

MEMO

To: Northern and Southern Panel Members
From: Technical Advisory Group
Date: April 2017
Subject: **THREE REPORTS - WESTSHORE**

In response to erosion at Westshore, Napier City Council has undertaken a number of studies over the years, to both determine the likely extent of land potentially affected by coastal processes as well as extensive consideration of the various physical options to mitigate the effects of coastal erosion.

The beach renourishment programme for the Westshore area began in January 1987. The renourishment programme was considered the best practicable option at the time of implementation for protecting the land potentially subject to coastal processes. Effectively a wall of gravel and sand is maintained along the beachfront and although, as anticipated, material is carried off by storms and wave action, the shoreline itself has held to date, subject of course to continuing replenishment of material.

A further coastal defence measure, the existing seawall on the Westshore side of Whakarire Avenue was constructed in 1994. Built in concrete rubble, it was dressed with limestone rock armour in 1997, mainly on the leeward side. The existing seawall funnels waves into the southern end of Westshore Beach, causing northward and seaward movement of sediment and renourishment material placed there. The existing seawall is also not considered robust enough as a long-term structure to protect Whakarire Avenue.

Consequently Napier City Council investigated options to better protect this erosion-prone shoreline and properties. After a series of iterations, resource consent has recently been granted for a 150metre long limestone revetment wall on the landward side of the existing breakwater, which will also remain in place. There will also be a 65-metre long 'wave spending beach' at the western end where existing large concrete blocks are currently situated. The spending beach is expected to lessen the impact of waves on southern Westshore Beach.

In order to assist the panels in assessing the various options for responding to the potential threats of erosion it was felt it may be useful to circulate some of the key documents commissioned by Napier City Council that evaluate various options of the effectiveness of possible mitigation options.

These reports are:

- Review of the Westshore Nourishment Scheme (Dr Gibb March 2003)
 - Remedial Work to Counter Erosion at Westshore (Beca November 2003)
 - Westshore Beach Regrading (Beca March 2007)
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