# Tisbury Loop:

## Salisbury to Yeovil Junction Service Enhancements

Strategic Outline Business Case

SOUTHERN REGION
STRATEGIC PLANNING

2025

# Contents

# 1 Foreword

The West of England Line is a vital artery connecting communities across the South West to London and other major regional centres. Yet, persistent performance challenges and limited capacity have constrained its potential to serve as a reliable and resilient transport corridor. This Strategic Outline Business Case (SOBC) sets out a compelling vision for change.

The Tisbury Loop, a critical bottleneck on the line, has long been a source of cascading delays and operational inefficiencies. Through targeted infrastructure enhancements and service improvements, this SOBC explores how performance can be improved across the network, how greater connectivity can be unlocked, how regional growth can be supported, and passenger experience improved through a more reliable and resilient service. It aligns with national and regional priorities—from decarbonisation and modal shift to economic development and social inclusion.

Developed in partnership with Western Gateway Sub-national Transport Body, SWR and local authorities, this document reflects a shared commitment to delivering a railway that meets the needs of the communities it serves. It is a first step toward a more reliable, accessible, and flexible West of England Line.

# 2 Executive summary

## 2.1 Strategic Case

The West of England Line is the railway line between Worting Junction (to the west of Basingstoke) and Exeter St. David's, as shown in the map below. The line provides a key main line route between London Waterloo and the South West as well as providing connectivity with regional centres at locations such as Exeter, Salisbury, Basingstoke, and Woking.

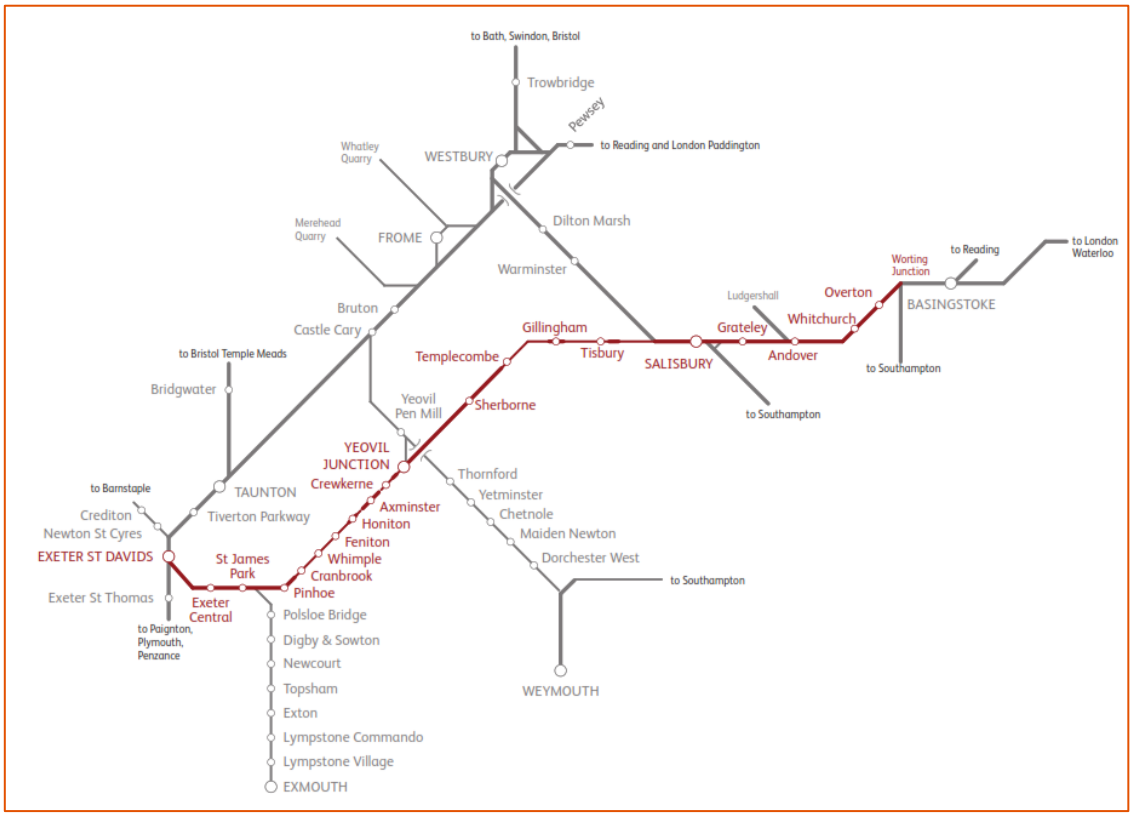



*Figure 2-1: The West of England Line*

The West of England Line suffers from significant performance and capacity constraints, particularly owing to long single-line sections and limited passing opportunities. Tisbury Loop, located between Gillingham and Wilton Junction, is a critical bottleneck where delays cascade across the network, impacting services to London Waterloo and the wider railway network.

There are five key strategic drivers for initiating change on the West of England Line:

- **Performance**
  - The West of England Line is one of the worst-performing single-track sections nationally, with cascading delays that impact services across the South West Main Line (SWML), including London Waterloo
  - The section between Salisbury and Yeovil Junction operates at 88 % capacity (91 % during the Autumn season), exceeding the 80 % threshold for resilient operation
  - Tisbury is a critical pinch point: delays in either direction cause trains to be held at the loop, amplifying disruption throughout the day

- Poor performance leads to:
    - Reduced passenger confidence
    - Increased reactionary delay (delay to the wider network)
    - Vulnerability to climate-related disruptions (e.g. Soil Moisture Deficit, SMD, in Summer 2025 triggered emergency timetables)

- **Productivity**
    - Poor rail reliability and limited frequency constrain access to jobs, education, and services
    - Improved rail performance and frequency would:
        - Enhance labour market access
        - Support business investment and agglomeration
        - Reduce commuting times and increase economic efficiency
    - Generalised Journey Time (GJT) improvements of up to 11 % are forecast under full enhancement scenarios (Option 1A), see graph below

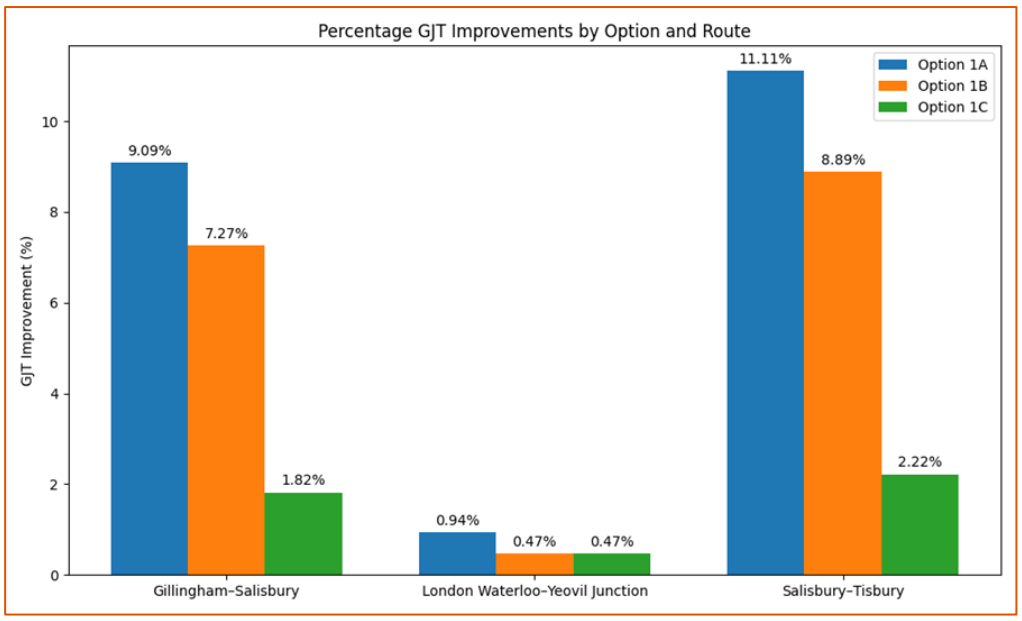



*Figure 2-2: Percentage GJT Improvements*

- **Connectivity**
    - The current service offers only 1tph west of Salisbury, with long gaps between services and poor integration with local bus networks
    - High car dependency (53.1 % use car/van to commute) and limited public transport options contribute to rural isolation and transport-related social exclusion
    - Improved rail frequency and station accessibility would:
        - Support modal shift
        - Improve access to employment, education, healthcare, and leisure
        - Reduce reliance on private vehicles
        - Reduce pollution and emissions

