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Long-Term Strategic Transport Plan (2051) – Board update

July 2021

The purpose of the Strategic Transport Plan

The STP is intended to inform Government investment decisions & complement Local Transport Plans

It considers all modes of transport within the context of strategic travel

It will identify investment priorities based on a whole travel corridor approach

Short-term Strategic Plan (2020 to 2025)

- Approved in December – published in January
- Informed by existing local authority evidence
- Outlines long-term objectives
- Outlines process of producing long-term plan

The vision of the STP is –

To deliver sustainable growth by ensuring the Western Gateway area is sustainably connected and provides high quality and value for money travel opportunities for all businesses, residents and visitors.

Our phased approach to producing the long-term STP

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We have devised a 3 stage process –

Stage 1 – Baseline data and future year scenarios – Jan 21 to Dec 21

- Baseline Assessment Report for each corridor
- Development of 2051 Future Year Scenarios

Stage 2 – Technical assessment of future year scenarios – Nov 21 to May 22

- Using new West Gateway SATURN model test 3 scenarios – for 2031/2041/2051
- Technical assessment

Stage 3 – Production of transport strategy – April 22 to March 23

- Develop regional narrative
- Outline investment priorities
- Create four corridor strategies

A reminder of the transport corridors

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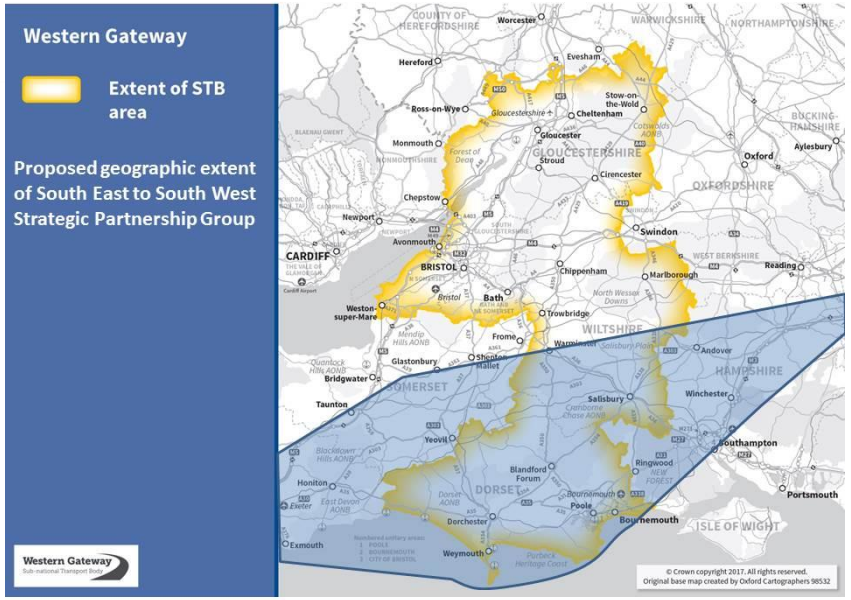
4 Strategic Corridors

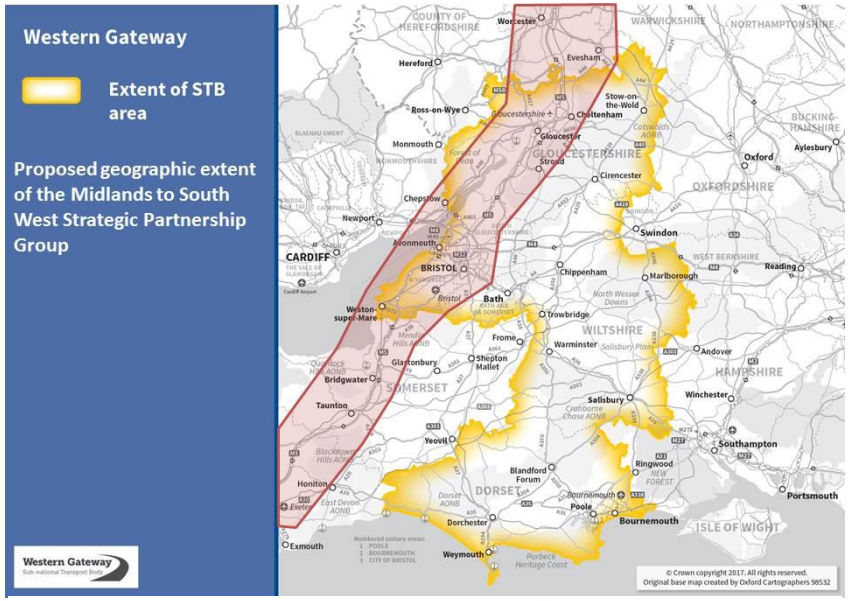
South East to South West or the Sothern Growth Corridor

