

Overview – Severn Estuary Resilience Programme

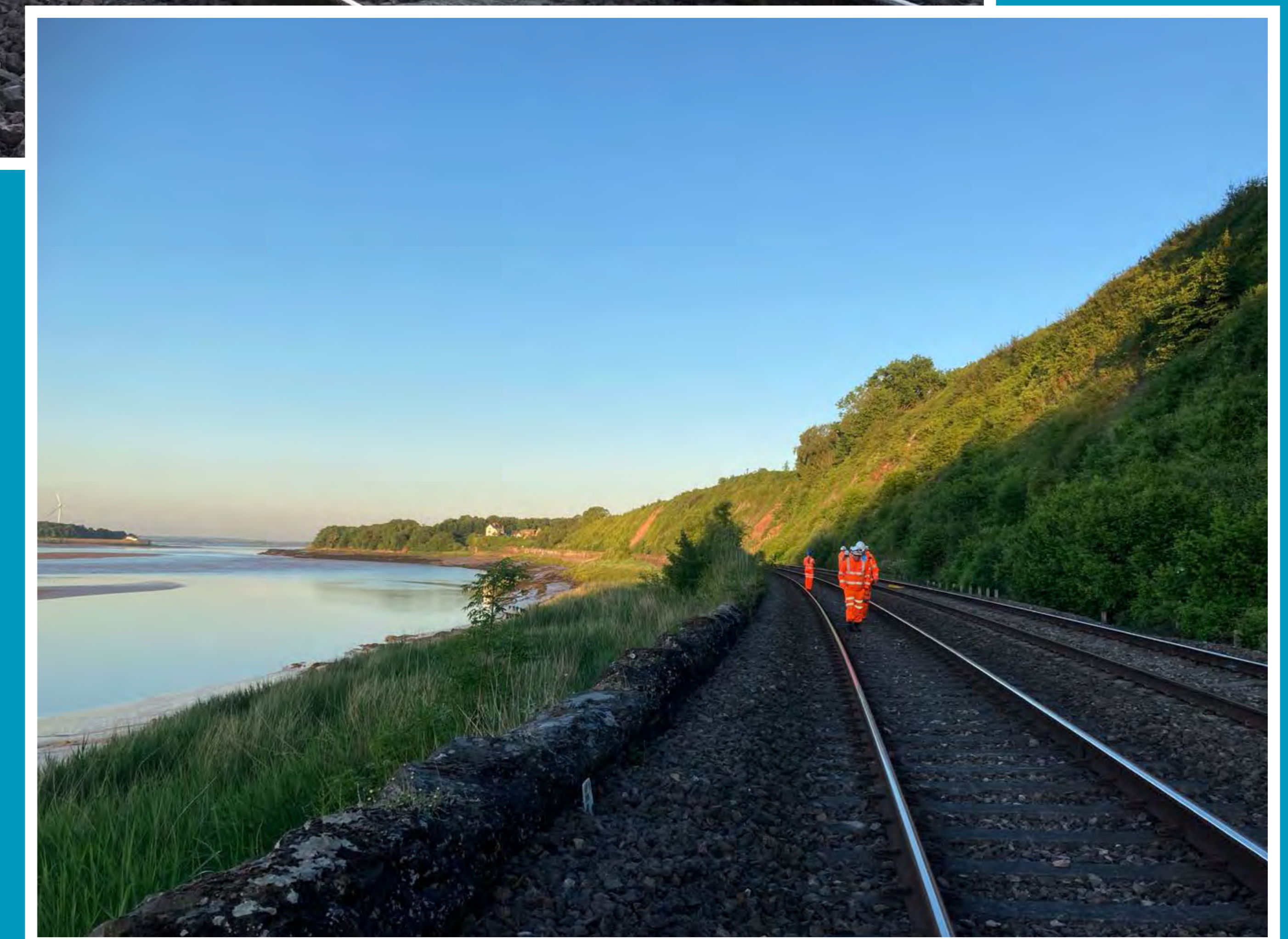


Photo Credit:
Network Rail Air Operations Team

- We've developed a £25m plan to improve the resilience of the Newport-Gloucester line on the Severn Estuary.
- It is a vital link for passengers, connecting South Wales with the West of England, Midlands and north of England
- Extreme weather has seen the line suffer five major landslips in the past two years alone.
- This led to closures of the railway and temporary speed restrictions, delaying more than 200,000 trains.
- Delays also impact essential freight services, with 43 freight trains passing through every week, moving; steel, petrol, supermarket supplies and construction materials.
- We are acting now to help protect the railway's future.
- A state-of-the-art mesh and bolt system will be installed on the cutting above three miles of track, stabilising the cliff face and preventing landslips from affecting the railway below.



What the work involves – summer 2022



We're closing the railway from Monday 18 July to Saturday 3 September to allow us to safely carry out a large amount of work around the clock.

We will focus on three miles of railway between Lydney and Gloucester, close to Purton, Etloe, Little Hagloe and Awre.

The work will include:

- The removal of approximately 30,000 tonnes of material from the cliff face
- Replacing the existing mesh – using 26,700 square metres of new mesh

We will be setting up our compounds and railway access points in Lydney, Purton and Awre on Saturday night shifts on 11, 18, 25 June and 2 July. We're likely to be off site by 30 September.

Ahead of this work, we've already completed:

- Ground investigation work
- Vegetation management

This work follows the installation of netting and soil nails along 100 yards of cliff face at Little Hagloe – the highest-risk area on the three-mile stretch.

Our proposed compounds and access points

Our main compound will be next to Lydney station, where our workforce will park. They will be briefed here and travel by minibus to our worksites around the clock. There will be 70 staff working on each shift.

Deliveries by road will be restricted to major routes as far as possible, with a one-way route along minor roads to Purton.

There will be a small compound on land next to Awre level crossing with access for staff and stabling for road-rail vehicles.



Bulk deliveries of materials will be made to Lydney Yard and then distributed by rail/small vehicle to Purton and Awre.

There will be a small compound at Purton with access for staff and stabling for road-rail vehicles.

