

## Summary

Recent repeated flooding and the breach of the sea wall at Dawlish (a periodic problem on this route) means that a longer term solution is now needed to improve the resilience of rail services to the South West of England. The extended closure of the Bristol and Exeter line near Bridgwater , flooding at Athelney and Castle Cary and the landslip at Crewkerne have also underscored the vulnerability of the rail routes to the South West. Railfuture believes that a plan to improve reliability is required as well as a study into the options for ensuring the availability of diversionary routes when the principal route is damaged by extreme weather, and to provide alternatives during regular maintenance or renewal of the line.

Railfuture believes that the Government, Network Rail, local authorities, train operators and businesses in the South West, with the Local Economic Partnerships need to work together to find and fund a solution to this problem. This would be best initiated through a conference of interested parties to be held as soon as the present emergency has been tackled.

## Introduction – the Issues

Flooding on the River Exe in 2012 closed the railway at Exeter for ten days, and engineering work in January closed the railway between Taunton and Exeter for three weeks. Surge tides and storms in February this year have breached the sea wall at Dawlish (a phenomenon that has occurred regularly since the line opened) and the railway west of Exeter will be closed for several weeks, possibly longer. Exceptionally, on 7 and 8 February, all three lines to the South West (via Bristol, via Castle Cary and via Salisbury) were closed as a result of flooding in addition to the serious breach severing the railway at Dawlish.

Disruption to passengers and to the economy of the South West has reached the stage where a longer term solution to provide a reliable and resilient railway is now required.

The South West will not benefit directly from electrification of the Great Western main line, from HS2 or from a number of other major rail investments around the country, but the priority for the region is to have reliable and resilient service both to London and the South East and to the Midlands, Wales, the North of England and Scotland via Bristol.

Railfuture believes that this work needs to be started now given the long lead time (typically 20 years) to plan and build a significant length of new or reinstated railway. Railfuture also believes that more could be done to make the existing route more resilient and therefore welcomes the work undertaken in February at Whiteball Tunnel .

## Objectives (in priority order)

1. To ensure greater resilience for the rail network serving Somerset, Devon and Cornwall.
2. To provide alternative routes for the key railheads at Taunton, Exeter, in Torbay and at Plymouth, all of which have significant populations and strong business interests.
3. To maintain and, if possible reduce the journey times taken to reach these key objectives.
4. In considering diversionary routes to overcome the inherent vulnerability of the sole existing rail route between Dawlish Warren and Teignmouth, to look at the opportunities to create new stations as access points to the rail network, particularly where this can provide better links into the trunk road system (the A30 in particular) or can provide better access to West Devon and North Cornwall.

## Proposed approach

- A full analysis of the options to provide a reliable route that would be continuously available, to ensure continuity of service while parts of the existing route are closed for maintenance or as a result of catastrophic damage from the sea, flooding, landslips or other infrastructure failure.
- We would expect Network Rail to manage this study, but in doing so, to work alongside the transport planning authorities in the region – Somerset, Devon, Torbay, Plymouth and Cornwall – to ensure the route and stations chosen can meet the primary objective above, but also facilitate access to the railway from those parts of the region that are currently poorly served.
- The study would need a new approach from those previously undertaken on new lines and stations, which were largely based on the conventional forecasting methodology of the Passenger Demand Forecasting Handbook. The PDFH is a tool developed for measuring the effect of incremental increases or decreases in existing rail passenger services, and is unsuitable for forecasting demand from a new line or station. Forecasts based on the PDFH have consistently been exceeded by new lines and stations.
- This project would be justified largely on the ability to provide a more reliable service although some options may also offer new stations serving areas currently remote from a railhead. Some rail industry benefits could be captured in financial terms. For example, Network Rail could then avoid the cost of compensating train operators when they could not provide access because of the failure of the infrastructure. Similarly, train operators would not be faced with the bill for hiring buses, staff overtime and the revenue loss that inevitably accompanies such disruption. However, the principal benefit is expected to be the value to the economy of the South West of having a continuous and more reliable rail service. This has not been captured in previous investments appraisals and would require work to establish a robust methodology to support this, and then a mechanism for securing funding from central or local government, businesses, and the rail industry, to pay for the work.

## Background

The spine railway for the region was that originally built from Bristol and Taunton to Exeter, Torbay, Plymouth and, via the Royal Albert Bridge to Penzance. Victorian competition drove the provision of a second route from London and Salisbury to Exeter, thence via Okehampton to Plymouth, and via Launceston to Padstow. This route has limited capacity west of Wilton (near Salisbury) following singling of the line in 1968, while the routes beyond Okehampton (Meldon) to Padstow and to Bere Alston on the Plymouth line were closed in 1966 (Padstow itself in 1967). A third shorter route from London to Taunton was opened via Castle Cary in 1906.

Breaches of the Dawlish sea wall have occurred regularly from 1847 (the year after the line opened) to the present day, but the line has always been restored and in recent years strengthened. Prior to 1958 a limited alternative route between Exeter and Newton Abbott via Heathfield existed, but is now closed and parts of the formation have been lost to development. In 1936, the GWR secured powers and started work on a diversionary route from just south of Exeter to a point between Teignmouth and Newton Abbott on a scheme costing £3m (£180m at today's prices). Work was suspended on the outbreak of war in September 1939 and never resumed. The powers have lapsed and the land was sold by BR.

Other alternative routes may be possible, but may be constrained by the topography of Dartmoor and Haldon Hill just behind the vulnerable coastal stretch.

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