



# City of Richmond

## Report to Committee

**To:** Parks, Recreation and Cultural Services  
Committee

**Date:** June 25, 2015

**From:** Mike Redpath  
Senior Manager, Parks

**File:** 11-7200-01/2015-Vol  
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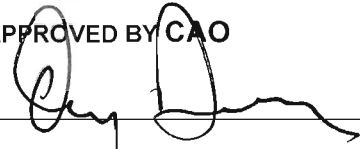
**Re:** **Steveston Channel Sheer Booms**

### Staff Recommendation

1. That the staff report titled "Steveston Channel Sheer Booms," dated June 25, 2015, from the Senior Manager, Parks, be received for information; and
2. That a letter be sent to the British Columbia Provincial Minister of Forest, Lands and Natural Resources Operations, to the Federal Minister of Transportation, Richmond's Members of Parliament, and Richmond's Members of the Provincial Legislative Assembly to raise awareness of the Steveston Cannery Channel floating debris issue, the continued hazards to navigation posed by it and to seek support to remedy the issue.

Mike Redpath  
Senior Manager, Parks  
(604-247-4942)

Att. 6

REPORT CONCURRENCE	
CONCURRENCE OF GENERAL MANAGER 	
REVIEWED BY STAFF REPORT / AGENDA REVIEW SUBCOMMITTEE	INITIALS: 
APPROVED BY CAO 	

## Staff Report

### Origin

The purpose of this report is in response to the March 24, 2015, Parks, Recreation & Cultural Services Committee referral:

*That staff examine the repair of the sheer boom in the Steveston Channel and report back.*

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

*Continue diligence towards the development of infrastructure networks that are safe, sustainable, and address the challenges associated with aging systems, population growth, and environmental impact.*

*6.1. Safe and sustainable infrastructure.*

*6.2. Infrastructure is reflective of and keeping pace with community need.*

### Analysis

There are two sheer booms located within the Steveston Harbour Channel east of No. 2 Road. These booms were installed to redirect and collect the flow of deadheads (abandoned floating logs) and other large floating debris from coming onto the harbour's shorelines and damaging waterfront amenities such as piers, piled buildings and floats (Attachments 1 and 2).

The main sheer boom located south of London Farm's waterfront is a series of piles/dolphins connected to a line of floating logs (booms). They were installed by Public Works Canada and previously managed by the Canadian Coast Guard and now fall under the review of the Crown Province's Forest, Lands and Natural Resources Operations (FLNRO) and Transport Canada.

The sheer booms are in poor condition and have been abandoned due to the lack of maintenance funding from the Crown Province (Attachment 1 – Area A). With its current condition, the accumulation of log debris has increased substantially and the risk of floating deadhead and debris crashing into waterfront properties and assets has also increased (Attachments 3 and 4).

In the past, these booms would act as the main deflection line against debris from entering the Steveston Harbour Secondary Channel. The City has received approvals from FLNRO, Transport Canada, and Department of Fisheries and Oceans (DFO) Real Property's Division to proceed with any repair work to the structures that does not include disturbance to the river bed such as pile removal or pile replacement.

The secondary sheer boom line (Attachment 5) located east of the No. 2 Road Pier/London's Landing was installed by Fisheries & Oceans Small Crafts Harbour and is currently managed by the Steveston Harbour Authority (SHA). This sheer boom was designed to deflect smaller floating debris that would occasionally pass through the main sheer boom structures; however, due to the poor condition of the main sheer boom, it is currently well over its capacity to withstand floating debris of all sizes. Maintenance requests to conduct repairs at this sheer boom are directed to the SHA for consideration and evaluation (Attachment 5).

Port Metro Vancouver's (PMV) Planning and Design staff has conceptually explored a proposal to support their Habitat Compensation Plan which involves the creation of a habitat marsh area that would cover the entrance of the secondary channel from the east end (Attachment 6). The concept plan also shows the existing sheer boom structures in place. At this stage, this is still a concept proposal and will need to be approved by the City as upland owner and Federal/Provincial regulatory agencies. It is unclear at this time on when or if this project from PMV would proceed.

Estimates to replace the main sheer boom (location – Attachment 4) are approximately \$150,000. This option replaces all the deteriorating pile/dolphin structures and boom line with new ones. The current piles are not suitable for affixing a sheer boom to deflect floating debris in their current condition. Applications for permits to FLNRO, Transport Canada, and DFO with their approvals will be required to proceed with this option since it involves pile removal and replacement that impacts habitat vegetation in the river bed.

As these pilings are located on Crown land, staff are suggesting that these works are the responsibility of the Province and Transport Canada. It would be appropriate to send a letter to the Minister of Forest, Lands and Natural Resources Operations, the Federal Minister responsible for Transport Canada, Richmond's Members of Parliament, and Provincial Members of the Legislative Assembly to raise awareness of the debris issue, the continued hazards to navigation posed by it, and to seek their support to ameliorate the issue.

### **Financial Impact**

None

### **Conclusion**

It is only a matter of time before a large deadhead log will again cause significant damage to one of the City's floats, piers, piled buildings or docks. Historically, this has resulted in major damage to our timber and concrete waterfront assets. Repairs to the sheer boom structure are hoped to ameliorate the problem of debris accumulation and will be monitored.



Mike Redpath  
Senior Manager, Parks  
(604-247-4942)

- Att. 1: Steveston Channel Site Plan – Area A and Area B  
2: Deadhead log at No. 6 Road  
3: No. 2 Road Pier and Float  
4: Main Sheer Booms – Existing Condition  
5: Debris at the Secondary Log Boom  
6: Port Metro Vancouver's Concept Proposal for Habitat Marsh Creation



Steveston Channel Site Plan



Deadhead log at No. 6 Road

A deadhead log spearing through and up a City concrete/steel rebar float at No. 6 Road.  
Illustration of damage log debris can cause during strong river current conditions.



No. 2 Road Pier and Float

Accumulation of floating log debris around the City's No. 2 Road Pier and Floats.



Main Sheer Boom – Existing Condition





## Secondary Log Boom

Accumulation of log debris at the secondary log boom (managed by Steveston Harbour Authority)





Port Metro Vancouver's Concept Proposal for Habitat Marsh Creation

