

### **Public Consultation**

# Parson's Tunnel to Teignmouth Resilience Project





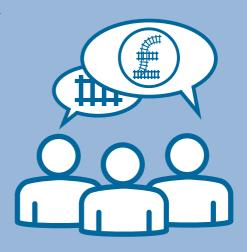
### **Background**

The railway is a vital artery to the South West, which communities, businesses and visitors to the region depend on for connecting with the rest of the UK.

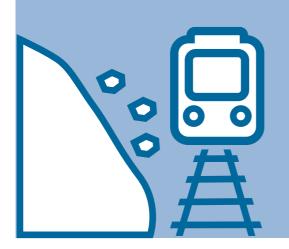
In 2014, the seawall was breached at Dawlish and there was a major landslip near Holcombe which dislodged thousands of tonnes of cliff material on to the track. For six weeks, all rail connectivity in and out of South Devon and Cornwall was severed—cutting off 50 towns and cities from the rest of the country. This dramatically highlighted the vulnerability of the route, and urgent works were required to get trains running again beyond Exeter. The damage cost tens of millions of pounds to repair. The cost to the local and regional economy was far higher.

Since then, Network Rail has been developing plans to improve resilience of the railway between Exeter and Newton Abbot. Key to these plans is the Parson's Tunnel to Teignmouth Resilience Project.

We want to hear the views of local residents, businesses and passengers, as we develop our proposals.



#### Parson's Tunnel to Teignmouth Resilience Project



The 1.8km section of railway between Parson's Tunnel and Teignmouth is bordered by steep cliffs on one side and the sea on the other. As illustrated by the landslip in 2014, the railway needs to be better protected from cliff falls, land slips and from damage caused by the sea during extreme weather.

To do so, Network Rail is proposing to realign the tracks in order to make room for remediation measures to stabilise the cliffs and therefore protect the railway for generations to come.

### The need for resilience

The railway is a vital artery to the South West.

Each weekday, 134 passenger trains, carrying around 12,500 people, and up to 14 freight trains travel along this section of the railway.

50 towns and cities in the South West peninsula are connected to the rest of the UK so it is crucial to the regional economy that the railway is resilient and action must be taken.

## How this might affect you

## Managing the impacts of our work

While our proposals have been developed using detailed geotechnical, marine and environmental surveys, we are committed to working with residents, businesses and passengers to ensure any disruption and environmental impact from our work is kept to a minimum.

#### Land

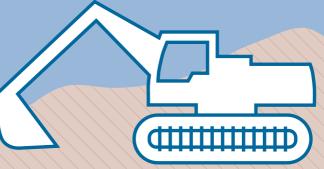
Areas of land will be required temporarily for construction of the works and permanently for the new coastal defence, buttressing and cliff remediation measures.

#### **Construction**

To minimise impact on passengers and the regional economy, construction will be phased to allow the railway to be open for the vast majority of the construction period.

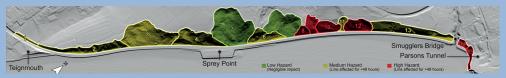
#### Local roads

Road access in this location is extremely constrained so goods and materials will be primarily transported to and from the site via the sea.





Parsons Tunnel to Teignmouth area



Risk profile of each section of cliff



Track alignments – the red line is the proposed alignment, which will maximise beach retention



Sprey Point cliff with buttress and new foot path



Holcombe beach/ Smugglers Lane



New sea wall

# Understanding the risks and developing solutions

With the support of world leading coastal, marine and railway engineers we have been investigating the best long-term solutions to make this section of the railway more resilient.

2014 2016 2018-19

The West of Exeter
Route Resilience
concluded that the most
feasible option was to
maintain the rail link in
its current location
and make that
more resilient.

A 2016 study by CH2M looked at how best to make the line between Exeter – Newton Abbot more resilient and identified the potential for a combined geotechnical and coastal solution between Parson's Tunnel and Teignmouth due to the railway's proximity to the cliffs.

We commissioned world leading engineers to undertake detailed geo-technical, environmental and marine studies in order to identify how best to improve the resilience of the railway.

The cliffs from Parson's Tunnel to Teignmouth have been separated into 15 distinct areas and assessed for their varying geological characteristics and risk profile.

As well as installing monitoring equipment on sections of the cliffs, our detailed geological and marine surveys have included taking rock samples from deep within the cliffs, the beach and the sea bed.

In tandem, we have analysed data for climate change and sea level forecasts while, at all times, considering the impact on the environment of any potential changes we might make.

#### **Developing options**

As the cliffs pose the greatest threat to the railway line in this location, the two most viable options that have been explored are:

- To regrade the cliffs (cutting away rock to reduce the steepness)
- To relocate the railway line away from the cliff.

Both of these options would be major engineering operations.

Regrading the cliffs would require a huge amount of rock to be cut away and removed from site – an operation that is calculated to take 6-12 months when the railway would need to be closed for the entire duration. In addition, a significant amount of land at the top of the cliffs – some from private properties – would be lost. The visual impact on the famous red Devon cliffs, the natural environment and the railway mean that this option is not being considered during this consultation.

### Our proposals

#### Railway alignment

The 2016 study outlined an initial concept for building a revetment (a sloping rock structure which would absorb the energy of the waves and allow for the railway to be relocated away from the cliffs).

Since then, the concept has been continually refined based on the detailed engineering studies outlined above and public feedback.

We understand that protecting access to Holcombe beach is very important for residents and we have been working hard to minimise the impact by changing the railway alignment in order to reduce the additional land requirement.