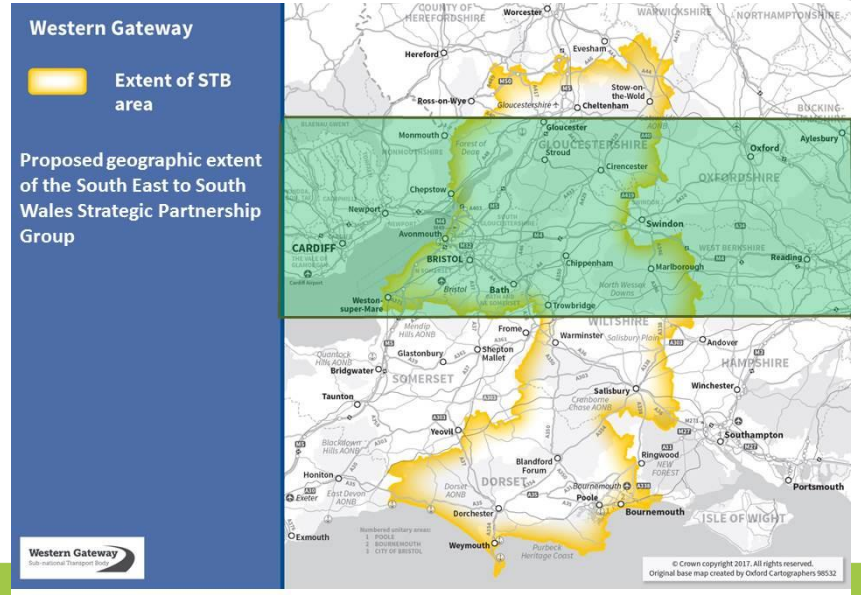
South East to South Wales or the Western Innovation Corridor

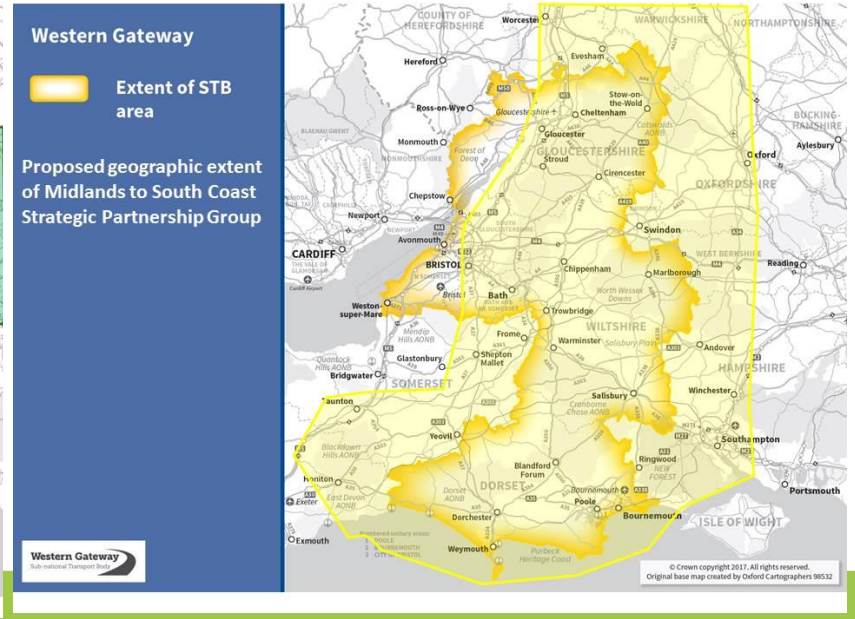
Midlands to South West of the Western Growth Corridor

Midlands to South Coast of the Missing Link









Emerging transport scenarios

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Essentially each scenario assumes we meet carbon reduction targets – the question is how do we achieve it?

- **Scenario 1: Steady State**

i.e. travel behaviours do not alter much from today (Pre Covid-19)

- **Scenario 2: Economic Powerhouse**

i.e. significant increase in economic activity growth as Western Gateway area rivals south-east in terms of GDP

- **Scenario 3: Digital Revolution**

i.e. increased smart technology (mobility as a service) and the internet of things concept - increased working at home so reduced peak hour journeys

- **Scenario 4: Sustainable living**

i.e. shift to low carbon society which embraces 20 minute neighbourhood concepts including high quality strategic walking/cycling networks

- **Scenario 5: Integrated Public Transport networks**

i.e. passenger focused regulated with reliable journey times, high frequency and reduced cost

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Next Steps

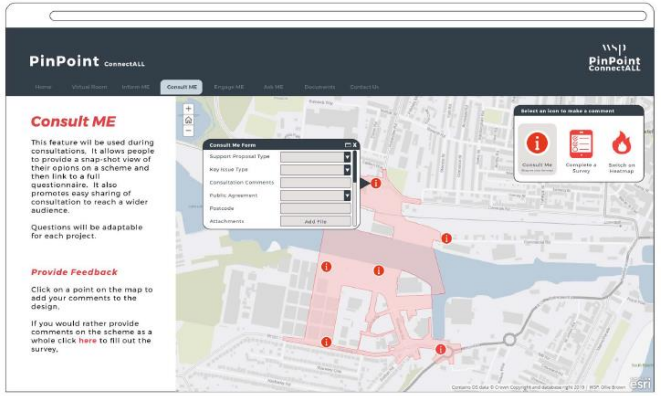
Month	Tasks
July	• Build up the detail of each scenario so they are distinctive and easily understood
August	• Work on public engagement documents & build virtual platform • Finalise scenarios
September	• Seek board approval to commence engagement • Commence public engagement (6 weeks)
Sept / Oct	• Stakeholder events – Corridor groups & Business Forum
November	• Analysis of stakeholder feedback
December	• Agree which scenarios to test • Finalise baseline assessment report
January	• Start Phase 2 Technical Assessment

Engagement Strategy

The formal engagement strategy will be shared with the board as part of the approval process

It is intended that a six week public engagement will take place from end of Sept to the beginning of November

All promotional activity will direct people to a virtual engagement platform



Views will be sought on each scenarios in terms of:

- Public acceptance
- Deliverability
- Personal preference

A report summarising the feedback will be completed by the end of November

Do anyone have any questions?