- **Growth**
  - **Unlocking Development:** without enhanced rail capacity and reliability, these housing and employment sites risk becoming car-dependent, exacerbating rural congestion and undermining decarbonisation goals
  - **Supporting Sustainable Transport:** improved rail services can reduce reliance on private vehicles, aligning with local Bus Service Improvement Plans (BSIPs) and national Net Zero targets
  - **Facilitating Economic Growth:** better connectivity strengthens labour markets, enabling residents to access jobs in Salisbury, Yeovil, and beyond, while attracting inward investment
- **Safety**
  - Level crossings, particularly Chantry at Tisbury, pose risks that could be mitigated through infrastructure upgrades
  - Growth in rail journeys removes drivers from the road

Three core options were identified that could enable service change to provide varying degrees of objective/driver attainment, these were:

- **Option 1A: Eastward and Westward Extension + Additional 1tph**
  - **Scope**: Extend Tisbury Loop eastward (~6 miles) and westward into Tisbury station with a new platform (8-car or 3-car options assessed)
  - **Benefits**:
    - Enables 2tph service west of Salisbury
    - Improves connectivity
    - Supports regional growth and modal shift
    - Allows closure of Chantry Level Crossing
  - **Challenges**:
    - Highest capital cost (£88.6m as standalone scheme)
    - Potentially limited performance improvement if additional service is operated
    - Complex engineering (bridge rebuilds, level crossing upgrades)
- **Option 1B: Eastward Extension Only + Additional 1tph**
  - **Scope:** Extend Tisbury Loop eastward (~6 miles); no station upgrade
  - **Benefits:**
    - Enables 2tph service west of Salisbury
    - Lower cost than Option 1A (£62.0m).
    - Improves connectivity and supports growth.
  - **Challenges:**
    - No platform upgrade;
    - Potentially limited performance improvement if additional service is operated
    - Chantry Level Crossing may remain open and need upgrading owing to additional safety risk of increased service
- **Option 1C: Westward Extension Only**
  - **Scope:**
    - Extend Tisbury Loop into Tisbury station with a new platform (8-car or 3-car)
    - No increase in service frequency
  - **Benefits:**
    - Improves performance and resilience

- Enables closure of Chantry Level Crossing
- Lowest cost (£34.8m for 8-car / £33.6m for 3-car).
- Aligns with CP8 Salisbury signalling renewals

- **Challenges:**
  - No connectivity uplift
  - Less direct support for regional growth

The following table summarises the three core options.

*Table 2-1: Summary of Options*

| Feature | Option 1A | Option 1B | Option 1C |
|---|---|---|---|
| **Loop Extension** | East + West | East only | West only |
| **New Platform at Tisbury** | Yes | No | Yes |
| **Additional 1tph Service** | Yes | Yes | No |
| **Estimated Cost (Standalone)** | £88.6m | £62.0m | £34.8m / £33.6m |
| **Strategic Recommendation** | Strong candidate as provides connectivity and potential performance benefit but highest cost | Viable but less preferred owing to lack of westward extension of the loop into Tisbury station | **Preferred Option** owing to lower cost, passenger experience improvements, and potential performance benefit |

A series of recommendations have been identified, split by whether they are for the railway industry to progress or wider stakeholders.

### Railway Recommendations

#### R1. Progress Option 1C

- Advance the westward extension of the Tisbury Loop into Tisbury station
- Focus on performance improvement and passenger experience
- Provides infrastructure for a first step towards future service frequency increases
- Align development with Salisbury signalling renewals (CP8) for cost efficiency
- Consider further extensions for additional performance benefits

### R2. Seek Opportunities Through the Renewals Workbank

- Influence the Salisbury signalling renewals programme to incorporate passive or active provision for Option 1C
- Aim to maximise efficiencies and reduce capital costs
- Use modern asset replacements to improve reliability and performance

### R3. Seek Incremental Service Change Opportunities

- Explore small-scale timetable improvements such as:
    - enhancing Sunday/public holiday services
    - extend individual Salisbury services to Gillingham or Yeovil Junction
- Use existing timetable change processes to implement these, where appropriate

### R4. Conduct Further Performance Analysis

- Quantify reactionary delay caused by the West of England Line
- Assess how Option 1C could mitigate delays caused by climate-related disruptions, based on current data being collected in summer 2025
- Focus analysis on providing performance benefit not additional services
- Consider other loop extension lengths

## Wider Recommendations

### W1. Focus Housing and Employment Growth on the Rail Corridor

- Align housing allocations with rail accessibility to boost demand
- Encourage development near stations to support rail investment
- Integrate with local planning processes and national housing targets

### W2. Take Advantage of Regeneration and Development Proposals

- Leverage developments like Station Works in Tisbury to close Chantry Level Crossing
- Improve station accessibility and facilities
- Use Section 106 or CIL funding for rail-related improvements

### W3. Make Improvements to Other Public Transport Modes

- Enhance bus services and active travel links to stations
- Use BSIP funding to support rural accessibility and service upgrades
- Promote multi-modal integration to support rail patronage

## 2.2 Economic Case

The Economic Case for the **Tisbury Loop** (Salisbury to Yeovil Junction Service Enhancements) Strategic Outline Business Case (SOBC) assesses value for money calculated from the total benefits to society and the private sector against the costs to government of the scheme over a 60-year appraisal period, in accordance with DfT Transport Analysis Guidance (TAG)[1].

This appraisal models the following benefit drivers:

- **Passenger journey time benefits:** passengers experience an improved timetable offering as new infrastructure enables an additional +1 train per hour (+1tph) between Tisbury and Yeovil Junction station and/or re-timings to allow existing down trains to arrive earlier at stations between Tisbury and Axminster.

- **Performance benefits:** fewer delays within the immediate study area due to the extension of the Tisbury Loop and new platform which allows trains to pass within the station rather than be held outside.

The benefits drivers are modelled against the following cost drivers:

- **Capital expenditure:** the infrastructure costs of building the proposed schemes.

- **Operating expenditure:** costs of train leasing, staffing, fuel, and maintenance to provide and operate the additional services.

The appraisal considers four infrastructure interventions:

- **Option 1:** Eastward extension of the Tisbury Loop, to enable an additional +1tph between Tisbury and Yeovil Junction.

- **Option 2:** Westward extension of the Tisbury Loop with a new **8-car platform**, to enable existing down trains to arrive earlier at stations between Tisbury and Axminster.

- **Option 3:** Westward extension of the Tisbury Loop with a new **3-car platform**, to enable existing down trains to arrive earlier at stations between Tisbury and Axminster.

- **Option 4:** Eastward extension and westward extension of the Tisbury Loop with a new 8-car platform, to enable an additional +1tph between Tisbury and Yeovil Junction, and existing down trains to arrive earlier at stations between Tisbury and Axminster.

The appraisal considers two different delivery options for each of the above infrastructure interventions:

- **Option A:** delivery as a standalone enhancement.

- **Option B:** delivery alongside the planned CP8 Salisbury re-signalling.

The central case assumes **partial electrification** of the West of England line to at least Yeovil. The appraisal assumes the service extensions enabled by the eastward extension of the loop will be operated by battery electric multiple units (BEMUs).

[1] A full explanation of TAG can be found at gov.uk/guidance/transport-analysis-guidance-webtag

Background passenger demand growth on the West of England line is included in the appraisal and is assumed to be +45% (2023-2046). This forecast is based on DfT's EDGE demand forecasting framework. Varying the passenger demand scenario does not have material impact on the conclusions of the economic case.

