

1

OFFICIAL

# West Coast South Strategic Advice

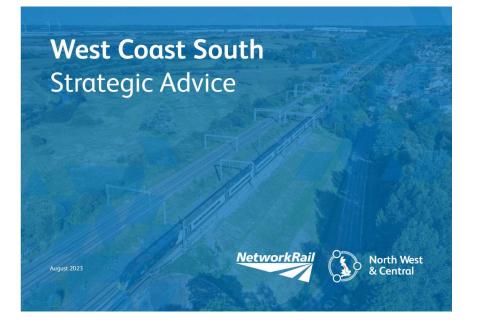
**Summary Overview** 

EEH Strategic Transport Leadership Board

29th-September 2023

### **Background and Purpose**

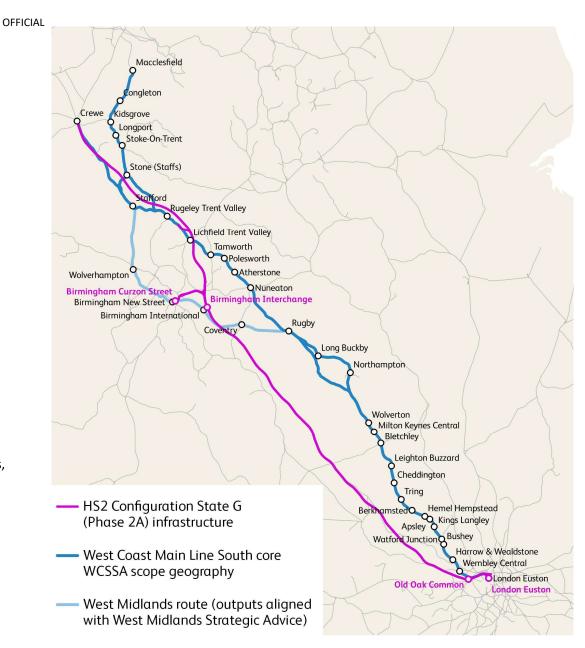
- Fulfil our licence condition to demonstrate the future capability of our network, through Strategic Advice,
- Evaluate the opportunities related specifically to HS2 implementation and conventional network released capacity,
- Show where **constraints** and risks are likely to emerge in future, and consider what further conventional **enhancement options** exist should appropriate funding for development be available,
- Give clarity to specifiers, funders and the industry on the long-term direction for West Coast South which can be used as a basis to assure strategic fit for any intervening changes or improvements.



**NetworkRail** 

# **Approach and Method**

- Scope covers West Coast South route, but is aligned to advice for the West Midlands, and has considered the wider network,
- Assumed a post-HS2 Configuration State G (i.e. Phase 2A) timeframe, focused on providing a longer-term assessment,
- Results generated by testing a set of train service scenarios:
  - Informed by a series of basic objectives, 'Planning Principles' and a flow analysis, all in coordination with the industry,
  - > Capture the different ways conventional capacity could be used post-HS2,
- Each scenario put through capacity analysis to provide:
  - > A compliant 'no infrastructure', released capacity train plan,
  - A compliant 'with infrastructure' train plan assuming infrastructure changes, unlocking constraints on further uplift or improvement,
- The results allow a cross-scenario comparison of the opportunities to use released capacity as well as a basis for prioritising further enhancement development.



### **Objectives and Scenarios**



#### WCSSA Objectives



Maximise revenue generation through improved journey times, connectivity, and capacity to grow major established passenger flows.

1

**Support development** by improving passenger service between locations which are relatively deprived or 'levelling up' target areas.

**()** 

**Encourage modal shift** by improving connectivity between locations where there is a clear opportunity to abstract trips from private car to rail.



Stimulate new markets which are currently underserved by rail; connecting communities, generating future revenue and unlocking suppressed demand.



**Support freight growth** by meeting future demand through provision of expanded capacity and routing options for rail freight.

#### WCSSA Scenarios

Freight Focus	High growth level of freight with further paths provided via East West Rail and Cannock, and freight given priority.
Intermediate Markets	Uplifted intercity and interregional-type services, connecting major non-HS2 served locations.
East West Connectivity	Provision for new direct connections, with priority given to passenger service extensions from East West Rail.
New Connections	Provision for new direct connections, with priority given to inclusion of eight new stations proposals.
Peak Commuter	A peak-hour scenario which gives priority to suburban-type services into London, de- prioritising southbound freight.