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Decarbonising Transport - Headlines

Priorities

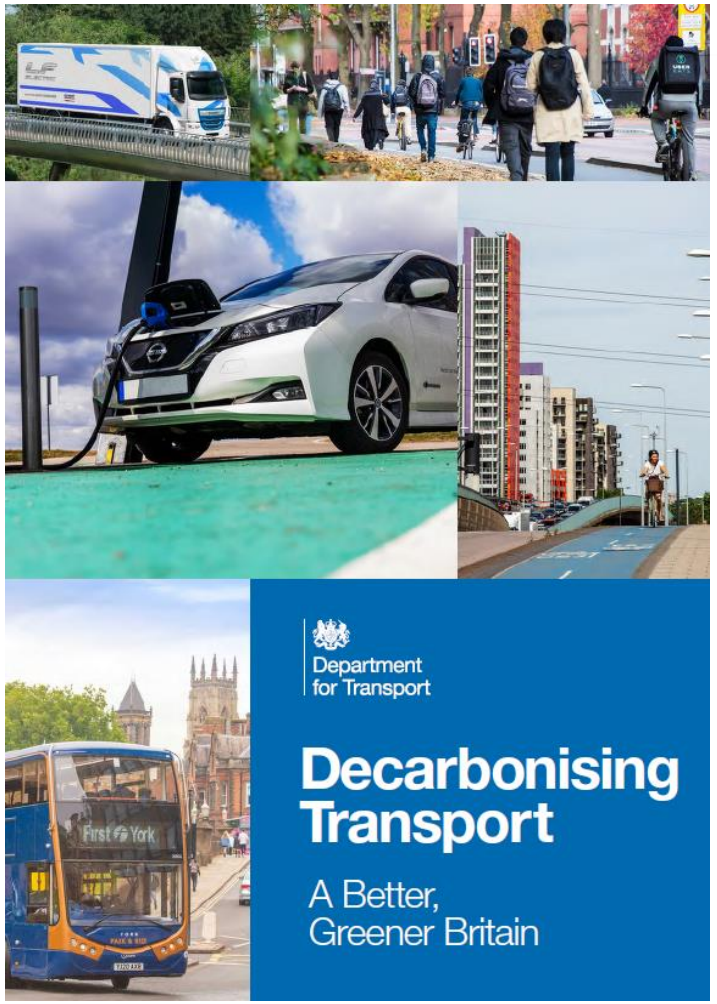
1: Accelerating modal shift to public and active transport

2: Decarbonisation of road vehicles

3: Decarbonising how we get our goods

Targets

- All diesel only trains removed from network by 2040 and rail network net-zero by 2050
- End sale of petrol and diesel cars and vans by 2030 and HGVs by 2040.
- All new cars and vans must be 100% zero emission at tailpipe by 2035.



Decarbonising Transport

Roles

- STB role in supporting decarbonisation and joining up local plans across a wider geography – economies of scale and ensure coherence across boundaries.
- Local transport funding reformed to deliver decarbonisation.
- Revised role for Local Transport Plans with quantified action plans in place.
- Toolkit to support local authorities to be published later in 2021 and updated carbon values for policy appraisal.

Other key points

- High investment in roads will remain to ensure the functioning of the nation and to reduce congestion as a major source of carbon.
- Consultation on a “Jet Zero” strategy including getting domestic aviation to net zero by 2040.
- Commitment to net zero for UK domestic maritime sector.
- Compulsory consolidation centres to ensure majority of urban deliveries are consolidated and transferred to zero emission for last mile.

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Item 9 Carbon Baseline and Forecasting

