

## FLOOD RECOVERY TASK FORCE: ALBERTA COMMUNITY RESILIENCY PROGRAM PRIORITY PROJECTS

---

### EXECUTIVE SUMMARY

Administration has developed a list of priority projects for the 2014 September 30 submission to the recently announced Alberta Community Resiliency Program (ACRP), a three year capital funding program by the Province of Alberta for Council's consideration. This cost shared program is intended for municipalities to address resiliency in critical infrastructure and public safety, to primarily mitigate chronic water management issues, and overall community mitigation goals and priorities. The program is for shovel-ready projects, focussing on utility and community infrastructure, and the fortification of municipal buildings and bridges. The funding program has five submission dates and welcomes multiphase projects that are supported by the Statement of Community Priorities. Required capital for the cost shared obligations for the 2014 September 30 submission have been identified.

### ADMINISTRATION RECOMMENDATION(S)

Priorities and Finance Committee recommends that Council:

1. Approve The City's priority projects for the 2014 ACRP submission outlined in Attachment 1.
2. As outlined in Attachment 2:
  - a) Approve the cost share obligations for tax supported 2014 projects (including any projects with multiple phases);
  - b) Approve the 2014 projects from Utilities and Environment Protection (including any multi-phased projects) to be self-funded within the 2015-2018 capital program.
3. Approve the Statement of Community Priorities prepared for The City of Calgary as noted in Attachment 3;
4. Direct Administration to prioritize the ACRP candidate projects beyond 2014 and confirm funding sources for Council no later than 2015 Q1; and
5. Refer as an item of urgent business, the 2014 September 16 Flood Recovery Task Force: Alberta Community Resiliency Program Priority Projects Recommendations to 2014 September 22 Council meeting.

### PREVIOUS COUNCIL DIRECTION / POLICY

On 2013 November 25, during a Special Meeting of Council, Council approved a motion arising: that Administration prepare a report containing a list and cost of the first grouping of resilience flood projects, to return to Council through the Priorities and Finance Committee no later than Q1 2014.

On 2014 April 01, Priorities and Finance Committee received *PFC2014-0282: 2013 Flood Recovery Task Force Update: Resilience Report* that recommended approval for capital funding requested to fund community resiliency projects.

On 2014 April 01, Priorities and Finance Committee received *PFC2014-0279 Flood Mitigation Project for Calgary Zoo*, recommending approval of \$1.2 million for the detailed design phase of the flood mitigation project; to develop and coordinate implementation of a plan to advocate reimbursement by the provincial and federal governments; report back to Council on any funding decisions for the flood mitigation project at the Calgary Zoo and include as part of the Action Plan 2015-2018 with a business plan and budget recommendations.

## **FLOOD RECOVERY TASK FORCE: ALBERTA COMMUNITY RESILIENCY PROGRAM PRIORITY PROJECTS**

---

On 2014 April 08, Priorities and Finance Committee received *PFC2014-0316 2013: Flood Recovery Task Force: Resiliency Recommendations* with a list of projects centered on both community and infrastructure, endeavouring to make The City of Calgary more resilient in the face of natural disasters.

Council carried the motion to approve projects requesting immediate funding and approve the capital budget, for community and infrastructure projects, funded from the Fiscal Stability Reserve (FSR). Additionally, approval was granted for FSR funds to be allocated to a staffing budget and to hire additional recovery staff.

On 2014 May 20, Priorities and Finance Committee received *PFC2014-0442: Priority Recommendations for Provincial Mitigation/Resiliency Program Submission – Deferral Request*.

On 2014 July 23, Council received *PFC2014-0515: 2013 Flood Recovery Task Force: Recovery and Resiliency Update Report*. Council directed Administration to report to Priorities and Finance Committee no later than 2014 September 16 with a prioritized list of resiliency projects, and associated costs, to be submitted to the Alberta Community Resiliency Program (ACRP) for funding.

