



To: Public Works and Transportation Committee **Date:** September 13, 2023
From: Milton Chan, P.Eng. **File:** 10-6060-01/2023-Vol
Director, Engineering 01
Re: **UBCM Community Emergency Preparedness Fund: 2023/24 Disaster Risk Reduction – Climate Adaptation Grant Application**

Staff Recommendations

1. That the application to the Community Emergency Preparedness Fund, Disaster Risk Reduction – Climate Adaptation funding stream as outlined in the staff report titled “UBCM Community Emergency Preparedness Fund: 2023/24 Disaster Risk Reduction – Climate Adaptation Grant Application” dated September 13, 2023 from the Director, Engineering be endorsed;
2. That should the grant application be successful, the Chief Administrative Officer and the General Manager, Engineering and Public Works, be authorized on behalf of the City to negotiate and execute funding agreements with UBCM for the above mentioned projects; and
3. That should the grant application be successful, capital projects of \$150,000 for the Nature-Based Flood Protection Solutions Assessment, \$150,000 for Emergency Flood Protection Equipment, and \$2,500,000 for Dike Rehabilitation be approved with funding from the external grant, as outlined in the staff report titled “UBCM Community Emergency Preparedness Fund: 2023/24 Disaster Risk Reduction – Climate Adaptation Grant Application” dated September 13, 2023 from the Director, Engineering, and be included in the Consolidated 5 Year Financial Plan (2024-2028) accordingly.

Milton Chan, P.Eng.
Director, Engineering
(604)-276-4377

REPORT CONCURRENCE		
ROUTED TO:	CONCURRENCE	CONCURRENCE OF GENERAL MANAGER
Intergovernmental Relations	<input checked="" type="checkbox"/>	
Finance	<input checked="" type="checkbox"/>	
Public Works	<input checked="" type="checkbox"/>	
Sustainability and District Energy	<input checked="" type="checkbox"/>	
SENIOR STAFF REPORT REVIEW	INITIALS:	APPROVED BY CAO

Staff Report

Origin

The Community Emergency Preparedness Fund (CEPF) is a collection of provincially funded programs that are intended to enhance the resilience of communities in responding to emergencies. The Union of BC Municipalities (UBCM) is currently accepting grant applications under the Disaster Risk Reduction – Climate Adaptation funding stream of the CEPF for projects that are aimed at reducing risks from future disasters due to natural hazards and climate change-induced risks. This report responds to the grant opportunity.

The grant application requires a Council resolution that indicates support for the proposed projects and a willingness to provide overall grant management. The purpose of this report is to seek Council approval to submit a grant application to the 2023/24 UBCM Disaster Risk Reduction – Climate Adaptation funding stream.

The deadline for submission of the grant application is October 6, 2023. As such, staff have prepared and submitted an application for the projects described in this report. Should Council choose not to endorse this submission, staff will contact UBCM to withdraw the application.

This report supports Council's Strategic Plan 2022-2026 Focus Area #3 A Safe and Prepared Community:

Community safety and preparedness through effective planning, strategic partnerships and proactive programs.

3.1 Advance proactive, sustainable, and accelerated flood protection in collaboration with other governments and agencies.

3.3 Ensure the community is collectively prepared for emergencies and potential disasters.

3.4 Ensure civic infrastructure, assets and resources are effectively maintained and continue to meet the needs of the community as it grows.

This report supports Council's Strategic Plan 2022-2026 Focus Area #4 Responsible Financial Management and Governance:

Responsible financial management and efficient use of public resources to meet the needs of the community.

4.1 Ensure effective financial planning to support a sustainable future for the City.

4.4 Work with all levels of governments for grant and funding opportunities.

Analysis

Richmond continues to invest in its extensive network of flood protection infrastructure, which is integral to protecting the health, safety, and economic viability of the City. Predicted climate change impacts on weather patterns and sea level rise reinforce the need for continual upgrades to the City's flood protection infrastructure to address changing needs. The City's Flood Protection Management Strategy and Dike Master Plans are the guiding framework for the advancement of flood protection upgrades. The Flood Protection Management Strategy identifies senior government partnerships as a top priority.

