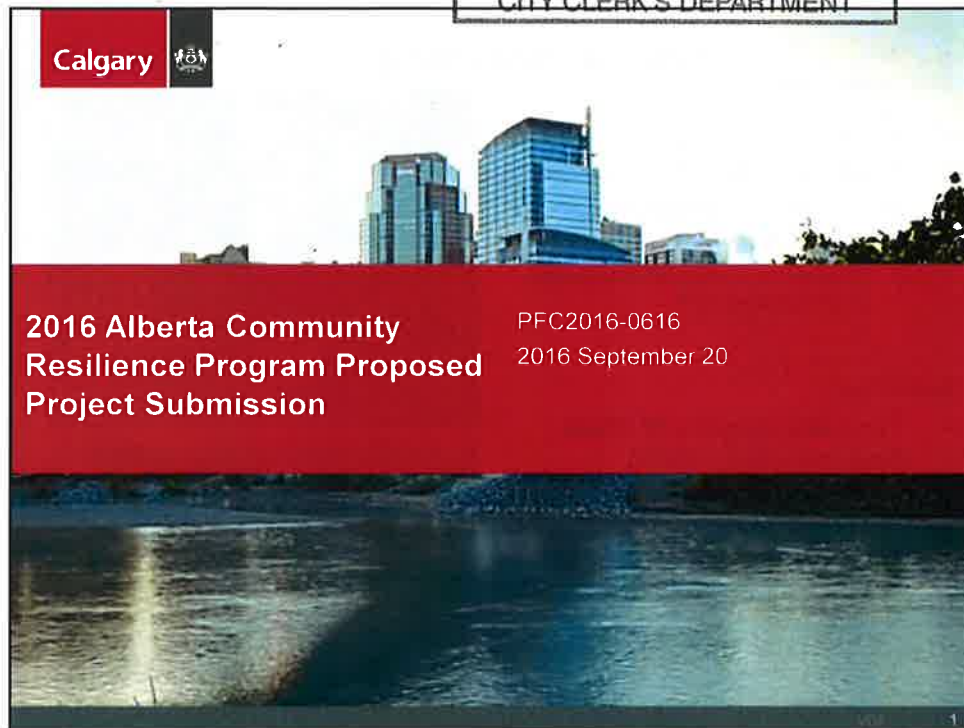



SEP 20 2016

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Distribution
CITY CLERK'S DEPARTMENT

19/09/2016





ACRP - Part of the Flood Resilience Plan

- The City continues working closely with the Province
 - Engaged in Springbank off-stream Reservoir design
 - Co-chair of the Bow River Advisory Committee, looking at flood and drought options for Bow River
 - Province/TransAlta reservoir operations – 5 year agreement
 - Collaborating on mapping, policy, forecasting, watershed management
- Secured \$150 million dedicated to Calgary, 10 year commitment at \$15 million per year through the Alberta Community Resilience Program (ACRP).
- Already received \$27.7 million from ACRP funding for six ongoing flood projects.
- Overall flood mitigation plan recommendations to Council in Q1 2017.

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Calgary



Watershed Scale Mitigation

Elbow River

- Glenmore Gates (20%) (2019)
- Springbank Off-stream Reservoir (80%) (2020)
 - Undergoing Federal Environmental Impact Assessment



Bow River

- TransAlta operation of Ghost Reservoir (20%) (2016)
- Bow Working Group (on-going)
- Upstream mitigation exceeds ACRP funding



