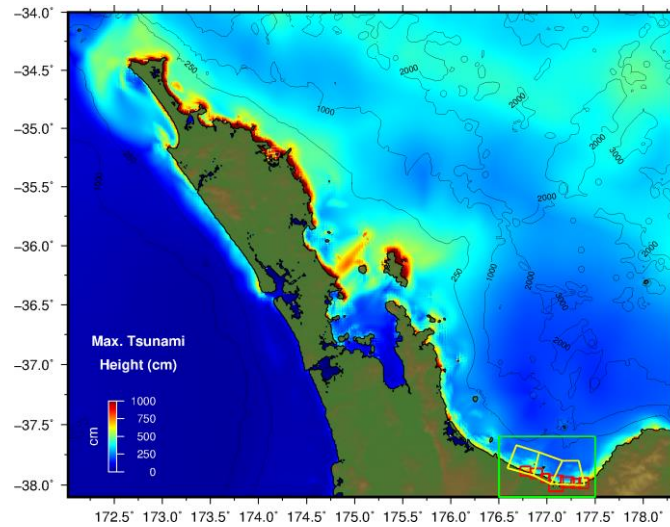


# Probabilistic Tsunami Inundation Assessment for the Western Bay of Plenty

Western Bay of Plenty, New Zealand



Maximum computed Tsunami height in the A grid for a maximum credible tsunami event in the Western Bay of Plenty.

## INFO:

**Location:** Western Bay of Plenty, New Zealand

**Client:** Western Bay of Plenty District Council

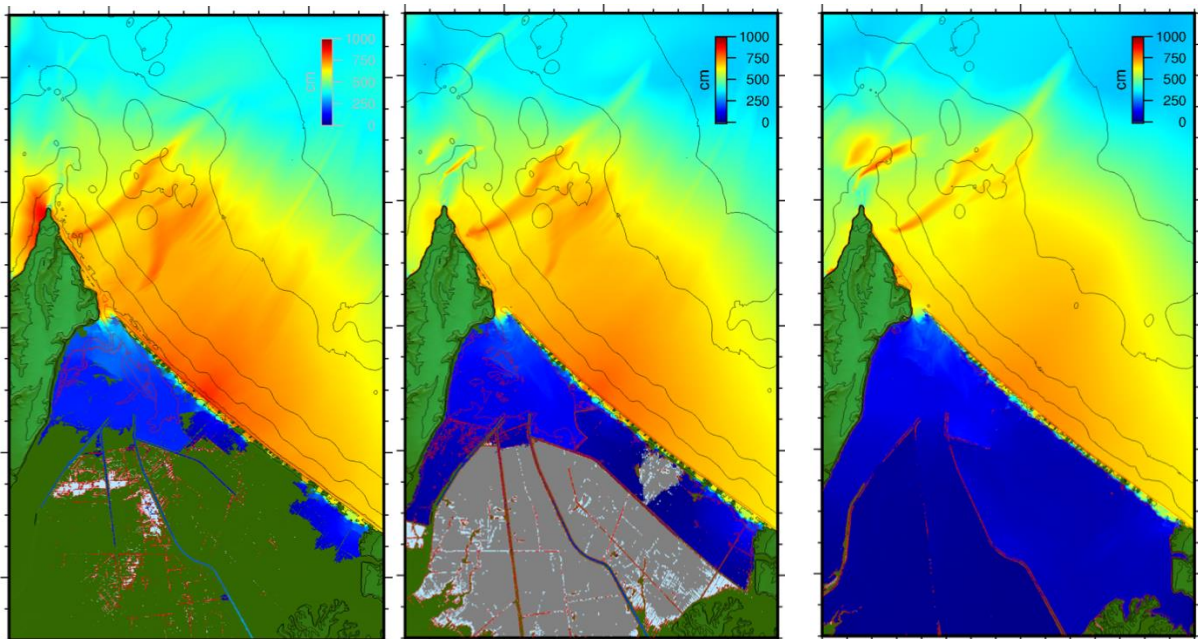
**Project Date:** 2017

## SCOPE OF SERVICES:

- Literature review, Historical Analysis
- Numerical Modelling
- Validation of comMIT Tsunami Model
- Recurrence Interval Analysis
- Detailed Inundation Assessment

## PROJECT DESCRIPTION:

The objective of this study was to identify areas in the Western Bay of Plenty District susceptible to tsunami inundation hazard. The outputs from this study have been used to set the tsunami hazard context across the Western Bay of Plenty. This study focused on three areas: Waihi Beach, Maketū and Pukehina Beach, and Little Waihi Estuary. For each of these areas the inundation extents for four different probability levels based on the National Tsunami Hazard Model of Power (2013) were determined. The outputs from this study were mapped tsunami overlays of tsunami height, tsunami current speed and tsunami overland flow depth, which will be used as input data for future tsunami risk assessments. The model scenarios were assessed at three water levels with allowance for sea level rise. The numerical modelling presented in this study was carried out using the Community Model Interface for Tsunamis (ComMIT) numerical modelling tool.



The maximum computed tsunami height and inundation extents for the 25-year RI events at Pukehina. Model grids at MSL (left) MHWS (mid) and MHWS +SLR (right).