



City of Richmond

Report to Committee

To: Public Works and Transportation Committee **Date:** June 29, 2009
From: Dave Semple **File:** 10-6150-04/2009-Vol 01
Director of Parks and Public Works Operations
Re: Local Channel Dredging

Staff Recommendation

That:

1. The City staff work in partnership with Port Metro Vancouver, Steveston Harbour Authority and the Ladner Sediment Group to seek funding from the Provincial and Federal government for the dredging and long term capital and maintenance of local channels as outlined in attachment 1;
2. The attached report from the Director of Parks and Public Works Operations entitled "Local Channel Dredging" dated June 29 2009, be sent to Metro Vancouver board and the Fraser Basin Council for information; and
3. Local Federal and Provincial representatives be advised as to the change in support and consequent reduction of funding available for dredging in the Fraser River and the implications to local Maritime users.

Dave Semple
Director of Parks and Public Works Operations
Att. 2

FOR ORIGINATING DEPARTMENT USE ONLY					
ROUTED TO:		CONCURRENCE		CONCURRENCE OF GENERAL MANAGER	
Engineering		Y <input checked="" type="checkbox"/> N <input type="checkbox"/>			
REVIEWED BY TAG		YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>	REVIEWED BY CAO	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>

Staff Report

Origin

In August 2008, Port Metro Vancouver approved its Dredging Policy and developed a Local Channel Dredging Contribution Program (attachment 1). This new policy changes the nature of the relationship among the City of Richmond, Richmond maritime users and Port Metro Vancouver in relation to dredging. This report identifies the potential impacts of this change and provides recommendations for Council to consider in order to help mitigate the impacts.

Analysis

Port Metro Vancouver's new Dredging Policy identifies the following three policy objectives:

1. To provide for dredging in support of international and domestic trade in a manner consistent with the purposes of the Canada Marine Act, its commercial obligations and the principle of self-sufficiency.
2. To provide for the development of a Local Contribution Program to support the dredging requirements of local communities on the Fraser River, in a manner consistent with Port Metro Vancouver commitment to community partnerships.
3. To provide for the development of a management program that recognizes dredge material as a resource rather than a waste product and maximizes its use.

Since 1999, the Fraser River Port Authority (FRPA) only focused on deep sea channels; its involvement in local channels was ad hoc. These policy objectives present a change to Port's role in dredging in that it will now focus on deep sea and domestic channels and limit its commitments to local riverfront communities. Port Metro Vancouver will support riverfront communities in developing sustainable solutions for local channels through a seven (\$7) million dollars contribution over 10 years.

The map included in this report (attachment 2) describes Port Metro Vancouver's dredging commitments in and around Richmond. The South Arm of the Fraser River is considered a Deep-Sea Shipping Channel and dredging in this area will be fully funded by Port Metro Vancouver. The North Arm of the Fraser, from Richmond to New Westminster, is considered a Domestic Navigation Channel and dredging here will also be fully funded by Port Metro Vancouver. Annacis Channel from Boundary Road to Purfleet Point is also considered a domestic navigation channel and Port Metro Vancouver will also fund its maintenance dredging.

Port Metro Vancouver has identified four areas around Richmond as "Local Navigation Channels". These areas are described in Table 1. In the case of Local Navigation Channels, Port Metro Vancouver has committed up to \$500,000 per local channel over a period of 10 years to organizations which support the interest of the local community. It will also provide guidance to the development of local groups, who will be responsible for, identifying dredging impacts and costs and developing a sustainable dredging plan. It will not, however, oversee any one specific project or incur any liability for dredging done by others in local navigational channels.

Table 1: Local Navigation Channels

Location	Progress to Date
Steveston Harbour	Steveston Harbour Authority leading planning process
Ladner / Richmond South Islands Sea Reach Canoe Pass Ladner Harbour Ladner Reach Deas Slough	Ladner Sediment Group formed to begin dredging plan
Middle Arm Channel	No group formed at this time
Area behind (Don & Lion Islands)	No group formed at this time

Steveston Harbour:

The City is currently working with both the Steveston Harbour Authority and the Federal Department of Fisheries and Oceans to ensure a sustainable approach for dredging for the long term. In the past, the Fraser River Port Authority would have dredged the entrance to the main Steveston Harbour Channel on an ad hoc basis but this activity has been eliminated as a result of Port Metro Vancouver's new policy objectives. Minor funding from the Steveston Harbour Authority is available for this required dredging but is not enough to cover the cost of ongoing channel maintenance. The Steveston Harbour Authority has recently received \$4.3 million dollars for harbour improvements from the Federal government as a direct result of the General Manager of the Steveston Harbour Authorities efforts in Ottawa to ensure the Federal government is aware of the issues in Steveston. While the harbour has received these monies to start to address the issues of dredging in Steveston Harbour it is only a beginning and continued development of a sustainable plan for dredging and the funding to carry it out is paramount. Pressure will have to be brought to both the Province and Federal Government for funding if the fishing fleet and harbour enterprises in Steveston are to remain successful.