Community Emergency Preparedness Fund

Funding for the CEPF is provided by the Province of BC and is administered by UBCM. The Disaster Risk Reduction – Climate Adaptation funding stream is a part of the CEPF and is intended to support communities in reducing the risk of future disasters due to natural hazards and climate-related risks. This funding stream is comprised of three separate project categories that will be evaluated and awarded individually. Staff have identified projects that would be appropriate for each category, as summarized in Table 1. The fund can contribute 100% of the cost of eligible activities up to a maximum amount. Projects are required to be completed within two years of notification of funding approval.

Table 1 – Proposed Projects for Disaster Risk Reduction – Climate Adaptation Fund Application

Funding Category	Grant Funding Requested	Proposed Project
Category 1: Foundational activities (risk mapping, risk assessments, planning)	\$150,000	Nature-Based Flood Protection Solutions Assessment
Category 2: Non-structural activities	\$150,000	Emergency Flood Protection Equipment
Category 3: Small-scale structural activities	\$2,500,000	Dike Rehabilitation

The Nature-Based Flood Protection Solutions Assessment includes evaluating the feasibility of integrating natural infrastructure for future dike construction and shoreline protection to enhance the environment and promote habitat cultivation. The project scope of work will be primarily focused on assessing sections of the coastal dike along Sturgeon Bank. Potential green infrastructure solutions will also be reviewed for river-front sections of dike, although the opportunities are limited by the need to protect the dike against erosion and damage from large debris that flows through the City during spring freshet. Completion of this project will support long-term climate adaptation planning and recommendations for future flood protection work.

The Emergency Flood Protection Equipment project involves the purchase of temporary flood protection equipment which will be deployed to protect vulnerable areas from potential short-term inundation during high water events, such as freshet, king tides and storm surges. This will improve the City's ability to respond to future high-water events, thereby increasing the City's flood resilience.

The Dike Rehabilitation project includes, but is not limited to, up to approximately 1.5 km of structural re-armouring and replacement of failed riprap along sections of dike in the Terra Nova area and along the 21000 Block of River Road. Completion of this project will reduce flood risks due to climate change-induced sea level rise, which is identified as a top priority in the City of Richmond’s Flood Protection Management Strategy.

Financial Impact

Should the City be awarded the grant, staff recommend that the capital projects as outlined in Table 2, be approved and that they be included in the Consolidated 5 Year Financial Plan (2024-2028) accordingly. There is no operating budget impact related to the capital projects.

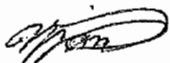
Table 2 – Proposed Capital Projects should the City’s Grant Application be Successful

Project	Budget
Nature-Based Flood Protection Solutions Assessment	\$150,000
Emergency Flood Protection Equipment	\$150,000
Dike Rehabilitation	\$2,500,000


If the City’s grant application is unsuccessful, staff will submit the capital projects for Council’s consideration through future budget processes.

Conclusion

Grant funding opportunities are available through the CEPF to support municipalities and communities in reducing the risk of future disasters due to natural hazards and climate-related risks. Staff recommend that applications be submitted for the Nature-Based Flood Protection Solutions Assessment, Emergency Flood Protection Equipment, and Dike Rehabilitation Project. These projects align with the grant program guidelines and support the City’s Flood Protection Management Strategy.

