
TO: CITY MANAGER **DATE:** 2012 January 31
FROM: DIRECTOR ENGINEERING **FILE:** 7400 30
SUBJECT: BUILDING CANADA FUND – FLOOD PROTECTION PROGRAM
PURPOSE: To provide an overview of the Building Canada – Flood Protection Program.

RECOMMENDATION:

1. **THAT** Council receive this report for information purposes.

REPORT

The City has been awarded a Building Canada Fund – Flood Protection Program grant for the ongoing Fraser River Dyke rehabilitation project (*Attachment A*). The grant, up to a maximum of \$3.36 Million in federal/provincial funding is available for upgrades to several reaches of Fraser River Dyke in the Big Bend area as outlined in this report.

The purpose of this report is to provide an overview of the Building Canada – Flood Protection Program and the ongoing rehabilitation of the Big Bend area dyking system.

Project Background

About 7 km of Burnaby's southern boundary borders the North Arm of the Fraser River between the City of Vancouver to the west and New Westminster to the east. The floodplain extends from the river edge to toe of the south slope of the Burnaby uplands near Marine Drive. Land use on the floodplain was formerly largely agricultural. However, over time, land use in the area has shifted to light industrial and industrial uses with the development of office parks, shopping areas, warehouse districts, and railroad and river-based industries. The floodplain area also supports industrial facilities, a waste to energy facility, large sewage and drainage pump stations, and large utility corridors for water and gas. The City's Fraser Foreshore Park, a linked system of linear and large park area, extends over about half of Burnaby's river corridor.

The Fraser River carries a substantial stream flow. During extreme spring freshet events, the river can flood the lowlands along the Fraser River corridor, including the lowlying areas in Big Bend.

Since the early 1970's, industrial and commercial development in Big Bend has incorporated site floodproofing criteria in the servicing program. In addition, Burnaby has also constructed dykes along most parts of the Fraser River foreshore to protect the low lying areas.

In 2006, the Province and the Fraser Basin Council completed a river analysis project that established a new (higher) design flood level for the Fraser River based on updated hydrologic data. For Burnaby, the maximum flood level increase between the former (1969) standard and 2006 is about 0.3 m. Additional projections have been made for increase in flood level due to sea level rise, subsidence of the Fraser River delta, and potential changes in hydrology due to climate change.

In view of the new provincial guidelines, the City initiated a comprehensive review of the Big Bend Area dyking system in 2008 to assess current deficiencies and compliance with the latest Fraser River flood level guidelines. The completed study provides an extensive reference guide to the Burnaby dyke system and a capital improvement plan for upgrading the City's Fraser River flood protection works in a sequential and prioritized approach.

Overview of the Building Canada – Flood Protection Program

The Flood Protection Program is essentially a cost-shared initiative funded by Federal and Provincial Governments for infrastructure projects that will provide protection to flood prone communities across British Columbia. The Program is administered by Emergency Management BC (EMBC). Eligible projects are those relating to the reduction of flood risk under the following categories:

- Flood Protection Infrastructure
- Other Strategic Flood Protection Projects

Approved projects funded under the program must be completed before 2014 February 28. Local governments are expected to contribute 33% of total project costs.

In response to the Building Canada Fund initiative, staff submitted grant applications in 2009 September (Tier 1) and 2010 September (Tier 2) under the Flood Protection Infrastructure category. The application identified a series of projects organized by reach length (see *Figure 1*) with total project expenditures, estimated at \$6.163 Million, over the period 2010 November through 2014 February. To date, the following projects have been approved by the EMBC.

- **Reach 7: Approved Tier 1 grant up to a maximum of \$688,677**
Construction of a setback dyke (Reach 7) between Byrne Road and Tillicum Road (see *Figure 1*). Project completion 2011 December. Final invoices have been submitted to the EMBC for reimbursement.

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Re: Building Canada Fund – Flood Protection Program
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- **Reach (1,4,5, 6 & 9): Approved Tier 2 grant up to a maximum of \$3.360 Million**
Subject of recent funding approvals for the above noted reaches. Construction is planned over the next two years with a completion deadline established by EMBC of 2014 February 28.

The Building Canada Fund – Flood Protection Program provides an ideal opportunity for the City to cost-share with federal and provincial governments in upgrading the flood protection infrastructure in the Big Bend floodplain area.

Staff have identified the proposed dyke improvement work in the 2012 5-Year Provisional Financial Plan. With the announcement of the senior government grant, the improvement work will be advanced to 2012 – 2013 for implementation. The revised expenditure will be reflected in the 2012 Annual Financial Plan.



Lambert Chu, P.Eng.
DIRECTOR ENGINEERING

AAS:br
Attachments

Copied to: Director Finance
Director Planning & Building
Director Parks, Recreation & Cultural Services



January 24, 2012

His Worship Derek Corrigan
Mayor of the City of Burnaby
4949 Canada Way
Burnaby BC V5G 1M2

Dear Mayor Corrigan:

**Re: Building Canada Fund – Base Fund Agreement
Flood Protection Program
Project #2010-2-044 - Fraser River Dike (Reach 1, 4, 6, 9) (formerly the
"Fraser River Dyke Updates" project)**

We are pleased to confirm that your application for funding under the Building Canada Fund (BCF) – Base Fund Agreement (BFA) Flood Protection Program for the above project has been approved for up to \$3,360,000.00 in federal/provincial funding.

This funding approval is conditional pursuant to the General Fund Parameters as described in the Flood Protection Program 2010 Funding Application Guidelines dated June 18, 2010 and upon the municipality and the Province entering into a written Transfer Under Agreement document.