Appraisal results are summarised in Table 4.1. Under all central case scenarios considered, the BCRs are below one and the Value for Money rating is **Poor**. The upfront capital costs and (where applicable) ongoing train operating costs outweigh the journey time benefits generated by the proposals.

*Table 2.2. Summary of central case appraisal outputs*

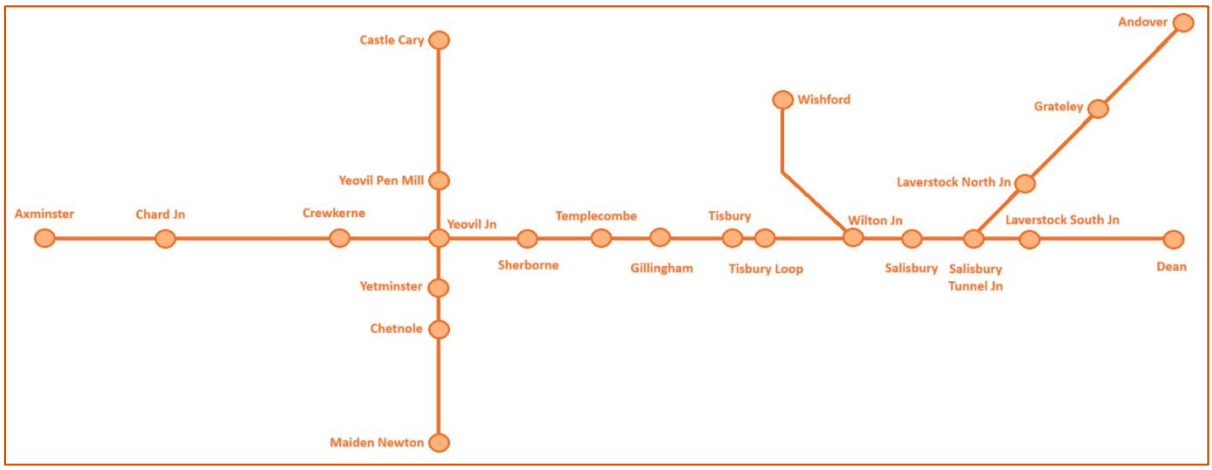
| Strategic case option | Appraised economic case option (central case) | Benefit Cost Ratio (BCR) | Value for Money (VfM) |
|---|---|---|---|
| 1B | **Option 1A:** Eastward extension of Tisbury Loop, BEMU units, stand-alone | **0.05** | Poor |
| 1C | **Option 2A:** Westward extension of Tisbury Loop, 8-car platform, stand-alone | **0.20** | Poor |
| 1C | **Option 2B:** Westward extension of Tisbury Loop, 8-car platform, delivered alongside CP8 re-signalling | **0.21** | Poor |
| 1C | **Option 3A:** Westward extension of Tisbury Loop with, 3-car platform, stand-alone | **0.21** | Poor |
| 1C | **Option 3B:** Westward extension of Tisbury Loop with new 3-car platform, delivered alongside CP8 re-signalling | **0.22** | Poor |
| 1A | **Option 4A:** Eastward and Westward extension of Tisbury Loop, new 8-car platform, BEMU units, stand-alone | **0.08** | Poor |
| 1A | **Option 4B:** Eastward and Westward extension of Tisbury Loop, new 8-car platform, BEMU units, delivered alongside CP8 re-signalling | **0.08** | Poor |

Sensitivity analysis tests how the Value for Money for the options including an **eastward extension** would change if partial electrification was not delivered on the West of England Line, and if the service extensions were operated by diesel units. Under all options tested the BCRs drop below zero and the Value for Money worsens due to the environmental disbenefits of additional diesel emissions.

The **eastward extension** options appraise extending the Basingstoke-Salisbury services from the Summer 2023 timetable to Yeovil Junction. Further sensitivity analysis on the eastward extension considers a more recent timetable base where London-Salisbury services are extended to Yeovil Junction. The benefits are increased by a magnitude of two but the BCRs still remain far below one as the costs still outweigh the benefits.

Performance modelling was completed on the **westward extension** options only. The performance model captured benefits within the study area shown in Figure 1.1. and did not capture the wider reactionary delay across the network that can be traced back to the single-line sections of the West of England line. **This represents a major risk when drawing Value for Money conclusions from the economic case.**

*Figure 2-3. Study area for Tisbury Loop performance modelling*



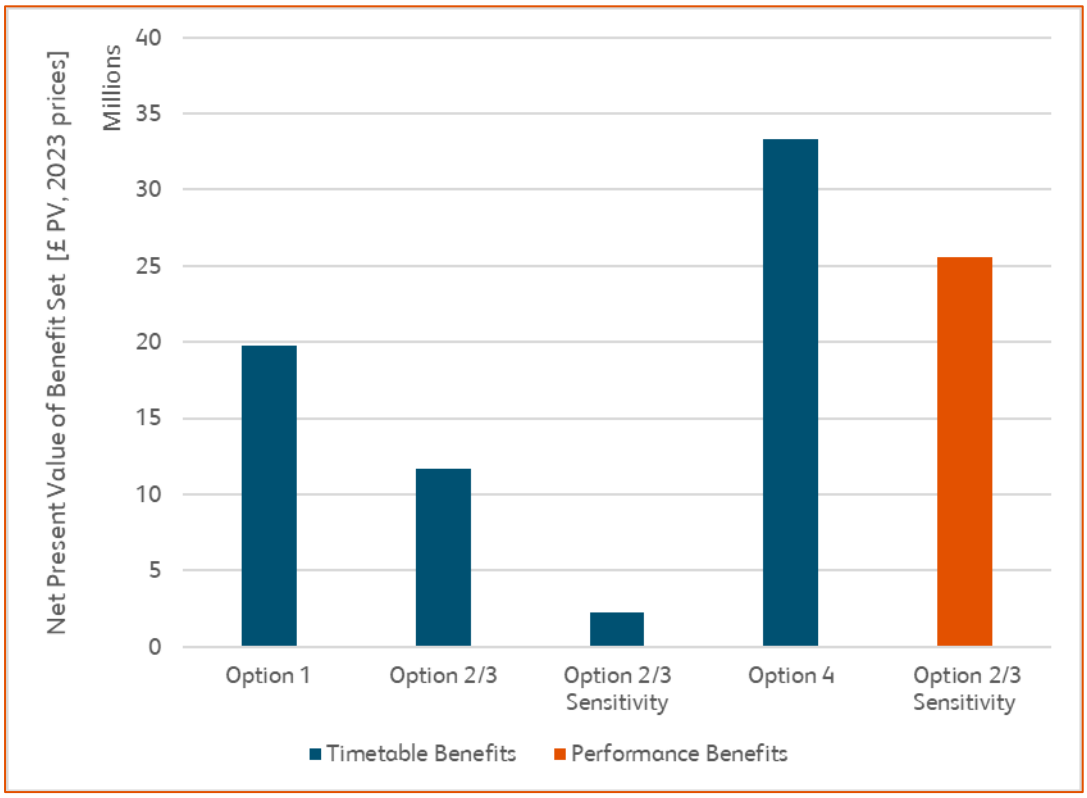

Performance benefits were included in sensitivity analysis due to differences in the timetables modelled in the performance model versus those modelled in the economic case. Appraisal results are summarised in Table 4.2. With the inclusion of the performance benefits, the BCRs are significantly increased but remain below one as the costs still outweigh the benefits.

*Table 2.3. Summary of sensitivity appraisal outputs including performance benefits*

| Strategic case option | Appraised economic case option (sensitivity) | Benefit Cost Ratio (BCR) | Value for Money (VfM) |
|---|---|---|---|
| 1C | **Option 2A SEN:** Westward extension of Tisbury Loop, 8-car platform, stand-alone | **0.64** | Poor |
| 1C | **Option 2B SEN:** Westward extension of Tisbury Loop, 8-car platform, delivered alongside CP8 re-signalling | **0.69** | Poor |
| 1C | **Option 3A SEN:** Westward extension of Tisbury Loop with, 3-car platform, stand-alone | **0.67** | Poor |
| 1C | **Option 3B SEN:** Westward extension of Tisbury Loop with new 3-car platform, delivered alongside CP8 re-signalling | **0.72** | Poor |

Figure 2.4 shows the relative magnitude of the performance benefits (captured in sensitivity tests on the option 2 and option 3 **westward extension** options only). The performance benefits within the immediate study area outweigh the timetable benefits enabled by the westward extension (options 2 and 3).

