

Project: Matata Natural Disaster
Client: Insurance Council of New Zealand
Location: Matata, Bay of Plenty
Date: 2005

RILEY was instructed, by the Insurance Council of New Zealand, to assess and report on damage caused by the natural disaster in Matata, a coastal settlement approximately 25km north west of Whakatane in the Bay of Plenty.

In May 2005, heavy rainfall caused elevated stream levels consisting of flood flows, mobilised rock debris and vegetation. The debris primarily originated from the Waitepuru and Awatarariki catchments above Matata, resulting in widespread damage to the town. The main source of debris was derived from landsliding and erosion associated with this extreme rainfall event. The debris flows were initiated by landslips within the catchments.

Rainfall was significantly greater than the 1 in 100 year design rainfall depths over both 1 hour and 24 hour durations and the intense burst of rain immediately preceding the event resulted in numerous landslips. Slip debris entering the valley floor, continued downstream, transforming into a debris flow which eroded and flushed out much of the valley bottom, causing further landslips and increasing the volume of debris mobilised.

During the course of the assessment RILEY:

- ❖ Liaised with Insurance Assessors, locals, Civil Defence, Whakatane District Council, Environment Bay of Plenty, and Transit NZ, regarding anecdotal evidence of hazard type.
- ❖ Sourced and reviewed photographic/video records during and following event.
- ❖ Researched rainfall and flow records relevant to Matata catchments and assessed significance of rainfall event, secondary flowpaths and other triggers.
- ❖ Undertook aerial reconnaissance to assess the extent of damage to the town, contributing catchments and the extent of landslips.
- ❖ Undertook a walkover inspection to assess landslide volumes, mechanisms of failure and evaluation of sediment load, size and material type deposited in town, source of the material.

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