# **Planning Principles**

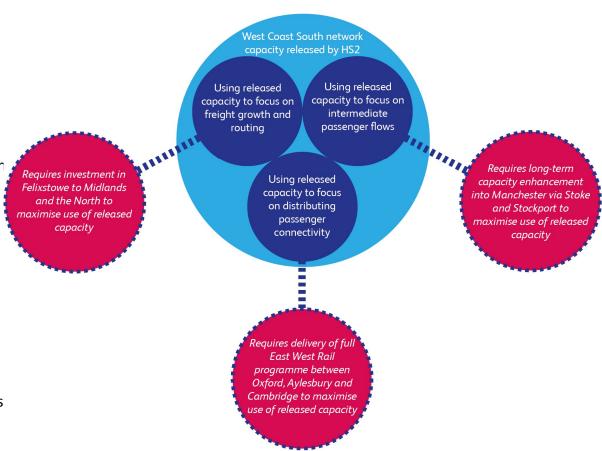


- The 'Planning Principles' provide a set of minimum requirements that were incorporated into every scenario train service,
- They were derived through an initial economic opportunity analysis, and were reviewed by the industry,
- Conforming to these would ensure alignment to the overall outputs of the study, and thus strategic fit,
- A key element is ensuring effective use of capacity in integrating the East West Rail and West Coast South networks.

Planning Principle		Minimum Requirements
A	Supporting Freight Growth	Uplift from today's provision for freight in every scenario. Test requirements to meet 'High Growth' level.
В	Milton Keynes 'Hub'	Call all or the vast majority of passenger services at Milton Keynes Central. Efficient use of capacity, minimising forced changes at Bletchley.
с	Watford, Milton Keynes, Rugby and Coventry	2tph limited stop between all, and between all and Euston. 4tph Euston-Milton Keynes, Euston-Watford, Watford-Milton Keynes and Coventry-Rugby.
D	Macclesfield, Stoke-on-Trent and Milton Keynes	2tph limited stop Euston-Stoke, Euston-Macclesfield, and Milton Keynes-Stoke. 4tph Euston-Milton Keynes.
E	Stafford, Lichfield, Tamworth and Nuneaton	2tph limited stop between all and Euston. Minimum1tph all calls service on the Trent Valley.
F	Shrewsbury, Telford and Wolverhampton	1tph limited stop Euston-Telford and Euston-Shrewsbury. 2tph limited stop Euston-Wolverhampton.
G	Northampton Service Structure	2tph limited stop Euston-Northampton and Birmingham NS-Northampton. 4tph Northampton-Milton Keynes.
н	New Stations	2tph calls at Rugby Parkway, Coventry East, Polesworth and Stoke South. Sensitivity test new stations at South Northampton, Daventry, Brinsford and Meecebrook.

### **Findings: Using Released Capacity**

- The 'no infrastructure' testing results demonstrated the improvements in passenger connectivity and freight capacity that are possible using released capacity across all scenarios,
- However, maximising the benefits for different ends may drive different requirements and constraints, meaning a policy decision on what outcome is sought will be required,
- Capacity into Manchester through Stockport was a persistent issue, showing how the HS2 infrastructure Crewe-Manchester phase will be needed to fully capitalise on conventional released capacity,
- Bletchley, Milton Keynes and the Northampton slow lines were key areas of constraint, meaning new stations proposals in this area mus be subject to a wider local stations needs assessment.



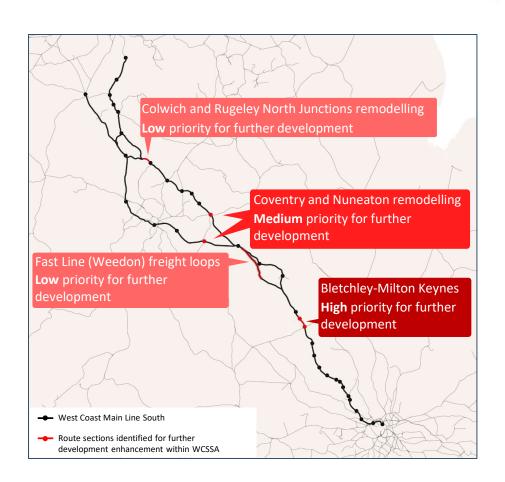
**NetworkRail** 

### **Findings: Priorities for Further Development**

- The 'with infrastructure' testing was used to create a cross-scenario prioritisation of possible future enhancements,
- The assessment identified that interventions between Bletchley and Milton Keynes would unlock further benefit across all scenarios, and were ascribed high priority for further development subject to funding,
- Other interventions across the route could be explored further, though the full benefits are dependent on pursuing a particular service structure or scenario,
  - Further work could also be undertaken using these findings as a basis to define:
    - Changes to the operator map,

٠

- Likely future impacts on stations,
- > Incremental enhancements for freight gauging and power supply,
- How to improve the network's resilience to climate change.



**NetworkRail**