*Figure 2-4. Relative magnitude of performance benefits vs timetable benefits*




Key risks of the economic case include:

- **Performance** modelling not capturing the full picture as the modelling outputs are limited to the immediate study area. Reactionary delay across the wider network is understood to be material but is not represented in the modelling.

- The **SWR timetable recast** which may change the timetable in the modelled area. Current proposals for the recast involve trains passing at Gillingham rather than in Tisbury Loop. Further work needs to be done to understand how this would impact the need for the Tisbury Loop infrastructure and/or the timetable changes from which the benefits are derived.

The SOBC recommends progressing the westward extension option (option 1C in the strategic case, options 2 and 3 in the economic case) to OBC. The economic case notes this option currently offers **Poor Value for Money** but agrees that the performance benefits are not fully captured in the economic appraisal, and that further work would be required to fully understand the magnitude of the potential performance benefits and interfaces with the SWR recast.

## 2.3 Financial Case

### 2.3.1 Capital Costs

| Option | Standalone Cost | With CP8 Renewals Integration |
|---|---|---|
| **1A** | £88.6m | £83.8m |
| **1B** | £62.0m | N/A |
| **1C (8-car)** | £34.8m | £32.7m |
| **1C (3-car)** | £33.6m | £31.5m |

### 2.3.2 Funding Sources

The development of this SOBC has been partially funded by Western Gateway STB, with further funding for development and delivery from Network Rail's Wessex Strategic Planning team. Funding for post-SOBC stages is uncertain at this time and no commitment has been made by any organisation for future funding, however, discussions are underway to understand how development can be aligned with CP8 renewals development.

Potential sources for further funding include:

- RNEP
- Third-party contributions (e.g. Station Works development)
- Local authority partnerships

### 2.3.3 Recommendations

The financial case recommends the following:

- Develop a phased funding strategy aligned with CP8 renewals
- Engage early with stakeholders and developers to secure contributions

## 2.4 Commercial Case

### 2.4.1 Delivery Models

The following delivery models are proposed:

- **Design-Build-Maintain (Network Rail):** Traditional model leveraging existing processes
- **Design-Build (Third Party):** Potential for innovation and cost-sharing

### 2.4.2 Sponsorship Options

- DfT
- Western Gateway STB
- Joint DfT-STB
- Third Party (e.g., developer)

### 2.4.3 Procurement Strategy

To be developed at OBC stage, but should be aligned with PACE and SPEED principles.

### 2.4.4 Key Considerations

Key considerations as the scheme progresses should include:

- The interface with the Salisbury signalling renewals
- Opportunities associated with the Station Works development at Tisbury
- Risk allocation

## 2.5 Management Case

It is proposed that the project management approach for this scheme will be as follows:

- Led by Network Rail Southern Region Strategic Planning
- PACE methodology for accelerated delivery and cost control

The governance processes and structure for this scheme will be updated at the next stage to reflect the chosen delivery model. There will be clear roles, escalation routes, and stakeholder engagement throughout.

Assurance & approvals process will include:

- Station/Network Change consultation as per the Network Code
- QCRA (cost) and QSRA (schedule) at design stage
- Compliance with CDM and Common Safety Method (CSM)

The high level key risks are:

- Affordability
- Land acquisition
- Integration with CP8
- Third-party dependencies.

The tools to be used to manage risk include:

- Risk register
- Quantitative risk assessments (QCRA and QSRA)

Key dependencies & interfaces for this scheme include:

- Salisbury signalling renewals (CP8)
- Station Works development
- Rolling stock change and potential electrification of the West of England Line
- West of England Continuous Modular Strategic Plan (CMSP)

# 3 Strategic Case

## 3.1 Background

### 3.1.1 Context

The West of England Line is the railway line between Worting Junction (to the west of Basingstoke) and Exeter St. David's, as shown in the map below. The line provides a key main line route between London Waterloo and the South West as well as providing connectivity with regional centres at locations such as Exeter, Salisbury, Basingstoke, and Woking.

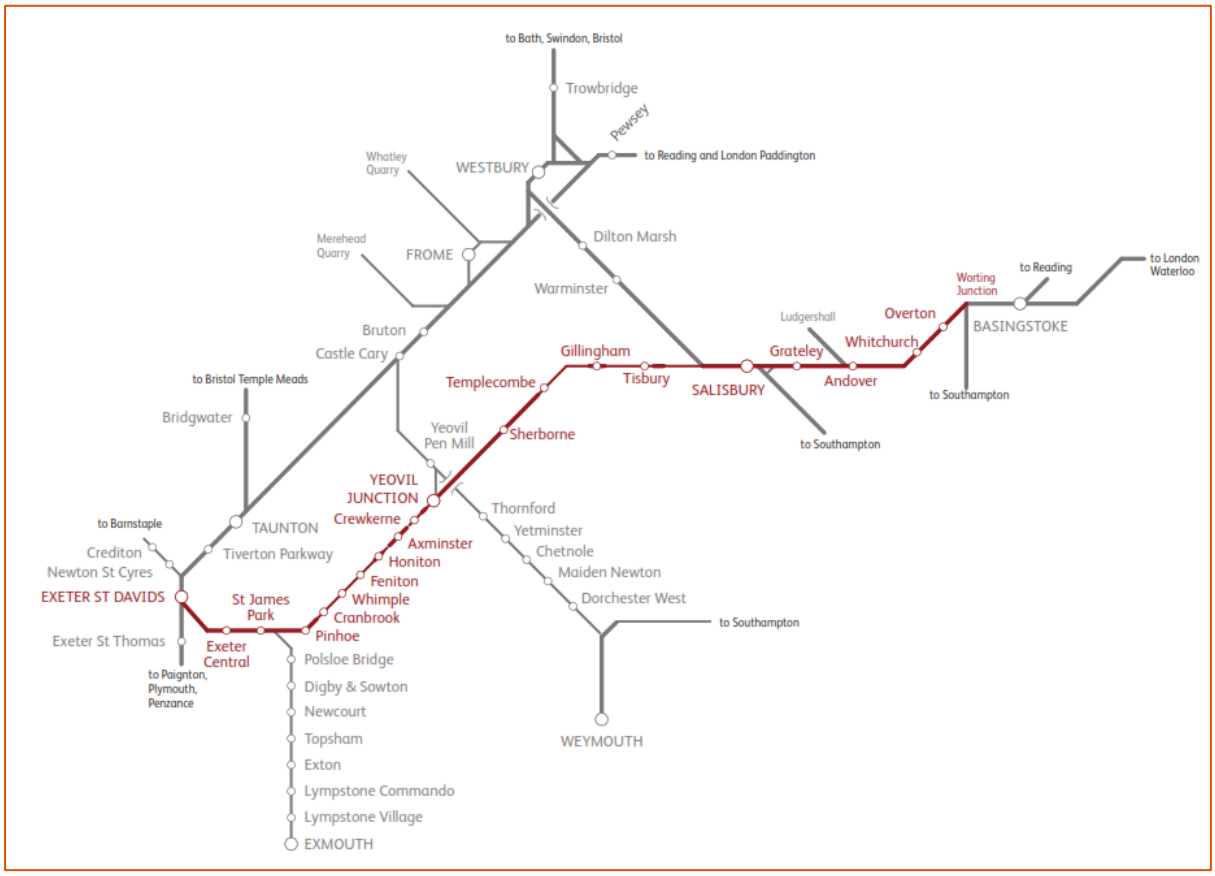



*Figure 3-1: Map showing the West of England Line*

Network Rail's West of England Line Continuous Modular Strategic Plan (CMSP), published in 2020, provides a strategy for improvements to capacity, performance, and connectivity on the West of England Line, with a particular focus on the railway west of Salisbury.