### **BACKGROUND**

The 2013 Alberta flood left the City of Calgary with significant financial, property and infrastructure damage. Over the last year, there has been an increasing emphasis on resiliency, in our infrastructure and for our community, towards extreme weather events. In The City's recovery efforts, 223 projects have been identified to date, 90 are complete or substantially complete and another 86 are underway.

In the face of disasters, unpredictability is a given, but being able to mitigate against possible risks would position the Government of Alberta at the forefront if another event were to occur. Funding continues to be sought for projects focusing on improving resiliency, as was recognized following the floods. ACRP is a recently announced funding program administered by the Resilience and Mitigation Branch of Alberta Environment and Sustainable Resource Development. It was created to assist municipalities in the development of long-term resilience against water management events such as flooding and drought. The program is valued at \$325 million distributed over three years to municipalities across Alberta.

Five application deadlines have been set and submitted projects from across the province will be evaluated and prioritized. 2014 September 30 is the first deadline followed by two application deadlines per fiscal year: March 31 and September 30 of both 2015 and 2016. The prioritization of projects and allocation of funds is based on projects satisfying the provincial criteria and meeting the Statement of Community Priorities, developed by each municipality. The provincial criteria stress that projects must consider protecting critical infrastructure and public safety as it pertains to water management.

Through an application to ACRP, The City should aim to maximize the funding opportunities for eligible projects. With critical infrastructure sustaining immense damage following the floods,

## **FLOOD RECOVERY TASK FORCE: ALBERTA COMMUNITY RESILIENCY PROGRAM PRIORITY PROJECTS**

---

many projects should qualify to receive funding. However, in order to be eligible, projects must also be shovel-ready, or if started, not substantially complete by 2014 July 1. Projects can be submitted for funding during any of the application windows, provided a preliminary engineering report and risk assessment can support the application. Multi-phased projects are encouraged, as funding can be granted for a project incrementally throughout the three year program. The funding model requires cost-sharing, whereby a project with a capital budget under \$3 million will be 90 per cent funded by ACRP, while the remaining 10 per cent must be covered by The City. Approved projects over \$3 million dollars will be subject to a 70-30 cost-share.

### **INVESTIGATION: ALTERNATIVES AND ANALYSIS**

Resiliency, as defined by the Expert Management Panel on River Flood Mitigation, is "...the capacity to endure and recover from disruptive events. Resilience requires appropriate action before, during and after an event to minimize negative effects. A more resilient city suffers less impact when disasters occur and recovers more quickly." Resilient systems should be composed of core characteristics such as constant learning, rapid rebound, limited or safe failure, flexibility and spare capacity, and they are important considerations for Calgary in the future as the city transitions from a recovering community to a more resilient one.

In September 2013, a process to evaluate and prioritize flood related City projects, for recovery and resiliency of infrastructure and operations, was implemented by Administration. The top three priorities for 2014 included: the immediate needs for public safety, protecting key vulnerable areas or populations and restoring critical infrastructure or key operations. The fourth priority was restoring or enhancing flood impacted infrastructure and building resiliency or redundancy to improve response or capability to handle major disruptive events. The planning and development of the 2015-2018 business plan and budgets would be the appropriate time to integrate the resiliency priority projects into planning for the next four years.

In anticipation for Action Plan 2015-2018, Council approved a number of priorities for the next four year business and budget cycle. Two priorities address flooding and resiliency: N2 – *Build resiliency to flooding*; and N3 – *Enhance The City's capacity and resiliency to prepare for and respond to pandemics, natural disasters and emergency situations*. At this time, The City does not have an approved corporate strategy for resiliency, nor a defined funding source(s) to pursue resiliency initiatives and grant programs. Any current recovery or resiliency initiatives not covered by Disaster Recovery Program (DRP) or from insurance, must have funds allocated for resiliency purposes so that business units may draw from them if their submitted project is successful.