#### **Amenity possibilities**

Our proposals include enhanced leisure access, cycling and walking routes and new amenity areas so that users of Holcombe beach continue to enjoy the space and views of this special section of the Devon coastline.



#### **Option selection**

Eight potential remedies have been considered for each section of cliff.

The proposals being presented in this consultation are judged to provide the optimum long-term solution whilst minimising environmental implications and making best use of public funds.

The proposed works will significantly reduce the risk of further land-slips and rockfalls onto the railway tracks and increase protection from storms.

#### **Coastal Defence**

Building a new seawall and revetment to allow the railway to be relocated away from the bottom of the cliffs and reclaiming the land behind the new coastal defence. The design also provides support for the toe of the cliff to prevent future landslips.

#### Rock fall shelter

A rockfall shelter at the southern end of Parson's Tunnel is proposed to protect the railway from falling debris from the cliff above. Essentially, an open-sided tunnel, this will retain views of the sea for train passengers.

Unfortunately, this is not a solution for the entire stretch of railway as a rock fall shelter would not provide the strength and support required to prevent a land slip.

#### **Cliff remediation measures**

The significant engineering measures described above will be supplemented with further, less visible measures including netting on the cliff face, soil nails (long 'nails' that are inserted into the cliff face to secure layers of rock together and prevent the outer strata slipping) and catch fencing.

#### **Buttresses**

The proposed buttresses, placed on the reclaimed land, will provide the core of the support required for the sections of cliff adjudged to be most likely to suffer a landslip. They have been designed to require minimal land and would be landscaped to help them blend into the surroundings.

# Environmental implications

A full Environmental Impact Assessment (EIA) will be undertaken and presented in an Environmental Statement as part of our application for a Transport and Works Act Order.

This will identify any significant short and long-term impacts on the environment and include measures to reduce or manage them.

Our preliminary assessment has identified that, as well as altering the appearance of the coastline from the sea, there are potential impacts on the marine and land environment which will need to be mitigated such as the impact of scour on beach levels and changes to natural habitats for sea birds.

# What are the benefits?

#### More reliable journey

Improving the resilience of the railway means more reliable journeys for the millions of people that choose to travel by train to and from the South West each year. It also means greater certainty for freight operators that transport vital materials from the South West to the rest of the UK.

## A boost to the regional economy

As the main route connecting the South West peninsula to the rest of the UK, improving the resilience of the railway through South Devon will provide a significant boost to the regional and national economy.

# New leisure opportunities

The proposals would provide improved leisure facilities and amenities including new, fully accessible, coastal walking and cycling routes.



# Transport & Works Act Order (TWAO)

Our scheme proposals for Parson's Tunnel to Teignmouth will require significant works to be undertaken, these works will require access to and need to be carried out on, land which falls outside the railway boundary and will affect some public rights of way. We will therefore be making an application to the Transport and Works Act Order to the Secretary of State for Transport in order to secure the necessary permissions and rights we need to carry out the works. Prior to submitting that application we want to engage with you and obtain your feedback. This feedback will help inform the further development of our proposals and enable us to review how, and where, we can build appropriate measures into the TWAO process to accommodate concerns, provide appropriate mitigation measures and properly manage the works.



### Have your say

We want your feedback to help us develop the detail of our Scheme proposals in preparation for a TWAO application. You can submit your feedback by sending in our freepost feedback form, taking our online survey at

networkrail.co.uk/SouthWestRRP

or by emailing

SouthWestRRP@networkrail.co.uk

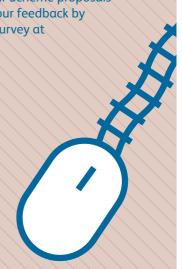
For Further information you can also call Network Rail's national helpline on

03457 11 41 41

Or follow us

@SouthWestRRP

Consultation is open from 10 June to 15 July 2019



ill out the form below, fold in half and glue together, then send back to us using Freepost.	back to us using Freepost.
Do you agree that the railway between Parson's Tunnel and Teignmouth needs to be more resilient? [] Strongly Agree [] Agree [] Undecided [] Disagree [] Strongly Disagree	Network Rail will consider all feedback and confirm your personal data is not required unless you are content for Network Rail to be able to identify you as the source and the location of the feedback provided.
Do you agree with Network Rail's plans to improve resilience of the railway between Parson's Tunnel and Teignmouth?  [] Strongly Agree [] Agree [] Undecided [] Disagree [] Strongly Disagree Do you support the creation of new coastal paths and amenities as part of the overall proposals to increase railway resilience?  [] Strongly support [] Support [] Strongly do not support	Any feedback provided will be collected and held solely by Network Rail in accordance with the requirements of the General Data Protection Regulations. It will be used by Network Rail solely for purposes and duration in connection with the development of the design and securing any consent application, including publication of the final consultation report, as may be required, for the Parson's Tunnel to Teignmouth Resilience Project.
How could the plans be improved?	If you wish to be contacted by Network Rail with further information or to discuss the feedback you have provided on the Parson's Tunnel to Teignmouth Resilience Project then please tick here: [ ]
ly do you visit the coastal path and Holcombe	Please confirm by providing your details in the space provided below:-NAME
[ ] 3-bmontns	ADDRESS
Holcombe beach? [] Walking/Running [] Family leisure time [] Dog walking [] Swimming [] Water sports [] Holiday	POSTCODE
	EMAIL
Do you have any further comments on the proposals?	For further information on how Network Rail holds and uses personal data please refer to the Parson's Tunnel to Teignmouth Resilience Project Privacy notice at www.networkrail.co.uk/SouthWestRRP
	If you wish to provide further comments please call, email or complete the

Business Reply Plus Licence Number RTLZ-LUJH-KXHU





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