Recommendations from the study include the aspiration for additional services calling between Salisbury and Yeovil Junction to encourage modal shift by operating a higher frequency service. At present, in a standard hour, stations between Salisbury and Yeovil Junction only receive a 1 train per hour (tph) service in each direction, with some additional services in the peak periods. This service provides connectivity as far as Exeter St David's to the west, and London Waterloo to the east. The additional services recommended in the CMSP would raise this to a 2tph service, however connectivity beyond Yeovil Junction to the west would remain at current 1tph level.

The CMSP also noted serious concerns around the performance of services on the West of England Line due in large part to the extent of the long single line sections running at close to maximum capacity (around 75 % of track west of Salisbury), and the long distance that services travel bringing lateness on the single line sections from interactions with other services between Basingstoke and London Waterloo and around the Exeter area.

Owing to the limited number of locations where services in opposite directions are able to cross, minor late running trains in either direction impact service in the opposite direction, these delays are hard to recover and have the potential to amplify as the day progresses leading to a significant impact on performance of services running in both directions on the West of England and impacting the wider network at key performance hotspots like Woking.

The impact of these escalating delays can be seen most clearly on days of poor performance for example Autumn and in the Summer of 2025 when Soil Moisture Deficit (SMD) has led to the introduction of an 'Emergency Timetable' which has reduced the train service from a train every hour to one every two hours from Yeovil Junction to Exeter St. David's,

Due to the nature of single line operation, it is very difficult to recover the service as typically they run at low service levels, therefore the impact that cancellations have on passengers is significantly harder. With the West of England Line running one train per hour, a single cancellation would open a two-hour gap in the train service which would be highly disruptive to passengers.

The alternative is to permit this level of late running and maintain a credible service on the West of England Line. However, this leads to delays on the West of England Line being exported to the wider South West Main Line (SWML) and through conflicting moves at Woking to London Waterloo, Portsmouth and Southampton.

One particularly noteworthy location where this knock-on performance impact occurs is at Tisbury. In this location, a short, static passing loop to the east of the station allows Down trains (travelling towards Exeter) to stop away from the main line, so that Up trains (towards London) can pass them. However, because this is the only opportunity for trains to pass between Gillingham and Wilton Junction, if the Up train is running late but has already departed Gillingham station, the Down train has no option other than to be held in Tisbury loop and wait for the Up train to pass. This leads to a late-running Down train potentially causing a similar knock-on delay to Up services further to the west. This potentially results in a snow-balling impact on train performance with delays building as the day progresses and can result on a severe impact on the reliability of the evening peak out of London Waterloo.

From a passenger experience perspective, this is less than ideal because the Down train must wait in the Tisbury loop, outside the station, which in turn leads passengers wishing to disembark at Tisbury to become frustrated that they are unable to leave the train.

The current economic climate and the limited availability of central government funding has led Western Gateway Sub-National Transport Body (STB) and Network Rail to produce this joint Strategic Outline Business Case (SOBC) to examine the feasibility of some of these service enhancement options.

### 3.1.2 Demographics

The following data is based on an indicative corridor that follows the route of the West of England Line, it is for illustrative purposes and does not represent the population that would be impacted by improvements to rail services. It is not used in the economic case of this SOBC.


*Figure 3-2: Indicative rail corridor between Salisbury and Yeovil Junction*

**Population:** Understanding the demographics of an area or corridor offers valuable insights into the community's transport needs, helping to identify necessary improvements to the transport system. Considering an indicative corridor that encompasses Tisbury, Gillingham, Templecombe, Sherborne and Yeovil the population within this area according to Office for National Statistics (ONS) estimates stands at just over 140,000 people. The corridor straddles the counties of Dorset, Wiltshire and Somerset which are predominantly rural in nature with market towns and villages spread across the regions and connected by the rural road networks. The dispersed pattern and distances between these settlements means that the area is sparsely populated and figures from Local Authorities show that population densities for all three authority areas sit below the national average for England.

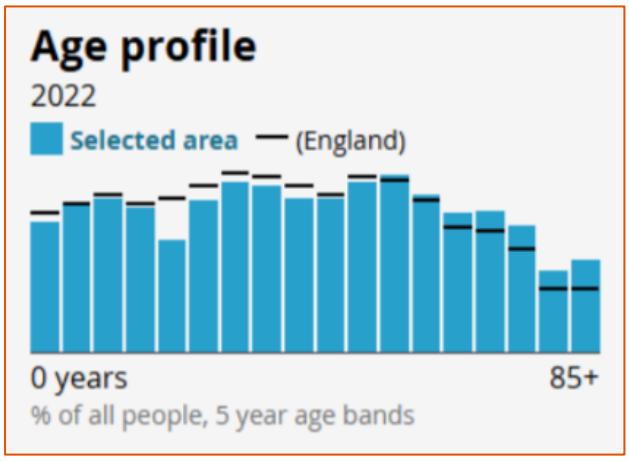



*Figure 3-3: Age profile (indicative corridor)*

**Age profile:** The age profile of the areas is significantly older than the national average for those aged 65+ (19 % as of 2022).

This demographic is more likely to use rail to access local services in neighbouring towns and regional centres, as well as for leisure, rather than for commuting or business travel.

This means that there is potential for trains to be well patronised throughout the day rather than just during the peak hours. It could also suggest that journey time is less of a consideration.


**Households:** Just over 61,000 households sit within the corridor, representing 0.26 % of the national figure for England. ONS data shows that the majority, 69.1 %, of these are either one or two person households compared to 64.1 % in England as a whole.

This could be seen, along with the age profile data, to suggest that the older demographic is more likely to be in one and two person households.

The smaller number of three and four person households suggest that there may be a lower number of families living along the corridor as this demographic may pursue housing and employment in larger towns and cities.


*Figure 3-4: Economic activity status (indicative corridor)*

**Economic activity:** ONS data shows that 58.9 % of the population, aged 16 and over, are in employment; whilst those who are unemployed (2.4 %) sits below the national average figure of 3.5 %.

Amongst the population that are economically active, there lies an opportunity to improve the rail service along the corridor for commuters wishing to access employment centres.

This demographic is likely to be particularly concerned with service performance, particularly with such a limited frequency of train service.

**Modes and distances travelled to work:** The rural nature of the area, the irregularity and infrequency of public transport necessitates private car ownership and use. This is illustrated in the national average census results, along with data demonstrating that 53.1 % used their car or van to get to work. Travel by train was exceptionally low, even by the national average. It should be noted that this data was taken during the Covid-19 pandemic and due to the restrictions large sections of the population were working from home.