In the short-term, there are funding opportunities for Calgary to move towards becoming a more resilient city. The governments of Alberta and Canada have introduced cost share funding programs for the construction of more resilient infrastructure, in addition to the research and the education of watershed resiliency and restoration. The City of Calgary would like to take advantage of the funding opportunities, as it takes further steps towards resiliency, and many of the identified priority projects remain unfunded.

## **FLOOD RECOVERY TASK FORCE: ALBERTA COMMUNITY RESILIENCY PROGRAM PRIORITY PROJECTS**

---

On 2014 June 23, Council gave direction to Administration to apply to the Building Canada Fund for three projects, one of which was resiliency based. In July, the Government of Alberta introduced a three year cost sharing program, *Alberta Community Resiliency Program (ACRP)*, for construction-ready municipal projects. In August, the Government of Alberta released two additional resiliency funding programs, which have some opportunity for municipalities to apply for resiliency funding towards watershed and riparian restoration. The other funding programs are the Watershed Resiliency and Restoration Program (WRRP) to improve watershed function through the creation and enhancement of natural systems and FISHERIES, which is focussed on restoring disturbed habitats and mitigate the impacts to fish resulting from flood recovery work.

The ACRP is a cost sharing program focused on critical infrastructure and public safety for utilities such as water, wastewater and stormwater, and electricity distribution. All candidate projects eligible for funding must be incorporated into the 'Statement of Community Priorities' for The City (Attachment #3). The Statement of Community Priorities declares what is important to Calgary for the next three years with respect to critical infrastructure and public safety, and it will be the basis upon which our applications to the program will be evaluated. The priorities for The City over the next three years focus on water management initiatives intended to keep water in the rivers and improve the overall resiliency of the city.

The approach undertaken by Administration to prioritize projects for The City was purposeful and intentional. The priority projects focus on barriers in the rivers, bridges, dams, riparian restoration and resiliency in critical municipal infrastructure. Water management priority projects include constructing permanent flood barriers, improving and upgrading stormwater outfalls pump and lift stations, infrastructure improvements at the Glenmore Dam, enhancing resiliency for municipal infrastructure including vehicle and pedestrian bridges, improvements to mechanical infrastructure, and the addition of storm drainage around critical municipal buildings. Attachment #1 itemizes the priority projects by ranking. The ranking system was created based on the priorities of ACRP with consideration of the 27 recommendations from the Expert Management Panel on River Flood Mitigation. All projects across The Corporation were evaluated based on the criteria in the ranking system to develop The City's 2014 priority projects.

On 2014 April 01, Council directed Administration to pursue federal and provincial funding for the flood mitigation project at the Calgary Zoo and report back regarding any funding decisions. Resiliency efforts for the Calgary Zoo are significant to improve the setting and safety for the animals, and the corresponding administrative responsibilities including a sub-surface cut-off wall with pumps and a berm, in order to manage future high water events. The budget is \$23.8M. All funding sources to accomplish these improvements are being sought from The City and the Province. The Calgary Zoo has received adequate funds to complete the detailed design from the Province's FREC (Flood Recovery Erosion Control) program. The completion of the detailed design would provide the necessary specifications benefitting future applications to ACRP for the Calgary Zoo project. A report following completion of the detailed design phase may be brought back to Council to confirm the ACRP eligibility and additional funding strategy required prior to 2015 March.

## **FLOOD RECOVERY TASK FORCE: ALBERTA COMMUNITY RESILIENCY PROGRAM PRIORITY PROJECTS**

---

ACRP will not meet all of the financial needs of the priority projects in The City and in our communities. It would be challenging to proceed with The City resiliency priorities without alternate funding sources. On 2014 June 23, Priorities and Finance Committee received the final report from the Expert Management Panel on River Flood Mitigation with 27 recommendations aimed at making Calgary more resilient to flooding. In 2014 October, a report will be brought to Priorities and Finance Committee outlining resource requirements and recommendations for actions in order for the 27 recommendations to be initiated in 2015-2018 Action Plan. Administration continues to focus and refine resiliency goals, strategies and optimize funding opportunities. Until such time, Council will consider The City's priorities for resiliency and efforts to meet funding opportunities for 2014 September 30.

