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Newbridge landslide, Wrexham: Investigation and remediation

Tom St John, Dafydd Tudor
Mott Macdonald

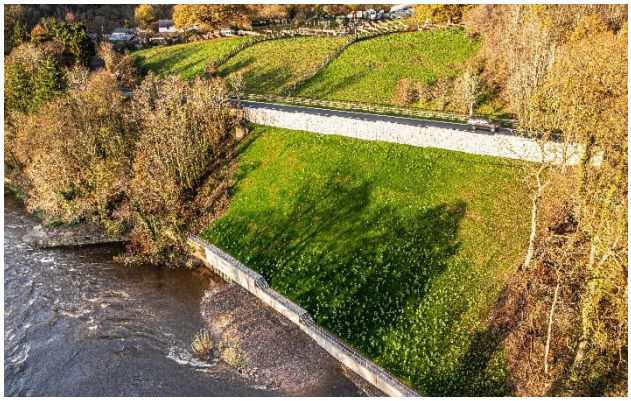
Tuesday 17th November 2026
Hybrid Talk: *Starts at 6:30pm (see below for details)*

The Western Regional Group is pleased to welcome Tom St John and Dafydd Tudor who will present on the investigation and remediation of the B5605 Newbridge landslide, Wrexham, North Wales.

The talk will describe the landslide which occurred during Storm Christoph in January 2021. The failure involved the river-facing toe of the slope and retaining structures supporting the B5605, within a highly constrained setting. Tom and Dafydd will describe the ground investigations and mapping which revealed a complex ground model and evidence of historical failures and remediation. Methods to sample, test and characterise the weak mudstone of the Etruria Formation will be discussed. The investigations and model enabled understanding of the failure mechanism and material strength, which in turn allowed development of a proportionate, risk-based remediation strategy.

Finally, the remedial options, detailed design and construction will be described. The repair comprised of a contiguous piled wall at the river edge to mitigate scour, a new highway retaining wall at the crest and 12,000t of engineered fill. A detailed petrographic assessment demonstrated that material typically perceived as of 'marginal' suitability was appropriate for the earthworks, introducing major cost and time savings. The scheme successfully reinstated the road in 2025 as a resilient, long-life asset while minimising environmental impact and future maintenance requirements.





Tom is an Associate Geotechnical Engineer at Mott MacDonald, based in Cambridge. Tom has particular experience in slope instability problems and engineering geochemistry. Dafydd is a Senior Geotechnical Engineer at Mott MacDonald, based in Cardiff. Dafydd has particular experience in rock engineering and slope instability.

Hybrid Event; When: 17th November 2026 at 6:30 PM (room opens at 6pm), at The Hub, 500 Park Ave, Aztec W, Almondsbury, Bristol BS32 4RZ. **Non-members welcome.**

Zoom Details: Zoom "room" opens from 6:15pm.
https://us02web.zoom.us/meeting/register/C02rsgOvTUOyd1u-FYndOA

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