Rob Murphy

Wiltshire Council

Item 9: Carbon Baseline & Forecasting

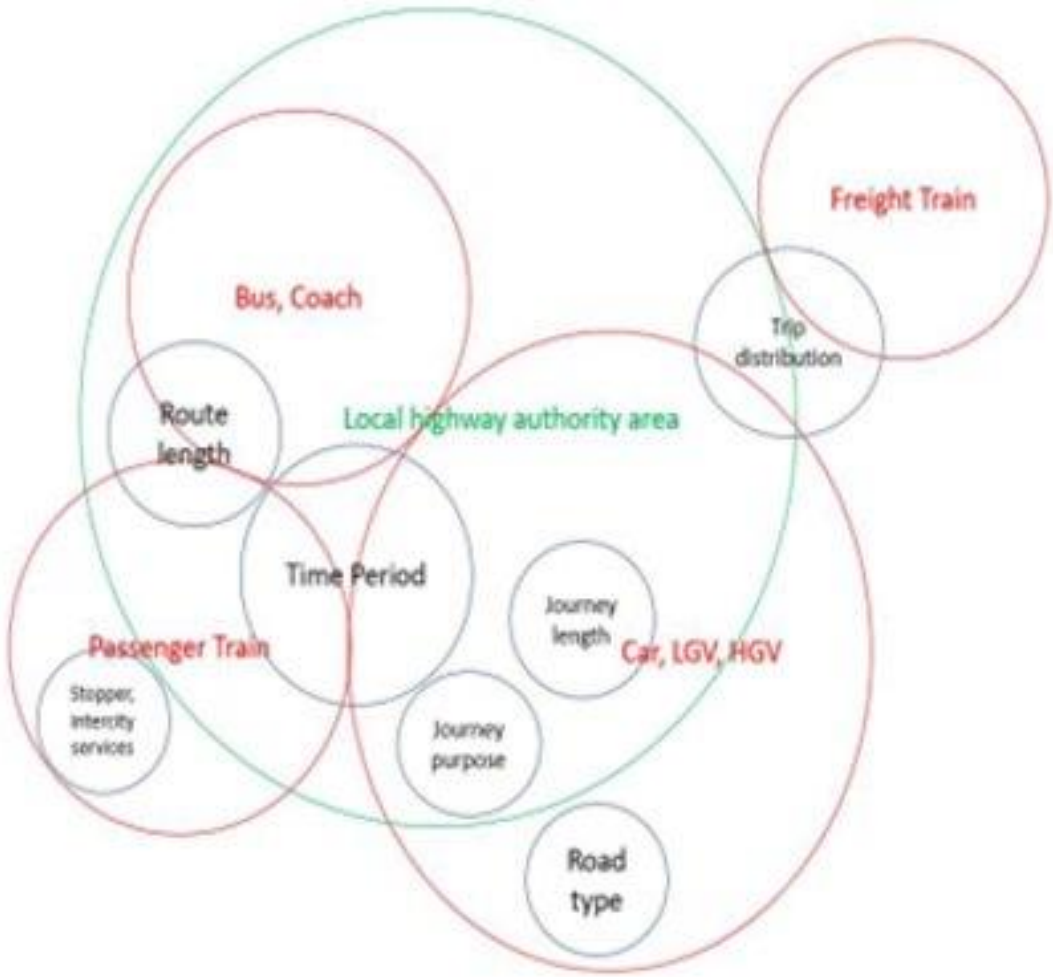
Brief:

- Purpose – to inform the long-term WGSTB Strategic Transport Plan and Local Transport Plans being developed by WGSTB authorities.
- Requirements:
  - Provide an assessment of the available/relevant methodologies for establishing a transport carbon baseline.
  - Provide an overview and review of the carbon baselining work undertaken by WGSTB authorities, Highways England and Network Rail.
  - Based on the above, recommend and utilise a methodology(ies) to provide a carbon baseline.
- WSP appointed in March 2021.

Item 9: Carbon Baseline & Forecasting

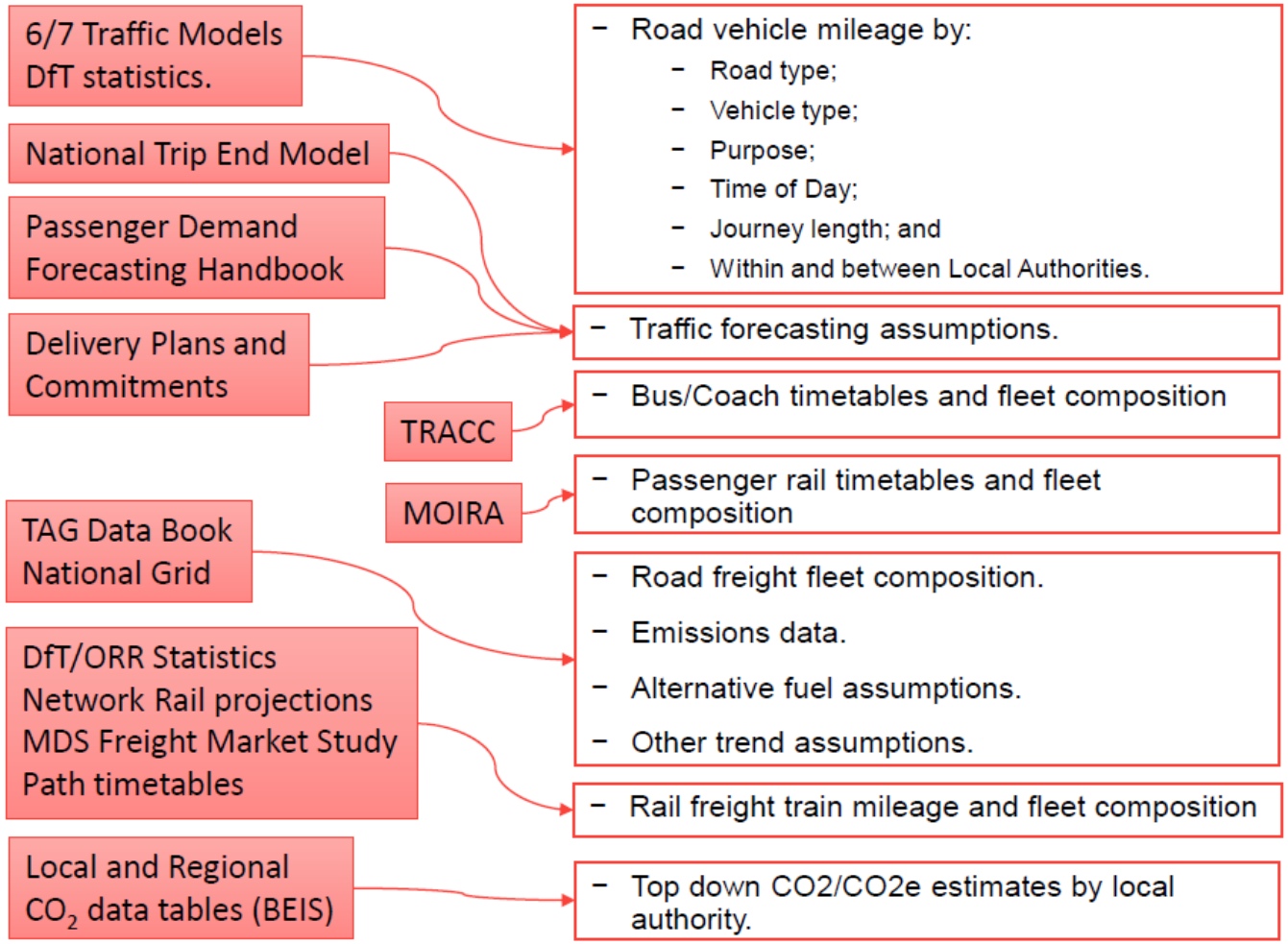
Methodology:

- Bottom-up approach
- 2019 baseline year
- Excel spreadsheet tool:
  - High level dashboard
  - Data available for both individual areas and STB area
  - Transparent – data and calculation sheets available to view
  - Tables containing results with and without BEIS alignment.



Item 9: Carbon Baseline & Forecasting

Evidence Sources:



Item 9: Carbon Baseline & Forecasting

Next Steps:

- Baseline Tool:
  - Build spreadsheet tool – July/August.
  - Finalise tool and produce report – early September.
- Forecasting Tool:
  - Brief developed by West of England Combined Authority (WECA) to produce a forecast to 2050 (plus intermediate years) for both WECA and WGSTB areas.
  - Similar evidence sources and spreadsheet tool to baseline.
  - To include sensitivity levers (% of EVs, % working from home, change in population, development growth, trips per person, etc).
  - Completion – early Autumn.

Bristol to Birmingham

Bristol to Exeter

Corridor Strategic Studies

Jon Lovatt

Western Route

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Update on Study Progress

- The Bristol to Birmingham and Bristol to Exeter Strategic Studies commenced in Spring 2020 and are now in their end stages, following the release of the final reports.
- Both studies have enjoyed strong stakeholder engagement throughout, which has enabled the endorsement of the study findings by our partners.
- This presentation is designed to share the conclusions and recommendations of the studies, together with the planned next steps. It is structured as follows:

  - *Study context.*
  - *Bristol to Birmingham findings, train service recommendations and interventions.*
  - *Bristol to Exeter findings, train service recommendations and interventions.*
  - *Recommendations for freight.*
  - *Further recommendations, additional to train services and supporting infrastructure.*
  - *Development of study outputs.*
  - *Immediate next steps.*

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Study Context

- Both studies make recommendations for development of rail services required to support planned growth, in answer to a similar headline question:
  - *How can rail best support sustainable economic and housing growth between Bristol and Birmingham/Exeter?*
- The reports and their recommendations are intended to inform decisions by strategic planners and funders, around the further development of rail passenger and freight services, to 2030 and beyond.
- Recommendations are developed in line with the strategic priorities and objectives identified by the relevant Sub-national Transport Bodies i.e. Midlands Connect, Western Gateway and Peninsula Transport.
- Both study geographies represent key transport corridors linking major UK regions; and important economic areas in their own right, containing major hubs, growing population and economies.
- Common transport challenges include:
  - Competing demands for accommodating long distance high speed, inter-regional, local, and metro-style passenger services together with freight routes.
  - Connectivity challenges including for those hubs that are not directly served by the main line, such as Worcester, Gloucester and Weston-super-Mare.

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Bristol to Birmingham Findings

- Significant housing and employment growth is committed in the corridor.
- This will exacerbate existing connectivity shortfalls, and create new ones, even accounting for committed improvements.
- This will restrict the potential role of rail and its ability to support sustainable economic and housing growth.
- It will also contribute to existing strategic transport network constraints.
- Passenger service improvements are required to address current and emerging connectivity shortfalls.

- The key priority areas for improved passenger connectivity are:
  - For Worcester stations, Gloucester, Ashchurch, Cam & Dursley and Yate – *as high growth areas with existing connectivity issues*
  - Between Gloucestershire and Worcestershire
  - For Gloucestershire stations into Bristol
  - Between Stroud/Stonehouse and Gloucester/Cheltenham Spa
  - Between Worcester and Cross City Line stations such as Bromsgrove and Longbridge

