alberta  
17<sup>th</sup> Floor, Commerce Place  
10155 – 102 Street  
Edmonton, Alberta T5J 4L4 Canada  
Tel. 780.422.8118  
Jd.kliewer@gov.ab.ca

#### Funding Stream 4: Hazard Mitigations & Resiliency

**The Province expects an appropriation of approximately \$2 billion for disaster resilience efforts.**

The Province will run a competitive process at the end of March with awards of funding expected in the second or third quarter of the year. The Province has requested a full listing of small, moderate and large hazard mitigation proposals to be requested by the City.

#### Deadline

**Proposed projects for hazard mitigation and resiliencies related to the watershed are due at the end of March 2014.** The written guidance appears to call for the following by end March 2014:

- Comprehensive community engagement
- Feasibility assessments
- Full cost-benefit analyses
- Cost estimates

#### Program Requirements

Program requirements were released by the Province December 20, 2013 and received by the City on January 14, 2014.

I conferred with Alberta's resiliency director, as a follow up to meetings on January 13<sup>th</sup>. In those meetings, I learned:

- Any and all mitigations should be included that impact the watershed, even those that build on top of a DRP funded repair;
- Soft approaches are strongly preferred to hard approaches;
- Drought must be considered as well as flood conditions;
- The Province will accept an interim report on the progress on the feasibility analysis of the "tunnel" project which is due to produce its analysis in late April;
- A strategic level assessment of infrastructure assets with probable mitigation approaches would be allowed as long as there was adequate information to make sound preliminary appraisals of proposed approaches. Detailed feasibility and substantive community engagement may occur after proposed mitigations are submitted;
- No specific cost-benefit analysis model is proposed so the City may select the best option to meet its needs;
- A triple bottom-line approach - people, environment and economic impacts - is preferable to economic cost driven models;
- Economic cost-benefit calculations should include adverse impacts to Calgary's economy and, therefore, may consider business impacts to reflect true costs of future disasters to the City;
- Engagement with communities impacted upstream and downstream is expected to be part of community-wide considerations.

**The Province should consider elevating a request to Province executives responsible for recovery to push the deadline back, particularly in light of the duration between the due date for proposals and project authorizations.**

**Province of Alberta Flood Recovery Task Force**

Andrew Wilson, Project Manager, Flood Mitigation Secretariat  
Room 205, J.G. O'Donoghue Building  
Edmonton, Alberta T6H 5T6 Canada  
Tel. 587.335.5213  
andrew.wilson2@gov.ab.ca

### Funding Stream 5: Regional Collaboration Program

This program supports strategic activities that improve the viability and long-term sustainability of municipalities through regional collaboration and capacity building. Funding is not tied to the disaster event.

#### Deadline

Applications for the Regional Collaboration component received before **November 30** will be considered in the current fiscal year. Applications received after this date may be deferred to the next fiscal year.

#### Key Program Outcomes

- Significant regional approaches to municipal service delivery and governance;
- Improved overall municipal capacity to respond to municipal priorities and to build and maintain effective intermunicipal relations through joint and collaborative activities; and
- Strong intermunicipal relations that result in strengthened community identities and improved quality of life.

#### Available Provincial Funding

For 2013, the Regional Collaboration Program (RCP) budget has been increased by \$20 million to address regional priorities and support transformational change, bringing the total amount available to \$28.8 million. In addition, \$50 million in funding from the MSI operating program will be gradually realigned to RCP over the next three years, beginning with an additional \$20 million in 2014, \$15 million in 2015, and \$15 million in 2016, bringing the total RCP budget to \$78.8 million by 2016.

#### Regional Collaboration

- Provides support to collaborations of two or more municipalities involved in strategic approaches to regional municipal service delivery and governance, and planning and development activities.

#### Mediation and Cooperative Processes

- Provides support to municipalities to help develop collaborative protocols and processes to avert conflict escalations and to enable municipalities to rely on an agreed-upon process for collaboration.

#### Strategic Initiatives

- Provides limited term support to initiatives that address municipal or intermunicipal needs or circumstances of strategic significance that fall outside the other funding components.

#### Key Considerations for Program Participation

This funding stream, which has not previously been tapped by the City, may provide value in negotiating and delivering regional resilience solutions, including the evaluation of upstream and downstream impacts.