Ladner/Richmond South Islands:

The Ladner Sediment Group (LSG) has been in existence for about one year to attempt to address the issues related to sediment infill that is occurring in both the local channels and the Ladner Harbour area. The conditions have resulted in float homes hitting bottom at lowest low tides and the local channels being non-navigable. Richmond has been involved with the group because the south islands are within Richmond City boundaries and staff have sat on the Ladner committee to assist as required. While Port Metro Vancouver has been facilitating meetings and are prepared to give the group a consulting grant, major funding will be required to find a sustainable solution to the problems. The group has brought the issues to Delta Council who have responded by having a representative on the committee and by also approving a resolution proposed by the LSG which reads:

"The Corporation of Delta, to support and join with us (Ladner Sediment Group), to create this plan and work together in securing the necessary funding from all possible sources to service this project."

While no significant problems are currently faced by Richmond due to this sediment infill, Ladner is experiencing major issues. The closing in of the channel and cutting off of the fishing

industry and boats in Ladner would cause considerable loss of economic development and potential loss of access to homes recreational and fishing boats. Studies are being done to see what the potential damage would be and the costs to resolve the issue which are expected to be significant. The issue will ultimately be funding and identification of responsibility.

Area behind Don & Lion Islands:

This channel is located east of the Lafarge cement plant along the south arm of the river and situated behind Don and Lions Island. Major industry, including the various businesses that operate at Shelter Island Marina, is adjacent to the channel. A number of business owners impacted, will be meeting in July to review next steps with Port Metro Vancouver. City staff has been invited to participate with the group. Currently, there are access problems between Don, Lion and Lulu Islands and the building up of some sediment in the channel but further information will be required. This group may be looking for funding from others to fix the situation.

Middle Arm Channel:

This channel runs from the North Arm of the Fraser and then west past the Richmond Olympic Oval and Terra Nova Rural Park. It then diverts around Swishwash Island on both sides. Previously, the Middle Arm was under the management of North Fraser Port Authority (now continued as Port Metro Vancouver) although no major work was done. The Channel is changing and major studies and work will be required to understand what is occurring and what can be done to ensure the channel is useful. The City is a major stakeholder in this channel as it approved the Middle Arm Concept Plan in 2007 and is investing significantly in the upland dyke area. A stakeholder group including City representatives should be formed as soon as possible to begin identifying a dredging plan for the Middle Arm.

Up-River:

Port Metro Vancouver is working hard within its jurisdictions that extends upriver to Kanaka Creek in Maple Ridge. The City is not, however, aware of any coordinated management plan or studies being done or funding for the remediation of the upper Fraser River. Any work that is done on the lower Fraser River could contribute to problems Up-River, and vice-versa. The importance of the Fraser River to the future of British Columbia cannot be understated and both the Federal and Provincial Government must play a major role in ensuring that the River is a sustainable resource for the future. One concern that must be addressed at this level is the potential for major flooding due to the combination of sediment infill along with climate change.

As a result of the change in Port Metro Vancouver's Dredging Policy Objectives, the City should consider the following actions:

1. Work with Port Metro Vancouver to form advisory groups for the local channels and utilize the funding program offered by the Port to determine dredging requirements on the river and options for consideration.
2. As above with the added action of ensuring Port Metro Vancouver, the Fraser Basin Council, and local Provincial and Federal representatives and their appropriate departments are made aware of the consequences of ignoring the sediment infilling that is occurring on the river that is not under the responsibility of Port Metro Vancouver.

Financial Impact

There is no financial impact at this time.

Richmond has set aside funding for some dredging and marine repair in its waterfront improvement reserve fund. There is limited funding available from Port Metro Vancouver to support local channel dredging to support the development of sustainable dredging plans.

Conclusion

The City of Richmond will participate with our local channel partners regarding impacts of Port Metro Vancouver's new Dredging Policy and ensure that the Provincial and Federal governments are involved in finding funding for the sustainable solution required to ensure the long-term health of our rivers.



