

TEN YEAR RAIL DELIVERY PLAN



DECEMBER

2020

West of England 10 Year Rail Delivery Plan for Investment: 2020 – 2030

November 2020

| Document Control | |
|------------------|---|
| Document title | West of England 10 Year Rail Delivery Plan |
| Version and date | v1 24/04/2020 |
| | v2 27/04/2020 Shared with Network Rail |
| | v3 09/06/2020 Issued to Strategic Rail Programme Board 09/06/2020 |
| | v4 15/07/2020 Issued to Strategic Rail Programme Steering Group 12/08/2020 |
| | v5 23/09/2020 Issued to Strategic Rail Working Group 25/09/2020 |
| | v6 16/10/2020 Issued to Strategic Rail Working Group and Strategic Rail Programme Steering Group on 16/10/2020. Minor changes made. |
| | v7 10/11/2020 Minor changes made following Transport Board on 04/11/2020 and other comments. |
| | v7.1 27/11/2020 Minor changes following comments made at Leaders and Mayor's meeting |
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Introduction

The joint Network Rail and WECA 10 Year Rail Delivery Plan 2020 to 2030 aims to enhance local rail services, providing people with access to jobs and services from stations that are step free and on trains that are ‘turn up and go’ style fast and frequent, clean and carbon neutral. It will restore confidence in the rail network following Covid19, assist economic recovery, rebuild passenger numbers, increase freight carried by rail and support the West of England’s key growth locations for housing and jobs. All of this will require new infrastructure. With long lead in times some proposals will take longer than 10 years to deliver so this is as much a development plan as a delivery one but this is the start of the transformation of our local rail network. Following on from this work the 25 Year Strategic Outline Business Case will review the longer term aspirations for rail and establish a 25 year programme and funding strategy to 2045.

Summary

The 10 Year Rail Delivery Plan will develop and deliver services and infrastructure over two five year periods:

Delivery 2020 to 2025 – existing schemes

- MetroWest, Portway, Bristol East Junction remodelling and Bristol Temple Meads eastern entrance, new roof and rewiring.
- Pipeline Projects, the New Stations Fund including Charfield and potentially subject to development some of the Restoring Your Railway ideas

New schemes to develop and deliver 2020 to 2030 and beyond

- **Develop and deliver 2020 to 2030:** extension of MetroWest to the south – Weston-Super-Mare and Taunton/Exeter, Worle/Weston-super-Mare parkway, Temple Meads passenger and capacity enhancements, step free access across the network and completing electrification between Temple Meads, Bristol Parkway and Chippenham.
- **Develop for delivery 2030 to 2045:** Temple Meads new platforms 0 and 1, enhanced “turn up and go” up to four trains per hour style services for Cardiff to Portsmouth, Severn Beach to Westbury and Henbury and Portishead lines, future East-West-North connections including Bristol to Oxford, loading gauge enhancements for key freight routes and improved services Bristol to Yeovil. Major capacity enhancements will be required including Bristol West, line doubling on the Severn Beach line, Westerleigh Junction and Swindon to Didcot.
- **Schemes that could come forward during 2020 to 2030:** rolling stock plan, Saltford and Ashton Gate stations and subject to development Restoring Your Railway ideas including St Annes Park station.

The 10 Year Rail Delivery Plan will be kept under review and updated periodically as necessary.

1. Objectives for the 10 Year Rail Delivery Plan

The 10 Year Rail Delivery Plan is driven by the objectives of the West of England’s adopted Joint Local Transport Plan 4 (JLTP4) March 2020, the Local Industrial Strategy, Climate Emergency Action Plan, Network Rail’s current and long term plans including the Continuous Modular Strategic Planning process and the Western Gateway Rail Strategy. Whilst there are overlapping timescales for all these plans they do link together and the three common and core objectives of Decarbonisation, Sustainable Growth and Accessibility that emerge from them are shown in Figure 1 below.