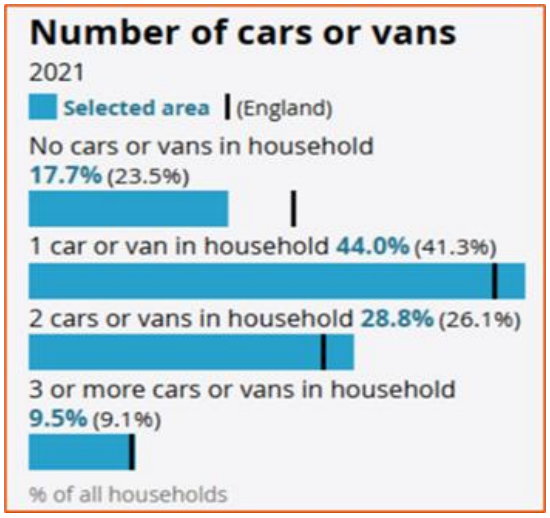



*Figure 3-5: Number of cars or vans (indicative corridor)*

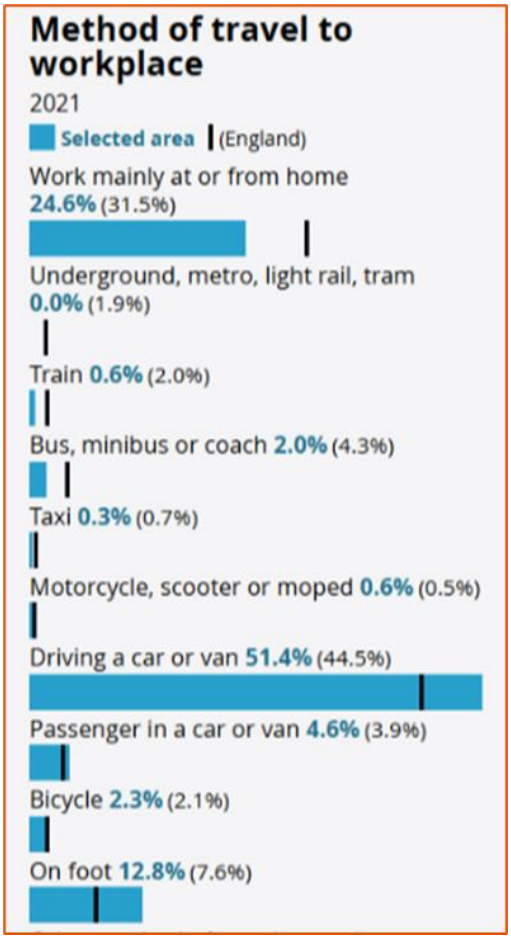



*Figure 3-6:Method of travel to work (indicative corridor)*

However, according to the data, locals were still travelling to access their places of work. Improvements to the provision and frequency of rail services, in conjunction with bus services could help to increase the uptake in public transport, thus reducing private car use and congestion on the rural road network.

### 3.1.3 Journeys & Demand

London Waterloo is a key destination for all stations along the corridor between Salisbury and Yeovil Junction – only Tisbury does not rank London Waterloo as its top destination according to ORR Origin Destination Matrix (ODM) data, see the table below.

The section of line containing Tisbury Loop is the most constrained section between Salisbury and Yeovil Junction. The extension of Tisbury loop would provide additional resilience to these journeys under both normal and more disruptive days.

If a similar 'Emergency Timetable' was introduced to the timetable west of Yeovil Junction to manage the Soil Moisture Deficit (SMD) issues in Summer 2025 on the section containing Tisbury the impact on passengers would be significantly higher as the major flows would be impacted.

In Autumn 2024 the sections of line between Honiton an Crewkerne and approaching Salisbury for London were high risks site for rail head adhesion resulting in very poor performance on the line.

Continued changes to climate patterns leave this section of the West of England line vulnerable. The extension of Tisbury loop would meet the vision of the Western Gateway Strategic Plan by helping to future proof the line to deal with these challenges and increase the resilience of the transport network.

*Table 3-1: Origin/Destination Flows, ORR*

| Origin Station | Top Destination Flows | | |
|---|---|---|---|
| **Salisbury** | London Waterloo | Southampton Central | Andover |
| **Tisbury** | Salisbury | London Waterloo | Gillingham (Dorset) |
| **Gillingham** | London Waterloo | Salisbury | Tisbury |
| **Templecombe** | London Waterloo | Sherborne | Gillingham (Dorset) |
| **Sherborne** | London Waterloo | Gillingham (Dorset) | Templecombe |
| **Yeovil Junction** | London Waterloo | Exeter Central | Exeter St David's |

When looking at the whole of the West of England Line and the direction in which most passengers travel from their home station, the Origin Destination Matrix (ODM) data can be split as follows:

- Westward journeys (shown in yellow in the following chart)
- Eastward journeys to locations east of Salisbury (shown in red in the following chart)
- Eastward journeys to locations west of Salisbury (shown in purple in the following chart)

The following chart shows how the direction of travel of most passengers changes from one end of the West of England Line to the other.