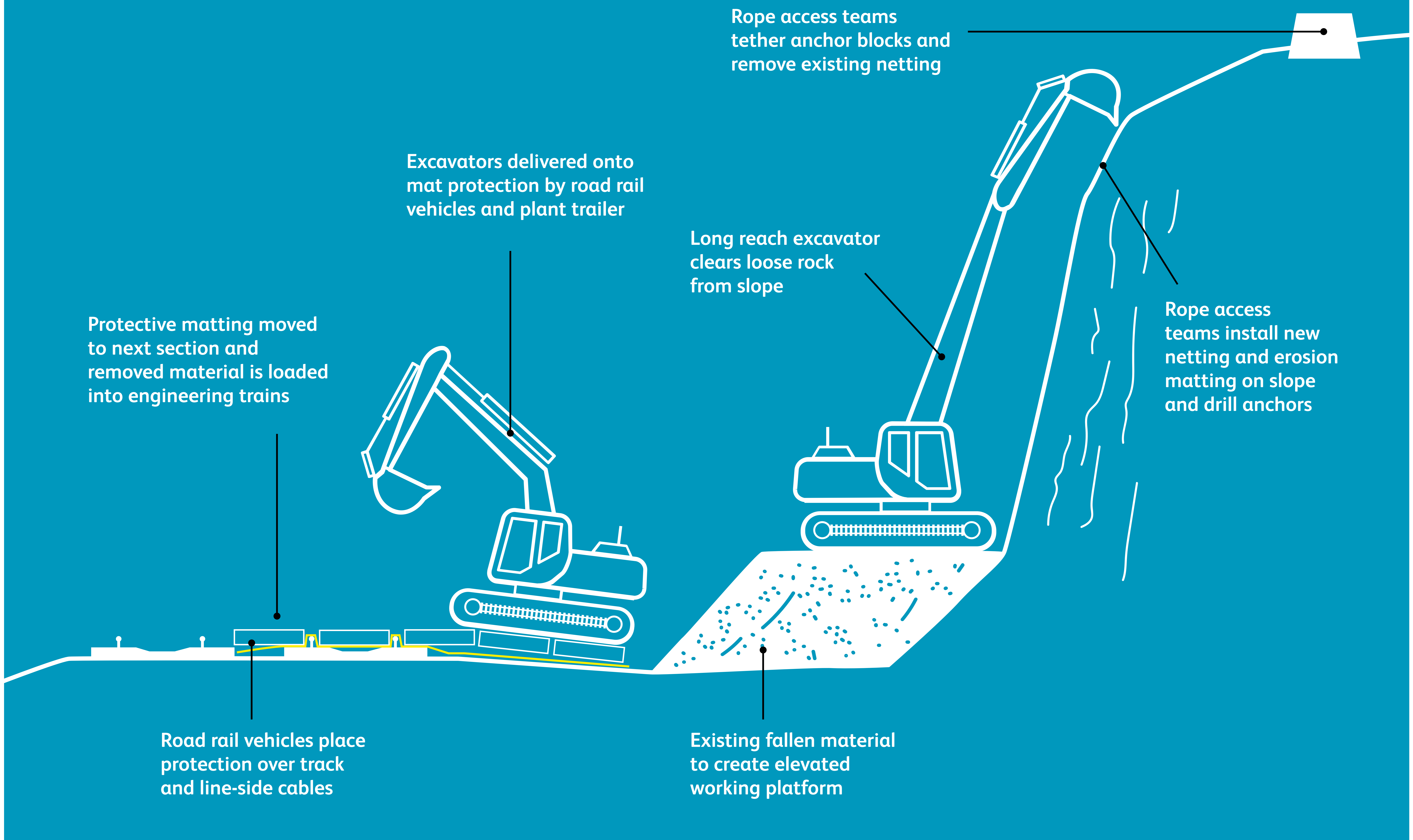
There will be full welfare and accommodation for our rope access teams at two compounds on the crest of the cutting.

Please note: All proposed compound sites are subject to land access agreements.

Our sequence of work



Working in the cutting



Looking to the future



- Our work in 2022 will reduce the pressure on this three-mile stretch by removing approximately 30,000 tonnes of material from the lower slope and replacing the existing mesh in higher-risk areas.
- From 2023 to 2025, we plan to continue the mesh and bolt system into lower-risk areas on this stretch.

What are we doing in the meantime?

- Monitoring the slopes condition with - LiDAR (light detection and ranging)
- Failure monitoring using tilt sensors
- Enhanced inspections of areas at risk
- Adverse weather plan, based on rainfall thresholds

