



2012-14LRep

18 December, 2012

The CEO
Kapiti Coast District Council
Lindale
PARAPARAUMU

Attention: Matt Aitchison

Dear Sir

Data and computations for 2012 Erosion Hazard Update Assessment

1) The data-base.

An erosion hazard data-base is the practitioner's spreadsheets and these contain raw and processed data and their use application in erosion prediction models (as set out in the associated assessment report). Data sources, data abstraction and data limitations are set out in the full assessment report, with derived parameter values and their combinations for different erosion prediction scenarios are listed in its appendices.

2) Purpose and circulation

The purpose of the data-base is to provide the practitioner with a working record of how his/her computations were carried out, and to facilitate the incorporation of additional future information as it comes to hand. As such, the data-base is the intellectual property of the practitioner (consultancy) and remains so until the associated consultancy releases it, in which case its use may be controlled by specific conditions.

3) 2008 Erosion Hazard Assessment

A comprehensive data-base was produced for the 2008 Kapiti Coast Erosion Hazard Assessment.

4) 2012 Updated Erosion Hazard Assessment

It was not necessary to revise the data-base for the 2012 Update Assessment as it used the same methods as the 2008 assessment, and, with the exception of North Raumati/South Paraparaumu, the same data were used (see Section 3.2.1 of the 2012 Update Report). These additional data resulted from CSL's Marine Parade Revetment (MPR) investigation (2010) which had incorporated further historical shorelines (Section 2.3.1 of the 2012 Update Report). The associated shoreline time series are included in the MPR report (Fig 7B), and the revised erosion hazard parameter values used in the 2012 Update Assessment are set out in Table 3.1 of the 2012 Update Report and discussed on p 21 and 22.

5) 100 yr scenario

The inclusion of a 100 yr unmanaged scenario was based on the 2008 erosion assessment's predictions for the 50 yr unmanaged scenario with the time-based component values being modified to accommodate the longer prediction time. In particular, the 50 yr LT (Longer-Term shoreline change) values were doubled while the 50 yr RSLR (Retreat from Sea-Level Rise) values were trebled (as SLR was increased from 0.3 to 0.9 m). The CU (Combined Uncertainty) values were also increase in proportion to the relative contribution of the time-dependent components and this is detailed in Sections 3.1.5 and 3.2.5 of the 2012 Update Report. The remaining components: ST (Shorter-Term shoreline change) and DS (Dune Scarp adjustment) remained unchanged.

6) Seawall effects

“Community” protection structure (seawall) effects on adjacent unprotected shorelines were more robustly defined than for the 2008 assessments using an empirical model (Section 2.3.2 and Appendix A in the 2012 Update Assessment).

7) Reference shoreline

The reference shoreline from which the predicted erosion distances are measured (landward) and thence the erosion prediction lines plotted, was not updated as the plotting difference was at most 1 m (Section 3.3.1 in the 2012 Update Assessment).

8) Further explanation

Should other coastal experts need additional information/explanation than is contained within the hazard assessment reports, they can, at the discretion of the council, meet with the author and go through the various spread sheets and methods.

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