



International Geosynthetic Society United Kingdom Chapter



IGS/West Midlands Regional Group of The Geological Society
JOINT MEETING

Tuesday 9th November 2010

**Wolverhampton University, Room MC001, School of Applied Sciences,
Wulfruna St, Wolverhampton**

6.30pm

SEVERN VALLEY RAILWAY SLOPE FAILURES

Julian Hughes

(Ground Investigation & Piling Limited)

The Severn Valley Railway is a full size steam railway which meanders its 16 mile course along the picturesque valley sides of the River Severn. On the night of 19th June 2007 unprecedented storms devastated large parts of the railway. In a 1 in 156 year rainfall event, no less than 48 sections of the railway were damaged, which included 9 major landslides or washouts leaving all but 4 miles closed to rail traffic.

A subsequent 1 in 132 year rainfall event on 20th July 2007 further hampered efforts to investigate the landslips and begin the task of designing and re constructing the railway. Over the following nine months, the repairs progressed using a variety of geotechnical techniques from soil nailing and bored piling to reinforced earth and deep counterfort drainage.

This lecture will look at the geotechnical problems of a Victorian railway perched, somewhat precariously in places, on the sides of the River Severn, which in areas has also been subject to historic landsliding. The talk will consider several of the major washouts and look at how a variety of techniques were required to overcome both the technical and practical complexities presented by geology, history and topography.

Julian Hughes BSc MSc CGeol FGS CSci Eur Geol

Julian is a geotechnical engineer and Director with GIP Ltd and has more than 20 years experience in the investigation and remediation of landslides. He acts at times as geotechnical advisor to The Severn Valley Railway and was responsible for overseeing the investigation and remediation of the landslides after the events of June 2007.

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