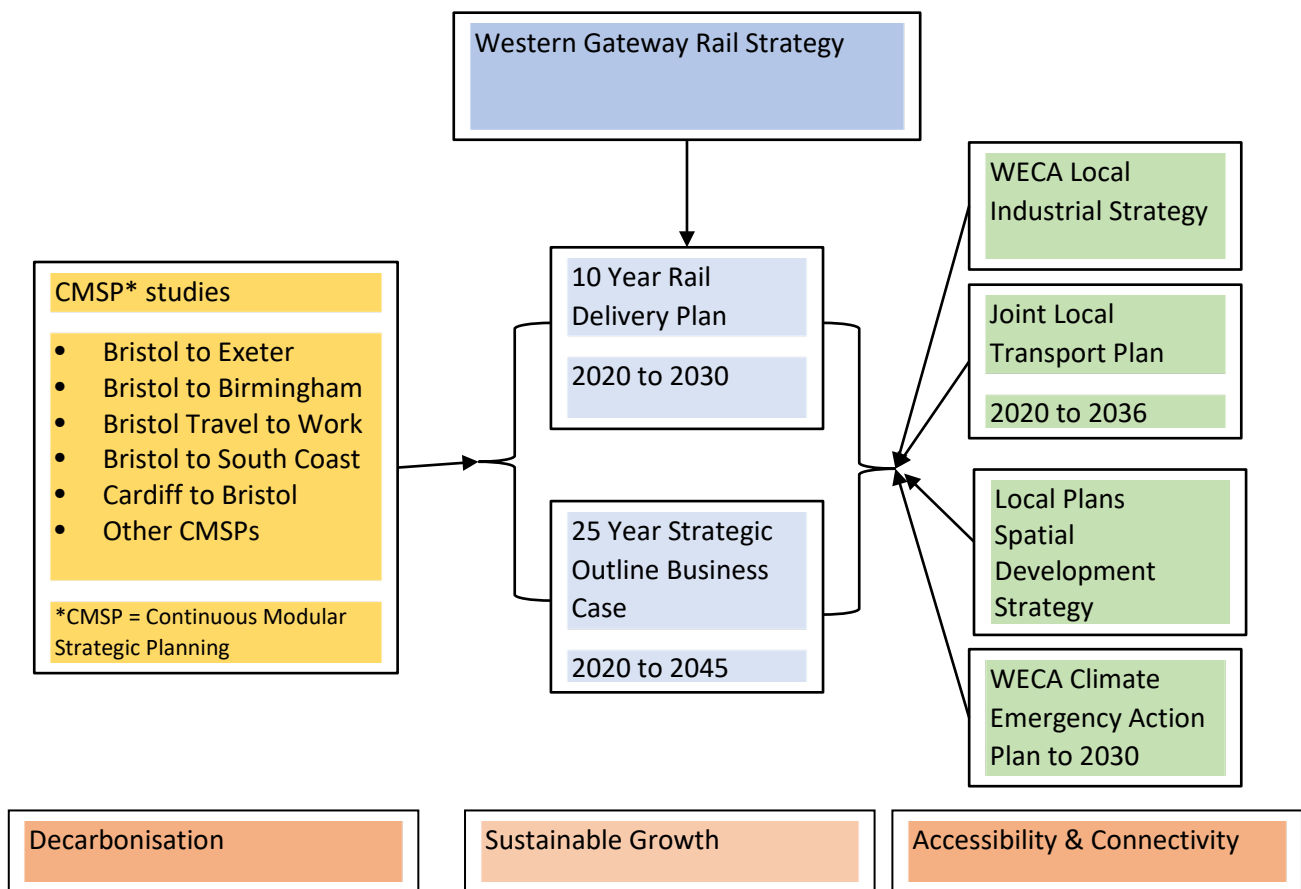


Figure1: 10 Year Rail Delivery Plan – links to studies, plans and strategies

For the JLTP4 the vision is: ‘Connecting people and places for a vibrant, inclusive and carbon neutral West of England’. To this end the JLTP4 objectives are:

- To take action against climate change and address poor air quality
- Support sustainable and inclusive economic growth
- Enable equality and improve accessibility
- Contribute to better health, wellbeing, safety and security
- Create better places

Launched in the summer of 2019 the West of England's Local Industrial Strategy (LIS) sets the region's overall approach to how we will develop the regional economy through supporting innovation, skills development, enhancing productivity and infrastructure development.

The West of England's various Local Plans identify areas for housing and employment growth and in many cases these link closely to the rail network and the proposals set out in this 10 Year Rail Delivery Plan (see Table Two). The emerging Spatial Development Strategy will set out longer term plans for sustainable growth with the opportunity to closely align these with the Plan.

Network Rail's Western Route Strategic Priorities for Control Period 6 are:

- Everyone home safety every day
- Great people & great culture
- Delighting customers
- Affordable and efficient
- Supporting jobs, housing & economic growth

Continuous Modular Strategic Planning

Network Rail have recently commenced the development of two Continuous Modular Strategic Planning (CMSP) studies during 2020/21 – one for the Bristol to Birmingham route and the second for Bristol to Exeter. Both studies have the objective of better understanding the opportunities and constraints associated with planned economic growth in the region and how rail can best support this growth and what interventions will be necessary. The demands for long distance travel and freight and rail's role for supporting net zero carbon emissions are equally included. Interim outputs from the two studies will be fed into the 10 Year Rail Delivery Plan. CMSPs for Cardiff to Bristol and the Bristol travel to work (suburban) area are also planned and will likewise feed into the 10 Year Rail Delivery Plan. Where required links will also be made to the Dorset and Solent CMSPs.

The CMSPs follow a similar format which covers:

- Passenger forecast scenarios including local housing growth and 10% and 20% post Covid-19 permanent reduction demand.
- Future demand and capacity plotted on heat maps to show AM peak overcrowding.
- Capacity shortfalls.
- Connectivity driven Indicative Timetable Service Specifications (ITSS).
- Remapping of station hubs designations informed by scale and location of housing growth.

The CMSP work is key to and will inform the 10 Year Rail Delivery Plan and full alignment between the two will ensure Network Rail and WECA's strong commitment to investing in local rail.

The timeline for the Bristol studies is set out below:

- Oct 2020: Baseline Reports. These are the first outputs arising from the two Corridor Studies, i.e. drafts have been approved by both working groups and need only minor edits before completion and issue in October.
- Nov 2020: Demand Forecasting including passenger growth scenarios and testing of new connectivity aspirations to identify role of rail and potential benefits.
- Nov 2020: Range of Train Service Specifications that may deliver benefits confirmed and provided to Capacity Analysis to test, including TSS based on Western Gateway Rail Strategy.
- Jan 2021: Service development recommendations & options for accommodating services to be confirmed.
- Feb 2021: Capacity Analysis Report summarising interventions required to deliver train service specifications.
- Feb 2021: Draft Final Report including draft programme of interventions to deliver defined benefits.
- End March 2021: Final Report including recommendations for prioritised interventions and packages of interventions to deliver benefits.
- April 2021 onwards: interventions may be progressed and further developed by funders. This may include entry into the Rail Network Enhancements Pipeline (RNEP).

Climate Emergency and decarbonisation

All four West of England local authorities and WECA have declared climate emergencies with the aim of being carbon neutral by 2030. This will mean changing the way everyone travels with a significant modal shift required towards cleaner and greener and more sustainable forms of transport.

WECA's emerging Climate Emergency Action Plan sets out ideas for increasing the uptake of public transport including:

- Demand management to reduce the number of car trips and make alternatives to the car more attractive
- Support transit orientated development
- Better transport interchange and ticketing
- First and last mile access to public transport
- Develop new mass transit services

In line with the Western Gateway Rail Strategy's commitment to decarbonisation (see below) the 10 Year Rail Delivery Plan will support an ongoing programme of electrification, the integration of rail and zero-emissions local public transport and micro-mobility modes, priority freight routes from Bristol to Westbury, South Wales, Gloucester, the Midlands, Exeter and beyond and a new Freight Market Study to understand what goods are currently transported by rail and the potential to grow these markets.

In September 2020 Network Rail published its Traction Decarbonisation Network Strategy. This includes the very welcome proposals to electrify by 2050 the routes

from Bristol to Birmingham, Chippenham, Westbury, Exeter, the Henbury Line with alternative battery traction for the Severn Beach Line. Costed nationally at £18 billion to £26 billion a programme business case with dates for implementation is to be produced.

The 10 Year Rail Delivery Plan has a major role to play in this providing the services and supporting infrastructure required to make rail the first and cleanest choice for many journeys.

