

Calgary



2019 Flood Resiliency and Mitigation Annual Update

UCS2020-0372

ISC: Unrestricted

SPC on Utilities and Corporate Services

15 April 2020





2019 and 2020 Seasonal Conditions

2019

Below average snow pack and early precipitation

Water levels on Bow and Elbow normal throughout the year

One High Streamflow Advisory (June)

No emergency response activities were required

2020

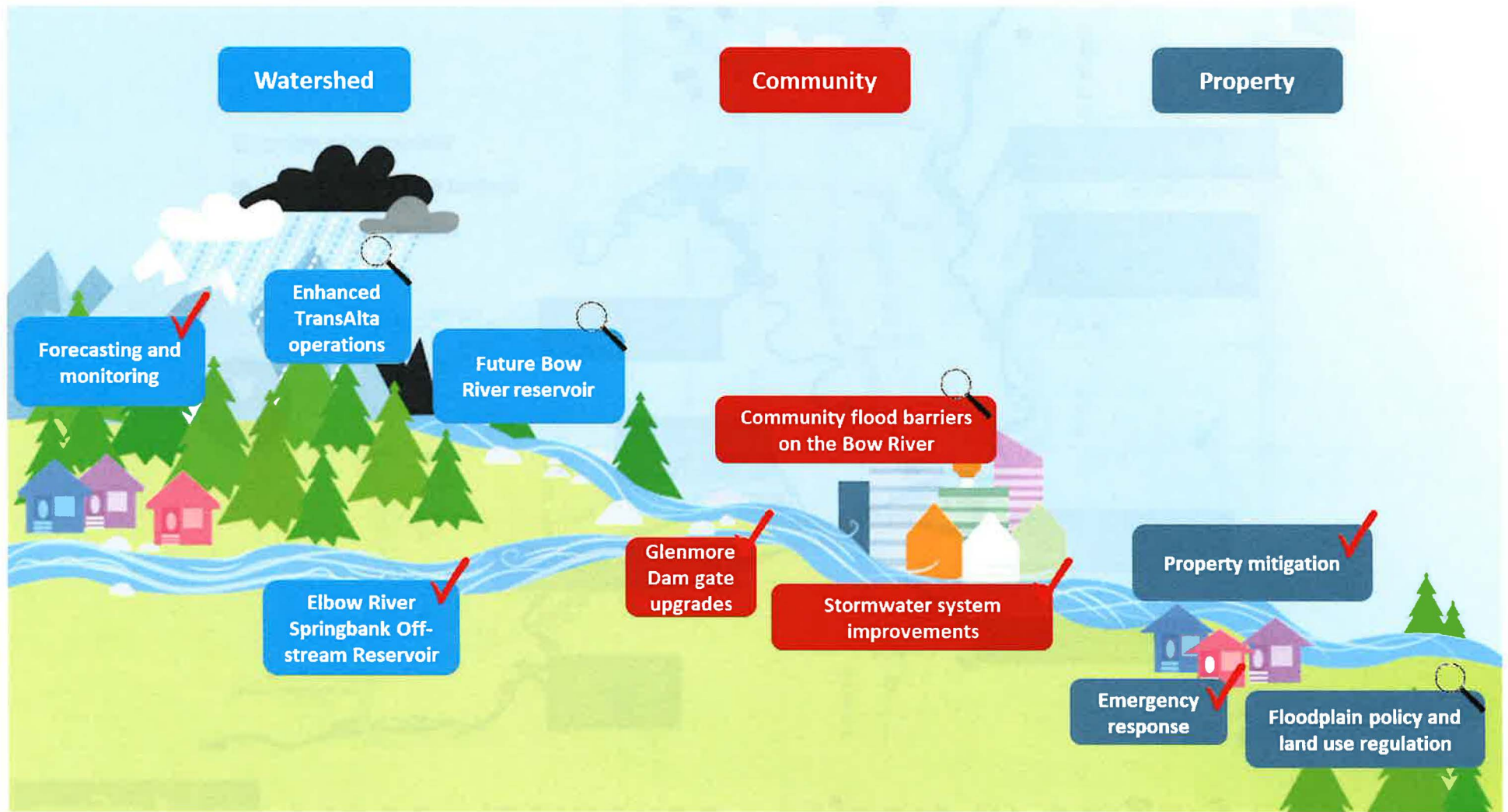
Current snowpack above seasonal average

Environment Canada forecast slightly above average precipitation and temperatures

