The Geological Society

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North Wales Geological Association
And North West Regional Group

Joint Meeting

Thursday 10th November 2016

Assessing the hazard of low frequency, high magnitude landslide events; the role of the engineering geologist by Steve Parry

During a severe rainstorm on 7 June 2008, over 2,400 landslides were recorded on Lantau Island, the largest island in Hong Kong. Numerous road links were severed and many landslides impinged on existing residential developments.

This was one of the most notable storms to have occurred in Hong Kong in several decades, with a 4-hour rolling rainfall equated to a return period of 500-1000 years. A number of the landslides developed into major debris flows, with significant secondary entrainment and long run out distances. Such hazards were underrepresented in the existing data sets at that time.

The presentation will outline the approach to landslide assessments in Hong Kong, discuss the hazard from debris flow with reference to the 2008 storm, illustrate the uncertainty associated with assessing debris flow hazard and examine how this uncertainty can be reduced.

Whilst there are limited historical records of debris flows in the UK, they have been documented in North Wales, the Lake District and Scotland, with the impact on the A83 Rest and be Thankful being most notable. There is also evidence that the frequency of such events is increasing and the lessons learnt in Hong Kong are useful for the evaluation low frequency, high magnitude debris flows in the UK.

***CPD**: These events may be considered for contributing to a recognised Continuing professional Development (CPD) scheme as part of personal development. Delegates should check their individual scheme requirements.*

Steve Parry is an engineering geologist with over 30 year's experience in the application of engineering geology to the assessment of geohazards, heavy foundations, dams, tunnels, quarries, geomaterials and contaminated land. He was principal technical reviewer of "Engineering Geological Practice in Hong Kong" the Hong Kong Government's guidance document on the application of engineering geology and co-author of "Guidelines for Natural Terrain Hazard Studies" which forms the basis of landslide risk assessment in Hong Kong. Steve led the recent technical review of the guidelines for landslide assessments on behalf of the Hong Kong Government. Steve has recently commenced a part-time PhD at Leeds University, co-sponsored by the British Geological Survey and Leeds University, examining the relationship between landscape evolution and landslide hazard in the UK. He is also assisting with the Leeds Engineering Geology MSc course.

Coffee from 6.30pm. Lecture starts at 7.00pm

Venue: Room CBB115 of the **Best Building** (location of the Geography Department) on the Parkgate Road Campus (main campus) of the **University of Chester CH1 4BJ** http://www.chester.ac.uk/find-us

Organised Jointly by the North West Regional Group of the Geological Society of London and the North Wales Geology Association

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