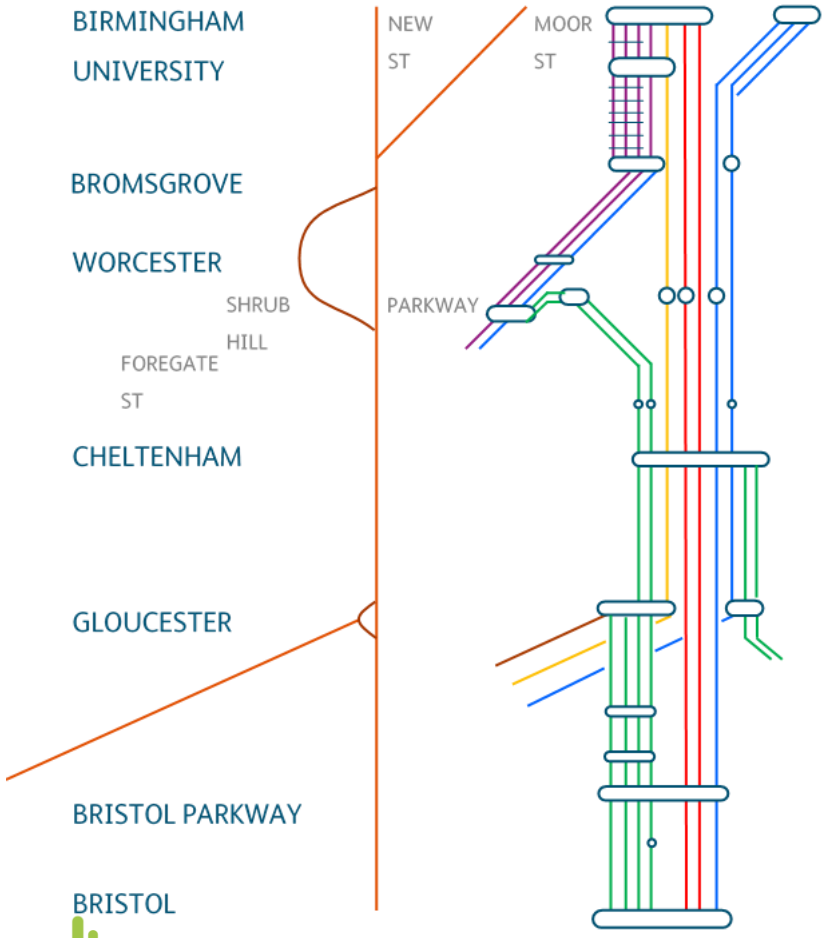
- There is also a need to accommodate growth in rail freight, which has a key function in and through the corridor.

Bristol to Birmingham Train Service Recommendations

A recommended train service specification is given, that integrates and optimises committed, planned, and newly-identified improvements to address these priorities.

The principal features are:

- Amendments to existing and proposed inter-regional services to deliver improved connectivity between major hubs whilst retaining attractive journey times.
- Significantly improved local services including metro-style frequency between Gloucester and Bristol.
- Recommended routing of MRH Cardiff-Birmingham service via Lydney, calling at Gloucester.
- Adjustment of services previously proposed to terminate at Cheltenham Spa.



Recommended TSS

Service colour classification:
Western local services,
Inter-regional services (south west),
Inter-regional services (south Wales),
Midlands Rail Hub,
Wales local services,
West Midlands local services

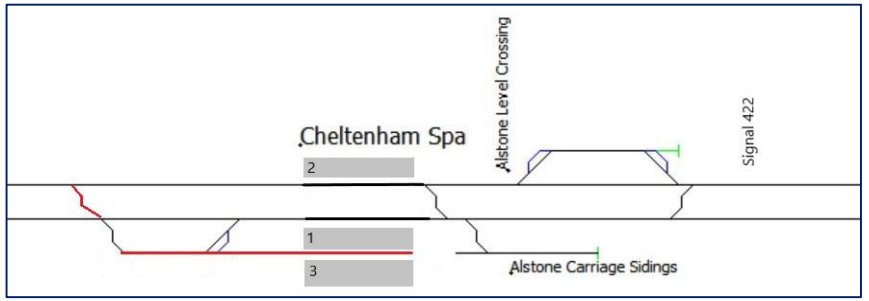
Bristol to Birmingham Recommended Interventions

The recommended TSS requires significant infrastructure improvements.

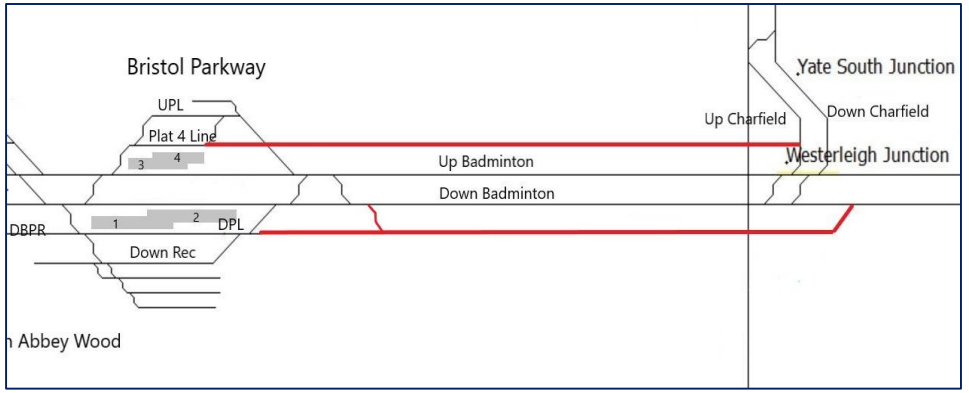
These include (from north to south):

- Worcester area – resignalling to improve layout and signalling functionality including junction, track, and platform capacity; including Abbotswood Junction redoubling.
- Eckington Loop lengthening.
- Ashchurch Down Goods Loop lengthening.
- Cheltenham Spa station – increased platform capacity through provision of a bay platform.
- Gloucester area – improved layout and signalling functionality between station and mainline; increased platform capacity.
- Track capacity between Gloucester and Westerleigh Junction – additional lines to allow passenger trains travelling in the same direction to pass one another.
- Westerleigh Junction – increased junction capacity and additional running lines Westerleigh - Stoke Gifford.

