

PhD position in post-earthquake sediment cascade monitoring and modelling, Wellington, New Zealand

We are looking to recruit a PhD student to join a project focused on monitoring and modelling the sedimentary cascade from hillslope to the sea triggered by the 2016 M_w 7.8 Kaikōura earthquake. The candidate will carry out detailed monitoring of post-earthquake changes in sediment transport and fluvial morphodynamics using a multi-epoch dataset of airborne LiDAR along two rivers severely impacted by co- and post-seismic landsliding. Insights into the rates and extent of change gained from LiDAR differencing will be used to inform the development and validation of numerical models that will ultimately be used to explore the controls on the magnitude and duration of postseismic sediment cascades. Modelling will be conducted in collaboration with researchers at the University of Rennes using the code EROS.

The student will be based at Victoria University of Wellington with Dr Jamie Howarth and will also work with Dr Phaedra Upton of GNS Science, Dr Jon Tunnicliffe of University of Auckland and Dimitri Lague of Rennes University, France.

We are looking for a candidate with a background in field based geology or geography with strong numerical skills including GIS, programming and quantitative data modelling and analysis.



The impact of landsliding from 2016 Mw7.8 Kaikōura earthquake on the Haupuku River. Photo: D. Townsend

Candidates should in the first instance send to jamie.howarth@vuw.ac.nz a CV, academic transcripts and a letter containing the following information - why they are applying, what they hope to get out of PhD study, why they are suited to the position, and the name and contact details of two or more scientific referees. We will accept initial applications until October 31st 2018. The successful applicant will be expected to take up the position no later than the 28th of February 2019.