### Contact Information

Municipal Grants Unit, Grants and Education Property Tax Branch  
Alberta Municipal Affairs  
17th Floor, Commerce Place  
10155 - 102 Street  
Edmonton, Alberta T5J 4L4

Tele: 780-427-2225  
Dial 310-0000 for toll-free connection in Alberta  
Fax: 780-422-9133  
E-mail: [rcp.grants@gov.ab.ca](mailto:rcp.grants@gov.ab.ca)

### **Funding Stream 6: Transportation (general/non-disaster specific)**

#### **Funding Stream 6.1: Gas Tax (Local Provincial & Federal)**

This federally-funded program provides support for capital municipal projects designed to maintain or enhance core municipal infrastructure. Funding is not disaster related; however, resilience work may be eligible within the program's existing budget allocations.

Examples of eligible projects include the development of public transit systems, the development of water/wastewater and solid-waste projects, and the design and construction of local road networks.

#### **Available Provincial Funding**

Budget allocation for 2012/13: \$199,503,000

#### **Funding Stream 6.2: Green Transit Initiatives (Green TRIP)**

This application-based program for capital funding supports new public transit projects in the province that will lead to reduced traffic congestion by reducing the number of vehicles on the roads, and thereby reducing greenhouse gas emissions. Eligible initiatives include the development of local, regional and intercity public transit projects.

Funding is not disaster related; however, resilience work may be eligible within the program's existing budget allocations.

#### **Available Provincial Funding**

Budget allocation for 2012/13: \$93,100,000

#### **Contact Information**

Ken Dmytryshyn, P. Eng.  
Transportation, Regional Services Division  
Director, Municipal Programs  
Operations & Planning Branch  
2<sup>nd</sup> Floor, Twin Atria Building  
4999 – 98 Avenue  
Edmonton, Alberta T6B 2X3 Canada  
Tel. 780.415.2148  
ken.dmytryshyn@gov.ab.ca

### Funding Stream 7: Cultural Assets

#### Alberta Historical Resources Foundation - Conservation of Flood-Impacted Historic Resources

A total of \$4.5 million is available to owners of legally protected historic buildings whose properties were impacted by the floods for costs not covered through the Disaster Recovery Program and/or insurance. Funding will cover up to 100% of eligible cash expenditures per historic resource, excluding work eligible for funding through the Disaster Recovery Program and/or insurance.

Conservation includes actions or processes aimed at safeguarding the character-defining elements of a historic resource in order to retain its heritage value and extend its physical life. This may involve one or a combination of these conservation treatments: preservation, rehabilitation, and restoration.

Funding is also provided for architectural and engineering studies and conservation plans associated with the conservation of the historic resource.

A Heritage Conservation Adviser with Alberta Culture will inspect the work to ensure that it conforms to the Standards and Guidelines of Historic Places in Canada.

#### Deadlines

- **April 1, 2014**
- **July 2, 2014**
- **October 1, 2014**
- **January 2, 2015**

#### Alberta Museums Association's (AMA) Museum Flood Funding Program

The Alberta Museums Association's (AMA) Museum Flood Funding Program aims to minimize the short- and long-term effects of the floods on museum collections and prepare institutions for future disaster planning. Funding is supported as part of the Provincial Government's flood recovery strategy, museums and archives were awarded \$6 million to aid in the recovery of Alberta's heritage community.

AMA Institutional Members in good standing affected by floods in Summer 2013 are eligible to apply.

Application deadline: February 14, 2014

Project Area Definitions:

Salvage: direct costs to collections management not covered by the DRP or insurance;

Recovery: Short-term recovery and conservation requirements for museum collections;

Treatment \*Conservation: Long-term recovery and conservation requirements for museum collections;

Preventative \*Conservation: Disaster planning, emergency management and other conservation assessment for future disaster planning, including storage and space requirements.

\*Conservation: "relates to the care of museum objects, and includes preventive measures as well as professional treatments."

The **Intent to Apply Form** is currently being collected via online format and requests information such as type of funding requested (see project area definitions, above), cost estimate(s) and timeline(s) and at the following web address:

<http://www.museums.ab.ca/what-we-do/museum-flood-funding/intent-to-apply.aspx>

#### Archives Society of Alberta (ASA) Flood Relief

On January 27, 2014, Alberta Culture announced that it will be providing funding to the Archives Society of Alberta to assist with the proper care of archival collections impacted by the 2013 floods in Alberta.

#### **Application deadline: February 14, 2014**

The Archives Society of Alberta will be distributing this funding through the following programs: For the 2014-2015 Access to Holdings grant, for which applications are due February 14 2014, the ASA included projects of conservation that could be used by archives impacted by floods. The Access to Holdings grant will continue to include disaster recovery priorities for the 2015-2016 grant years. These grants are only available to ASA Institutional members.

