

SOCIAL RESEARCH NUMBER:

04/2018

PUBLICATION DATE:

25/01/2018

# Valleys Rail Strengthening Final Evaluation: Executive Summary

---

## 1. Introduction

- 1.1 Peter Brett Associates, in partnership with Beaufort Research and Loxley Consultancy, were appointed in August 2015 to undertake a final evaluation of the ERDF funded Valleys Rail Strengthening Project. The evaluation was undertaken in two parts:
- i. An evaluation of the reopening of the Ebbw Vale line based upon on-train surveys of rail users, stakeholder consultation and desk-based analysis.
  - ii. A desk-based evaluation of the wider Valleys Rail Strengthening programme, much of which pre-dates the ERDF intervention. The research was undertaken in 2015, four and a half years after the completion of the project.
- 1.2 The research was undertaken in 2015, four and a half years after the completion of the project.

### The Valleys Rail Strengthening (VRS) Project

- 1.3 The Valleys rail network is a grouping of busy suburban lines linking Cardiff City Centre with communities in the Valleys and South Glamorgan / Vale of Glamorgan through a network of 81 stations. The Valleys rail network has benefitted from significant investment in the last 10-15 years and has witnessed a strong growth in passenger numbers. Ongoing capacity and frequency expansion has been required to accommodate this growth, a key element of which is the Valleys Rail Strengthening (VRS) Project.
- 1.4 The VRS was principally a Welsh Government initiative intended to support enhanced services on key rail corridors (most notably Ebbw Vale) linking the Valleys with Cardiff. The VRS commenced in January 2005 with the formation of the first ‘strengthened’ services, with funding to maintain service levels pledged through to 2018.
- 1.5 The VRS consisted of two distinct strands:
- The reopening of the Ebbw Vale Line in February 2008 between Ebbw Vale Parkway and Cardiff Central (at the time the VRS was introduced, Ebbw Vale Town and Pye Corner stations had not yet been opened); and
  - Commencing in January 2005, the provision of additional rolling stock to provide higher capacity trains and support longer train formations (i.e. strengthened services) on peak services on the following Valleys lines.
    - Merthyr Tydfil / Aberdare – Bridgend / Barry Island.
    - Treherbert – Cardiff Central.
    - Rhymney – Cardiff Central.

- 1.6 The Valleys Rail Strengthening Business Plan established three objectives for the project:
- **Objective 1:** Encouraging a modal shift by reducing the level of car usage, particularly single occupancy commuting.
  - **Objective 2:** Enhancing sustainable accessibility to employment opportunities, key services and enabling local people to access education and training opportunities and the major employment locations within Wales.
  - **Objective 3:** Reducing congestion and harmful greenhouse gas emission levels through enhanced rail services during peak hour travel (Welsh Government, 2007).
- 1.7 Funding was provided through the ERDF Convergence (West Wales and the Valleys) Programme under Priority 3, Developing a Strategic Infrastructure for a Modern Economy, Theme 1, Sustainable Transport. The total project cost was £22,674,978, including £8,478,945 ERDF grant. The project ran from 1st April 2008 to 30th April 2011.
- 1.8 Output targets set out in the Business Plan are as follows:
- Public transport services created or improved (i.e. annual train carriage kilometres) = 1,662,954 per annum.
    - Strengthening: 442,316 (or 221,158 train km).
    - Ebbw Vale: 1,220,638 (or 527,974 train km).
  - Annual Gross passenger kilometre opportunities on public transport = 147,092,130 (i.e. annual seated and standing kilometres).
    - Strengthening: 33,389,738 (24,733,139 seated).
    - Ebbw Vale: 113,702,392 (84,223,994 seated).

## 2. Findings and Conclusions

2.1 Overall, the project has been highly successful, delivering the following against the objectives of the Business Plan.

### **Objective 1: Encouraging a modal shift by reducing the level of car usage, particularly single occupancy commuting.**

- The reopening of the Ebbw Vale Line has generated around 530,000 additional train kilometres per annum and 77.5 million additional 'seat' kilometres per annum, significantly increasing rail supply. The strengthening provided a 19% uplift in non-Ebbw Vale Valleys rail capacity.
- The reopening of the Ebbw Vale line removed around 14 million road kilometres annually, generating around £1 million of gross economic benefits per annum.
- Travel-to-work by rail grew by 300% in the Ebbw Vale – Rogerstone corridor between the 2001 and 2011 Census periods. The equivalent figure for the strengthened lines is 88% growth, 18% higher than in the non-strengthened areas used as a control group.

### **Objective 2: Enhancing sustainable accessibility to employment opportunities, key services and enabling local people to access education and training opportunities and the major employment locations within Wales.**

- The user survey and consultations suggest that the reopening of the Ebbw Vale line has had a transformative effect in terms of access to the jobs market, particularly in Cardiff. A number of consultees highlighted the project as a best practice example of where targeted government investment in infrastructure can support wider economic development and regeneration.

