



To: General Purposes Committee
From: Suzanne Bycraft
 Manager, Emergency & Environmental Programs
Re: Tsunami Preparedness Grant

Date: February 11, 2005
File: 09-5125-01/Vol 01

Staff Recommendation

That the application to the Provincial Emergency Program for funding under the local government tsunami preparedness program, as outlined in the staff report dated February 11, 2005, be approved.

Suzanne Bycraft
 Manager, Emergency & Environmental Programs
 (3338)

FOR ORIGINATING DIVISION USE ONLY		
CONCURRENCE OF GENERAL MANAGER		
REVIEWED BY TAG	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>
REVIEWED BY CAO	YES <input type="checkbox"/>	NO <input type="checkbox"/>

Staff Report

Origin

The devastating tsunami that struck South Asia in December 2004 demonstrated the impacts that tsunamis can have on coastal communities. To help foster more comprehensive emergency planning around the tsunami threat, the provincial government recently announced a \$1 million grant program. High-risk communities in B.C. are eligible for a \$20,000 grant. Communities at lesser risk, such as Richmond, are eligible for a \$10,000 grant.

Staff wish to seek funding through this grant program for tsunami research to gain additional information as part of on-going risk assessment. The grant application guidelines require a resolution from Council approving the grant application. This report seeks the required approval.

Analysis

Current scientific research indicates that Richmond is at low risk from tsunamis. This is based on a subduction earthquake occurring off the west coast of Vancouver Island, where the North America and Juan de Fuca plates join. These plates are currently locked, and are expected to ultimately slip, creating a large earthquake. These subduction events occur, on average, every 500 years. The last such event occurred in January, 1700 and caused a large tsunami on the West Coast of Vancouver Island as well as in Japan. Past research has shown that such an event would not cause a tsunami in the Strait of Georgia, as much of the water impacts would be absorbed by Vancouver Island. However, it is estimated that water heights would rise by approximately 1 metre in the Strait of Georgia. More recent research by the Institute of Ocean Sciences, however, has suggested that wave heights could be up to 3 metres in height. This is a very general assessment for the Strait of Georgia, and is not specific to Richmond.

There is also research being done around seismic events in the Strait of Georgia and questions on the potential for a submarine landslide – both of which could cause a tsunami.

To gain greater clarity around these issues, staff propose to engage experts in this field to undertake a more detailed evaluation of the tsunami risk in Richmond. This work involves coring and trenching around Richmond to identify any tsunami deposits that might be present. These core samples will be analyzed to determine if they contain coarse sediment deposited by a tsunami. Past geological events are the best method available to predict potential future incidents. Therefore, this research will be beneficial in assessing the tsunami risk in Richmond.

Financial Impact

The cost of the tsunami risk evaluation is estimated at \$10,000. Should Richmond's tsunami preparedness grant application be approved, the City would receive full funding support for this research initiative, resulting in no net cost. The work would not proceed until such time as confirmation of our funding application was received.

Conclusion

There is an opportunity to obtain provincial funding, in the amount of \$10,000, to help advance tsunami research specific to Richmond. Staff recommend taking advantage of this funding as part of assessing the risks to Richmond to help guide our emergency planning efforts.



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