For the 2014-2015 and 2015-2016 years, the ASA will hire a paper conservator. The conservator will assess archives across the province to ensure they have a full disaster preparedness plan and will educate institutional members on how to respond to disaster. The conservator will also be available for institutional members affected by the floods to help assess damage.

The ASA will explore the possibilities of additional initiatives to address broad, long-term conservation strategies and efforts related to flood impacts.

**No application for funding is available, despite the imminent deadline.**

#### Contact Information

Questions regarding these programs should be immediately directed to:

Rene Georgopolis, Executive Director and Archives Advisor

ASA

Tel. 780-424-2697

[reneg@archivesalberta.org](mailto:reneg@archivesalberta.org)



### **Funding Stream 8: Water for Life (general/non-disaster specific)**

This program supports the construction of municipal water supply and treatment facilities and wastewater treatment and disposal facilities. Examples of eligible projects include water treatment plants, wastewater treatment plants, regional water lines, and regional wastewater systems. No disaster specific funding is available; however, funding may include resilience requests within existing budget allocations.

#### **Available Provincial Funding**

Budget allocation for 2012/13:\$170,000,000

#### **Contact Information**

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**Funding Stream 9: Erosion Control**

The City has successfully applied for erosion control grants associated with flood recovery.

The following awards have been announced for the City:

Municipality	Project	*Amount
City of Calgary	Home Road and 52nd Street (on the Bow River)	\$6,275,000
City of Calgary	Inglewood (on the Bow River)	\$1,900,000
City of Calgary	Memorial Drive and 19th Street NW (on the Bow River)	\$1,469,400
City of Calgary	Memorial Drive and Sunnyside NW (on the Bow River)	\$1,909,400
City of Calgary	Diamond Cove (on the Bow River)	\$1,091,400

\* As of December 20, 2013

### Funding Stream 10: MSI Capital (general/non-disaster specific)

This program supports qualifying projects that result in the purchase, construction, development, betterment, rehabilitation or non-routine maintenance of infrastructure that enhances long-term municipal sustainability.

Eligible projects include municipal roads, bridges, public transit, water, wastewater, and storm sewer systems; emergency services facilities and equipment; solid waste management facilities and equipment; regional and community airport facilities and equipment; equipment used to maintain capital assets; and other municipal buildings and facilities such as recreational and sports facilities, libraries, public works buildings, and cultural/community centres.

No disaster-specific funding is available; however, proposed projects may include resilience measures.

### Available Provincial Funding

Budget allocation for 2012/13:\$846,000,000

### Contact Information

Murray Johnson  
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Property Development Branch  
Infrastructure Properties Division  
3<sup>rd</sup> Floor Infrastructure Building  
6950 – 113 Street  
Edmonton, Alberta T6H 5V7 Canada  
Tel. 780.644.2757  
Murray.johnson@gov.ab.ca  
www.municipalaffairs.alberta.ca/MSI.cfm

## Administrative Guidelines

### For grant funding provided under the Southern Alberta Flood Response Program July 2013

#### **Establishment of Guidelines**

These guidelines are established under the Memorandum of Agreement (the Agreement) for grants provided to the municipality by Municipal Affairs under the Southern Alberta Flood Response Program (the Program) that will support municipalities in completing projects to assist in their recovery following the 2013 southern Alberta floods.

#### **Eligible Applicants**

Municipalities that were directly impacted by the floods in Southern Alberta are eligible to apply for funding under this program. For the purpose of this grant, a municipality is defined as a city, town, village, summer village, specialized municipality, municipal district, improvement district, special area, or the Townsite of Redwood Meadows Administration Society. Municipalities may choose to contribute program funds to other municipalities or regional services commissions and non-profit organizations for the purposes of completing eligible projects.

#### **Project Eligibility**

Funding under the program will be aligned to four broad categories: Community Stabilization; Interim Housing; Disaster Recovery Program; and Long-Term Recovery. Eligible projects include projects that are not eligible under the Disaster Recovery Program and that will assist in restoring the municipality to its pre-flood condition. This includes, but is not limited to, reconstruction and rehabilitation of municipally-owned infrastructure, costs of additional staff to assist the municipality in the flood recovery, and other priority projects as deemed eligible under the Program.

Projects must be carried out in accordance with all applicable laws, regulations and generally accepted standards.

In situations where it is not clear whether projects are eligible under the Disaster Recovery Program, Municipal Affairs may request that the municipality submit additional information to support its grant application.

#### **Capital and Operating Projects**

For the purposes of this program, capital projects are those projects that involve the purchase, construction, or rehabilitation of an asset with a useful life greater than one year. For capital projects the capital projects application form should be used.

