



Shap Cutting Derailment

Issued to: All Network Rail line managers and safety professionals

Ref: NRB25-06

Date of issue: 30/12/2025

Location: CGJ7 Shap Cutting Upside, 0280yds to 37m 0287yds Shap, North West Route

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Overview

At 06:10 on 3 November 2025, Avanti West Coast service 1R22 struck a landslip on the up main at Shap in Cumbria and derailed. The train was travelling at approximately 80mph. All 86 passengers were safely evacuated with four passengers being treated for minor injuries.

The incident is subject to an ORR, a RAIB and Network Rail Level 4 Investigation.

Incident Overview:

Shap cutting is a 13m high soil cutting formed in the Marsett Sandstone Formation (bedrock geology) overlain by Glacial Till (superficial geology).

Ground conditions at the time of the landslip were wet and approaching saturation with 27 mm of rainfall falling in 6 hours. Levels of saturation and rainfall, although high, were not exceptional.

Route EWATs took place prior to the rainfall event where it was determined that no operational restrictions were required. No engineering works had taken place on the evening before the derailment.

The earthwork on which the landslip occurred was subject to an annual earthwork examination. The most recent examination took place in March 2025 and was compliant. The earthwork had a hazard Category of D, on a scale of A to E, where E is the highest hazard category.

A drainage condition inspection of the mid-slope drain on the earthwork was completed on 24 September 2025 and sections of it were scored with a service condition 4: performance severely reduced.

It is believed that during the rainfall event that this blockage caused water to discharge locally on to the slope

An Earthwork Failure Detection System (EFDS) was installed at Shap Cutting but had not yet commenced operation in Route Control at the time of the derailment.

Current understanding of the cause of the derailment

Our understanding of the root cause of the derailment will be informed by the investigations being undertaken. Our current understanding is that the cause of the derailment was a landslide caused by a drainage blockage that led to localised saturation of the slope.

Additionally, the EFDS signal was unable to pass through the layer of material which covered it following the rapid landslip. See RAIB Urgent Safety Advice [here](#).

Discussion points

- **In consultation with all Regions, Technical Authority have issued lists of sites with similar earthworks and drainage asset characteristics:** Route and Regional teams will be working to update evaluations to determine where accelerated works are required to manage risk.
- **Are you considering drainage condition and its potential impact to earthworks during EWAT's?** Defects in drainage may lead to significant safety risks at rainfall lower than extreme levels.
- **Do you know what EFDS systems you have deployed and understand its constraints to issue alerts?** Technical Authority are working with the principal suppliers of the EFDS to assess the feasibility of reducing the time period for sensors to report potential movement.
- **Do you have the alarms from Earthwork Failure Detection monitoring systems going into control centres?** This enables rapid response to be actioned in accordance with monitoring plans.