Western Gateway Rail Strategy

Alongside the CMSP studies a regional rail strategy for the Western Gateway sub-national transport board is under development. This will sit above the 10 Year Rail Delivery Plan providing strategic direction and justification for the schemes. The Strategy's aim is for the Western Gateway "to be a region that is sustainably connected and provides high quality, value for money travel opportunities for all its businesses, residents and visitors."

The strategy sets out the need for change, objectives and priorities and a series of five supporting conditional outputs. These are:

- **Choice** – frequency, interchange, performance, timetable, direct services, freight
- **Social mobility** – station access, regional catchment, modal integration, fares, ticketing
- **Decarbonisation** – footprint, emissions, network efficiency, freight growth, freight capture
- **Productivity** – journey speed, on-board productivity, station gateways, international gateways, freight capability
- **Growth** – policy alignment and growth orientated hubs, mobility hubs, network resilience

Four Route Maps are set out for delivering the conditional outputs:

- **Strategy, governance and collaboration** – devolution deal, statutory powers, taskforces (Future Ready and Resilience, Freight, Stations and Access to Rail, Digital Solutions)
- **Infrastructure** – decarbonisation schemes, service changes requirements, Restoring Your Railway
- **Access to the rail network** – prioritised plan, fully accessible by 2030, mobility hubs, freight
- **Operational solutions** – service changes, integrated/smart ticketing, journey planning app

Outputs specific to the West of England area are listed in the following table.

| Outputs from Western Gateway Rail Strategy | |
|---|---|
| Hubs | National: Bristol Temple Meads, Bristol Parkway, Bath Spa Regional: Weston-super-Mare |
| Target train service frequencies | <ul style="list-style-type: none"> • Bristol to Birmingham + 2tph • Cheltenham to Gloucester to Bristol +2tph • Exeter to Taunton to Bristol to Cheltenham to Birmingham +2tph • Bristol to Yate to Gloucester +2tph • Bristol to Gloucester +1tph |
| Direct services | <ul style="list-style-type: none"> • Bristol to Swindon to Oxford • Bath to Birmingham • Bath Spa to Taunton • Weston-super-Mare to Gloucester • Gloucester to Taunton • Weston-super-Mare to Bath Spa to Chippenham/ Westbury |
| Freight | <ul style="list-style-type: none"> • 16 ftpd Westerleigh Junction to Abbotswood Junction • Freight capability routes <ul style="list-style-type: none"> <i>Strategic</i> <ul style="list-style-type: none"> ○ South West (Bristol) and Wales (Cardiff / Newport) to the Midlands via Gloucester ○ Great Western Mainline London to South Wales via Reading, Swindon and Bristol <i>Western Gateway Primary Routes</i> <ul style="list-style-type: none"> ○ Westbury to Bath Spa and Bristol ○ Bristol to South Wales ○ Bristol to Gloucester and the Midlands ○ Bristol to Exeter and beyond |
| Accessibility | 100% fully accessible stations |

The final version of the Rail Strategy was adopted by the Western Gateway Board in September 2020.

2. What all schemes need to demonstrate

To keep the 10 Year Rail Delivery Plan focused, realistic and pragmatic all strategic enhancements must demonstrate they are:

- Value for money
- Deliverable
- Evidence based e.g. schemes identified through the Greater Bristol Area Rail Feasibility Study and Network Rail's Continuous Strategic Modular Programme of rail studies
- Making the best use of existing infrastructure
- Delivering benefits to passengers and freight
- Providing operational resilience
- Improving rail safety
- Delivering wider benefits e.g. tackling multiple deprivation
- Strategic with local network wide benefits

3. Beyond Covid19 – legacy and future planning

During the lockdown period of the Covid-19 crisis rail passenger demand reduced by up to 95% with services running initially on a key worker/Saturday + network basis. As we move out of lockdown people and businesses will need reassuring that once the rail network is a sustainable and safe way to travel. To date rail demand has recovered to around 40% of pre lockdown figures with surveys by Transport Focus continuing to show a reluctance to use rail services amidst major concerns about the safety of using public transport.

Travel patterns have changed dramatically during the lockdown and these could become longer term, with for example more home working and people opting to use their cars, so future demand for rail services could be reduced. The Department for Transport has devised high, medium and low demand recovery scenarios considering short term drivers and as part of the CMSP work Network Rail are using the medium demand scenario to test changes to passenger numbers. The 10 Year Rail Delivery Plan will, however, aim to reassure passengers and assist economic recovery through keeping and expanding planning for future short, medium and long term projects.

For future planning there will be opportunities to link to innovative projects such as the Future Transport Zones with its proposals for mobility hubs and stations and micro-mobility including e-scooters. Similarly, autonomous vehicles may provide new ways for a wider population to access rail services.

4. Existing schemes for delivery in the first five years of the 10 Year Rail Delivery Plan

The first five years of the programme of works focuses on delivering projects already underway including MetroWest schemes, the new Portway station, Bristol East Junction enhancement and Bristol Temple Meads Eastern Entrance.

The key projects in the first five years delivery phase are:

- MetroWest Portishead Line: upgrading the existing freight line for passenger services and installation of new line to Portishead, with new stations at Pill and Portishead served by one train an hour in each direction.
- MetroWest Severn Beach and Westbury Lines: interventions to level crossings to enable an increase in services to half hourly from Bristol Temple Meads to Westbury and Temple Meads to Avonmouth, and hourly to Severn Beach.
- MetroWest Henbury Line: upgrade of the freight line for passenger services with three new stations at Ashley Down, North Filton and Henbury providing an hourly service from Bristol Temple Meads to Filton Abbey Wood and onto North Filton and Henbury.
- MetroWest Yate & Gloucester Line: Half hourly services between Bristol Temple Meads and to Yate, and with an extension to Gloucester under review
- Portway Station: As part of the MetroWest Severn Beach Line, half hourly services will call at a new station at Portway and will serve the adjacent Park and Ride site

- Access for All Mid-Tier Funding: minor station enhancements for improved wayfinding, seating and shelters at Freshford, Lawrence Hill, Nailsea & Backwell, Parsons Street, Patchway, Severn Beach, Stapleton Road, and Yate.
- Bristol East Junction Remodelling: upgrading of the junction to replace life expired assets will provide greater flexibility and enable an increase in capacity
- Bristol Temple Meads Eastern Entrance: creation of a new entrance to link the station to the new University of Bristol campus and Temple Quarter by extending the existing subway through the wall at platforms 13 and 15.
- Bristol Temple Meads new roof and rewiring

5. Pipeline Projects, New Stations Fund, Restoring Your Railway and other schemes that could come forward 2020 to 2030

Network Rail and WECA will continue to develop the pipeline of projects for delivery across the 10 Year Rail Delivery Plan period 2020 to 2030, including the renewal of the Bristol West Junction, new stations at Ashley Down and Charfield and improved pedestrian and cycle access at Bristol Parkway. A rolling stock plan will be produced. Opportunities arising from the mass transit work currently being undertaken, ideas from Restoring Your Railway bids and wider redevelopment proposals for example at Yate and Bristol Parkway will be taken into account, following associated master planning activity.