Cheltenham Spa



Bristol Parkway to Westerleigh



Bristol to Exeter Findings and Train Service Recommendations

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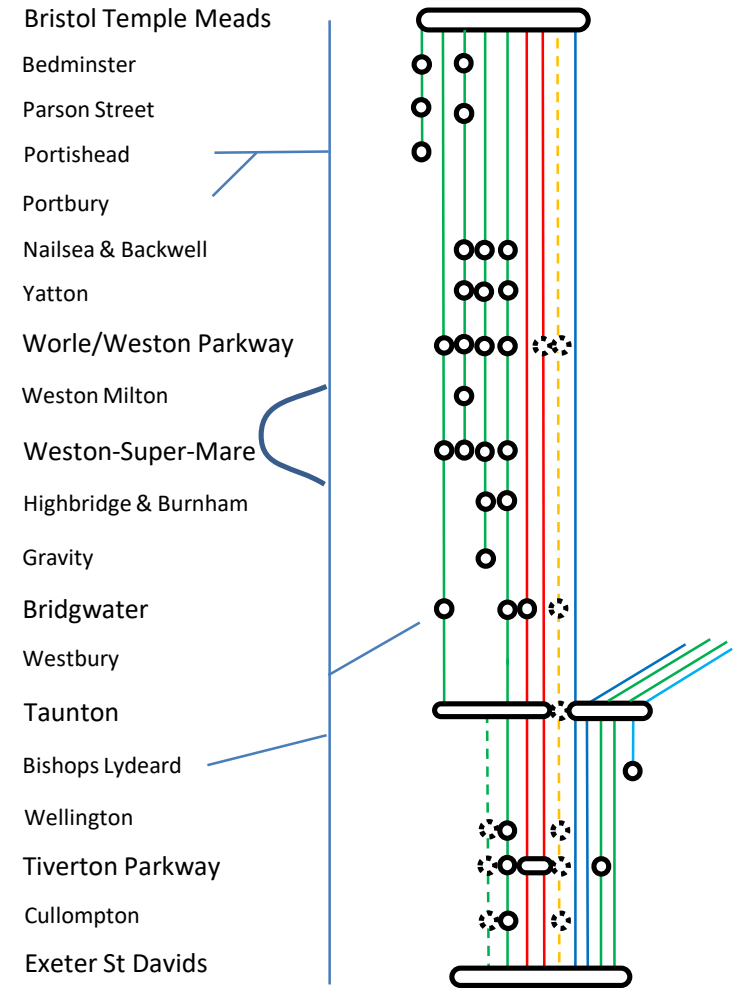
The phased train service recommendations, reflecting strategic priorities for growth, include new and improved:

- Rail access for the key hubs of Bristol and Exeter, through additional longer distance journey opportunities to the south west, key regional connections, and enhanced opportunities for local travel.
- Rail connections between greater Weston-super-Mare and Bristol, as a key strategic transport corridor within the West of England travel to work area.
- Rail access for North Somerset, facilitated by an upgraded and rebranded Weston Parkway station designed both to support major housing growth and to facilitate multi-modal interchange, including for Bristol Airport.
- Rail access for Bridgwater and Gravity, as part of the strategic employment-led growth in Sedgemoor.
- Inter-regional connectivity, through improvements for Taunton and Tiverton Parkway, representing the key railheads serving catchments across Somerset and North Devon.
- Rail access for the residents of Wellington and Cullompton, as well as Portishead, as these growing communities re-join the national network.



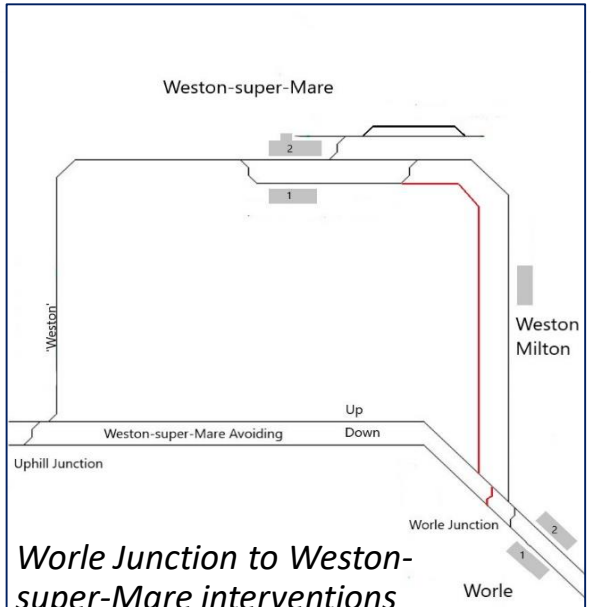
Stage 3

Service colour classification:
Western services,
Inter-regional services,
Wessex services,
Open access services,
Freight services
Solid = 1tph Dashed = 0.5tph

