



## COUNCIL REPORT

Report Date: April 11, 2023  
Contact: Liz Jones  
Contact No.: 604.871.6169  
RTS No.: 15640  
VanRIMS No.: 08-2000-20  
Meeting Date: April 25, 2023  
[Submit comments to Council](#)

TO: Vancouver City Council  
FROM: General Manager of Finance, Risk and Supply Chain Management  
SUBJECT: Funding Application to Disaster Risk Reduction-Climate Adaptation Program

### Recommendation

THAT Council endorse a funding application for \$2,008,010 to the Union of British Columbia Municipality's Disaster Risk Reduction-Climate Adaptation program, toward three projects that would reduce risks from future disasters due to natural hazards and climate-related risks.

### Purpose and Executive Summary

The purpose of this report is to seek Council endorsement of a funding application to the Union of BC Municipalities (UBCM) Disaster Risk Reduction-Climate Adaptation (DRR-CA) program submitted on February 28, 2023.

If the application is approved, the City could receive up to \$2,008,010 to undertake the following three projects:

1. Coastal Vulnerability Assessment for Vancouver (\$118,000)
2. Musqueam Creek West Southlands Flood Preparedness Tool (\$90,010)
3. Oak St. and Fraser St. Outfalls Remediation to Improve Climate Resilience (\$1,800,000)

As part of the application approval process, UBCM requires a resolution indicating Council's support for the proposed projects and willingness to provide overall grant management. UBCM's process allows for Council endorsements following the submission of an application.

### Council Authority/Previous Decisions

On June 29, 2022, Council approved the 2023-2026 Capital Plan, which directed staff to pursue external funding opportunities to achieve Council's public policy objectives, including capital investments to advance the Climate Emergency Action Plan and the Climate Change Adaptation Strategy to deliver additional climate mitigation and adaptation benefits.

On October 25, 2022, Council endorsed a funding application to UBCM's DRR-CA for three projects to reduce risks from future disasters due to natural hazards and climate-related risks. The application was successful and the City received \$975,000.

### **City Manager's Comments**

The City Manager concurs with the foregoing recommendations.

### **Context and Background**

The Disaster Risk Reduction-Climate Adaptation (DRR-CA) program is part of UBCM's Community Emergency Preparedness Fund (CEPF), and the primary objective is to enhance the resilience of local governments, First Nations and communities in responding to emergencies.

The CEPF was created by the Province of British Columbia in March 2017, with an allocation of \$32 Million, and administered by UBCM. In February 2023, the Province committed \$180 million in new funding to the CEPF. The intent of the DRR-CA program is to support eligible applicants to reduce risks from future disasters, due to natural hazards and climate-related risks, through the development and implementation of:

- accurate foundational knowledge of the natural hazards they face and the risks associated with BC's changing climate; and
- effective strategies to prepare for, mitigate and adapt to those risks.

The DRR-CA program has three categories:

- Category 1: Foundational activities (risk mapping, risk assessments, planning)
- Category 2: Non-structural activities (land use planning, community education, purchase of eligible equipment)
- Category 3: Small scale structural activities

The City submitted the allowable maximum of one project per category.

### **Discussion**

The City has submitted the projects described below to the three DRR-CA funding application categories that best met the program criteria.

#### **Category 1 - Coastal Vulnerability Assessment for Vancouver (\$118,000)**

Project builds on previous flood mapping along Vancouver's coastline in English Bay. The study will assess the vulnerability of the coastline with a focus on parks, and park assets, operated by the Vancouver Board of Parks and Recreation. This project is intended to examine the effects of 0.25 m and 0.50 m of sea level rise on coastal processes, including wave impacts from 1-in-5, 1-in-10, 1-in-50, and 1-in-100 Annual Exceedance Probability (AEP) storm events.

Examining the effects of more frequent and severe storms will better inform vulnerability assessments regarding risk levels for assets and tipping points for when existing infrastructure

can be expected to cease functioning properly. Completing the assessment will help to inform planning and adaptive management of shoreline infrastructure.

**Category 2: Musqueam Creek West Southlands Flood Preparedness Tool (\$90,010)**

Project will develop a flood warning tool to support flood preparedness for the residential community of West Southlands in Vancouver. Currently, under heavy rainfall and high-tide conditions, Musqueam Creek overflows into West Southlands. Overflows from Musqueam Creek cause flood damage to homes, infrastructure and disrupts access/egress, as happened during the atmospheric river event in 2021.

In order to better prepare for future flood events, the City and the Musqueam Indian Band jointly completed the 2023 Wallace Street Ditch Plan that includes flood modelling, mapping and a flood mitigation concept. This project will build on the Wallace Street Ditch Plan to create a tool to identify the climatic trigger conditions (rainfall and tide) that result in Musqueam Creek flooding into West Southlands. The tool will be used by the City for flood preparedness in future storm seasons and will also inform flood mitigation planning for the City and the Musqueam Indian Band.

**Category 3: Oak Street and Fraser Street Outfalls Remediation to Improve Climate Resilience (\$1,800,000)**

In 2020, the City's Sewer Outfall Inspection Program identified various outfalls along the Fraser River that are in poor condition and without tide gates. The Oak Street and Fraser Street outfalls were identified as being in very poor condition and needing immediate renewal, as structural failures and blockages within the tidal outfalls is increasing the recurrence of flooding. The proposed renewal work at both outfalls, including installing tide gates to prevent ingress of river water, will reduce the risk of flooding due to future sea level rise.

**Financial Implications**

The DRR-CA program covers 100% of eligible costs to the following maximums:

- Category 1 - \$150,000
- Category 2 - \$150,000
- Category 3 - \$1,800,000

Table 1 below summarizes the DRR-CA funding request by project.

**Table 1: Funding sources**

Activity	Project Budget	DRR-CA Funding Request	City Share
Coastal Vulnerability Assessment for Vancouver	\$118,000	\$118,000	\$-
Musqueam Creek West Southlands Flood Preparedness Tool	\$90,010	\$90,010	\$-
Oak St and Fraser St Outfalls Remediation to Improve Climate Resilience	\$1,800,000	\$1,800,000	\$-
<b>Total</b>	<b>\$2,008,010</b>	<b>\$2,008,010</b>	<b>\$-</b>

If this application is successful, the funding received will be added to the 2023-26 Capital Plan, freeing up the original funding to advance other capital projects under the Climate Emergency

Action Plan and the Climate Change Adaptation Strategy to deliver additional climate mitigation and adaptation benefits.

**Legal Implications**

If the funding application is approved, the City will receive an Approval Agreement from UBCM that outlines the terms and conditions for receiving all of the funding. The approval agreement is signed by the Director of Legal Services. Grants are awarded in two payments: 50% when the signed Approval Agreement has been returned to UBCM, and the remainder when the project is complete and the final reporting requirements have been met.

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