Ashley Down station

To facilitate the earlier delivery of Ashley Down station during the national COVID19 emergency, funding from the 'New Stations Fund' has been requested to accelerate the detailed design and construction including the preparation of the full business case. Ashley Down station's location on the Filton Bank lines means it should be possible for it to be served by existing services. This means it could be separated from the Henbury Line MetroWest Phase 2 works. The construction of the station would provide access to the rail network to a large number of people due to the residential area in which it will be located, noting there are significant challenges to be overcome with the location and gradient.

Rolling stock plan

A rolling stock plan to decarbonise the train fleet, meet existing and future demand (including the enhanced services listed in Table One) is required to include:

- Fleet size and composition
- Future types of trains, costs, their capacity and power source.
- Options for decarbonising the fleet
- Increasing capacity to carry cycles, buggies and wheelchairs.
- Implications for passenger train depots and stabling

This will complement and work alongside the Rail Delivery Group's national Rolling Stock Strategy which has a rolling 30 year forecast of stock needs.

As the proposals for enhanced services extend beyond the West of England area the rolling stock plan will need to cover a wider geographical area and, in this respect, will be closely linked to the Western Gateway Rail Strategy.

Charfield station

Charfield station is located between Gloucester and Yate and there are currently 291 new homes with planning consent in the village. Network Rail are remitted to deliver the detailed design, along with a construction strategy, programme and price for the delivery of the works. A bid was submitted in June 2020 to the New Station Fund to enable work on the outline business case to be completed and allow the construction phase to be commissioned, subject to the development of a full business case and confirmation of capacity within the timetable.

Bristol Parkway Inc. Brierley Furlong (Hatchet Road Bridge)

South Gloucestershire Council has a long standing aspiration to improve facilities for pedestrians and cyclists crossing under the railway at the Hatchet Road Bridge at Bristol Parkway station. The route under the bridge is a pinch point for pedestrians and cyclist travelling to a wide variety of destinations. Previous study work concluded a subway for pedestrians and cyclists would provide the most cost effective and deliverable solution. Whilst not directly a rail scheme it would have major benefits for cyclists and pedestrians accessing Bristol Parkway station. Given the scale of works required there are potential cost savings to be made by linking it to other rail scheme line possessions and by re-evaluating the design and construction methodology. The proposal could form the first part of a wider northern gateway redevelopment project for the station area to improve the passenger experience and maximise the benefits of IET services to London Paddington and South Wales and MetroWest.

Ashton Gate station

Work emerging from the South West Bristol Infrastructure Investment Strategy may lead to the need for an additional station in the Ashton Gate area of Bristol. This will be kept under review.

Restoring Your Railway

A Restoring Your Railway New Ideas bid was submitted by WECA to the Department for Transport in June 2020 for Bristol West Capacity Enhancement (Bristol Temple Meads to Parson Street). Other bids submitted were:

- St Annes Park station reopening - Kerry McCarthy MP. supported by Bristol City Council.
- Great Western Main Line Secondary Services – Wiltshire Council supported by M.Ps along the route. Bid is for restoring all stopping services between Bristol and Swindon/ Didcot/ Oxford which would provide a service for station aspirations at Royal Wootton Bassett, Corsham, Saltford and St Annes Park.
- Charfield – South Gloucestershire Council supported by MPs Luke Hall and Chris Skidmore. Bid is for sustainable access to the new station

- Pilning Station – Pilning Station Action Group supported by Jack Lopresti MP. Bid is for increased services and a new footbridge.
- Radstock Railway Reinstatement - North Somerset Railway supported by Jacob Rees-Mogg MP. Bid is to reinstate the line from Frome to Radstock.

Decisions on funding are expected late Autumn 2020 as part of the Government's Comprehensive Spending Review. For the third round of submissions in November 2020 there is an opportunity to pick up specific schemes within the emerging 10 Year Plan as well as other long standing aspirations such as Saltford station, for which a bid is being prepared and Ashton Gate station.

New stations through new growth

Through the emerging Spatial Development Strategy and new Local Plans new growth locations may emerge that are facilitated by or support new railway stations. This will be kept under review as and when opportunities emerge. It should be noted that new stations may be dependent on additional track capacity, timetable changes and rolling stock being available.

Mass Transit

WECA has commissioned consultants to undertake a study into a mass transit network for the West of England area focusing around four key corridors to maximise mode shift from car based trips.

The mass transit proposals will complement rather than replace either existing or enhanced local rail services or metrobus routes with new opportunities for interchange between them all three. Whilst the study will report in 2021 the scheme development process will take several years and the timescales for delivery lie beyond the 10 Year Rail Delivery Plan.

6. New schemes for development and delivery in the 10 Year Rail Delivery Plan 2020 to 2030

A long list of proposals for potential inclusion in the 10 Year Rail Delivery Plan were drawn from the adopted Joint Local Transport Plan 4 (March 2020), previously agreed West of England responses to DfT/Network Rail consultations, discussions with neighbouring authorities, previous Network Rail studies and route plans, the emerging CMSP work and the findings of the Greater Bristol Area Rail Feasibility Study (October 2019).

High level analysis

Following a high level analysis of the long list using the objectives and criteria in sections 2. and 3. above by Network Rail (including CMSP colleagues) and WECA officers the following list of strategic enhancements in Table One are proposed. Whilst these are the ones that best fit the 10 Year Rail Delivery Plan they are not ranked in any order at this stage. It is assumed that as part of the first five years of

the Delivery Plan MetroWest and the other schemes listed in section 4. and 5. will be delivered and are therefore not shown in the table below.