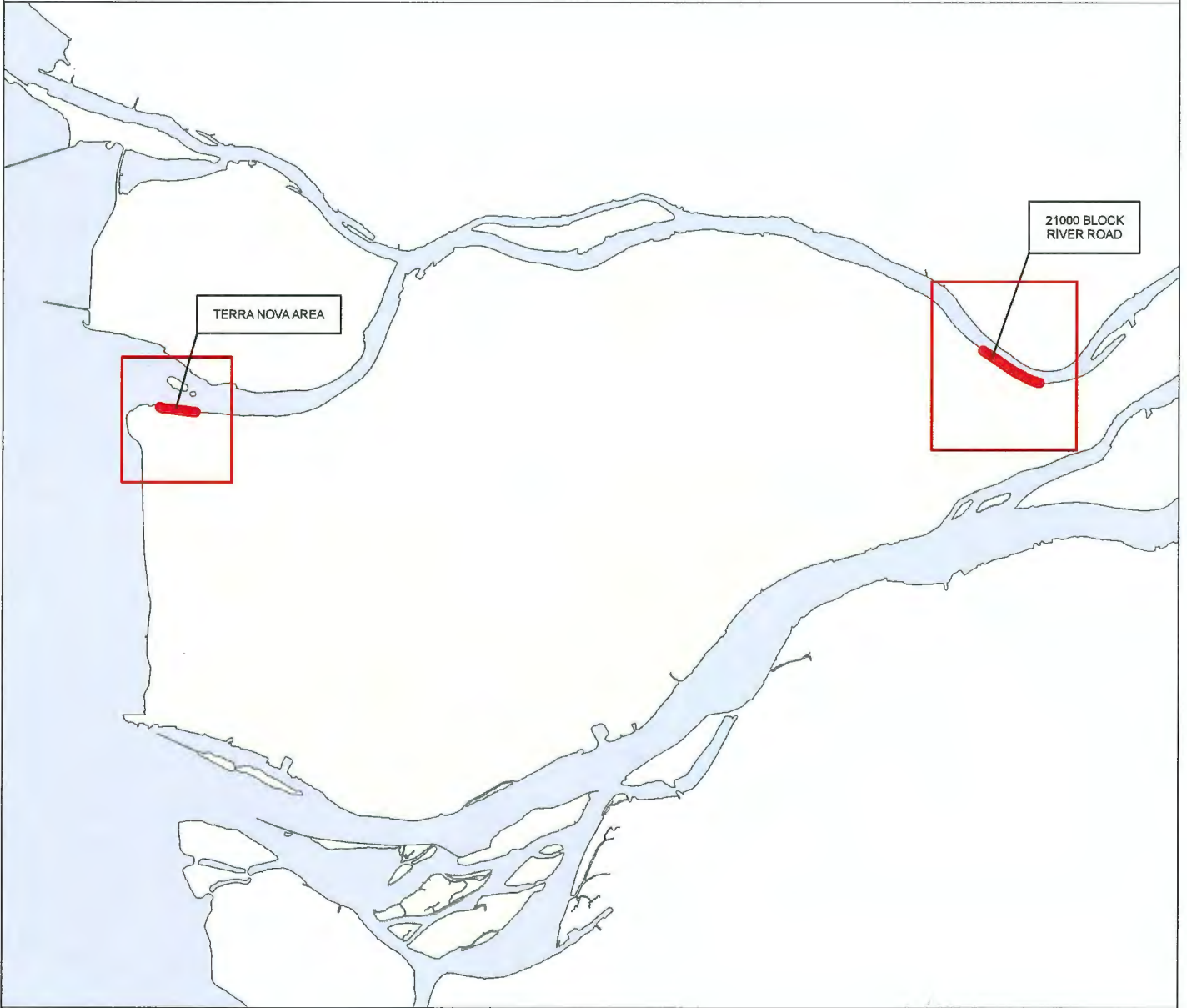


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Att. 1: Category 3: Project Locations Map



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Plan:
The information shown on this map is intended to provide a general overview of the City and its surrounding areas, and is not intended to be used for any purpose other than general information. The City of Richmond does not warrant the accuracy or completeness of the information shown on this map. The City of Richmond is not responsible for any errors or omissions in this map. The City of Richmond is not responsible for any damages or losses resulting from the use of this map. The City of Richmond is not responsible for any damages or losses resulting from the use of this map.

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Kilometers
North