

Strategic Transport Forum

14th May 2021

Agenda Item 3: Passenger Rail Study Phase Two

Recommendation:

It is recommended that the Forum:

- a) Endorse the conclusions of the Passenger Rail Study Phase Two**
- b) Endorse the service level aspirations identified in the draft report**
- c) Agree the approach to developing the Rail Investment Programme**

1. Strategic Context

- 1.1. In November 2019, England's Economic Heartland agreed a programme of work that would identify the Heartland's strategic rail priorities. The Passenger Rail Study was taken forward by Network Rail and split into two phases. Phase One coincided with the development of the Transport Strategy by providing an evidence led assessment of the Heartland's rail network. The output from this (agreed by the Strategic Transport Forum in June 2020) was the first step in developing a long-term plan for the region's railway.
- 1.2. In August 2020 work commenced on Phase Two of the Passenger Rail Study. It was supported by a steering group whose membership included local authority partners, East West Railway Company and the Rail Delivery Group.
- 1.3. The Phase Two study is underpinned by the role rail can play in taking forward the ambitions of the region's Transport Strategy. The strategy's investment pipeline reflects the opportunities associated with better connectivity by rail, including unlocking large scale sustainable growth opportunities; delivering on our environmental obligations; and enabling the efficient movement of goods and people through our region and beyond.
- 1.4. Figure 1 illustrates the relationship between the two phases of the Passenger Rail Study



Figure 1: Passenger Rail Study Approach

- 1.5. The aim of Phase Two was to identify and prescribe new or improved service levels for priority journey pairings where analysis has demonstrated stronger connectivity by rail would generate significant social, economic and environmental benefits. Phase Two has primarily focused on the monetary value arising through better rail connectivity between our key economic centres. The target service level outcomes have been developed with minimal consideration of the feasibility, deliverability or new infrastructure necessary to realise GVA benefits.
- 1.6. In April 2021, officers agreed the service level outputs contained in the Phase Two draft report and supported the approach to developing a Rail Investment Programme for the region. The Rail Investment Programme will act as the vehicle to take forward the ambitions identified in both phases of the Passenger Rail Study.

2. Assumptions and Methodology Summary

- 2.1. Phase Two has applied multiple layers of economic analysis to identify the region's most valuable regional and inter-city¹ rail flows. The main analytical tool used to develop the outputs was a rail demand forecasting model (MOIRA). It is a system designed to predict how changes to the planned timetable will affect demand. Its strengths are determining the benefits or disbenefits of new services on existing routes by working out corresponding revenue gains. It does not perform well when there is a very low base demand and is less well suited to measure the impact of transformational change (eg, a new railway line).
- 2.2. The modelling assumed the December 2019 network timetable (prior to the pandemic service level reduction). This has meant East Midlands Railway timetabling changes that take effect from 16th May 2021 were not captured. Notwithstanding, the work has recommended an additional direct service on the Midland Main Line that would run between Luton, Bedford and extended onto Kettering and cities further north (Leicester/Nottingham/Derby) to address the removal of direct services from May 2021 that EEH continue to lobby against.
- 2.3. The modelling assumed that East West Rail (Oxford-Cambridge and Aylesbury-Milton Keynes) is in operation.
- 2.4. The Phase Two Study has not considered flows into and out of London termini. This is to prevent the duplication of Network Rail's London Rail Strategy which is an ongoing work stream.
- 2.5. The Phase Two Study identified 36 flows that are economically sensitive to improved connectivity. These 36 origin/destination pairings have been assigned new service level aspirations to indicate the minimum intervention necessary to unlock the economic potential of these journeys.

¹ This Study recognises that some external locations are major towns not cities



3. Study Outputs

3.1. The Phase Two study outputs have provided EEH with an evidence-led assessment of which strategic regional and long-distance journeys have most to gain from an incremental uplift in connectivity. Where applicable, service level targets support existing rail and transport strategies adopted in EEH. The economic values, expressed in GVA, provide an order of magnitude rather than a definitive value. The high and medium value flows are illustrated in Figure 2.

