EXECUTIVE SUMMARY

The City has demonstrated a commitment to flood resilience and flood readiness projects. The Government of Alberta's Alberta Community Resilience Program (ACRP) approved funding for four resiliency projects for \$14.89M from the 2014 ACRP submission. Some projects from the first submission remain eligible and unfunded due to oversubscription of the ACRP. A proposed projects list for the 2015 September 30 ACRP submission date is provided for Council's approval. A Community Resilience and Mitigation Assessment outlining The City of Calgary efforts to identify risks, manage vulnerabilities and extend a broad range of efforts to reduce levels of future flood impacts is completed as part of the submission.

ADMINISTRATION RECOMMENDATION(S)

That the Priorities and Finance Committee recommends that Council:

- 1. Approve the resiliency project list for the 2015 September 30 submission for the Alberta Community Resilience Program (Attachment 1); and
- Receive this report as an item of Urgent Business for the 2015 September 14 Meeting of Council to provide Administration time to complete the submission by the Program deadline of 2015 September 30.

PREVIOUS COUNCIL DIRECTION / POLICY

On 2013 July 02, the Priorities and Finance Committee received the first Flood Status Update regarding the 2013 flood. Since that time, a significant number of reports have been brought to Council by Administration including: update reports from the Water Expert Management Panel on River Flood Mitigation; Flood Hazard Area land use policy update reports; grant programs on permit fees and property tax relief reports; flood-related budget impacts; annual report on Flood Resiliency and Mitigation; and resiliency project recommendations. A highlight of pertinent reports and previous Council direction are identified in Attachment 2.

BACKGROUND

In 2014, the Government of Alberta announced the ACRP, a cost share funding program to support communities in the development of long-term resilience to flood and drought events, while supporting integrated planning and healthy functioning watersheds. The recently released ACRP criteria specifies this funding program is designed to foster long-term resilience planning, empower municipalities to champion hazard mitigation measures, and promote a more resilient Alberta. The ACRP investment focus is on projects that minimize risks to critical infrastructure from flooding and drought, and help ensure public safety.

The first round of funding from ACRP was announced 2015 April. Several projects were deemed eligible but remain unfunded provincially. The City of Calgary was granted approximately \$14.89M for new elevated hoists for the Glenmore Dam; lower deck flood barrier improvements for the Centre Street Bridge; a permanent flood barrier along Heritage Drive SE; and flood gates for priority stormwater outfalls (Attachment 3).

The next submission date is 2015 September 30. The Government of Alberta has indicated there is approximately \$30M in grant funding available province wide through the ACRP for 2016. The criteria for the ACRP focuses on the protection of critical infrastructure from flooding

and drought events, and helps ensure public safety. Administration has developed comparable evaluative criteria to assist in the development of Calgary's recommended projects. The prioritization of projects has been refined through ongoing dialogue with the Government of Alberta.

INVESTIGATION: ALTERNATIVES AND ANALYSIS

Resiliency, as defined by the President of the Rockefeller Foundation, Judith Rodin is: "The capacity of any entity – an individual, a community, an organization or a natural system to prepare for disruptions, to recover from shocks and stresses and to adapt and grow from a disruptive experience." A more resilient city suffers less impact when disasters occur and recovers more quickly. Alternate funding sources could increase the rate of implementation for The City's resiliency priorities. An overall corporate funding strategy to support resiliency would be beneficial. Administration continues to focus and refine resiliency goals and strategies to optimize funding opportunities.

Council approved the allocation of \$15.7M from the Fiscal Stability Reserve (FSR) to support a first list of flood mitigation projects (*PFC2014-0316 Flood Recovery Task Force: Resiliency Recommendations*).

The ACRP is a viable funding program for The City to pursue to meet some of its flood resilience capital needs. The guidelines for the program were modified from a bi-annual submission to an annual submission process as well as the program was modified from three years at \$325M to 10 years at \$500M. Until there is an approved provincial budget, which is anticipated this fall, the funding allocation for the Province of Alberta has been reduced to only \$30M for this fiscal year.

In developing The City's 2015 list of priority projects, a review was undertaken of the project list submitted in 2014. Three projects from The City's submission in 2014 remain on the ACRP eligible but unfunded projects for the 2015 ACRP: the Municipal Complex site drainage program, Sunnyside pump station #1, and the Deerfoot permanent flood barrier. Three projects have been removed from the list submitted in 2014 as they are complete and time has elapsed for eligibility (Elbow River Pedestrian Bridges resiliency), are no longer being pursued for external funding (electrical panel move Historic City Hall) or have been deemed ineligible by the Government of Alberta (ENMAX substation mitigation).

Resiliency efforts are significant for the safety of The City-owned St George's Island and the citizens, employees and animals at the Calgary Zoo. With Council's approval and approved funding from the Province's Flood Erosion Control (FREC) program, Administration undertook the detailed design of the flood mitigation project at the Calgary Zoo. In addition, Council directed Administration to pursue federal and provincial funding then report back on detailed design and any funding decisions. Detailed design is near completion and Administration is ready to proceed with the construction phase. The detailed design includes a 360 degree cofferdam around St. George's Island with walls to the 2013 flood level plus one metre of freeboard and a supplementary pumping system to manage residual seepage and stormwater, in order to manage future high water events. Budget for the construction phase is \$25M. It

should be noted that demonstrating resilience at the Calgary Zoo is also important from an insurance coverage perspective. It has been signalled that the resiliency initiatives at the Calgary Zoo would be eligible under the ACRP; however, it is unlikely to receive funding due to heavy subscription and alignment with eligibility criteria of this funding program across the province.

