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New Brighton Beach Scraping

Beach Scraping

'Beach Scraping' is the transfer of sand from the inter-tidal area to parts of the beach above high tide. The practice is designed to speed up the rebuilding of the dune system following a storm event, or at any other time.

Beach scraping can assist with:

- reshaping and increasing the volume of the dunal system,
- building up the dune to a certain height to prevent wave overtopping and inundation of coastal lands,
- improving beach accessibility and amenity, through re-shaping of the dune profile.

The above processes may occur naturally, usually as a result of wind driven sand deposition (aeolian transport), but at a much slower rate.

Beach scraping is unlikely to be a long-term solution to address coastal erosion and shoreline recession, especially under rising sea level, however, it may provide benefit over the short to medium-term.

New Brighton

In the 1960s and 1970s, significant coastal erosion was experienced at New Brighton Beach. Several homes at the southern end of New Brighton were abandoned. Further south, the village of Sheltering Palms, comprised of approximately 17 lots and houses, was lost to coastal erosion.

Coastal hazard assessments have predicted that a large, 'design' storm could result in the erosion of the beach at New Brighton by some 40 to 50 metres landward, or 200m³/m. As a consequence, parts of The Esplanade Road and private property are under an 'immediate' threat from coastal hazards.

The New Brighton beach is also subject to long term recession, between 0.08 and 0.15 metres/year. The predicted position of the shoreline following a design storm (immediate hazard line) is shown at Figure 1, as well as the predicted position of the shoreline at 2050 and 2100, following a design storm. The 2050 and 2100 hazard lines factor in long term recession, as well as anthropogenic sea level rise (0.4 cm by 2050, 0.9 m by 2100).

Beach scraping was undertaken at New Brighton from the 1970s through to the 1990s. After a significant hiatus, a successful beach scraping trial was undertaken in 2010.

Figure 1 New Brighton Immediate Hazard Line (BMT WBM, 2013)

Related information

Beach Scraping New Brighton Beach, Trial -Analysis of Dune and Beach Profile Data, Jan 2012

Beach Scraping, The Effects of Beach Scraping on the Infauna of New Brighton Beach, SCU, June 2011

Beach Scraping New Brighton Beach, Summary Report July 2010 - Foreshore Management Works Development of a Proposal and Environmental Assessment of Beach Scraping - New Brighton and South Golden Beach