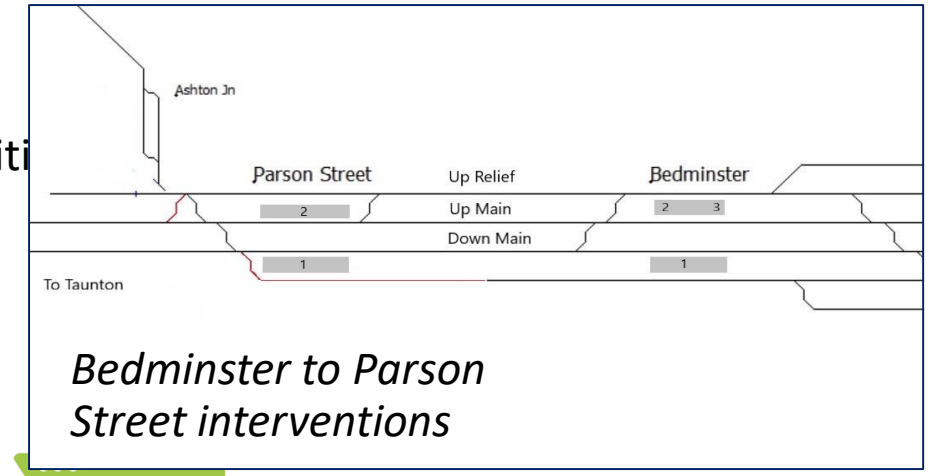
Bristol to Exeter Recommended Interventions

The recommended TSS requires infrastructure improvements, including the following, north to south:

- Bristol Temple Meads to Exeter: signalling improvements to reduce headways.
- Bedminster to Parson Street: upgrading including reinstatement of four tracking and new up direction crossover.
- Yatton Loop: upgrading including extension and entry speed increase.
- Worle Junction and Worle to Weston-super-Mare: redoubling.
- Worle station: upgrading and potential rebranding as Weston Parkway station.
- Weston-super-Mare: bay platform reinstatement.
- Gravity site: reconnection to the main line.
- Taunton to Norton Fitzwarren: interventions to accommodate potential additi local services.
- Exeter St Davids: additional platform capacity.



Worle Junction to Weston-super-Mare interventions



Bedminster to Parson Street interventions

Recommendations for Freight

Both studies highlighted opportunities for significant development of rail freight, supporting decarbonisation objectives by encouraging modal shift, as well as economic growth.

The study recommendations include:

- Up to 2 freight trains per hour in each direction on Birmingham corridor.
- Up to 1 freight train per hour in each direction on Exeter corridor between Bristol and Taunton, and up to 2 south of Taunton.
- Provision for express logistics, intermodal, and bulk materials traffic types, to account for the variety of freight and to allow for new markets.
- Review of timetable rules around freight in the Exeter corridor (e.g. freight running times on steeper sections).
- The potential for gauge enhancement, especially alongside any electrification proposals.
- Minimum design standards for freight infrastructure, including improved passing loop lengths and entry & exit speeds.
- The potential for joint development of proposals for:
    - New Strategic Freight Interchange for the West of England region at Avonmouth.
    - Intermodal services and facilities, such as Gravity and feeder services for Avonmouth SFI.
    - Express logistics services and facilities in a variety of locations including stations.

Further Recommendations

Recommendations additional to train service specifications and supporting infrastructure include:

- Access to rail:
  - Support for extended hours of service i.e. more early morning and late evening trains.
  - Improved interchange between train services.
  - Enhanced station accessibility.
- Decarbonisation:
  - Support for the Traction Decarbonisation Network Strategy recommendation for electrification of the whole Birmingham – Bristol – Exeter corridor.
  - Develop *First & Last Mile* opportunities, such as multi modal interchange improvements at stations.
- Operational resilience: In development of any interventions, take opportunities to address issues of :-
  - Level crossing risk, including for user-worked crossings.
  - Flood risk, which affects parts of both corridors.
- Accommodate changing maintenance requirements, which may increase as more services run across more assets.

Development of Study Outputs

The outputs and recommendations of the studies should be progressed in three ways:

- *Further development of recommended outcomes*
  - Follow-up development studies to better understand feasibility and inter-dependencies.
  - Outcome will be identification of viable business cases for further progression.
  - Detailed development of interventions must be associated with the service enhancements (benefits) they deliver.
- *Supporting and influencing existing programmes*
  - Collaborative work undertaken for the studies should inform programmes already in development.
  - Clear role for study partners to champion and progress outputs, which align with their own aspirations.
- *Informing future strategic rail planning work*
  - Outputs form evidence base for future strategic rail planning including Greater Bristol Strategic Study, and the regional decarbonisation strategy.
  - Strategic development work undertaken by partner organisations such as the West of England Combined Authority (WECA) will be informed and guided by the study outputs.

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Immediate Next Steps

- Produce short summary versions of each report; circulate both versions (short and long!) and publish on the Network Rail website.
- We will encourage partner organisations to link to and amplify the reports.
- Use outputs to inform timetable development and existing programmes (e.g. Midlands Rail Hub).
- Begin further development work on cost and feasibility assessment for key interventions (Summer 2021).
- Identify potential business cases for further investment, and work with potential funders to establish routes for progression.
- Work directly with Western Gateway on taking forward the rail strategy and the strategic corridor strategies. Possibly including joint development work.