Resiliency projects that have been identified for possible inclusion in ACRP are improvements for flood mitigation at the Bonnybrook and Fish Creek Wastewater Treatment Plants, permanent flood barriers on the Bow and Elbow rivers to protect communities, as well as critical transportation and transit infrastructure; municipal and critical infrastructure including power and heat, riparian restoration sites plus infrastructure for The City of Calgary Civic Partners.

### **Stakeholder Engagement, Research and Communication**

Stakeholder engagement has been ongoing through a variety of initiatives over the past 14 months, including the open houses sponsored by the Recovery Operations Centre (ROC) and the investigative work of the Expert Management Panel on River Flood Mitigation. Additional stakeholder outreach will be a component of future capital construction programs, as necessary. A well-established, on-going working relationship exists with the Province as work continues through policy reviews, symposiums, direct meetings, the Expert Management Panel on River Flood Mitigation's recommendations and other regional initiatives that affect a broader audience in the watershed.

Resiliency is an important component for sustainability in our community to empower, reduce impact and facilitate a quicker recovery from future disaster. Resiliency measures will need to include initiatives in the community for both citizens and businesses, in addition to The City's priorities. Future public consultation will be a key component to a resiliency strategy to establish priorities for capital and to improve the resiliency for The City over time.

Community Resiliency Table is an initiative of Calgary's non-profit sector over the past year, led by the United Way. It is a plan for the future "to ensure effective planning and response to diverse emergencies, disasters and/or major interruptions by building preparedness and supporting enhanced coordination and communication between neighbourhoods, non-profits and government systems." Calgary Economic Development, the Calgary Chamber of Commerce and Calgary Emergency Management Agency (CEMA) have recently announced a joint initiative for outreach to the business community to develop business continuity strategies. These approaches, combined with physical mitigation against future disaster, contribute to a more resilient Calgary.

## **FLOOD RECOVERY TASK FORCE: ALBERTA COMMUNITY RESILIENCY PROGRAM PRIORITY PROJECTS**

---

### **Strategic Alignment**

This report aligns with the Municipal Development Plan (MDP), the Calgary Transportation Plan (CTP), the Municipal Emergency Plan (MEP), the 2020 Sustainability Direction and CEMA's Comprehensive Emergency Management model. Council has also identified flood resiliency (N2) as one of its priorities for Action Plan 2015-18.

In other comparable cities around the globe, indications are investing in resiliency and being more resilient has enabled communities to recover quicker from events, reducing the need for mitigation. Calgary's success for resiliency in the future, will be its inter-relatedness and integration, and should align with existing strategies in concert with partners.

### **Social, Environmental, Economic (External)**

The Triple Bottom Line (TBL) is repeatedly referenced in literature regarding disaster recovery and resilience. The ROC Task Force has centered its key result areas within the 2013 Flood Recovery Framework on the TBL sustainable development principles. The social impacts of the flood event continue to be monitored and supported through ongoing liaison with directly impacted communities, Council Members' offices, calls to 311 and 211 and the strong network of relationships between The City of Calgary and service agencies within Calgary.

Environmental impacts continue to be identified and assessed. The City of Calgary continues to work with other orders of government to understand the impacts, and to identify next steps and responsibilities in repair and mitigation, specifically with respect to overall water management in Alberta. Community resiliency and business continuity initiatives have made inroads to strengthen the resiliency over the last year, building on our partnerships and relationships of our community's social providers and business community.