In drawing up the programme for the 10 Year Rail Delivery Plan it should be recognised that rail schemes require long lead in times and detailed planning around possessions and construction. The capacity of the local network to undergo change at any one time and to avoid complete closure whilst work is being undertaken is finite. Likewise, the design and construction resources needed and the availability of funding at any one time will be limited. The programme of enhancements will be dictated by disruptive access opportunities (line closures) and schemes will be integrated where possible to make the most efficient use of access windows. This will be explored as the programme is developed. For all these reasons the programme had to be spaced out. Much though we would like to deliver all the strategic enhancements in as short a period of time as possible the reality is this will be constrained. But this is not to underestimate the scale of ambition in the 10 Year Rail Delivery Plan and future strategic enhancements through the 25 Year Strategic Outline Business Case to transform the local rail network.

Change and infrastructure requirements

The strategic enhancements are shown alongside the changes and infrastructure required. This makes it clear that every enhancement has linkages to and dependencies with other schemes. This helps to highlight and explain why some enhancements are only deliverable alongside others. Taking a simplified example, a new station may require additional capacity, timetable changes and rolling stock. It is not just a case of build a new station. But by first providing the extra capacity which enables enhanced services and the rolling stock to operate them and the new station becomes more likely.

Western Gateway Rail Strategy fit

Each strategic enhancement is tested against the Western Gateway Rail Strategy's five conditional outputs of Choice, Social Mobility, Decarbonisation, Productivity and Growth (see section 1.). As will be evident from the Table the proposals deliver all or a majority of the conditional outputs demonstrating their good fit with the Rail Strategy. Where there are relevant specific schemes in the Rail Strategy these are listed.

Supporting Local Plans

Table Two sets out how the strategic enhancements are linked to the Local Plan housing and employment growth areas. The enhancements will help to facilitate this growth whilst providing additional passenger demand which will strengthen the case for intervention through the 10 Year Rail Delivery Plan.

Links to the CMSPs

Many of these strategic enhancements are already being identified through the CMSP process. As the CMSP work completes the list of strategic enhancements may need to be adapted or extended so the 10 Year Rail Delivery Plan will take a flexible approach and will be reviewed at regular intervals.

Beyond 10 Years delivery

The list in Table One is not just about delivery within 10 years 2020 to 2030 but is to develop those key strategic enhancements required for the longer term 25 Year Plan to 2045. These schemes will have long lead in times so development work needs to start as a priority as part of the 10 Year Rail Delivery Plan. This is a delivery and development plan.

Supporting Evidence

In August 2020 WECA commissioned consultant AECOM to undertake additional work on testing the case and building the evidence base for some of the strategic enhancements included in Table One. For these enhancements AECOM were asked to consider:

- High level analysis of the benefits
- Outline Benefit Cost Ratios
- High level costs
- Likely design and delivery timescales
- Passenger numbers generated by new services and passenger uplift at stations

The final results from the study are expected in mid-November 2020 and a summary will be added to this report with the main study as a supporting document.

Table One: New schemes for development and delivery in the 10 Year Rail Delivery Plan 2020 to 2030

| Strategic enhancement | Change | Infrastructure required | JLTP4 /LIS objectives A = strong B = medium C = limited | Western Gateway Conditional Outputs | VfM/evidence/ deliverability/ A = high B = medium C = low | Benefits Passenger Freight Wider | Timescales A = 0-5 years B = 5-10 years C = 10-25 years | Costs H = >£100m M = £50m-£100m L = < £50m |
|--|---|---|--|--|--|---|--|---|
| New schemes for development and delivery within the 10 Year Rail Delivery Plan 2020 to 2030 | | | | | | | | |
| Station enhancements, hubs and step free accessible stations | Minor and major improvements at stations including step free access at Lawrence Hill, Parson Street, Stapleton Road and Nailsea & Backwell. | Stations brought up to a MetroWest standard – seating, shelters, information, wayfinding. Walking and cycling routes. Step free accessible stations. Bus/rail interchanges. Pick up and drop off. Improved cycle parking. Security, CCTV and lighting. Disabled parking. Mobility hubs. | A | Choice Social mobility Decarbonisation Growth 100% accessible stations | B | A | A | L |
| Bristol Temple Meads enhancements | New northern/eastern entrances, transport interchange, new internal circulation | Roof renewal. Rewire. Eastern Entrance. Passenger Shed refit. Panel (signal) box removal. | A | Choice Social mobility Decarbonisation Productivity Growth National hub | B | A | B | M |
| Bristol Temple Meads additional capacity | Enhancements to provide additional capacity for passengers | Panel (signal) box removal. Bristol Travel to Work Area CMSP study. Platform 13/15 widening. New circulation footbridge. | A | Choice Social mobility Decarbonisation Productivity Growth National hub | B | A | B | M |
| Upgrading Worle to Weston-super-Mare Parkway | Create strategic Park and Ride/ multi-modal interchange serving the town and M5 to act as interchange to Airport for services from the south. | Platform extension works. Public transport interchange. Timetable change. Access for all. | A | Choice Social mobility Decarbonisation Productivity Growth Birmingham to Exeter | B | A | B | L |

| Strategic enhancement | Change | Infrastructure required | JLTP4 /LIS objectives A = strong B = medium C = limited | Western Gateway Conditional Outputs | VfM/evidence/ deliverability/ A = high B = medium C = low | Benefits Passenger Freight Wider | Timescales A = 0-5 years B = 5-10 years C = 10-25 years | Costs H = >£100m M = £50m-£100m L = < £50m |
|---|--|--|--|---|---|---|--|---|
| | Hourly service to London. | | | Gloucester to Taunton W-s-M to Bath to Chippenham/Westbury | | | | |
| MetroWest connectivity – South | Extension of stopping services to Weston super Mare, Taunton and Exeter | Bristol to Exeter CMSP. Bristol West renewal. Platform extensions Worle. Rolling stock provision. Timetable changes. Doubling Worle Junction. | A | Choice Social mobility Decarbonisation Growth Gloucester to Taunton W-s-M to Bath to Chippenham/Westbury | B | A | B | M |
| Completion of electrification | Network Rail Traction Decarbonisation Network Strategy includes: Bristol to Birmingham, Chippenham, Westbury, Exeter and the Henbury Line. Alternative traction for Severn Beach Line. | OHLE equipment installation. HV power upgrade. | A | Choice Decarbonisation Productivity Growth | B | B | A | H |
| New schemes to be developed in the 10 Year Rail Delivery Plan and delivered 2030 to 2045 | | | | | | | | |
| Bristol Temple Meads additional capacity | Enhancements to provide additional capacity for train services for 2043 | New platform 0. Lengthened platform 1. Bristol West enhancement. | A | | B | A | C | M |
| Future timetable increases to the South | Increase capacity and improve resilience for new MetroWest services between Portishead and BTM | Bristol to Exeter CMSP. Bristol West Junction Enhancement. Four tracking Bristol Temple Meads to Parson Street. Passenger and train capacity at Bristol Temple Meads. | A | Choice Social mobility Decarbonisation Productivity Growth | B | B | C | H |