Operating projects involve any projects that are not capital projects as defined above. The operating projects application form should be used for operating projects.

### **Project Applications**

As provided under the Agreement, the Minister may approve grants to be paid to the municipality to carry out projects that will assist in their recovery following the 2013 southern Alberta floods. The grant process will be based on the submission of brief project applications in a prescribed form prepared by the municipality in consultation with the Assistant Deputy Minister (ADM) Task Force, which is responsible to facilitate, coordinate and plan recovery projects. Municipal Affairs grant advisors will be available to assist with the application process as required.

As set out in Schedule 1 of the Municipal Affairs Grants Regulation (MAGR), project applications are required to provide basic information about the purpose of the proposed project, the project timelines, and an estimate of project costs, and are to be signed by a duly authorized signing officer of the municipality.

### **Review of Project Applications**

Municipal Affairs representatives will evaluate submitted project applications to ensure they meet the requirements of the MAGR and the Agreement, and will prepare a recommendation to the Minister.

### **Approval of Project Applications**

After the review and recommendation process, the Minister will either approve or decline the project application.

The municipality will be advised in writing of the Minister's decision, which may include any special terms and conditions that apply to the project.

### **Payment**

Unless otherwise specified, payment for each approved project will be made to the municipality within two weeks following approval of the grant.

### **Time Period to Use Grant Funds**

The grant funding must be expended on an approved project within the defined Start Date and End Date on the project application form. Funding that is not expended within this period must be returned to the Government of Alberta, unless the project application is amended.

### **Credit Items and Income Earned on Deposited Grant Funds**

The municipality may invest grant funds provided under the Agreement in accordance with the provisions of Section 250 of the *Municipal Government Act*.

Credit items and income earned on deposited grant funds become part of the grant funding available to apply to approved projects.

Credit items include:

- income earned on deposited grants funds;
- the net salvage value on disposal of any material obtained from removal or demolition of any structure of any part of the facility or goods acquired for construction and not used;
- the income from the sale or trade-in of other capital assets that previously received a financial contribution from the Government of Alberta;
- the appraised value of unsold land purchased for a capital project and included in project costs but not required for the project; and
- the funding from other sources such as insurance companies, developers (excluding off-site levies), railway companies, private organizations, and other government agencies (including other provincial government ministries) where such funding has been provided to a project funded under the Agreement.

### **Application of Other Grant Funds**

Funding provided for projects under the Agreement may be used as the municipal contribution to or be combined with funding from other provincial-municipal or federal-municipal grant programs, unless doing so is prohibited by that program. If a municipality chooses to use multiple grant funding sources for a project, it is the responsibility of the municipality to understand the separate requirements of each grant program.

### **Reporting**

The municipality will be required to submit a Statement of Funding and Expenditures (SFE) in a prescribed form for each fiscal year to Municipal Affairs by May 1 of the subsequent year. The SFE will summarize approved grants and financial information for all projects approved under the Agreement, including:

- grant funding carried forward from the previous year, if applicable;
- grant amounts received in the reporting year;
- credit items and income earned on deposited grant funds;
- grant amounts expended in the reporting year; and
- grant funding carried forward to next year.

The municipality may be asked to include additional information for specific projects as stipulated in the approval letter. The SFE is to be signed by a duly authorized signing officer. The municipality's SFE authorization includes a certification that the municipality is in compliance with the terms of the Agreement (including the respective grant approval letter for each project) and the Administrative Guidelines. The SFE may be subject to review by the Provincial Auditor General.

All supporting documentation, such as reports, drawings, and invoices for each project must be retained by the municipality for a minimum of three years following completion of the project.

### **Amendments**

If, during the normal course of events, an approved project changes significantly in either scope, cost, or period of time required to complete the project, the municipality may request that the Minister amend the project. Amendment requests should be made through the submission of a revised project application form.

Amendment requests should be signed by a duly authorized signing officer of the municipality. Upon receipt of an amendment request, a Municipal Affairs representative will review the request and prepare a recommendation for the Minister. After the review and recommendation process, the Minister will either approve or decline the amendment request. The municipality will be advised in writing of the outcome of the request.

If the total eligible costs of the project at completion are less than the approved grant amount, the municipality may request that the Minister re-allocate the unused portion of the grant funding to another project approved under the Agreement.

**Contact Information**

If you have any questions, please contact a Municipal Affairs grant advisor at 780-427-2225 (toll-free by first dialing 310-0000), or via email at [ma.recoverygrants@gov.ab.ca](mailto:ma.recoverygrants@gov.ab.ca).