It is your responsibility to obtain and comply with all necessary authorizations and/or permits as an ongoing condition of our funding. These authorizations and/or permits from regulatory agencies may identify the need for an environmental assessment.

As part of the project initiation, the local government project lead is required to attend a start-up meeting with staff from the Flood Protection Program. Please have the project lead schedule this meeting within the next three weeks by calling 250-953-4006.

Please ensure that all public information material related to calls and tenders for this project clearly indicates funding is provided from the BCF-BFA - Flood Protection Program.

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Ministry of Public Safety
and Solicitor General

Office of the Assistant Deputy Minister/
Fire and Emergency Management
Commissioner
Emergency Management BC

Mailing Address:
PO Box 9223 STN PROV GOVT
Victoria BC V8W 9J1

Location:
2nd Floor – 525 Fort Street
Victoria BC
Telephone: 250 953-4002
Facsimile: 250 387-4872

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If you have any questions regarding the above, please do not hesitate to contact Carol Loski, Director, Flood Protection Program, Emergency Management BC at 250-953-4079 or by e-mail at Carol.Loski@gov.bc.ca.

We wish you every success with your flood protection project.

Sincerely,



Rebecca F. Denlinger
Assistant Deputy Minister
Fire and Emergency Management Commissioner

pc: Peter Julian, MP
Burnaby - New Westminster

Raj Chouhan, MLA
Burnaby Edmonds

Carol Loski, Director
Flood Protection Program
Emergency Management BC
Ministry of Public Safety and Solicitor General

Ed Clark
Roads and Drainage Engineer
City of Burnaby

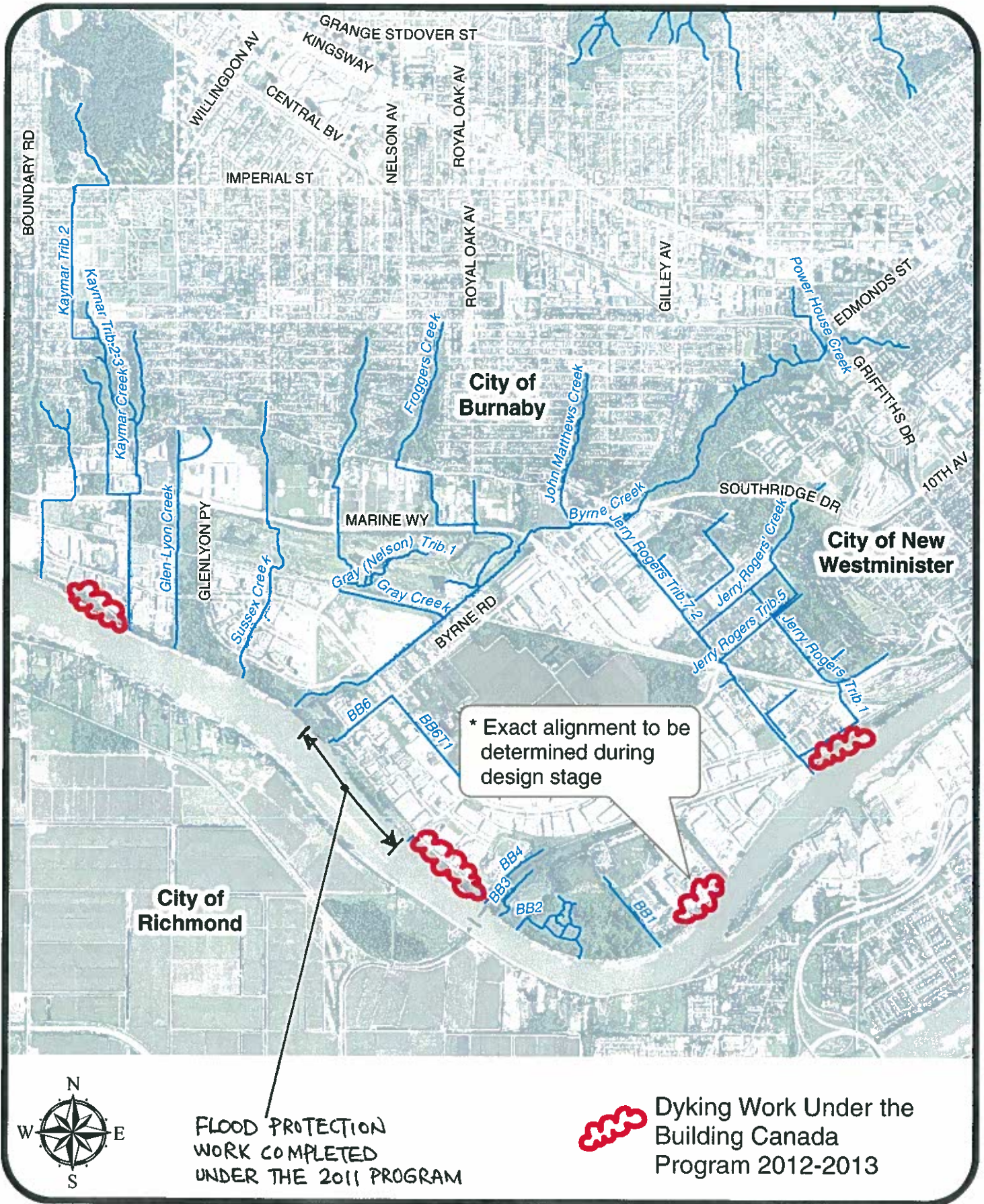


Figure 1 - Building Canada Flood Protection Program 2012 - 2013