

Media Release

Port Hills 3D rockfall study released

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The Canterbury Earthquake Recovery Authority (CERA) has today released the findings of a three-dimensional (3D) rockfall modelling study on the Port Hills.

“CERA commissioned Geovert Ltd to carry out this study, and it was used alongside other investigations and work commissioned by the Christchurch City Council to help give Cabinet the best advice for zoning decisions on the Port Hills, on land affected by rockfall and boulder roll,” said CERA chief executive Roger Sutton.

The 3D modelling used the Hy-Stone programme developed in Europe at the University of Milano-Bicocca, at their Dipartimento di Scienze Geologiche e Geotecnologie’s.

“The 3D model generates many thousands of boulders of varying sizes and then tracks their trajectories, paths and run out distances,” said Mr Sutton.

“The modelled boulder trajectories are what could happen should further boulder fall happen by either natural processes such as large rainfall events, or an earthquake from another direction than those experienced in February and June 2011.

“This information was used, in conjunction with other studies and expert advice, to assess what areas on the Port Hills are potentially impacted by rockfall,” he said.

The areas investigated by the 3D model extended well over 65 square kilometres across the Port Hills.

Mr Sutton said that rockfall was the only hazard considered in the study, and cliff collapse, boulder flux and land movement were not part of the scope.

“It is very important to note that the results of the 3D modelling study are the equivalent of preliminary design level of detail for rock roll mitigation. This study was not intended to be used for detailed design or other rock roll mitigation assessment purposes.”