### **Financial Capacity**

#### **Current and Future Operating Budget:**

Recovery efforts have been ongoing since the flood of 2013. Many of these projects have incorporated resiliency elements to minimize impacts in future events, and there will be no additional operating dollars required. The development of a flood resiliency framework is being considered by Administration as part of the Expert Management Panel on River Flood Mitigation and will be addressed in the October report.

#### **Current and Future Capital Budget:**

ACRP is a cost sharing program between the Province and municipalities in Alberta. The grant program is for 'shovel-ready' capital projects, and the municipal funding share is dependent on the total cost of a project: 10 per cent for a project up to \$3M and 30 per cent for a project over \$3M. As efforts regarding flood recovery continue, many of the capital projects have incorporated components of resiliency in their specifications for preliminary engineering and risk assessment. The resiliency components of these projects would be eligible for this program. Some of the other projects that will improve infrastructure resiliency have also been integrated into the departmental infrastructure investment plans.

## **FLOOD RECOVERY TASK FORCE: ALBERTA COMMUNITY RESILIENCY PROGRAM PRIORITY PROJECTS**

---

The financial obligations of The City, if successful in the submission as presented in Attachment 1, is outlined in Attachment 2. In the report PFC2014-0625 *Capital and Operating Budget Revisions Report For The Period 2014 Jan 1 to June 30* at today's meeting, a recommendation is before the Committee for consideration to allocate funds available for resiliency efforts in cost share grant programs. If this recommendation is ultimately approved by Council, the cost share funds would be available for the approved projects submitted through the ARCP program. The cost share portion for the Utilities and Environmental Protection (UEP) projects identified in Attachment #1 can be funded by leveraging funding that is included in the capital budget recommendation of Action Plan 2015-2018. Reprioritization of the capital program or additional capital budget approvals may be required at a future date.

### **Risk Assessment**

The City faces significant risks down the road if it fails to consider resiliency options now and in the future. Failure to consider resiliency will increase The City's vulnerability to future weather related events, such as floods, drought, severe winter and summer storms, and hinder its ability to support citizens when disaster strikes. While these risks are recognized and are being managed through the best efforts of Administration, the continued support of Council is needed in order to better manage the risks. The City's need for resilient critical infrastructure and infrastructure for public safety far exceeds the funding available in the Alberta Community Resiliency Program. Securing other funding sources will be necessary to fully achieve the desired outcome for resiliency.

Other risks would include, the risk of loss of public confidence and corporate reputation due to a failure to address public infrastructure resilience, provide correct and consistent information effectively and deliver services that citizens have come to expect (both flood related and regular operations). If The City does not demonstrate to its insurers that it intends to look for ways to reduce the likelihood of a flood loss or mitigate the amount of damage from a flood, The City may be unable to purchase flood insurance in the future, or the cost for this insurance will be prohibitive. If The City shows the insurance industry that it is taking positive steps by implementing resiliency projects and initiatives, the insurers may continue to offer flood coverage and the cost of the coverage will hopefully reduce over time.

### **REASON(S) FOR RECOMMENDATION(S):**

The 2013 Alberta floods significantly impacted critical infrastructure in The City of Calgary, leaving the work ahead extensive and costly. This event reaffirms the ability of extreme weather to hit without warning and puts an emphasis on the importance of mitigating against, and being resilient towards, such challenges. Administration is presenting a list of ACRP eligible and prioritized projects that address resiliency for critical infrastructure and public safety, along with a schedule of anticipated funding requests for 2014. Potential projects for future years will be assessed and recommended no later than 2015 March. In approving the Statement of Community Priorities, projects can be prioritized across business units based on the priority areas of The City of Calgary.

**FLOOD RECOVERY TASK FORCE: ALBERTA COMMUNITY RESILIENCY PROGRAM  
PRIORITY PROJECTS**

---

**ATTACHMENT(S)**

1. Schedule of The City of Calgary Resiliency 2014 Projects for Alberta Community Resiliency Program
2. Alberta Community Resiliency Program Cost Share Requirements
3. City of Calgary Statement of Community Priorities