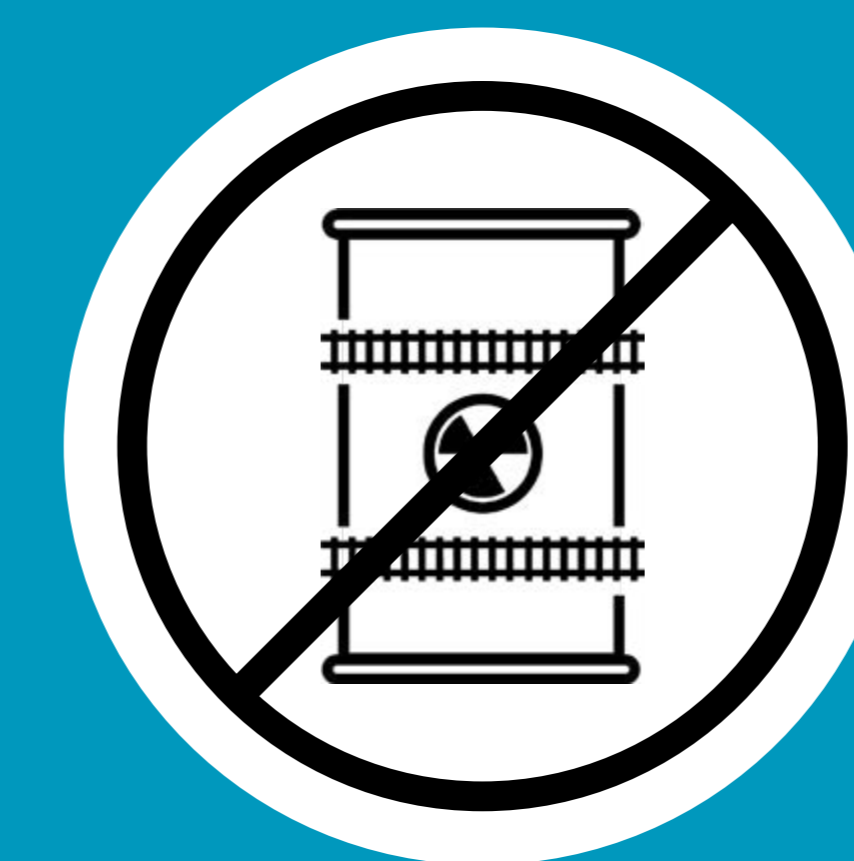
This means trains can safely continue to run with speed restrictions.

Caring for the environment



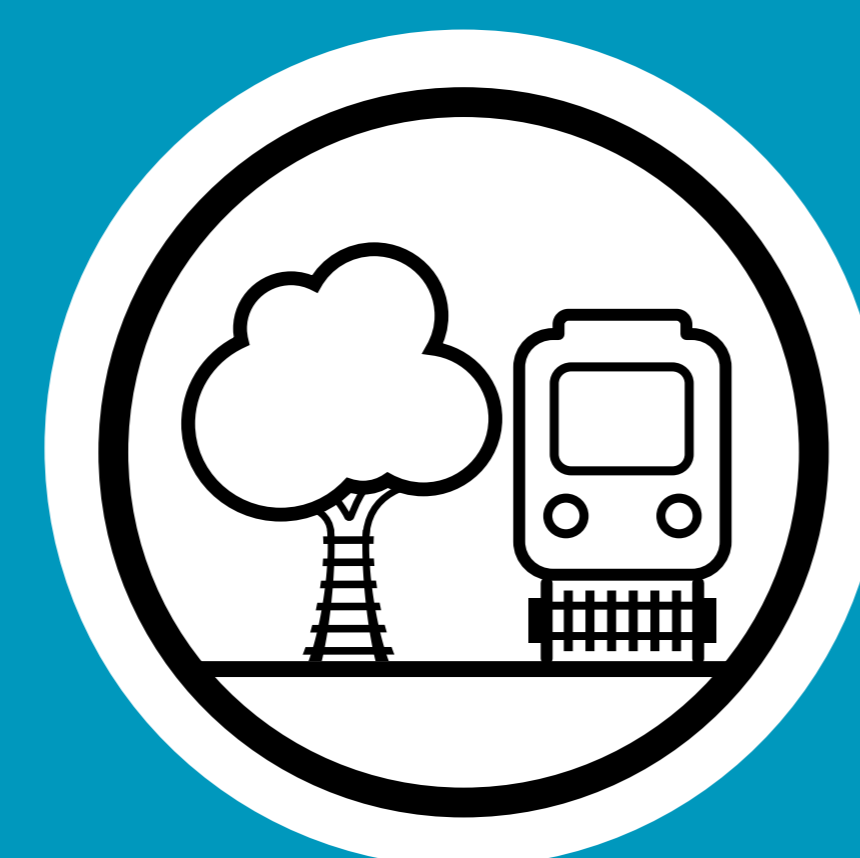
Vulnerable species including badgers and dormice

Our ecologists have assessed and will continue to monitor the area. Cutting back vegetation has been carried out with appropriate licences.