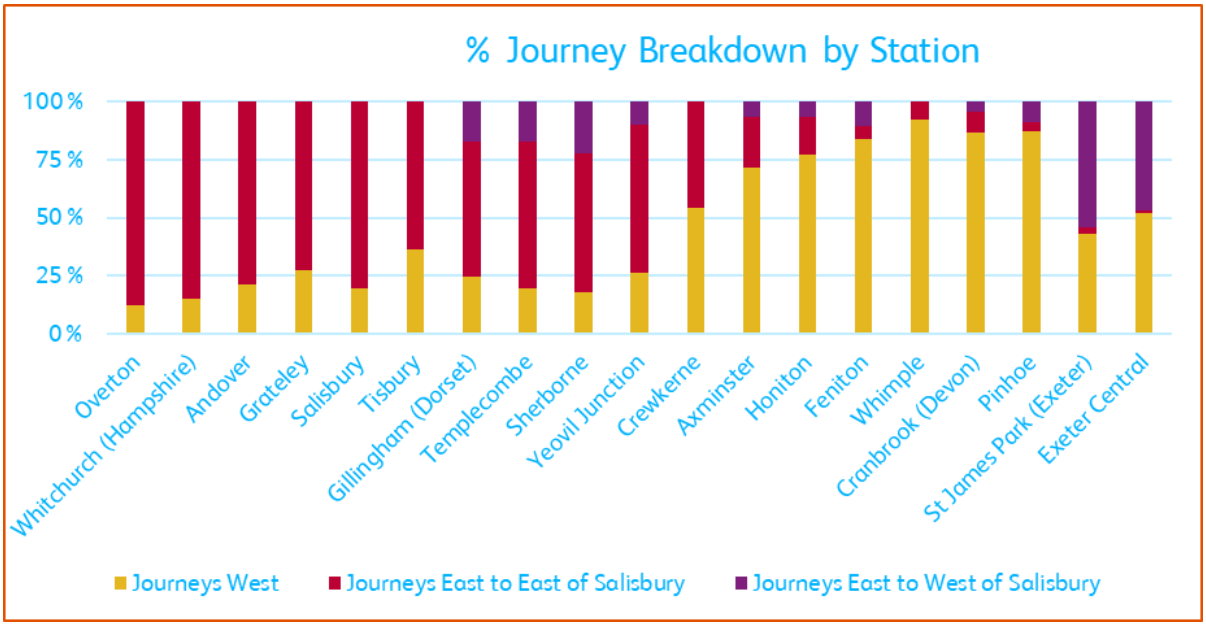


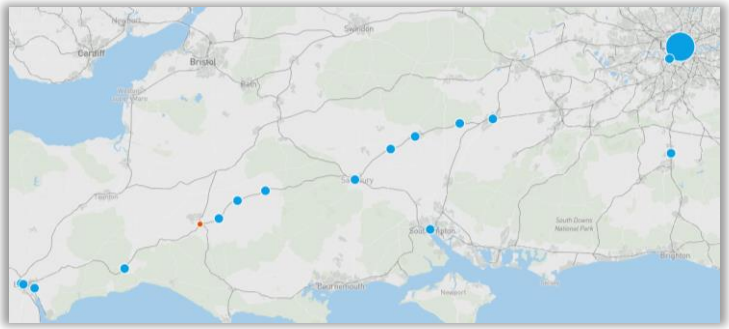

*Figure 3-7: Journey direction from West of England Line stations*

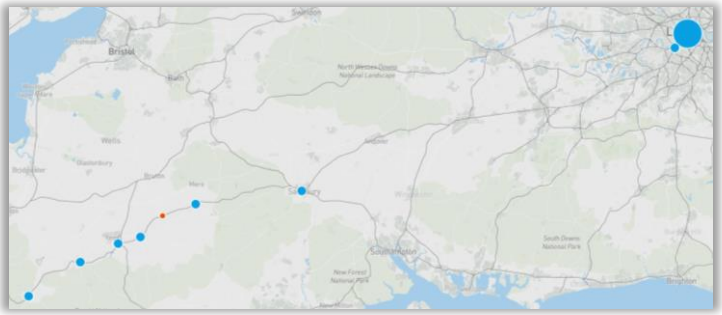
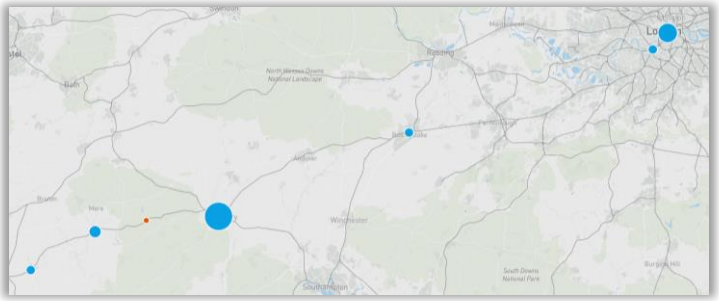
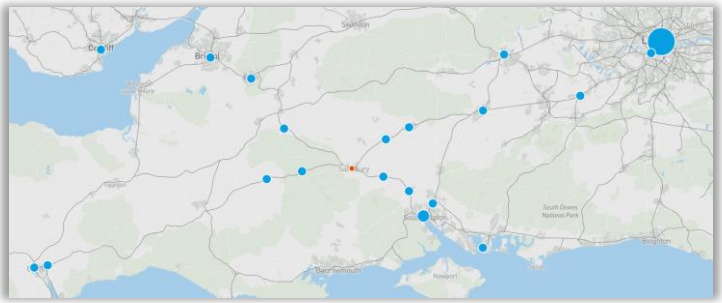
Most passengers travelling from stations in the scope area of this SOBC, between Yeovil Junction and Salisbury, are travelling in an eastward direction, including making local journeys along the West of England Line corridor.

The ODM data also suggests that whilst some other longer-distance destinations are significant at Salisbury and Yeovil Junction, the larger flows of the intermediate stations are to other settlements within the West of England Line corridor.

This suggests a mixed use of the railway for access to both long and short distance trips, see the following series of maps where the red dot denotes the origin station.

*Table 3-2: Origin/Destination maps by West of England Line station*

| | |
|---|---|
|  | **Yeovil Junction**<br><br>Journeys to London Waterloo dominate the journey profile of Yeovil Junction. Other journeys include those along the West of England Line corridor, east and westward, and further afield locations such as Southampton Central and East Croydon. |

| | |
|---|---|
|  | **Sherborne**<br><br>Journeys to London Waterloo dominate the journey profile of Sherborne. Other journeys include those along the West of England Line corridor, east and westward, and to Southampton Central. |
|  | **Templecombe**<br><br>Journeys to London Waterloo dominate the journey profile of Templecombe. Other journeys include those along the West of England Line corridor, east and westward. |
|  | **Gillingham (Dorset)**<br><br>Journeys to London Waterloo dominate the journey profile of Gillingham. Other journeys include those along the West of England Line corridor, and Southampton Central, Basingstoke and Guildford. |
|  | **Tisbury**<br><br>Journeys to Salisbury dominate the journey profile of Tisbury. Other journeys include those along the West of England Line corridor, particularly London Waterloo, and Basingstoke. |
|  | **Salisbury**<br><br>Journeys to London Waterloo dominate the journey profile of Salisbury. However, there is a wider variety of other journeys including those along the West of England Line corridor, Bristol, Reading, and Cardiff. |

In terms of demand, stations along the corridor have seen a relatively strong recovery from the shock of the Covid-19 pandemic. This is particularly true at Salisbury, where 2023/24 entries/exits are not far off where they were in 2018/19 at 93 %, as can be seen in the following table.

*Table 3-3: Covid recovery by entries and exits*

| Total Footfall | 2018/19 | 2023/24 | % Change |
|---|---|---|---|
| **Salisbury** | 2,188,337 | 2,042,787 | 93 % |
| **Tisbury** | 221,736 | 170,286 | 77 % |
| **Gillingham** | 378,014 | 301,862 | 80 % |
| **Templecombe** | 108,164 | 79,776 | 74 % |
| **Sherborne** | 210,170 | 177,210 | 84 % |
| **Yeovil Junction** | 210,246 | 190,552 | 91 % |

Salisbury has by far the highest footfall within the section of the West of England Line included in the scope, as shown in the graph below. The drop in patronage associated with the Covid-19 pandemic can also be seen.

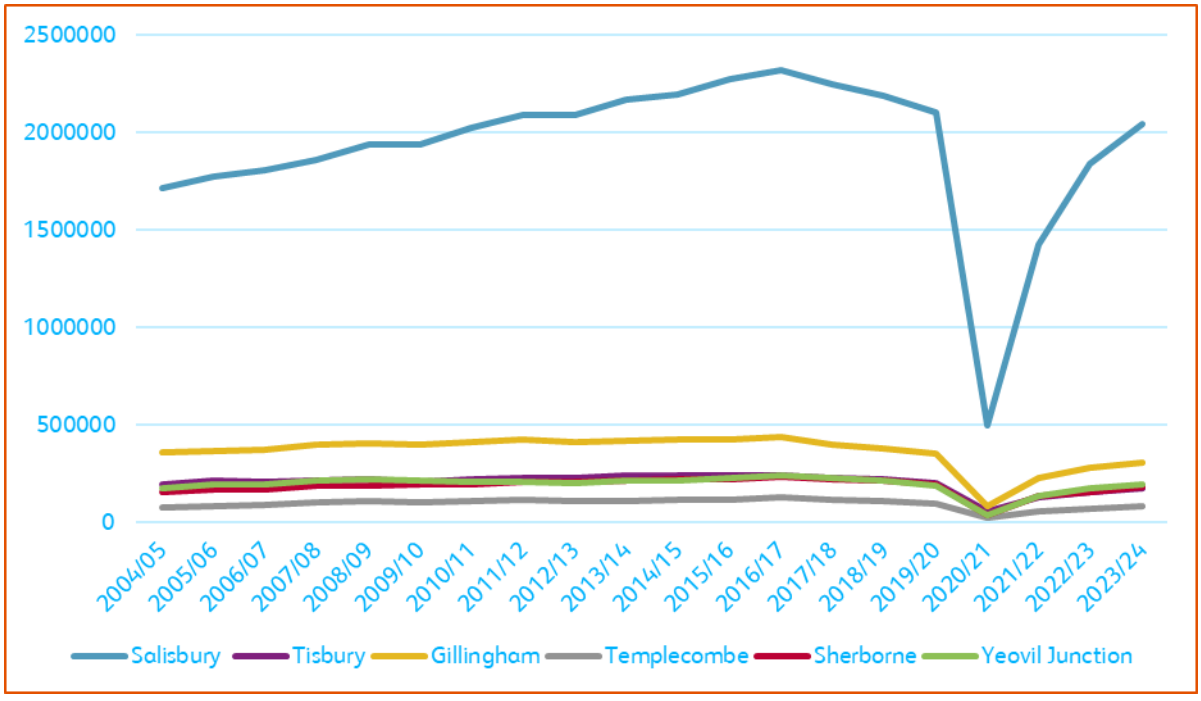



*Figure 3-8: Entries/Exits stations between Salisbury and Yeovil Jn*

With Salisbury excluded from the graph, the individual stations further along the corridor can be better seen, see below. Whilst their recovery has been slower, the stations are still experiencing a sustained growth in patronage following the lows of the pandemic with Gillingham and Yeovil Junction now the busiest stations on the corridor beyond Salisbury.

