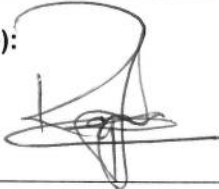




STUDY REMIT

PROGRAMME: West of Exeter Route Resilience Study

Remit date:		5.03.14
Remit to GRIP stage:		High Level Option report
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ISSUE RECORD

Date	Version Number
20.02.14	1.0
05.03.14	1.1 Updated SMG attendees and interface with other studies
16.04.14	1.2 Amendments following SMG meeting 03.04.14

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1 SUMMARY

1.1 STUDY DEFINITION AND BACKGROUND

This study is intended to generate an appraisal of alternative scenarios in relation to the maintenance of connectivity for the south west peninsular in the event that the Dawlish coastal route is not available due to severe weather events or maintenance requirements.

Loss of the route without a viable alternative has severe implications for both local and national economies, mobility and connectivity across the region and the wider UK. The catastrophic destruction of the Dawlish Sea Wall due to abnormal weather conditions in early February 2014 has prompted this specific review, although the work will also interface with the ongoing Western Route Study, as part of the industry Long Term Planning Process.

2 DETAILS OF SCHEME

2.1 STUDY REQUIREMENTS

Following the catastrophic destruction of the Dawlish Sea Wall due to abnormal weather conditions in early February 2014, alternative solutions have been suggested to safeguard access to and from the south west peninsular for the long term to protect it from similar severe changes in weather patterns.

There are three key, interlinked, scenarios that require investigation, on the basis that the fourth possible scenario, abandoning a rail route to Plymouth and beyond into Cornwall, **is not viable**.

The three scenarios are:

1. The retention of the coastal route between Exeter and Newton Abbot (the base case), entitled **Coastal Route Retained**
2. An alternative route is provided alongside some form (i.e. upgraded or simply reinstated) of the existing route, entitled **Alternative Route With Coastal Route Retained**
3. The railway is not maintained along its existing alignment, and therefore certain communities would not see a service as today. This **does** assume that an alternative route is provided, but is entitled **Alternative Route With Coastal Route Abandoned**

The workstreams required to inform an appraisal in relation to these scenarios are:

Scenario 1 (Coastal Route Retained)

- i) What are the projected impacts on railway service provision from climate change, including sea level rise and storm surge?
- ii) What are the probabilistic consequences of the projection in i), in terms of route availability and infrastructure damage/repair costs?
- iii) What infrastructure change is required to reduce the probability of the future disruption established in ii) to an 'acceptable' level? What is the capital and whole life cost of this change?
- iv) What are the heritage, community and environmental implications of the infrastructure change in iii)?
- v) What are the future demand predictions for the route that may change the value and cost established in i) to iv)?

- vi) What are the wider social and economic consequences for the region of the predicted level of future route availability established in ii), drawing upon evidence from the recent and previous instances of non-availability?

Scenario 2 (Alternative Route With Coastal Route Retained)

- i) What are the options for providing a viable alternative route, including initial capital costs and whole life costs?
ii) What service improvement could be provided by these options for other communities (assuming that the alternative route does not serve purely as a 'back-up' route)?
iii) What is the value of the alternative route for the facilitation of improved access and availability for regular engineering works, in addition to the value of service provision during wider environment related disruption?
iv) What are the wider environmental and heritage impacts of these options?
v) What is the timeline for the delivery of these alternative options?

Scenario 3 (Alternative Route With Coastal Route Abandoned)

- i) What work would be required to maintain the sea defenses along the railway alignment from Exeter St Davids to Newton Abbot if the railway were re-routed?
ii) What would be the impact on coastal and estuarine risk management in the relevant area if the railway were re-routed, specifically in terms of strategy, long term investment and asset ownership?
iii) What would be the impact on the local communities that would not retain the current level of service (based on current demand, projected growth and socio-economic impact)?
iv) What alternative non-rail options exist for serving these communities, and what is the impact, particularly on other infrastructure, of utilising these non rail options?
v) Do any of the alternative routes investigated in Scenario 2 provide a viable level of rail service to these communities?

This study **will not** address two other complementary issues, as they will be included in other pieces of work. These are:

- East of Exeter resilience – this will be addressed by the wider workstream looking at resilience issues across the whole rail network, linked to flooding, flood risk and the impact of increased levels of precipitation.
- Journey time improvements – this is already being addressed as part of the Network Rail led Western Route Study that will incorporate the output from this study (as there are clear linkages between alternative route options and journey time), and will report in Autumn 2014.