Dave Semple
Director of Parks and Public Works Operations
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DCS:sl



Backgrounder

Dredging Policy & Local Channel
Dredging Contribution Program

Introduction

As a deep-sea port and Pacific trade gateway, Port Metro Vancouver (PMV) has a responsibility to dredge for navigational purposes to ensure that tenants and customers have access to terminals for trade and commercial purposes. In addition, as a member of the lower mainland community, PMV must consider the needs of communities who use the river for small business and recreation and whose activities do not fall under the Port's mandate.

In 2008, PMV developed a Capital Dredging Program following user consultation. The Capital Dredging Program addresses PMV's responsibility for deep sea and domestic shipping channels that support international and domestic trade. Dredging in this context must be commercially viable and will be completed on a cost-recovery basis.

Following discussions with tenants in 2008, PMV developed a dredging policy that also reflects a commitment to social responsibility to help address the issue of ongoing maintenance dredging for all users through the **Local Channel Dredging Contribution Program**.

Policy Statement & Objectives

Port Metro Vancouver is committed to undertaking and managing port-related dredging in a holistic manner consistent with its philosophy of sustainability, and in support of its corporate objectives.

The Port's dredging policy objectives are:

1. To provide for dredging in support of international and domestic trade in a manner consistent with the purposes of the Canada Marine Act, its commercial obligations and the principle of self-sufficiency.
2. To provide for the development of a Local Contribution Program to support the dredging requirements of local communities on the Fraser River, in a manner consistent with the Port's commitment to community partnerships.
3. To provide for the development of management program that recognizes dredge material as a resource rather than a waste product and maximises its use.

The Policy itself is comprised of three programs: dredging, local contribution and materials management.

Dredging Program

In support of international and domestic trade, PMV will only dredge deep sea and domestic channels and develop a 10-year *Dredging Program* designed to maximize the use of Port Metro Vancouver's assets. This program will be guided by the Port's dredging philosophy.

Local Contribution Program

In support of riverfront communities, the Port will develop a 10-year *Local Contribution Program* that will provide financial or other contribution to dredging projects in support of riverfront communities.

Dredge Material Management Program

In supporting the use of dredge materials as a resource rather than a waste product, the Port will develop a 30-year *Dredge Material Management Program* that will maximize the commercial value of sand and other material.

The Port's dredging policy refers to three kinds of navigation channels: deep sea, domestic and local.

- **Deep Sea Channel** refers to a navigation channel that is maintained to serve ocean-going vessels.
- **Domestic Channel** refers to a navigation channel that is maintained predominately to serve the barge and towboat industry.
- **Local Channel** refers to the portion of a waterway that is maintained predominantly for community, recreational or marina use.

Local Channel Dredging Contribution Program

This program will be based on the following criteria:

1. PMV's contribution may only be provided to an organization(s) that represents the interests of those communities as identified in PMV's list of eligible communities, and which have registered with the B.C. Corporate Registry as a Society or B.C. Company.
2. Community plans must be sustainable and long term (8-10 years)
3. The contribution is not to exceed \$500,000 per "local channel" over a 10-year period
4. The total cost of the contribution program is not to exceed \$7 million over a 10-year period.
5. Advanced funds will be available to eligible communities. These funds can be used for activities directly related to preparing a full application for funding.

PMV will also provide support to communities mobilizing toward sustainable dredging plans as part of our commitment to playing a leadership role on this important river community issue. Applications will be available in 2009.

April 15, 2009

**Update on Port Metro Vancouver's Dredging Policy & the Local Channel
Dredging Contribution Program**

In September 2008, Port Metro Vancouver finalised a Dredging Policy addressing our responsibility for the maintenance of deep sea and domestic shipping channels in the Fraser River that support international and domestic trade.

Following discussions with Fraser River tenants between June and September regarding the Port's dredging philosophy, the Policy also includes a 10-year **Local Channel Dredging Contribution Program** that will provide financial support for riverfront communities to undertake their own dredging activities beyond deep sea and domestic shipping channels. This program reflects our social responsibility to help facilitate ongoing maintenance dredging for all river users.

The Local Channel Dredging Contribution Program investment will support long-term community-based plans and has been budgeted at up to \$7 million over 10 years. The Port's contribution may only be provided to an organization(s) that represents the interests of eligible communities (see attached list and map). The contribution will not exceed \$500,000 per Local Channel over a 10-year period.

