City of Richmond

Report to Committee

To:	Public Works and Transportation Committee	**Date:**	December 20, 2006
From:	Robert Gonzalez, P.Eng. Director, Engineering	**File:**	10-6045-10-01/2006-Vol 01
Re:	**Fraser River Debris Trap**		

Staff Recommendation

That a letter be written to the Fraser River Debris Trap Operating Committee indicating the City's support to secure stable, long-term funding from provincial and federal sources to ensure continued operation of the Fraser River Debris Trap.

Robert Gonzalez, P.Eng.
Director, Engineering
(4150)

Att. 1

FOR ORIGINATING DEPARTMENT USE ONLY		
CONCURRENCE OF GENERAL MANAGER		
REVIEWED BY TAG	YES ☐	NO ☐
REVIEWED BY CAO (ACTING)	YES ☑	NO ☐

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Staff Report

Origin

At the November 16, 2006 Public Works and Transportation Committee the following referral was made to staff.

"That staff investigate what the impact would be on Richmond if the Fraser Basin Council decides to abandon the proposed debris trap."

This report is in response to the referral from Committee.

Analysis

The Debris Trap, commissioned in 1978, is located on the North Shore of the Fraser River between Hope and Aggasiz and captures and average volume of 60,000 m^3 (the equivalent of 14,000 logging truck loads) of wood debris from the river – mostly uprooted and fallen trees that enter the river through natural causes.

The Fraser River Debris Trap Operating Committee operates the Debris Trap at an approximate annual cost of $540,000 while the Fraser Basin Council provides administrative services in this regard. The projected future annual operating costs is estimated to be $750,000.

The purpose of the Debris Trap is to remove wood debris from the Fraser River ultimately to provide the following benefits to downstream areas including the City:

- damage prevention to boats and infrastructure (such as docks, piers, foreshore buildings and bridges);
- debris clean-up cost avoidance along beaches and the foreshore area in general;
- economic opportunities stemming from the operation of commercial and recreational vessels;
- reduction of impact to estuarine habitats;
- reduction of opportunity for personal injuries/fatalities;
- reduction in damage and associated economic loss to shore based land uses;
- reduction of blocked flood boxes at drainage pump station outlets.

Through discussion with the Fraser Basin Council, it is estimated that the City would see 6 to 7 times the volume of wood debris currently experienced should the Debris Trap discontinue operation. The City currently removes approximately 7 logging truck loads of wood debris from our foreshore areas and drainage pump stations on an annual basis with the Debris Trap in operation.

There is also a possibility that a large quantity of debris may be caught in a foreshore area log boom, grow in size, suddenly release and cause considerable impact to the areas that are currently benefited by the Debris trap as listed herein. The City may specifically experience considerable structural impacts to the No. 1 Road and No. 3 Road piers and similar City foreshore infrastructure while the private sector may experience the same. This scenario would also result in an increased opportunity for personal injuries/fatalities.

The biggest economic impact to the City should the Debris Trap cease operation would likely be related to increased clean-up activity and structural damage to City infrastructure. There would also be significant economic impact to numerous business and boats that operate along the foreshore area.

Financial Impact

None.

Conclusion

The Debris Trap benefits a broad range of stakeholders as it prevents a significant volume of wood related debris from impacting downstream activities and conditions. Should the Debris Trap cease operation the current economic, infrastructure protection and safety related benefits the Debris Trap currently provides would be compromised.

Jim V. Young, P. Eng.
Manager Engineering Design and Construction
(4610)

JVY:jvy