| Strategic enhancement | Change | Infrastructure required | JLTP4 /LIS objectives A = strong B = medium C = limited | Western Gateway Conditional Outputs | VfM/evidence/ deliverability/ A = high B = medium C = low | Benefits Passenger Freight Wider | Timescales A = 0-5 years B = 5-10 years C = 10-25 years | Costs H = >£100m M = £50m-£100m L = < £50m |
|--|--|---|--|--|---|---|--|---|
| Future timetable - increased connections East-West-North | Needed to support greater connectivity Bristol, Bath, Chippenham, Swindon - Oxford Also, Bristol to Oxford with connections to Milton Keynes and Cambridge via East-West Rail. Links up the Bristol to Cambridge hi tech corridor and avoids the need to travel across London to interchange. | Bristol to Birmingham CMSP. Westerleigh Junction. Swindon to Didcot capacity enhancement (four tracking). Doubling Worle Junction. | A | Choice Social mobility Decarbonisation Productivity Growth Bristol to Swindon to Oxford Bath to Birmingham W-s-M to Bath to Chippenham/Westbury | B | B | C | H |
| Cardiff to Portsmouth enhanced services | Separating out fast, semi fast and all stopping services | Timetable change. Rolling stock provision. Capacity enhancement at Westbury. Cardiff to Bristol CMSP. | A | Choice Social mobility Decarbonisation Productivity Growth | B | A | C | M |
| Severn Beach to Bristol Temple Meads and Westbury enhanced service | 3 TPH Severn Beach to BTM 4 TPH Bristol Temple Meads to Westbury | Bristol Travel to Work CMSP. Line doubling between Montpellier and Filton. Double junction at Holesmouth. Platform capacity at Severn Beach. Resignalling Severn Beach Line. Westbury to Bath corridor capacity works. Potential for new Saltford and St Annes Park stations. | A | Choice Social mobility Decarbonisation Growth | C | A | C | M |
| Henbury Line enhancement | Half hourly service from Severn Beach to Yate via Bristol Parkway and/or linked half hourly | Bristol Travel to Work CMSP. New North facing chord Severn Beach to Henbury line. | A | Choice Social mobility Decarbonisation Growth | C | A | C | H |

| Strategic enhancement | Change | Infrastructure required | JLTP4 /LIS objectives A = strong B = medium C = limited | Western Gateway Conditional Outputs | VfM/evidence/ deliverability/ A = high B = medium C = low | Benefits Passenger Freight Wider | Timescales A = 0-5 years B = 5-10 years C = 10-25 years | Costs H = >£100m M = £50m-£100m L = < £50m |
|--|---|---|--|--|---|---|--|---|
| | service on the Portishead line | Remodelling of Holesmouth Junction. Enhancement Filton Diamond. Westerleigh Junction enhancement. New platform at Severn Beach. Doubling of sections of the Portishead line with signalling enhancements. Rolling stock provision. Timetable change. Passenger and platform capacity at Bristol Temple Meads | | Bristol to Yate to Gloucester | | | | |
| Loading gauge enhancements | Bring Southampton to Bristol to Birmingham route up to Network Rail's W10/W12 standards to allow the use of 2.9m high and 2.5m wide containers. | Track works. Dundas Viaduct is constraint - W8 possible within 10 years. Western freight study W10/W12 due late 2020. Potential links to Solent to Midlands study via Salisbury. | A | Choice Decarbonisation Productivity Growth Freight | B | A | C | H |
| Bristol to Yeovil | Hourly semi fast stopping service and linked to Heart of Wessex line services to Weymouth | Dorset CMSP. Bristol to South Coast Ports CMSP. Bath corridor enhancement. Westbury capacity enhancement. | B | Choice Social mobility Decarbonisation Growth W-s-M to Bath to Chippenham/ Westbury | B | B | C | L |
| Schemes that could come forward during the 10 Year Rail Delivery Plan | | | | | | | | |
| Rolling stock plan | New decarbonised fleet to meet current and future demand. Increased capacity to carry cycles, buggies and wheelchairs. | CMSP studies. Network Rail Decarbonisation Plan. Train depots and stabling. | A | Choice Social mobility Decarbonisation Productivity Growth | A | A | B | H |
| Charfield | New station | Bristol to Birmingham CMSP. | B | Social mobility Decarbonisation | B | B | B | L |

| Strategic enhancement | Change | Infrastructure required | JLTP4 /LIS objectives A = strong B = medium C = limited | Western Gateway Conditional Outputs | VfM/evidence/ deliverability/ A = high B = medium C = low | Benefits Passenger Freight Wider | Timescales A = 0-5 years B = 5-10 years C = 10-25 years | Costs H = >£100m M = £50m-£100m L = < £50m |
|--|--|--|--|---|---|---|--|---|
| | | Westerleigh Junction may be required. Rolling stock provision. Timetable change. Sustainable access routes. | | Growth | | | | |
| Restoring Your Railway Bristol West | Capacity enhancements to the west of Bristol Temple Meads | CMSP studies. Timetable change. Rolling stock provision. | A | Choice Decarbonisation Growth | B | A | B | M |
| Restoring Your Railway St Annes Park | New station | CMSP studies. Passenger and platform capacity Bristol Temple Meads. Bath Corridor enhancement Westbury capacity enhancement. Timetable change. Rolling stock provision. | B | Social mobility Decarbonisation | C | C | B | L |
| Restoring Your Railway – other schemes: Secondary Services Great Western Main Line. Radstock Line. Pilning station. New bids for Saltford and Ashton Gate stations | New stations, reopened line and services | Bristol West capacity enhancement. CMSP studies. Passenger and platform capacity Bristol Temple Meads. Bath Corridor enhancement Westbury capacity enhancement. Timetable change. Rolling stock provision. Swindon to Didcot capacity enhancement. New footbridge. | B | Social mobility Decarbonisation | C | C | C | H |
| Brierley Furlong | Pedestrian and cycling enhanced access at Bristol Parkway. | Rail scheme possessions. Potentially part of a wider Northern Gateway scheme. | B | Social mobility Decarbonisation | B | A | B | L |

Note: This is an abridged version of a larger and detailed spreadsheet analysis.

