



## REPORT

Report Date: March 15, 2021  
Contact: Jimmy Zammar  
Contact No.: 604-871-6880  
RTS No.: 14380  
VanRIMS No.: 08-2000-20  
Meeting Date: April 14, 2021

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TO: Standing Committee on Policy and Strategic Priorities

FROM: General Manager of Engineering Services in consultation with General Manager of Finance, Risk and Supply Chain Management

SUBJECT: Funding Application to BC Community Emergency Preparedness Fund – Flood Risk Assessment, Flood Mapping and Flood Mitigation Planning

### **RECOMMENDATION**

THAT Council approve a funding application to the Union of BC Municipalities' (UBCM) Community Emergency Preparedness Fund – Flood Risk Assessment, Flood Mapping and Flood Mitigation Planning stream for \$150,000 for the Cambie-Fraser River Internal Drainage Flood Mitigation Plan.

### **REPORT SUMMARY**

This report seeks Council's approval for submitting a funding application to the Flood Risk Assessment, Flood Mapping and Flood Mitigation Planning stream of the Union of BC Municipalities (UBCM) Community Emergency Preparedness Fund.

The City's 2019-2022 Capital Plan funding strategy identifies securing of senior government contributions as a funding source to achieve a number of Council priorities. This funding application supports climate change adaptation through planning for internal drainage flood protection and sea level rise.

### **COUNCIL AUTHORITY/PREVIOUS DECISIONS**

UBCM funding programs require a resolution of Council as part of the funding application package, which can be submitted after the application has been submitted.

July 2012: Council approved the Climate Change Adaptation Strategy, recommending that staff undertake a suite of priority actions including conducting a Coastal Flood Risk Assessment.

May 2014: The results of the first phase of the Coastal Flood Risk Assessment were presented to Council, along with information about proposed Phases II and III. The study results indicated a substantial decrease in stormwater system capacity is expected with increased sea level rise.

November 2016: Staff presented the results of the second phase of the Coastal Flood Risk Assessment to Council, which including a high-level evaluation of response options for each of the flood-vulnerable areas in the City.

June 2018: Council received the Sea Level Rise Planning Update report that included a recommendation that Council direct staff to develop by-laws, regulations, and policies to guide the design of engineered shoreline flood protection such that it is adaptable and built to a consistent performance standard.

December 2018: Council approved the Climate Change Adaptation Strategy Update, which identified coastal preparedness and the development of floodplain guidelines and key areas of focus – including actions to address drainage flooding.

November 2020: Council approved the Climate Emergency Action Plan which recommend objectives and actions to build resilience to major shocks and stresses impacting Vancouver (e.g. floods and extreme weather), now and in the future.

### ***CITY MANAGER'S/GENERAL MANAGER'S COMMENTS***

The Acting City Manager recommends approval of the foregoing.

### ***REPORT***

#### ***Background/Context***

The Community Emergency Preparedness Fund (CEPF) was created by the Province of British Columbia in March 2017 with an allocation of \$32 Million. It is managed by the Union of BC Municipalities (UBCM).

The purpose of the program is to enhance the resiliency of local governments and their residents in responding to emergencies. There are seven streams and this report is seeking Council approval for the following stream:

- Flood Risk Assessment, Flood Mapping and Flood Mitigation Planning

The intent of the Flood Risk Assessment, Flood Mapping and Flood Mitigation Planning stream is to support eligible applicants to ensure they have accurate knowledge of their flood hazards and to develop effective strategies to mitigate and prepare for those risks. The maximum grant under this stream is 100% of eligible project costs to a maximum of \$150,000.

Staff applied for the grant on February 26th, 2021, which was the application submission deadline. A resolution of Council is required for each funding application and can be submitted after the application submission deadline.

## ***Strategic Analysis***

### **Cambie-Fraser River Internal Drainage Flood Mitigation Plan**

Since 2012, the City of Vancouver has conducted extensive flood hazard and risk assessments, as well as foundational community engagement work that is guiding the community towards the implementation of flood mitigation measures. An initial focus area for that work was the Fraser River floodplain, identified as having the highest risk in the City. Most of the planning work to date, including the Coastal Flood Risk Assessment (completed in 2018), examined the City's risk and vulnerability to coastal flooding in a changing climate and contemplated various flood protection measures. However that work did not include the impact and infrastructure implications of potential flood measures on the City's drainage system.

The Cambie-Fraser River Internal Drainage Flood Mitigation Plan study area is the central region of the Fraser River floodplain around Cambie Street (from SW Marine Drive to the Fraser River, and roughly from Shaughnessy Street to St George St). There is existing evidence that this area is vulnerable to internal flooding due to increased rainfall and tidal conditions. The internal drainage system was not designed to accommodate current or future sea level rise, and there is evidence that the system surcharges due to backwater conditions from the Fraser River maximum tide level. This condition is expected to worsen in the future due to the effects of climate change, including additional sea level rise and more frequent and larger storm events. This project will characterize the existing and future drainage system flood risk, and identify mitigation options, while providing a coastal drainage lens for the City to use in making key decisions about flood mitigation measures. The focus will be on the central region of the floodplain around Cambie Street, but the findings and deliverables will enable further planning for the rest of Vancouver's floodplains.

The Cambie-Fraser River Internal Drainage Flood Mitigation Plan project supports the Council recommendation from Council Report (RTS 12382 - Sea Level Rise Planning Update) that Council direct staff to develop by-laws, regulations, and policies to guide the design of engineered shoreline flood protection such that it is adaptable and built to a consistent performance standard. This project is a key component of that work and will provide important background information to support shoreline flood protection design.

## ***Financial***

The Cambie-Fraser River Internal Drainage Flood Mitigation Plan project is estimated to cost approximately \$173,700, the funding for which is currently provided as part of the approved 2019-2022 Watershed Planning & Hydrogeology multi-year budget within Integrated Sewer and Drainage Planning.

Staff recommends the City request the maximum \$150,000 in UBCM funding to offset a portion of the total costs.

## ***CONCLUSION***

By applying to the BC Community Emergency Preparedness fund, the City has the opportunity to access external funding of up to \$150,000 to support the Council priority of climate change adaptation.

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