Staff actively monitoring conditions and preparing for May-July season

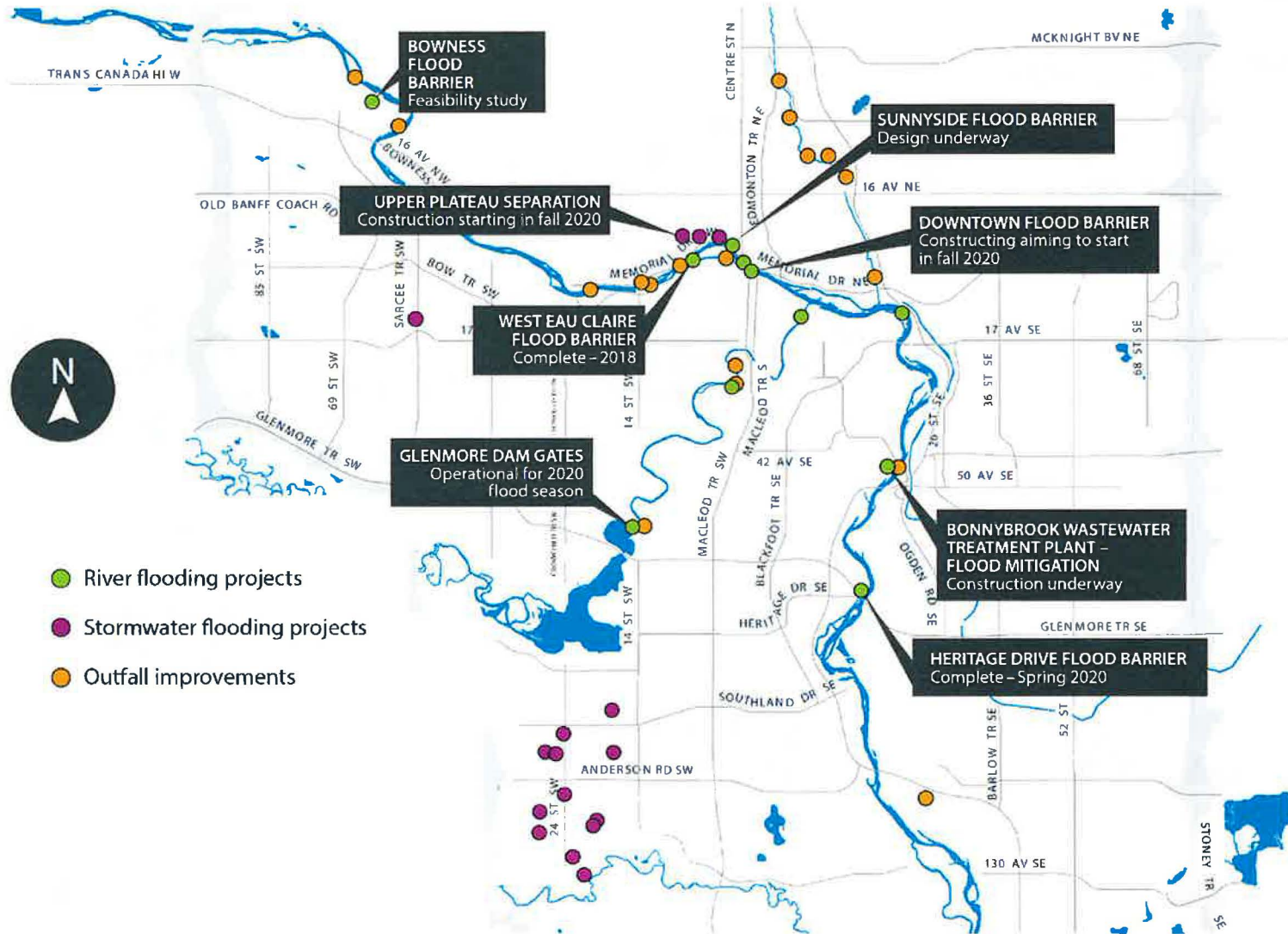


2019 Progress on Flood Resilience Plan





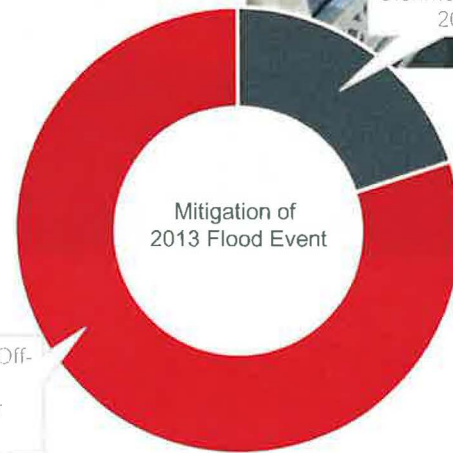
Flood Resilience Projects in Calgary





Elbow River Mitigation

- ✓ SR1 project proceeding, expecting Environmental Impact Assessment report in 2020
- ✓ Glenmore Gates construction complete; operational for 2020 May
 - Mitigates smaller floods on the Elbow on its own
 - With SR1, will mitigate 2013-level flood



