



City of Richmond

Report to Committee

To: Public Works and Transportation Committee **Date:** February 28, 2017
From: John Irving, P.Eng. MPA **File:** 10-6060-01/2017-Vol 01
Director, Engineering
Re: Lower Mainland Flood Management Strategy Update

Staff Recommendation

That the City of Richmond continue to participate in the Lower Mainland Flood Management Strategy for a further two years.

for 
John Irving, P.Eng. MPA
Director, Engineering
(604-276-4140)

Att. 2

REPORT CONCURRENCE		
ROUTED TO:	CONCURRENCE	CONCURRENCE OF GENERAL MANAGER
Roads & Construction	<input checked="" type="checkbox"/>	
REVIEWED BY STAFF REPORT / AGENDA REVIEW SUBCOMMITTEE	INITIALS:	APPROVED BY CAO
		

Staff Report

Origin

Over the past five years the Fraser Basin Council (FBC) has been promoting a regional approach to flood management. Most lower mainland local governments and key agencies (i.e. YVR, SFU, BC Ministry of Environment) are participating and providing funding to support this initiative. City staff have been engaged in this process since it began and the City has provided \$5,000 per year for two years to support Phase 1 of the Lower Mainland Flood Management Strategy. Phase 1 was completed in May 2016 and the FBC is now seeking further participation and financial support for Phase 2 of the Lower Mainland Flood Management Strategy.

This report supports Council's 2014-2018 Term Goal #6 Quality Infrastructure Networks:

6.1. Safe and sustainable infrastructure.

Findings of Fact

The Lower Mainland Flood Management Strategy is intended to provide a better understanding of regional flood hazards, flood vulnerabilities and the state of flood protection infrastructure, policies and practices in the region. The Fraser Basin Council serves as the facilitator and coordinator of the collaborative process to develop the Strategy.

Partners in developing the Lower Mainland Flood Management Strategy include 23 lower mainland municipalities (including Richmond), two regional districts, four provincial ministries, and ten other entities (SFU, YVR, CNR, CPR, Translink, etc.)

The City's primary rationale for participating in this initiative has been to remain engaged and conversant on this issue at the regional level. While staff do not anticipate significant technical value as the strategic and modelling work has been completed by Richmond in several iterations over many decades, with the most recent strategic centre piece being the City's 2006-2031 Flood Protection Management Strategy adopted by Council in 2006, the initiative does facilitate regional and provincial focus on the issue.

Phase 1

Phase 1 of the Lower Mainland Flood Strategy consisted of three projects:

- Project 1 - Analysis of Future Flood Scenarios
- Project 2 - Regional Assessment of Flood Vulnerabilities
- Project 3 - Assessment of Flood Infrastructure, Policies & Practices

As reported to the Public Works and Transportation Committee at the June 27, 2016, meeting in a report titled "Fraser River Freshet and Flood Protection Update 2016", dated May 31, 2016, the City has completed similar projects to a higher level of accuracy under the 2008 – 2031 Richmond Flood Protection Strategy in 2008.

Project 3 reporting indicated that few lower mainland dikes met current provincial standards and none fully met or exceeded the standards. As identified in the May 31, 2016 staff report, this is untrue with respect to Richmond and Richmond dikes exceed current provincial standards. It was also noted that Project 3 was a desktop study with no field verification and included disclaimers that further work must be done to determine actual dike conditions. Staff have identified the errors in Project 3 to the Fraser Basin Council and have prompted them to update the project to include the actual condition of Richmond dikes. While there is no commitment at this time to revisit the Project 3 results, the Fraser Basin Council recognizes the issue and dialogue in this regard is ongoing with staff.

Phase 2

The Fraser Basin Council is in the opening stages of defining Phase 2 of the Lower Mainland Flood Management Strategy and have requested ongoing participation from the City of Richmond, which includes a request for funding. In a letter dated October 24, 2016 (Attachment 1), the Fraser Basin Council requested that the City contribute \$10,000 per year for two years. The Fraser Basin Council has had significant funding success that includes a \$1,000,000 commitment from the province.

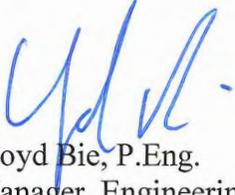
Staff identified concerns with Phase 1 results and the communication issues that contributed to inaccuracies, particularly in Project 3, that needed to be addressed prior to Richmond's continued financial participation in the Lower Mainland Flood Management Strategy. The Fraser Basin Council has responded with a letter dated February 24, 2016 (Attachment 2) reassuring the City that the Fraser Basin Council is committed to engaging with all partners and including their interests, knowledge and perspectives in subsequent work. It also commits to coordinating effective communications with advanced notification of report releases and media relations. With these commitments in place, staff recommends participating in Phase 2.

Financial Impact

Financial participation in Phase 2 of the Lower Mainland Flood Management Strategy is \$10,000 per year for two years for a total cost of \$20,000. This amount will be funded from existing Diking Utility budgets.

Conclusion

The City of Richmond has concerns with Phase 1 of the Lower Mainland Flood Management Strategy. The errors in Phase 1 projects with respect to Richmond dikes could have been avoided with improved partner engagement, but the Fraser Basin Council has committed to improving partner engagement for Phase 2 of the Strategy. As such, Staff recommend continuing participation in the Lower Mainland Flood Management Strategy, including a \$20,000 financial commitment over two years.