- There has been strong peak rail passenger growth across South-East Wales which would have been unlikely to have occurred without the introduction of the strengthened services.

**Objective 3: Reducing congestion and harmful greenhouse gas emission levels through enhanced rail service during peak hour travel.**

- As noted, the reopening of the Ebbw Vale line removed around 14 million road kilometres annually. Of the £1 million of gross economic benefits generated annually, around £130,000 of these benefits relate to reduced GHGs, improved local air quality and a reduction in noise.

2.2 Perhaps more importantly, the VRS contributed both to a wide range of Welsh Government policies and the critical ERDF Cross Cutting Themes of Equal Opportunities and Environmental Sustainability. Indeed:

- In terms of environmental sustainability, the VRS has, as noted above generated around £130,000 per annum of environmental benefits.
- Equal opportunities have also been a key success of the VRS. The VRS has significantly enhanced access to the Cardiff jobs and leisure market and the newly built stations, whilst the VRS has also supported equal opportunities through providing better disabled access facilities than are available at certain other Valleys stations or indeed on the bus.

**Reopening of the Ebbw Vale Line**

2.3 The reopening of the Ebbw Vale line was also highly successful in terms of the outcomes which the project generated. There has been significant growth in patronage on the Ebbw Vale line since it was reopened in 2008. The Blaenau Gwent station of Llanhilleth witnessed the largest growth over the period, which suggests that the new line has released an element of latent demand. Growth has also been strong at Crosskeys and Rogerstone.

2.4 Ultimately, however, no transport project is undertaken for its own sake – it is always a means to enabling and facilitating a wider package of policy initiatives through improving access to markets and services. It is these impacts on which the success of the reopening of the Ebbw Vale line and the strengthening project more widely can be measured. The impacts associated with the reopening of the line to passenger traffic are significant and include:

- The reopening of the Ebbw Vale line has significantly enhanced access to the Cardiff jobs and leisure market. This has provided new employment and leisure opportunities for residents of the Ebbw Valley whilst, at the same time, expanding the pool of resources / customers available to the Cardiff employment and retail / leisure markets.
- The scheme, in tandem with a range of other policy measures, has also facilitated economic development and regeneration within the Ebbw Valley. Of foremost significance has been the role of the line as an enabler for development on the site of the former Ebbw Vale steelworks. Other impacts include facilitating new land-use (particularly housing) development in areas like Ebbw Vale and Rogerstone. The re-establishment of the line has also coincided with a range of town centre regeneration projects.
- The newly built stations have also supported equal opportunities through providing better disabled access facilities than are available at certain other Valleys stations or indeed on the bus.
- It was also noted that the reopening of the Ebbw Vale line has helped promote economic agglomeration within the Cardiff Capital Region. The project itself was highlighted by a number of stakeholders as exactly the type of project which should be developed under the Metro concept.

2.5 Overall, the reopening of the Ebbw Vale line can be considered highly successful, delivering the pre-scheme objectives and facilitating a wider range of desirable societal impacts.

### Strengthened Services

- The initial 2005 wave of strengthening provided a substantial 19% increase in capacity on the Valleys rail network, a critical intervention at a point when capacity constraints were potentially choking off growth.
- Travel-to-work by rail on the strengthened lines grew by 88% between the 2001 and 2011 Census periods, 18% higher than in the non-strengthened areas used as a control group.
- Despite this growth, and a 45% growth in rail travel in Wales as a whole between 2004-05 and 2013-14, there are very few instances of the 'Passengers in Excess of Capacity' (PiXC) measure being exceeded on the Valleys lines, suggesting the additional capacity has facilitated this growth in rail travel.

**Report Authors:** Peter Brett Associates, Beaufort Research, and Loxley Consultancy.



**Full Research Report:** Peter Brett Associates, Beaufort Research, and Loxley Consultancy. (2018). *Evaluation of the Valleys Rail Strengthening: Final Report*. Cardiff: Welsh Government. GSR report number 04/2018

**Available at:** <http://gov.wales/statistics-and-research/evaluation-valleys-rail-strengthening-project/?lang=en>

Views expressed in this report are those of the researchers and not necessarily those of the Welsh Government

For further information please contact:

Joanne Corke  
Social Research and Information Division  
Knowledge and Analytical Services  
Welsh Government  
Cathays Park  
Cardiff  
CF10 3NQ

Email: [joanne.corke@gov.wales](mailto:joanne.corke@gov.wales)

Mae'r ddogfen yma hefyd ar gael yn Gymraeg.

This document is also available in Welsh.

**OGL** © Crown Copyright      Digital ISBN 978-1-78903-404-2