Administration has prepared a Community Resilience and Mitigation Assessment (Attachment 4) and a proposed list of capital projects for the 2015 ACRP submission. These projects meet the intent and eligibility of the program, promote public safety, protect critical infrastructure, support The City's resilience objectives and help demonstrate to The City's insurers a commitment to reducing the impact of future events.

Stakeholder Engagement, Research and Communication

Stakeholder engagement began during the open houses sponsored by the Recovery Operations Centre (ROC) in 2013 and 2014 in addition to 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 funding becomes available. A wellestablished, on-going working relationship exists between The City and the Province as work continues through policy reviews, symposia, provincial initiatives such as 'Room for the River', direct face-to-face meetings, the Expert Management Panel on River Flood Mitigation's recommendations and other regional initiatives that affect a broader audience in the Bow and Elbow watersheds. The Annual Report on the Flood Resiliency and Mitigation Plan was presented to Utilities and Corporate Services Committee in 2015 May (*UCS2015-0082 Flood Resiliency and Mitigation 2014 Annual Report*).

Resiliency is an important component for sustainability in our community to empower, reduce impact and enable a quicker rebound from future disasters. Resiliency measures will need to include initiatives in the community for citizens, organizations and businesses in addition to The City's priorities. Future consultation with the public and vested stakeholders has been and will continue to be a key component to developing a resiliency strategy to establish priorities, exchange information and to improve the resiliency of Calgary over time.

Strategic Alignment

Council approved a number of priorities for Action Plan 2015-2018, two of these 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*.

Resiliency efforts for The City of Calgary are underway in the following areas: land use regulation, infrastructure, community resiliency and flood resiliency planning. Resiliency provisions within The City's Municipal Development Plan (MDP) and Land Use Bylaw have been strengthened to ensure housing within the Flood Hazard Area is redeveloped to increase resiliency to future flood events. Council has also identified flood resiliency (N2) as one of its priorities for Action Plan 2015-18 with 19 actions identified across The Corporation to be fulfilled over this timeframe.

Social, Environmental, Economic (External)

The Triple Bottom Line (TBL) is repeatedly referenced in literature regarding disaster recovery and resilience. The ROC Task Force has centred its key result areas within the 2013 Flood Recovery Framework on the TBL sustainable development principles. The social impacts of the flood 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 the city. 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 and fish habitat. Community resiliency and business continuity initiatives have made inroads to strengthen resiliency over the last year, building on our partnerships and relationships with our community's social providers, the business community as well as other orders of government.

Financial Capacity

Current and Future Operating Budget:

No additional operating dollars are required.

Current and Future Capital Budget:

ACRP, a cost-sharing program between the Province and municipalities in Alberta is for 'shovelready' capital projects, and the municipal funding share is dependent on the total cost of a project. Earlier this year, The City was notified it will receive funding for four projects submitted in 2014, totalling \$14.89M. Those four projects will not have capital budget implications since all cost sharing for ACRP funded projects from UEP will be managed through a reprioritization of the existing capital budget. A budget adjustment request will be forthcoming to increase the Council approved budget for the four approved projects.

Any future approvals for tax supported projects have funding set aside in the Reserve for Future Capital (RFC) to be used as The City's share in cost share resiliency. For UEP self-supported projects, The City's share will be funded through the existing capital budget, or through capital reprioritization. In order to take advantage of funding programs from all orders of government in the future, a funding strategy would enable The City to realize resiliency needs of Calgary communities in an effective and responsive manner as opportunities arise.

Risk Assessment

The City faces future significant risks 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 like floods, drought, severe winter and summer storms, and likely hinder The City's ability to support citizens when disaster strikes. While these risks are recognized and continue to be managed through the best efforts of Administration, ongoing support of Council is needed in order to better manage the risks.

The City's need for resilient critical infrastructure and public safety far exceeds the funding available in current funding programs. As Administration looks at resiliency in an all hazards

approach, a strategy incorporating resiliency measures into decisions for future infrastructure for The City and a funding strategy to secure other funding sources will be necessary to achieve the desired outcome.

Other municipal risks would include the risk of loss of public confidence and corporate reputation due to a failure to address public infrastructure resilience. The City needs to 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. If not, The City may be unable to purchase flood insurance for some sites in the future, or the cost for this insurance may be prohibitive. If The City demonstrates to the insurance industry that it is taking proactive steps by implementing resiliency projects and initiatives, the insurers may continue to offer flood coverage and the relative cost of the coverage may potentially reduce over time.

REASON(S) FOR RECOMMENDATION(S):

Resiliency initiatives are underway across The Corporation using a variety of funding sources. Administration has prepared a list of resilience projects for ACRP's (cost shared grant program for watershed mitigation and resilience projects) 2015 September 30 submission date.

ATTACHMENT(S)

- 1. City of Calgary 2015 ACRP Project Submission
- 2. Previous Council Direction / Policy
- 3. Background from 2014 ACRP City of Calgary Project Submission
- 4. Community Resilience and Mitigation Assessment