The Port will also provide guidance to communities mobilizing toward sustainable dredging plans for their areas. User associations have already been established with assistance from the Port in the Steveston and Ladner communities. For more information about their progress to date or to become involved, please contact the Steveston Harbour Authority or the Ladner Sediment Group:

Mr. Robert G. Baziuk
Steveston Harbour Authority
bob@stevestonharbour.com
(604) 272-5539

John Roscoe
Ladner Sediment Group
jroscoe@dccnet.com
(604) 940-0606

Beginning in May, the Port will host a series of workshops by community for the remaining local channels to introduce affected users, provide tools and to share information about how river communities can address this important issue.

Over the next several months, we will be also developing an internal review process to support the Local Channel Dredging Contribution Program and will provide information on how users can apply for funding as soon as it is available.

If you are interested in attending a workshop in May with a group of affected users to work together toward a sustainable dredging solution for your area, please contact Chris Hall at 604.665.9273, or chris.hall@portmetrovanancouver.com.

Yours truly,

Capt. Tom Corsie
VP Infrastructure Development
Port Metro Vancouver

Cc:

June 5, 2008

Dredging FAQ's

1. *Why doesn't the Port dredge to protect channel depths under the Navigable Waters Protection Act?*

The NWPA is an act to ensure that man made structures do not impact on navigation. The annual infill of the Fraser River is an annual natural occurrence.

2. *Where has all the water gone?*

The water levels in the Fraser River are not constant. They are the result of two separate actions. Firstly, the mouth of the river is most affected by the tidal range of the Strait of Georgia, which occurs twice a day, most days of the year. The height of this tide is determined by the stage of the moon, and storm activity in the Strait of Georgia. The second activity is the daily volume of the river discharge, measured in cubic meters per second. Over a year this volume varies from a low of 1000 m³/s to 10,000 m³/s. In the spring low tides can combine with low flow to give the impression there is little water in the river. Conversely, in the early summer high flow and high tides exacerbate the flood threat in the lower river.

3. *I am experiencing more infill in the last two years than I did in the previous five years, what is going on?*

That is a hard question to answer. It could be:

- the thalweg of the river has shifted,
- a neighbour may be "prop washing"
- you may have reconfigured your works and slowed the water flow in your tenure.

4. *How much sediment does the Fraser River deposit on an annual basis?*

It is estimated, that on average, the Fraser River discharges 32 million cubic metres of sediment annually. Approximately 10% of the material settles in the lower reaches.

5. *I pay the Port rent, why won't you dredge my waterlot and the approaches to my waterlot?*

Your tenure payments to the Port are for the use of untitled crown land. This is the same fee that you would pay in an upland situation if you wanted to rent bare land. The Port leases property on a "triple net" basis. This policy requires that the tenant of the land assume and pay all of the maintenance costs.

6. *Why did the Federal Government “walk away” from this important activity?*

In 1997 and 1998 the federal government undertook a program review. From the program review Transport Canada found that dredging was a service that they did not provide in jurisdiction of every Port. To rationalize and save money a policy was created that if TC did not supply a service to every Port; they would supply it to no port. As a result the federal dredging programs in Saint John, New Brunswick, the St. Lawrence River, and the Fraser River.

7. *I understand there is work occurring on a new “dredging” policy; when can we expect to see the results of that work?*

Port staff is currently working on a dredging policy and expects to have it approved by the end of September 2008.

8. *Who sits on the Port’s dredging policy development committee?*

The committee consists of personnel from various Port departments such as Maintenance, Harbour Masters Office, Legal, etc. Their role is to develop a policy that will guide the implementation of our dredging philosophy.

9. *How can I obtain a seat on the dredging policy development committee to ensure that my needs are considered?*

The committee will be made up of Port employees. However the input from stakeholders during the consultation process will be discussed and consider when drafting the policy as well as the overall dredging program.

10. *I believe the management of water is a provincial responsibility; why doesn’t the provincial government contribute to dredging?*

The Province does have a responsibility for water management and is one of the partners the Port believes is required to develop a unified river management regime.

11. *What would it cost to implement a secondary channel-dredging program?*

It is estimated, that the average, annual expense would be 1.5 million dollars to re-establish and maintain the channels to their design widths and depths.

12. *I have heard the Port wants small users to use “tidal windows” to enter and leave some of the side channels. Why should we when we have never had to do this before?*

The provision of dredging services is costly and the “window” of time available for the annual maintenance-dredging program is relatively small given the volume of infill to be removed annually. The use of “tidal windows” by all users would