Table Two: Strategic Enhancements and Growth Areas

| Growth area | Housing* | Employment* | Time period | Strategic enhancement |
|--|----------|----------------|--------------|---|
| Avonmouth/ Severnside Enterprise Area | N/A | 8,000 – 12,000 | 2015 to 2030 | <ul style="list-style-type: none"> • MetroWest 2 tph • MetroWest 3 tph Severn Beach Line to Westbury • Henbury Line enhancement • Portway station |
| Bath Central Area and Western Riverside | 3,300 | 7,000 | 2011 to 2029 | <ul style="list-style-type: none"> • MetroWest 2 tph • MetroWest 3 tph Severn Beach Line to Westbury • Cardiff to Portsmouth • Bristol to Oxford • Bristol to Yeovil |
| Charfield | 291** | N/A | To 2027 | <ul style="list-style-type: none"> • New station • MetroWest to Gloucester |
| Cribbs Patchway New Neighbourhood | 5,700 | Tbc | 2006 to 2027 | <ul style="list-style-type: none"> • MetroWest 1 tph • Henbury Line enhancement |
| Filton Enterprise Area | N/A | 4,000 to 6,000 | 2015 to 2030 | <ul style="list-style-type: none"> • MetroWest 2 tph |
| Keynsham (excludes North Keynsham) | 2,150 | 1,600 | 2011 to 2029 | <ul style="list-style-type: none"> • MetroWest 2 tph • MetroWest 3 tph Severn Beach Line to Westbury • Cardiff to Portsmouth • Bristol to Oxford • Bristol to Yeovil |
| Nailsea & Backwell | 1,100 | N/A | 2006 to 2026 | <ul style="list-style-type: none"> • MetroWest connectivity south • Timetable increases to the South |
| South Bristol | 11,000 | 10,400 | To 2036 | <ul style="list-style-type: none"> • MetroWest to Portishead • MetroWest connectivity south • Timetable increases to the South |
| Temple Quarter Enterprise Zone and St Phillips Marsh | 10,000 | 22,000 | To 2036 | <ul style="list-style-type: none"> • MetroWest 2 tph • MetroWest 3 tph Severn Beach Line to Westbury • Cardiff to Portsmouth • Bristol to Oxford • MetroWest connectivity south • Timetable increases to the South • Bristol to Yeovil • Future timetable connections east-west-north |
| Weston-super-Mare incl Jcn 21 Enterprise Area | 12,800 | 10,500 | 2017 to 2026 | <ul style="list-style-type: none"> • Upgrading Worle to Weston-super-Mare parkway • Hourly service to London • Timetable increases to the South |
| Yate incl. Strategic Corridor and North Yate | 2,700 | N/A | 2017 to 2026 | <ul style="list-style-type: none"> • MetroWest to Gloucester • Henbury Line enhancement • Future timetable connections east-west-north |
| All areas | | | | <ul style="list-style-type: none"> • Bristol Temple Meads enhancements and additional capacity • Station enhancements and step free access • Completion of electrification |

Notes

* Figures taken from Local Plan, Core Strategies and Bristol Temple Quarter Development Framework.

** Currently with planning permission

North Somerset Council is working on a new Local Plan 2023 to 2038 which will alter the overall numbers. Current projections suggest 20,535 new homes and 13,500 new jobs will be required.

WECA and the local authorities of Bath & North East Somerset, Bristol City and South Gloucestershire are working on a new Spatial Development Strategy which will alter the overall numbers. To be published June 2023.

7. Business Case approach to delivering schemes

The standard Tag five stage business case format will be used for all strategic enhancements namely: Strategic Case, Economic Case, Commercial Case, Financial Case and Management Case.

For the Strategic Case sections 1. and 2. And Tables One and Two of this document will be used.

For the Economic Case the evidence from AECOM work will be used to justify the inclusion of the strategic enhancements.

For the Commercial Case the procurement strategy and delivery mechanism for the schemes will be developed with Network Rail to ensure that the most efficient and value for money approach is taken forward.

For the Financial Case the funding opportunities for the schemes in the 10 Year Rail Delivery Plan will be considered in the short and long term with programme stakeholders, and the affordability of the schemes will be determined during the development and consultation process.

For the Management Case the first five years of the programme of works focuses on delivering projects already underway including MetroWest schemes, the new Portway station, Bristol East Junction enhancement and Bristol Temple Meads Eastern Entrance. For the rest of the period to 2030 and beyond to 2045 Table One will be used.

For scheme design Network Rail's Governance for Railway Investment Projects (GRIP) will be used.

Network Rail and WECA will work together on producing business cases to ensure wider benefits are fully captured and the CMSP outputs are used to help build better cases. The programme of strategic enhancements (see section 9. below) has been overlain with the CP7 Renewals Plan. This will determine whether there is scope for match funding an enhanced renewal and will show outcomes, dependencies and enablers for schemes to be delivered alongside and benefiting from each other.

The governance for taking schemes forward is detailed in the following section.

8. Governance

For WECA the existing rail governance will be used. This will be overlaid with Network Rail's requirements to ensure a co-ordinated approach to development and delivery. A RACI (responsible, accountable, consulted and informed) chart setting out the roles and responsibilities of WECA, local authorities, Network Rail, Department for Transport, train and freight operating companies and the Office of Rail and Road is under preparation and will be added to this report.

