

BGA Evening Meeting

Wednesday 17th May 2017 at 18:00

GODFREY MITCHELL THEATRE, INSTITUTION OF CIVIL ENGINEERS,
ONE GREAT GEORGE STREET, WESTMINSTER, LONDON SW1P 3AA

and afterwards in the ICE Café/Bar supported by Platipus Earth Anchoring Systems

Understanding Landslide Impacts in Scotland

Professor Mike Winter, TRL

BSc PhD CGeol FGS EurGeol CEng FICE Eur Ing

Summary:



The debris flow events of August 2004 led to an awareness of landslide events and their consequences that was unprecedented in Scotland. Following these events the Scottish Road Network Landslides Study was commissioned in order to ensure that the hazards and risks were understood and that there was a plan for dealing with those hazards and risks which was published in 2009.

These events and the problems related to them will be discussed in the context of a regional, semi-quantitative hazard and risk assessment. The strategic approach to landslide risk reduction that was developed is used to fit with asset management priorities and the application of the approach is exemplified using the A83 Rest and be Thankful site, thus

introducing a wide variety of risk reduction measures. A methodology for Quantitative Risk Assessment (QRA) has been developed and applied to high risk sites. This allows an understanding of personal fatality risk and societal fatality risk – this is believed to be the first formal QRA of the risks that debris flows pose to road users.

The lecture will discuss the work that has been undertaken since publication of the Scottish Road Network Landslides Study and consider how risk can be contextualised by considering the response of different societies in terms of the willingness to accept risk, the willingness (and ability) to pay to reduce risk, and the willingness to affect the environment in pursuit of risk reduction. This leads logically to a consideration of the economic impacts of landslides (and floods for comparison) and to the concept of vulnerability shadow.

Biography:

Mike is Head of Ground Engineering and Honorary Chief Scientist at the UK's Transport Research Laboratory (TRL), and Visiting Industrial Professor at the University of Portsmouth. He is a Chartered Civil Engineer, Fellow of the ICE, a Chartered Geologist and a UK Registered Ground Engineering Adviser with experience gained over more than 30 years.

His main areas of research and expertise include landslides (particularly debris flows), their hazard and risk assessment, management, mitigation as well as their socio-economic and network impacts; engineering in glacial tills; soil compaction; soil acceptability for earthworking; slope stability, strengthening and retaining systems; and the use of waste geomaterials and of waste materials in geo-structures including, for example, tyre bales.

His work has been published on the international stage in around 250 journal and conference papers and published reports, and has been widely implemented in specifications and standards. He has led many failure investigations and acted as an expert witness in earthworks-related contractual claims. Mike was lead-author of the paper on landslide hazard and risk assessment in Scotland that was awarded the Institution of Civil Engineer's Crampton Prize in 2014. Mike is experienced in organising international conferences and a key figure in the organisation of the hugely successful XVI European Conference on Soil Mechanics and Geotechnical Engineering held in Edinburgh in 2015.



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Advance registration required at:

<https://www.ice.org.uk/events/understanding-landslide-impacts-in-scotland>

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In case of any query please contact BGA Co-ordinator

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