



City of Richmond

Report to Committee

To: Public Works and Transportation Committee **Date:** October 18, 2019
From: Jason Ho, P.Eng.
 Manager, Engineering Planning **File:** 10-6060-04-01/2019-Vol 01
Re: **UBCM Community Emergency Preparedness Fund 2019/2020 Application**

Staff Recommendation

1. That the Flood Protection and Dike Upgrades submission to the 2019 Union of BC Municipalities (UBCM) Community Emergency Preparedness Fund for Structural Flood Mitigation be endorsed.
2. That the Seismic Assessment and Hydraulic Modeling submission to the 2020 UBCM Community Emergency Preparedness Fund for Flood Risk Assessment, Flood Mapping, and Flood Mitigation Planning be endorsed.
3. That, should the Flood Protection and Dike Upgrades submission and/or the Seismic Assessment and Hydraulic Modeling submission be successful, the Chief Administrative Officer and General Manager, Engineering and Public Works be authorized to negotiate and execute the funding agreements with UBCM.

Jason Ho, P.Eng.
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REPORT CONCURRENCE	
CONCURRENCE OF GENERAL MANAGER	
REVIEWED BY STAFF REPORT / AGENDA REVIEW SUBCOMMITTEE	INITIALS: CS
APPROVED BY CAO	

Staff Report

Origin

On May 29, 2019, the Province announced \$31 million in grant allocation for the Community Emergency Preparedness Fund (CEPF). UBCM administers the CEPF to provide grant funding for partners to plan and implement structural flood protection projects in British Columbia.

There are a number of different funding streams in this program. Under the Structural Flood Mitigation category, staff submitted an application for the Flood Protection and Dike Upgrades Project. Under the Flood Risk Assessment, Flood Mapping, and Flood Mitigation Planning category, staff are preparing an application for the Seismic Assessment and Hydraulic Modeling Project.

The application guidelines state that projects must be endorsed by Council to be considered for funding. Staff are requesting Council's endorsement for these project submissions to the UBCM Community Emergency Preparedness Fund.

Completion of the Flood Protection and Dike Upgrades project will help improve Richmond's diking infrastructure to meet current flood protection requirements. The Seismic Assessment and Hydraulic Modeling Project will provide information required to establish future flood protection requirements, advance the City's Flood Protection Management Strategy, and inform future capital projects. These projects have been included in the proposed 2020 capital program that will be presented to Council as a part of the 5-year capital plan.

This report supports the following strategies within Council's Strategic Plan 2018-2022:

Strategy #1, A Safe and Resilient City:

Enhance and protect the safety and well-being of Richmond.

1.2 Future-proof and maintain city infrastructure to keep the community safe.

1.3 Ensure Richmond is prepared for emergencies, both human-made and natural disasters.

Strategy #2, A Sustainable and Environmentally Conscious City:

Environmentally conscious decision-making that demonstrates leadership in implementing innovative, sustainable practices and supports the City's unique biodiversity and island ecology.

2.1 Continued leadership in addressing climate change and promoting circular economic principles.

Strategy #5, Sound Financial Management:

Accountable, transparent, and responsible financial management that supports the needs of the community into the future.

5.1 Maintain a strong and robust financial position.

5.4 Work cooperatively and respectfully with all levels of government and stakeholders while advocating for the best interests of Richmond.

Analysis

Flood Protection and Dike Upgrades Project

The scope of work for this project includes, but is not limited to, rebuilding structural armouring to stabilize eroding banks and replacing collapsing riprap for approximately 1.6 kilometres of dike at three different priority locations.

The City of Richmond's Flood Protection Management Strategy identifies rehabilitation and upgrades to the perimeter dike as a top priority to reduce flood risk due to climate change-induced sea level rise. This project will focus on structural rehabilitation and improvements to the perimeter dike.

The UBCM Community Emergency Preparedness Fund can contribute up to 100% of the project costs, to a maximum of \$750,000. The estimated cost to complete this project is \$1,000,000. Should the City be awarded the UBCM grant, costs beyond the grant allocation would be recommended for funding from the Drainage and Diking Utility.

Seismic Assessment and Hydraulic Modeling Project

The scope of work for this project includes, but is not limited to, performing seismic assessment of the perimeter dike corridor, geotechnical investigations, as well as hydraulic assessment and modeling for various drainage assets located in Richmond.

A well-planned drainage system is necessary for the City to prevent flooding resulting from extreme rainfall and other natural events. The focus of this project will be the assessment, monitoring, and modeling of the City's drainage and diking system. This information will be used to better prioritize future capital projects.

The UBCM Community Emergency Preparedness Fund can contribute up to 100% of the project costs, to a maximum of \$150,000. The estimated cost to complete this project is \$200,000. Should the City be awarded the UBCM grant, staff recommend that costs beyond the grant allocation be funded from the Drainage and Diking Utility.

Financial Impact

There is no financial impact at this time.

The projects identified herein will be submitted for Council consideration as a part of the 2020 capital program.

Conclusion

The Union of BC Municipalities has requested funding applications from local governments for emergency preparedness activities in flood protection and prevention. Staff recommend that Council endorse the Structural Flood Mitigation Project and the Seismic Assessment and Hydraulic Modeling Project for grant funding in accordance with grant program guidelines. Staff are also seeking Council authority for the negotiation and execution of funding agreements should the City's applications be successful.



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