Environmental contamination

Refuelling will be restricted to defined locations with protection measures in place.



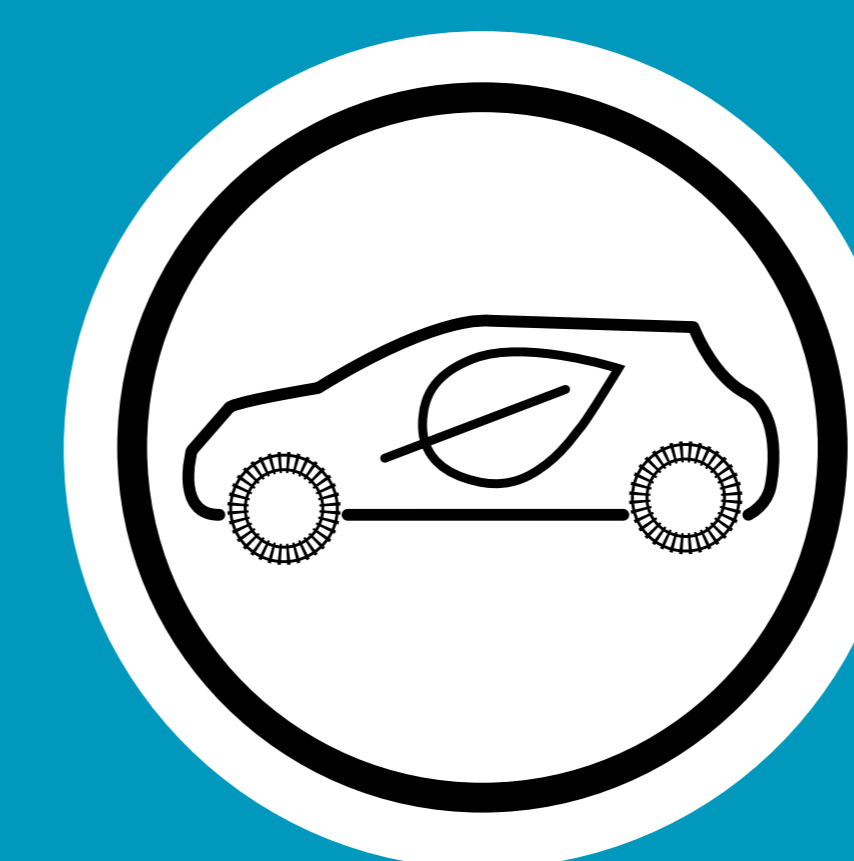
Vehicle emissions and travel along narrow public roads

We will minimise vehicle journeys on the roads leading to the Purton and Awre access points, and the crest of the cutting. Teams will meet and park at Lydney Station travel to site by rail or minibus.



Minimising use of materials use

We'll use existing rockfall material to create working platforms for our plant, together with long-life reusable timber bog mats – minimising requirement to import materials.



Sustainability

Our sites will have 100 percent solar-powered welfare, office cabins and lighting. Where possible, we'll use battery-powered tools and lighting.

Impact on rail services



The railway will be closed between Lydney and Gloucester for seven weeks from **Monday 18 July to Saturday 3 September 2022**.

For the first two weeks, the closure will extend to Severn Tunnel Junction to allow essential track renewal work to take place near Chepstow from **Monday 18 July to Saturday 30 July**.

We will work with our train operator colleagues Transport for Wales and CrossCountry to keep our passengers moving during this period, which has been chosen to minimise the impact on schoolchildren travelling between Lydney and Gloucester.

During parts of the closure, we will open the line at night to allow freight to run, helping supplies to reach their destination.

Please check before you travel at nationalrail.co.uk