9. Programme

The programme for development and delivery of the strategic enhancements in Table One is shown below in Table Three. This programme represents a continuous pipeline of projects over 2020 to 2030. It should be recognised that rail projects have long lead in times and this is reflected in the programme.

Table Three: 10 Year Rail Delivery Plan Programme 2020 to 2045

| 10 / 25 YEAR RAIL STRATEGY PROGRAMME | | | | | | | | | | CP6 | | | | | CP7 | | | | | CP8 | | | | | CP9 | | | | | CP10 | | | | | | | |
|--|----------|--------------|-------------|-----------|-------------|-----------|-------------|-----------|-------------|-----------|----|----|----|----|-----|----|----|----|----|-----|----|----|----|----|-----|----|----|----|----|------|----|----|----|----|--|--|--|
| Scheme | Category | Sub-category | Operational | Financial | Operational | Financial | Operational | Financial | Operational | Financial | Y2 | Y3 | Y4 | Y5 | Y1 | Y2 | Y3 | Y4 | Y5 | Y1 | Y2 | Y3 | Y4 | Y5 | Y1 | Y2 | Y3 | Y4 | Y5 | Y1 | Y2 | Y3 | Y4 | Y5 | | | |
| Schemes for development and delivery within the 10 Year Delivery Plan 2020 to 2030 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bristol Temple Meads enhancements | Station | Station | Operational | Financial | Operational | Financial | Operational | Financial | Operational | Financial | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MetroWest connectivity - South | Line | Line | Operational | Financial | Operational | Financial | Operational | Financial | Operational | Financial | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bristol Temple Meads Passenger Capacity Enhancements | Station | Station | Operational | Financial | Operational | Financial | Operational | Financial | Operational | Financial | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Access for All at stations | Station | Station | Operational | Financial | Operational | Financial | Operational | Financial | Operational | Financial | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Upgrading Worle to become Weston-super-Mare Parkway | Line | Line | Operational | Financial | Operational | Financial | Operational | Financial | Operational | Financial | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Completion of electrification where appropriate | Line | Line | Operational | Financial | Operational | Financial | Operational | Financial | Operational | Financial | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Schemes to be developed in the 10 Year Delivery Plan and delivered 2030 to 2045 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Future timetable - increased services to the South | Service | Service | Operational | Financial | Operational | Financial | Operational | Financial | Operational | Financial | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Future timetable - increased connections East-West-North | Service | Service | Operational | Financial | Operational | Financial | Operational | Financial | Operational | Financial | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bristol Temple Meads Station Capacity Enhancements | Station | Station | Operational | Financial | Operational | Financial | Operational | Financial | Operational | Financial | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Cardiff to Portsmouth enhanced services | Service | Service | Operational | Financial | Operational | Financial | Operational | Financial | Operational | Financial | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Severn Beach to Bristol Temple Meads enhanced service | Service | Service | Operational | Financial | Operational | Financial | Operational | Financial | Operational | Financial | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Henbury Line enhancement | Line | Line | Operational | Financial | Operational | Financial | Operational | Financial | Operational | Financial | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bristol to Yeovil and Weymouth service enhancement | Service | Service | Operational | Financial | Operational | Financial | Operational | Financial | Operational | Financial | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Loading gauge enhancements | Station | Station | Operational | Financial | Operational | Financial | Operational | Financial | Operational | Financial | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Note: This version of Table Three is provisional and will be updated.

Equally it should be noted that this is a draft programme and all dates are fluid and reflect our best idea at the moment. Wherever possible enhancements will be integrated with other projects to utilise and maximise the benefit of disruptive access opportunities.

10. Funding

Table Three includes the likely source of funding for the strategic enhancements which include:

- Department for Transport – Access for All, Restoring Your Railway, RNEP and other sources
- Network Rail – renewals and enhancements
- WECA – Investment Fund
- Local authorities
- Developer funding

Initial development funding will be required and to progress this 10 Year Rail Delivery Plan funding will be sought via the Feasibility Development Funding Application process through the WECA Investment Fund. Initially this will be for the following schemes:

- Development of station enhancements (seating, shelters, wayfinding, improved cycle parking, CCTV, lighting, accessible parking)
- Development of the proposals to extend MetroWest to the south to outline business case
- Development of proposals for timetable enhancements for improved connections to the east, west and north
- Development of proposals for increased services on the Henbury, Severn Beach and Westbury lines

11. Risks

| Risk | RAG rating | Mitigation | Mitigated RAG rating |
|--|------------|---|----------------------|
| Unable to reach agreement on priorities | Red | Strategic Rail Steering Group and Transport Board to resolve issues | Yellow |
| WECA and Network Rail unable to provide resource to develop 10 Year Rail Delivery Plan | Yellow | Procurement framework to provide additional resource to support WECA and Network Rail | Green |
| Coronavirus will impact on all timescales and recovery plans mean there are other rail industry priorities | Red | Extend timescales for 10 year and 25 year plans | Yellow |
| Funding is unavailable for the developing both the 10 Year and 25 Year Plans | Red | Revised bids are put forward to the Investment Fund | Yellow |

12. Longer term – 25 Year Strategic Outline Business Case 2020 to 2045

The high level analysis undertaken for the 10 Year Rail Delivery Plan considered a long list of rail schemes. Just because a long standing aspiration isn't in Table One it does not mean it won't be considered as part of the 25 Year Strategic Outline Business Case (SOBC) 2020 to 2045. Those schemes in Table One have emerged as the strongest ones in terms of meeting objectives and deliverability. More work will be needed on those schemes which perform less well and this will roll into the development work on the 25 Year SOBC.

The 25 Year SOBC will review the longer term aspirations for rail and establish a 25 year programme and funding strategy to 2045. The SOBC will include:

- Transition to a net zero-carbon economy
- Integration with emerging delivery of Mass Transit
- Strategic Development Locations
- Network Rail and DfT regional investment

Work on identifying milestone dates for the next 18 months for the SOBC and the additional resources required to deliver the SOBC programme will be undertaken. The 25 SOBC will be brought to WECA and Joint Committee in spring 2022.

There is also a need for a collaborative approach between Highways England and Network Rail as both are solving the same issues and serving overlapping corridors and have funding from the same source. The Transport and Place Oversight Group (TPOG) will be explored as an ideal forum to discuss how the 25 Year Plan can contribute to and complement this wider collaborative approach.

13. Where we are