Lloyd Bie, P.Eng.
Manager, Engineering Planning
(604-276-4075)

LB:lb

- Att. 1: Letter dated October 24, 2016, RE: Financial Support for Phase 2 – Lower Mainland Flood Management Strategy
- 2: Letter dated February 24, 2017, RE: Lower Mainland Flood Management Strategy



Fraser Basin Council

*Social well-being supported by a vibrant
economy and sustained by a healthy environment*

October 24, 2016

Attn: George Duncan
CAO
City of Richmond
6911 No.3 Road
Richmond BC V6Y 2C1

RE: Financial Support for Phase 2 – Lower Mainland Flood Management Strategy

Dear George Duncan,

I am writing to thank the City of Richmond for previously supporting Phase 1 of the Lower Mainland Flood Management Strategy (LMFMS) and to confirm renewed financial support and participation to complete Phase 2. Phase 2 focuses on developing an Action Agenda with priorities, recommended flood mitigation options, and a recommended funding and decision-making model to implement the Action Agenda.

The Fraser Basin Council (FBC) serves as the facilitator and coordinator of the development of the LMFMS. As a non-government organization with four orders of government, the private sector and civil society represented on the FBC Board of Directors, we are well positioned to serve as the impartial body to facilitate dialogue and consensus through this initiative. Decision-making for implementation remains with existing jurisdictions.

FBC has undertaken significant work over the past 18 years to strengthen an integrated approach to flood hazard management in BC with a focus in the Lower Mainland. This work has been advanced primarily through the Joint Program Committee for Flood Hazard Management (JPC). The JPC was established in 1998 and now includes more than fifty agencies and organizations with flood management roles and responsibilities.

Since 2014, the FBC has coordinated Phase 1 of the LMFMS to strengthen flood mitigation in British Columbia's Lower Mainland to protect communities, critical infrastructure and the economy. Forty-three public and private sector partners generously provided financial support for Phase 1, which is now complete.

In collaboration with, and on behalf of, all partners and the wider Lower Mainland region, FBC is now finalizing plans and securing the necessary funds to complete Phase 2 – the development of an Action Agenda with priorities, recommended flood mitigation options, and a recommended funding and decision-making model for implementation. As you can appreciate from the attached work plan for Phase 2, we expect a considerable amount of

work to be done over the next 2-21/2 years to develop and 'flesh out' the Action Agenda as well as reach 'regional' consensus on the extent and nature of the Action Agenda. As such, it is understood that this work will require financial contributions from all potentially affected interests in the Lower Mainland to protect the dozens of communities, millions of residents and billions of dollars of infrastructure that could be impacted from river and coastal flooding.

Thus, we are now ready to continue and enhance the collaborative, cost-shared approach that proved to be so successful in Phase 1 to now complete Phase 2. We also look forward to broadening the partnership as we engage with additional funding partners. On behalf of all of the LMFMS partners and the communities and sectors you represent, the Fraser Basin Council respectfully requests a contribution of \$20,000 from the City of Richmond to support completion of Phase 2 over the next two years. We have attached an invoice for year one of your contribution, however, if you would prefer to make the full contribution in year one, please contact us and we will send you a revised invoice.

Additional information is attached for your reference including the Phase 1 Summary Report, which includes an overview of key steps for the Phase 2 Action Agenda, as well as a summary of proposed actions, deliverables and cost-sharing in Phase 2.

Your continued support and collaboration will help solidify and leverage the participation of other key funding partners in the LMFMS. This is vital to complete a comprehensive regional action plan and to recommend a dedicated funding program for effective flood mitigation measures that serve our shared national, provincial, regional and local interests.

If you have any questions or would like further details about the Lower Mainland Flood Management Strategy, please contact Steve Litke, Senior Program Manager (604-488-5358). See also www.floodstrategy.ca.

Yours truly,



David Marshall
Executive Director
Fraser Basin Council

Cc: Lloyd Bie



Social well-being supported by a vibrant economy and sustained by a healthy environment

February 24, 2017

John Irving
Director, Engineering
City of Richmond
ji Irving@richmond.ca

RE: Lower Mainland Flood Management Strategy

Dear Mr. Irving;

Thank you for our meeting on February 8, 2017 to discuss the Lower Mainland Flood Management Strategy. As discussed, the Fraser Basin Council serves as the impartial facilitator and coordinator of the collaborative process to develop the Strategy. The strengths of this multi-interest process are the broad partnership and the leadership and experience demonstrated by the numerous partners such as the City of Richmond. The Fraser Basin Council is committed to engaging with all partners to shape the scope and approach of the Strategy; to include the interests, knowledge and perspectives of partners within the Strategy; to provide regular progress reports; and to coordinate effective communications with advanced notification of report releases and media relations.

We are facilitating a variety of opportunities for the partners to engage on this initiative, both in terms of keeping them informed and providing their input. These opportunities include the Joint Program Committee, various Advisory Committees being established to support specific projects and components of the Strategy, and a Leadership Committee to oversee the process.

We look forward to continuing to work with the City of Richmond along with all Lower Mainland local governments, federal and provincial government agencies, First Nations, and other organizations to develop and implement a broad-based strategy to strengthen flood management for the benefit of the entire Lower Mainland Region.

Sincerely,

A handwritten signature in blue ink that reads "David Marshall".

David Marshall, Executive Director
Fraser Basin Council



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