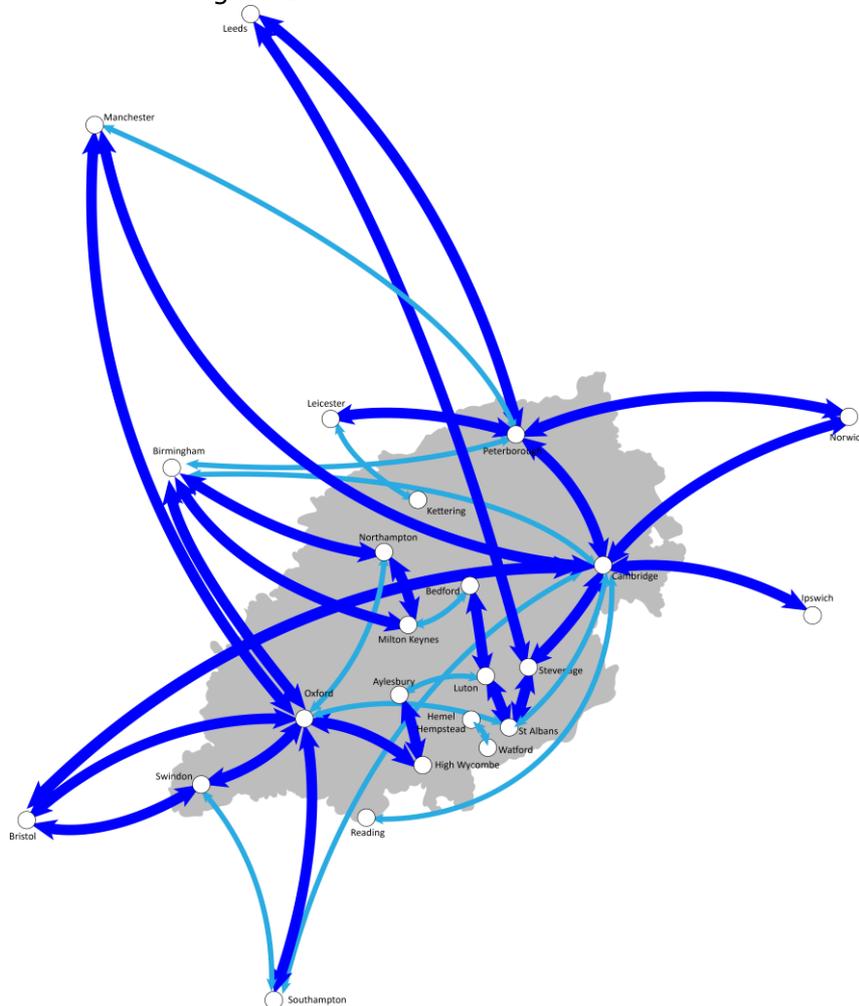


Figure 2 High and Medium Value EEH Flows. Dark blue denotes high value flow and light blue medium value flow

3.2. The study has presented aspirational levels of rail connectivity between the region's most important economic centres. The work illustrates plausible options for the minimum uplift in service that should be pursued to ensure rail becomes the attractive mode of choice over car.

4. Rail Investment Programme

- 4.1. Phase Two has reinforced the findings of Phase One: observing the strengths of the EEH rail network in connecting locations along north-south main lines but falling short of supporting east to west travel unless via interchange at London termini. Travel patterns in the Heartland are much more diverse now in contrast with radially focused routes into London. For rail to play an even more significant role in achieving net-zero carbon this imbalance must be addressed.
- 4.2. Phase Two will serve as the touchstone from which future study work and/or business cases development will emerge from to identify precise options for intervention. The outputs of Phase Two are being fed into the development of the Connectivity Studies. Network Rail will use the outputs of this work to support their Long-Term Planning process and continuous Modular Strategic Planning for the appropriate areas.
- 4.3. It is proposed that EEH develops a Rail Investment Programme using the outputs of the Passenger Rail Study and policy aspirations set-out in the Transport Strategy. The Rail Investment Programme will set the long-term programme of rail scheme development over a 3-5-year period. It will comprise a workstream of preliminary SOBC development to quantify how best to realise the economic potential of the service level aspirations set out in the report. The Rail Investment Programme will feed into and shape EEH's proposition for the Spending Review and the Transport Strategy's Investment Pipeline.
- 4.4. The preliminary SOBCs produced as part of the Rail Investment Programme will deliver a light-touch feasibility, capacity and economic analysis for flows that are not the subject of existing scheme development or business case work currently in the Rail Network Enhancement Process. It will consider which flows are considered most important in terms of enabling planned growth.
- 4.5. For inter-city service level aspirations, EEH will work jointly with the seven STBs and Combined Authorities to identify cross-border priorities that should developed as part of the Rail Investment Programme. An intelligence gathering and mapping exercise is being undertaken jointly with Network Rail to develop the scope and timing of this programme.
- 4.6. A summary of regional flows to be taken forward for consideration in the Rail Investment Programme is provided in Table 1.

Table 1: EEH Regional Flows

Internal EEH Flows	
High Value Flows	Medium Value Flows
Cambridge – Peterborough	Milton Keynes – Bedford
Milton Keynes – Northampton	Watford Junction – Hemel Hempstead
Oxford – High Wycombe	Aylesbury – Luton
St Albans – Luton	Cambridge – St Albans
Oxford – Swindon	Oxford – St Albans
Cambridge – Stevenage	Northampton – Oxford
Aylesbury – High Wycombe	
Bedford – Luton	
St Albans – Stevenage	



4.7. A summary of inter-city flows to be taken forward for consideration in the Rail Investment Programme is provided in Table 2 and Table 3.

Table 2 EEH to Core Cities Flows

EEH x Core Cities Flows	
High Value Flows	Medium Value Flows
Milton Keynes - Manchester	Peterborough - Leeds
Swindon - Bristol	Watford - Birmingham
Northampton - Birmingham	Watford - Manchester
Milton Keynes - Birmingham	Cambridge - Birmingham
Peterborough - Newcastle	Stevenage - Newcastle
Oxford - Manchester	Peterborough - Manchester
Stevenage - Manchester	Peterborough - Birmingham
Cambridge - Manchester	Cambridge - Leeds
Oxford - Bristol	Cambridge - Newcastle
Cambridge - Bristol	
Stevenage - Leeds	
Oxford - Birmingham	

Table 3 EEH to External Hubs Flows

Internal EEH x External Hubs Flows	
High Value Flows	Medium Value Flows
Oxford - Reading	Kettering - Leicester
Cambridge - Norwich	Cambridge - Southampton
Oxford - Southampton	Cambridge - Reading
Swindon - Reading	Peterborough - Ipswich
Peterborough - Norwich	Swindon - Southampton
Cambridge - Ipswich	
Peterborough - Leicester	

4.8. Forum members are invited to reflect on the service level outputs identified in the draft report. They are encouraged to discuss which flows have strong political support or have been/are the subject of scheme development or policy aspirations.

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