Bow River Upstream Mitigation

TransAlta agreement ends
Spring 2021

- GoA Administration has permission to discuss extension

Bow River Reservoir Options Project

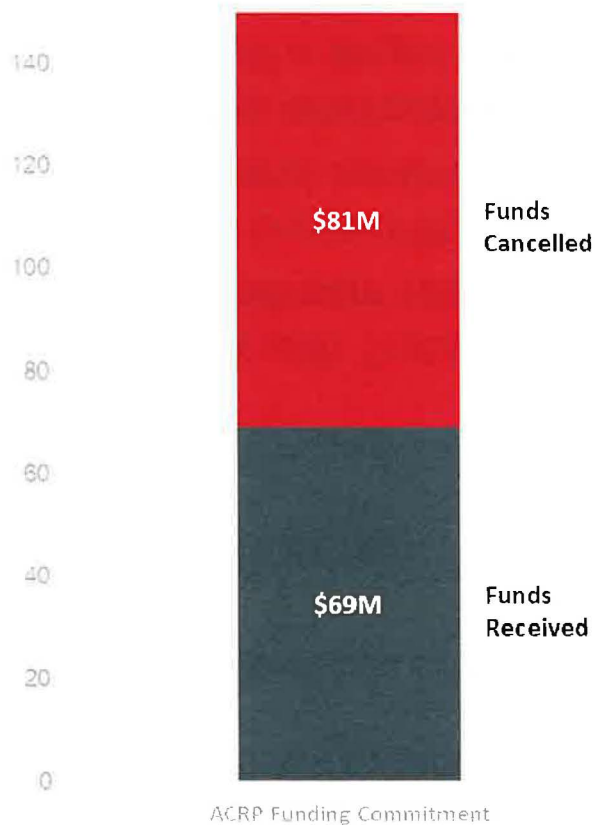
- Phase 1 conceptual study of 3 sites completed by the Province in 2020 March
- Phase 1 report to be released publicly
- Funding for Phase 2 approved in 2020 February provincial budget





Provincial Impacts on Bow River Mitigation Projects

2019 October Province cancelled \$81M in ACRP funds



Will proceed as scheduled

Downtown Flood Barrier

Upper Plateau Separation

Sunnyside Flood Barrier

- Service level recommendation to Council
- Funding plan no later than November midcycle adjustments

Bowness Flood Barrier

- Community engagement and studies ongoing
- Recommendation to Council by Q4 2020



Sunnyside Flood Barrier: Service Level Recommendation

- Four options assessed
- Comprehensive community engagement

Recommendation:

Proceed with 1:100 service level

- Will work with TransAlta agreement and future upstream reservoir
- Ensures community resilience - climate impacts and continued growth
- Minimizes environmental and social impacts of a larger barrier
- Estimated cost: \$28M, will delay scheduled CDI projects

6 STAKEHOLDER CHECK-INS



WITH THE HSCA - EMERGENCY PLANNING AND RESPONSE COMMITTEE

2 PROJECT POP-UPS



IN THE COMMUNITY

2 COMMUNITY OPEN HOUSES



WITH PARALLEL ONLINE SURVEYS

- Over 250 comments received that helped shape technical studies in the area
- Over 1,200 comments received about the social criteria and the benefits/concerns of the four barrier height options.

18 MONTHS



OF STUDIES AND DESIGN, INCLUDING:

- Geotechnical
- Groundwater
- River modelling
- Tree inventory
- Environmental review



Flood Readiness Campaign

- Annual reminder for citizens of flood risk and communicate awareness

Flood Hazard Area Mapping

- Working with GoA to ensure consistency
- Monitoring Provincial progress
- Conducting internal review on existing policies



**Understand your flood risk.
Be prepared. Stay informed.**

Calgary is most at risk of river flooding
from May 15 to July 15.

Administration Recommendation:

That the SPC on UCS Direct Council to Direct Administration to:

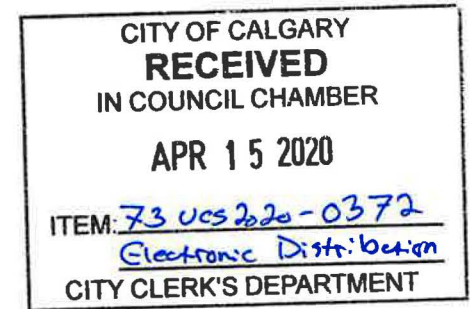
1. Proceed with the Sunnyside Flood Barrier project at Administration's recommended service level;
2. Return to Council with budget adjustments for ACRP-impacted projects no later than November mid-cycle adjustments; and
3. Report back to the SPC on UCS no later than Q4 2020 with recommendations regarding the Bowness barrier project.





Options to address ACRP shortfall

- Seek federal funding
- Increase stormwater rates
- Draw from reserves
- Reprioritize capital plan



All options have trade-offs or potential impacts to citizens