

Portishead Rail Line Study – SUMMARY at 18th June 2008

Background

Halcrow was appointed by North Somerset Council (NSC) to assess the potential for passenger rail services between Bristol and Portishead. Previous studies have concluded that passenger rail services could provide a positive economic cost/benefit but that the service itself may require ongoing revenue support. The purpose of this review is to establish the current issues to be addressed in reinstating passenger rail services to Portishead. This includes scheme design & options, and capital & operating costs, as well as deliverability and funding opportunities. These are being updated as appropriate to best represent the latest situation, both in terms of the railway operating environment in the Bristol area, and potential present day costs.

Consultation – Key Stakeholder

An important part of the study is consultation with key stakeholders, in addition to regular meetings with NSC officers and the study steering group. The steering group includes the Leader & Executive Portfolio Holder of NSC, Chair of Gordano Transport Group, representative of Government Office South West (GOSW) and senior NSC officers. Meetings have been held with a number of stakeholders. These included the Highways Agency, Portishead Rail Group, Gordano Transport Group, Portishead Town Council, Bristol Port Company, North Somerset District Councillors, Severnside Community Rail Partnership, Easton-in-Gordano Parish Council, Portbury Parish Council, West of England Partnership and Bristol City Council. In addition, rail industry stakeholders are involved in technical discussions, including Network Rail, First Great Western (FGW), HM Rail Inspectorate (HMRI), Network Rail and DfT Rail.

Technical Issues

Train Planning – desktop analysis of potential train plans have indicated that an hourly service is workable throughout the day between Portishead and Bristol Temple Meads using 1 train unit. Within this, there are some requirements for some existing train paths to be altered, including flexing the timing of freight paths. A series of options have subsequently been developed for further consideration in terms of the infrastructure requirements and potential demand, including more frequent services in the peak periods.

<i>Train Service Option</i>	<i>Infrastructure Required</i>
1a – 1 train per hour (tph), calling Portishead and Bristol Temple Meads	– Track reinstatement Portishead to Portbury Jn; new station Portishead; signal upgrade
1b – 1 tph, as 1a; also calling Pill, Ashton Gate	– As 1a plus new stations x 2
1c – 1 tph, as 1b; also calling Bedminster, Parson St	– Same infrastructure as '1b'
2 – 2 tph in peak, 1 tph off-peak; same stops as 1c	– As 1b, plus passing loop & additional signals

Train planning has also considered linking Portishead with existing cross-Bristol services (Option '3'), though this does not require any additional infrastructure or result in alternative demand forecasts and economic analysis results. There are currently no obvious services that could readily combine with Portishead trains.

Infrastructure – initial analysis indicates that the main infrastructure needed is track reinstatement from Portbury Jn to Portishead and new stations, with signalling as appropriate for each option. A basic hourly service could be provided with minimal signalling upgrades, more intensive services need commensurately more signalling. Capital costs have been calculated for each option. [see table below]

Quays Avenue – previous studies have assumed a level crossing could be installed at where the rail alignment entering Portishead crosses Quays Avenue. It is unlikely that this will be permitted, as the current policy of HMRI and Network Rail is that new level crossings should be avoided. The potential cost of providing a road bridge for Quays Avenue is at least £1m.

Operating costs – service options operating costs have considered the costs incurred in increasing the fleet size by one train for option 1 (both a and b) and by two trains for option 2. One 'train' is assumed to be a 2-car Class 150 diesel multiple unit. The main operating cost elements include staff, fleet (fuel, maintenance, etc), leasing, track access, Variable usage and capacity charges, and other miscellaneous costs. [see table below]

Note that operating costs assume the Portishead service is additional to existing FGW operations in the Bristol area. It is difficult to determine costs based on integrating Portishead services due to the complex structure that is in place for things such as track access and fleet lease costs (which could offer volume or pre-arranged discounts). Staff costs are also difficult to determine as there may not be a natural correlation between increased train services and the number of additional staff required to deal with the increase.

Economic and Financial Appraisal

An outline economic and financial appraisal has been carried out, including demand forecasts for train options using econometric regression models based on the demand and other characteristics of stations in the region.

The table below summarises the results for the main options considered by the study, showing capital and operating costs derived in the technical analyses. Demand forecasts are included, along with estimated revenue and potential annual on-going support. Economic analysis indicate present values of costs and benefits, as well as net present value and benefit-cost ratio (BCR), all derived using standard DfT assessment methodologies.

Results	Option 1a	Option 1b	Option 1c	Option 2
<i>Patronage</i> <i>thousands, annual station entry & exit, opening year 2011</i>				
Portishead, Pill & Ashton Gate	518	731	731	844
<i>Cost Assessment</i> <i>£ millions, 2008 prices</i>				
Capital Costs	7.66	10.93	10.93	14.39
Operating Costs	1.67	1.67	1.67	2.41
Operating Subsidy	0.57	0.39	0.39	0.91
<i>Transport Economic Efficiency</i> <i>£ millions, 2002 prices, 'present values'</i>				
Present Value Benefits	87.8	79.6	66.5	130.6
Present Value Costs	38.2	41.0	41.1	63.6
Net Present Value	49.6	38.6	25.4	66.9
<i>Benefit Cost Ratio</i> <i>based on 2002 prices 'present values'</i>				
BCR = PVB / PVC	2.3	1.9	1.6	2.1

Summary & Way Forward

- Analysis to date indicates that reinstatement of passenger rail to Portishead is technically feasible, and could be accomplished at a capital cost of between £7.7m and £14.4m (including a Quays Avenue bridge).
- Operating costs are assessed at between £1.7m and £2.4m per annum (based on the service operating in addition to other local services), resulting in a likely on-going subsidy requirement of between £0.4m and £0.9m per annum, depending on service option and analysis methods.
- Economic analyses indicate that the scheme could deliver benefits to achieve a potential NPV of around 2 for most of the options and analysis methods employed.
- Option 1c would seem to present the best opportunity to balance the service provided with initial capital cost and potential on-going operating subsidy levels. Clearly though, any scheme to develop services at the option 1c level should not preclude future enhancement to option 2 levels or above.

Funding options for the scheme are currently limited to 'Local Transport Plan' (or equivalent) funding sources, including Transport Innovation Fund (TIF). There are currently no rail-specific funding sources available. The West of England Partnership is aiming to submit a TIF business case to the DfT in autumn 2008. The Portishead rail scheme is included in the TIF programme at present, and the results of this study can feed more details into this. As the scheme looks set to have capital costs less than £20m, it should not require a specific funding application (similar to a Major Scheme Bid), but can be part of an appropriate package of TIF measures.

However, to progress will require Network Rail to accept a scheme into its programme. Work to date has been at Network Rail's 'GRIP' stages 1 and 2 (outline feasibility). For the scheme to progress to GRIP 3 (broadly the point at which a scheme has a preferred option to be designed in greater detail, and environmental assessments carried out) a full simulation of train operations will be needed, to ensure that the assumptions made so far are achievable in detail. This could in turn have an impact on infrastructure requirements and capital costs.

Summary recommendations, subject to NSC deciding to progress a scheme to reinstate passenger services to Portishead, include:

- Detailed discussions with Network Rail on how to progress the scheme move it to GRIP 3 and eventually committed scheme status
- Detailed study of operations integrated into the local franchise to understand synergies (or otherwise) and the effect on operating costs
- Design of chosen scheme