2.2 TIMING, DEPENDENCIES AND RESOURCE/RESPONSIBILITY

The High Level Option Study will be completed by 30 June 2014. This is driven by the specific activity that is expected to take the longest, that being the infrastructure led investigation into alternative routing options (Scenario 2, point i), which is to be completed by 31 May 2014.

The work programme will be managed by Network Rail Group Strategy. The specific workstreams noted in section 2.1 are proposed to have the following responsibility/resource requirements:

Scenario 1

- i) Metrological Office / University research, facilitated by the Department for Transport (DfT) and **Network Rail Safety and Sustainability team**
- ii) **Network Rail Route Asset Management (RAM) team**
- iii) Network Rail RAM team / Asset Management Services and Infrastructure Projects. This piece of work will be commissioned as the Western Route Climate Change Adaptation Plan, will be managed by the **Network Rail Western RAM team** and funded as part of the core renewals planning activity.
- iv) **Network Rail Western RAM team**, input from Network Rail Infrastructure Projects / Network Rail Town Planning
- v) **Network Rail Group Strategy** using the output from the Western Route Study Working Group
- vi) **Heart of the South West LEP**, with input from Local Authorities, DfT and Network Rail Group Strategy using information from the Western Route Study Working Group

Scenario 2

- i) **Network Rail Group Strategy** using consultancy support, with Network Rail RAM and Infrastructure Projects input. This piece of work will be commissioned as the Dawlish – Alternative Route Options
- ii) **Network Rail Group Strategy** with Arriva CrossCountry (XC) and First Great Western (FGW)
- iii) **Network Rail Western Route Access Planning team** with FGW and XC
- iv) **Output from i)**, from Consultancy support, in conjunction with Network Rail specialists
- v) **Output from i)**, from Consultancy support

Scenario 3

- i) Environment Agency in discussion with Network Rail – Resource to be established, but requiring input from Network Rail Route Asset Managers, Network Rail Asset Management Services and **Network Rail Safety and Sustainable Development team**
- ii) **Network Rail Safety and Sustainable Development team** with Environment Agency and Devon County Council
- iii) **Network Rail Group Strategy** in conjunction with FGW, XC and the DfT, with Route Study predictions from the Western Route Study Working Group
- iv) **DfT** with support from Devon County Council and the Heart of the South West LEP
- v) **Network Rail Group Strategy**, in conjunction with FGW

The lead for each specific workstream has been identified in **bold**. Specific additional workstreams will facilitate the required provision of data and these are identified as underlined above.

The workstreams will be drawn together to provide output in June 2014. This will be presented as an interim options and consequences report from the Western Route Study process, with the full Route Study consultation report providing an update upon publication.

The resource required to undertake the specific workstreams will, at this stage, be assumed to exist within the relevant organisations identified above. No incremental funding is assumed to be required, with the exception of funding for the detailed Alternative Route Options study. As this remit develops, additional resource requirements, and hence funding, may be identified by the relevant organisations. Network Rail and the DfT will work together to identify an appropriate funding source.

3 CLIENTS AND FUNDING

3.1 CLIENT and FUNDING

The Client for this scheme is Paul Harwood, Strategy and Planning Director (South), Network Rail Group Strategy.

Funding will at this stage be assumed to be available within the relevant organisations' existing budgets, with the exception of that required to commission the Alternative Route Options study.

A Study Management Group (SMG) will be established, meeting approximately 4-weekly, to monitor progress and assist with emerging issues. The membership is proposed to be:

- DfT – Roger Jones
- Network Rail Western Route – Mike Gallop
- Network Rail Group Strategy – Paul Harwood / Alasdair Couper Johnston
- Network Rail Safety and Sustainable Development – Kate Avery
- First Great Western – John Czyrko
- Arriva CrossCountry – John Cherrington / Richard Gibson
- Freight Operators – Nick Gibbons
- Peninsula Rail Officers Group – Bruce Thompson
- Heart of South West LEP – Ian Harrison
- Plymouth City Council – Philip Heseltine
- Devon County Council – Matt Barnes
- Cornwall County Council / Cornwall and Isles of Scilly LEP – Lesley Barlow / Matt Sidney
- Torbay Council – Sally Farley
- Somerset County Council – David Mitchell
- Environment Agency – Gordon Trapmore

The SMG will act as a sub group of both the Route Study Working Group and Regional Route Study Working Group. In addition to the frequent group meetings referred to above the SMG will report progress at the Regional Route Study Working Group meetings, currently scheduled for June 2014 and August 2014.