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Calgary



Previously Funded ACRP Projects

Year	Project title	Description	Funds Awarded (000's)
2015	Bonnybrook Wastewater Treatment Plant - Flood Mitigation Program	Construction of a flood protection berm along the eastern perimeter of the Bonnybrook Wastewater Treatment Plant, with groundwater and stormwater management enhancement to protect the plant from flooding.	\$ 11,456
2015	West Eau Claire Flood Barrier	Construction of a flood barrier along the Bow River downstream of Eau Claire to the Peace Bridge. The berm will be designed to the 1:200 year flood level.	\$ 1,377
2014	Glenmore Dam Infrastructure Improvement Program - Elevated Holsts	Retrofits to the Glenmore Dam included added flood attenuation/resilience measures for a 1:45 to 1:50 year event. This will also maximize response time for evacuation and damage controls downstream.	\$ 7,600
2014	Stormwater outfall improvements (gates)	Upgrades to resilience components of existing stormwater outfalls and adding flood gates to priority outfalls where they currently do not exist. Project will span 15 outfalls in 12 communities across the city.	\$ 1,800
2014	Centre Street Bridge Lower Deck Flood Barrier	Permanent flood barrier on the lower deck of Centre Street Bridge to prevent inundation of floodwaters in Chinatown from Memorial Drive up to a 1:200 year flood event.	\$ 1,530
2014	Heritage Drive Permanent Flood Barrier	Construction of a permanent flood barrier to protect overland flow on Heritage Drive at Glenmore Trail Underpass during a 1:100 event.	\$ 3,960
	Total		\$ 27,723

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2016 Project Submission

Projects selected on the following considerations:

- ACRP eligibility criteria.
- Minimal impact on drivers for upstream mitigation.
- Upstream mitigation – no regrets / redundancy.
- Cost-benefit and return on investment positive.
- All communities at risk are considered.
- Uncertain Provincial and Federal regulatory future.
- Current economic climate.
- No impacts on development of long-term mitigation plan.
- Project delivery and sequencing requirements or opportunities.



2016 Project Submission

City 'matching' funds:

- 10% for projects under \$3M
- 30% for projects over \$3M

All projects except for two are already included in capital budgets

Projects list exceeds \$15M annual envelope:

- Federal funding boost possible through New Building Canada Fund.
- Flexibility to re-evaluate priorities depending on ACRP approvals.

Calgary		2016 Project Submission		
Project title	Description	Cost Estimate (000's)	In Existing Capital Budget?	
Sunnyside Pumpstation #2	Resilience upgrades to the existing lift station in the community of Sunnyside to ensure pump station operation during high water events and help dewater the community.	\$ 9,910	Y	
West Eau Claire Park funding extension	Funding extension for 2015 ACRP project. Permanent flood barrier on south bank of Bow River between the Peace Bridge abutment and Eau Claire Plaza to protect a spill point into Downtown up to a 200-year event.	\$ 800	Y	
Harvie Passage Rehabilitation Work	Additional erosion protection and construction of new vehicle access route to western headworks diversion weir at Harvey Passage. Access route will allow Alberta Environment to operate outfall gates and protect Deerfoot Trail from flooding.	\$ 662	N	
Roxboro Resilience Upgrades	Resilience upgrades to the sanitary lift station above code of practice and lining of sanitary sewer pipes to ensure continued lift station operation and prevent inflow, infiltration, and inundation during high water events.	\$ 4,128	Y	
Sunnyside Pumpstation #1	A new pump station to help dewater the community during high river events. This will be located in the lowest elevation in the drainage area and take the overflow from other pump stations.	\$ 4,000	N	
Total		\$ 19,500		
Total ACRP Request		\$15,742		
City Cost Share		\$3,758		

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Calgary		Flood Resiliency and Mitigation Measures	
Timeframe	City of Calgary	Provincial Government	
Short Term Completed or on-going	-Emergency response -Public Education and Awareness -Technical studies -Mapping, modeling -Local barriers/resilience improvements (including ACRP)	-Operations of reservoirs (e.g. Agreement with AEP and TransAlta) -Flood Hazard Mapping	
Medium Term (4-10yrs) Planned or under evaluation	-Glenmore Gates -Bonnybrook berm -Local barriers -Drainage system resilience -Land use policies	-Springbank Off-Stream Reservoir -Flood Insurance policy changes -Building Code amendments -National flood policy -Provincial flood policy	
Long Term (10+ years) Under evaluation	-Land use policies and planning -Local Barriers	-Upstream storage on the Bow	

Uncertainty

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Calgary



Administration Recommendation

That the Priorities and Finance Committee:

1. Approve the resiliency project list for the 2016 September 30 submission for the Alberta Community Resilience Program;
2. Receive this report as an item of Urgent Business for the 2016 September 26 Meeting of Council to provide Administration time to complete the submission by the Program deadline of 2016 September 30.



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2016 Alberta Community Resilience Program Proposed Project Submission

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