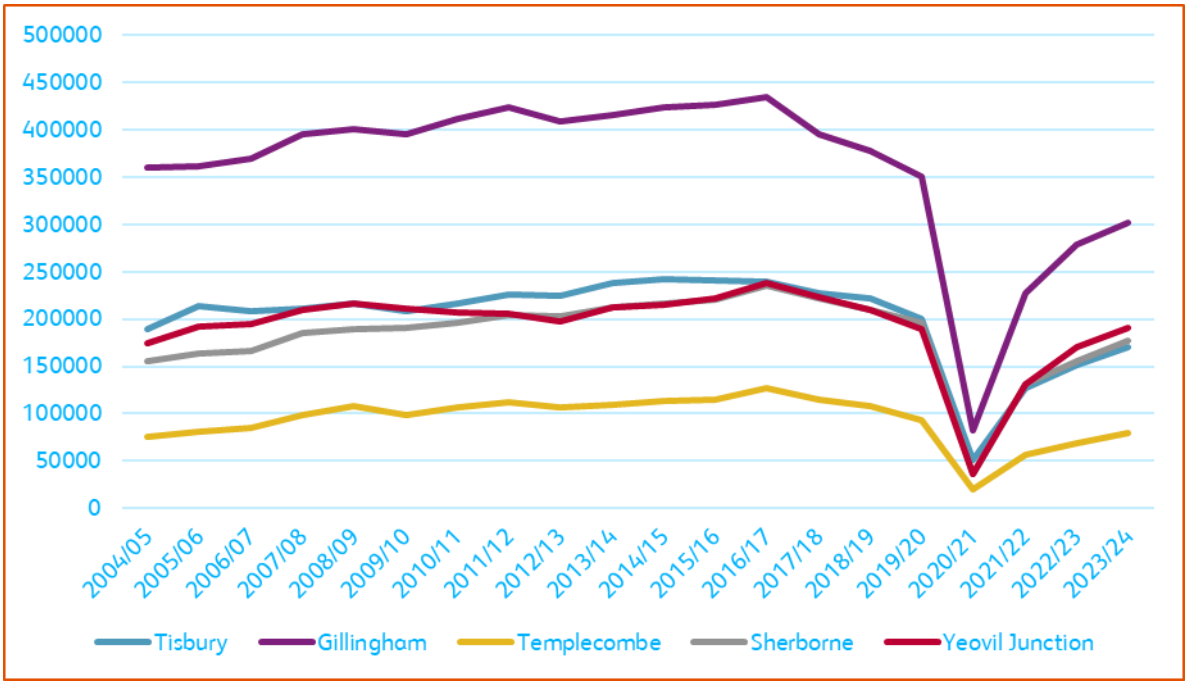



*Figure 3-9: Entries/Exits stations between Tisbury and Yeovil Jn*

## 3.2 Policy Context

This SOBC has been produced in partnership with Western Gateway STB and other local stakeholders, including Dorset Council; Somerset Council; and Wiltshire Council. It is therefore important that the objectives of the railway in improving the service between Salisbury and Yeovil Junction align with those of our partners.

### 3.2.1 Sub-national Transport Bodies

Western Gateway STB is a joint partner in developing this SOBC. In their Western Gateway Rail Strategy, the STB sets out the DfT's view of what Sub-National Transport Bodies' roles should be in transport:

- Provide strategic consideration of transport needs at a pan-regional level aligning with economic and industrial strategies for the region
- Provide advice to Government on prioritisation of schemes at the sub-national level
- Undertake agreed activity on behalf of Government in their region, for example connectivity studies
- Support other Departmental priorities

It is clear that STBs are ideal partners for the railway industry to collaborate with on rail service improvements that have a local, regional, and national benefit to passengers and the economy. Whilst Western Gateway are the primary STB partner for this piece of work, Peninsula Transport STB also play a significant role in shaping the future of transport within the scope area. The following examines the perspectives of both Western Gateway and Peninsula Transport in turn.

#### 3.2.1.1 Western Gateway

In Western Gateway's Strategic Transport Plan 2024-2050, they set out how they plan to meet their vision for transport in the Western Gateway area.

> **"A resilient transport network that works for everyone and is fit for the future, helping people and businesses throughout the Western Gateway to thrive while protecting our environment."**

The Strategic Transport Plan (STP) is aligned with plans produced by National Highways and Network Rail, including the outputs of this SOBC.

Under STP **Theme 3: Access to services and opportunities**, there are several policies that relate to this SOBC:

- **A4.** We will work with Network Rail, Transport for Wales and other partners to deliver on priority outputs from our Rail Strategy and the Western Gateway Partnership Rail Vision to 2050
- **A5.** We will work with Network Rail and GWR to complete Business Case assessments for service enhancements on the Heart of Wessex Line and the Bristol to Oxford line and take forward recommendations from Network Rail's strategic studies including Dorset (Dorset

Metro), Wiltshire, **West of England Line**, Bristol to Exeter and Birmingham, Greater Bristol, Gravity Park to Bristol Port and Salisbury, Wareham and Bournemouth stations

- **A9.** We will support Local Authorities, Network Rail and National Highways in efforts to reduce the number of people killed and seriously injured on the road and rail networks

To confirm, **Policy A9** is related to this work owing to the opportunity to remove level crossing safety risk through the proposals outlined in this SOBC.

#### 3.2.1.2 Western Gateway Rail Strategy

Through consultation with the rail industry and other partners, the Western Gateway STB produced their 'Rail Strategy'. Building upon the STB's vision of being a region that is sustainably connected and provides high quality and value for money travel opportunities, five themes were identified:

1. Choice
2. Decarbonisation
3. Social mobility
4. Productivity
5. Growth

Objectives and priorities were designated for each of the five themes as shown in the following table.

*Table 3-4: Western Gateway Rail Strategy Themes and Objectives*

| Theme | Objective | Priority 1 | Priority 2 | Priority 3 |
|---|---|---|---|---|
| **Choice** | To make rail a realistic and viable option for journeys to, from and within Western Gateway | Improve frequency of services to provide more flexibility in travel options | Make rail to rail interchange (where direct services are not possible) as seamless as possible | Improve operational reliability of the network to give confidence in rail as a mode of choice |
| **Decarbonisation** | To enable rail to contribute more actively towards the decarbonisation of the Western Gateway | Identify ways to reduce the carbon emissions per passenger of rail journeys on diesel rolling stock | Identify alternatives to diesel rolling stock including priorities for electrification | Identify ways in which more freight can be transported by rail rather than road, in particular to deep-sea ports |
| **Social Mobility** | To provide equal journey opportunities by rail for all residents of Western Gateway | Improve multi-modal interchange to rail through improving access to stations by car, bus and active modes | Create new direct journey opportunities by rail between places that are not currently rail connected, particularly north – south and rural areas | Make rail travel more affordable through fares management and incentives |
| **Productivity** | To enable rail to contribute more actively to improvements in productivity across Western Gateway | Improve rail journey times/ speeds and Generalised Journey Time (GJT) to make rail competitive with the equivalent road journey | Provide improved rail connectivity (passenger and freight) to international gateways – airports and ports | Improve strategic connectivity with cross-border economic hubs |
| **Growth** | To enable rail to provide sustainable travel options for housing and job growth across Western Gateway | Align rail investment, including new stations/lines with future growth areas | Identify opportunities to develop and invest in Transit-Oriented Communities | Promote and maximise resilient design principles to protect the region against the implications of climate change |

#### 3.2.1.2.1 Strategic Investment Plan

Western Gateway STB finalised their Strategic Investment Plan (SIP) in early 2025 which identified 38 investment proposals that they believe will be able to deliver their "vision for transport and achieve the objectives of our joint Strategic Transport Plan". The proposal for rail service enhancements between Salisbury and Yeovil is one of these 38 proposals.

#### 3.2.1.3 Peninsula Transport

Additionally, Peninsula Transport published their 'Rail Strategy' in 2023. Peninsula Transport's strategy identifies 5 key themes, each with corresponding objectives and priorities.

*Table 3-5: Peninsula Transport Rail Strategy Themes and Objectives*

| Theme | Objective | Priority 1 | Priority 2 | Priority 3 |
|---|---|---|---|---|
| **Improving Choice** | We will improve connections between people, business, and places | C1: Improve frequency and/or speed of services to provide more flexibility in travel options. | C2: Improve access to the network through joined-up mobility solutions. | C3: Deliver a virtually integrated network, with a one-stop-shop for information and the best fare from door to door. |
| **Reducing Emissions** | We will deliver affordable, zero-emissions transport for everyone | E1: Optimise the network to capture passenger and freight journeys from the highway – particularly our strategic spine roads. | E2: Decarbonise the network by removing diesel-only trains. | |
| **Supporting Demographic Change** | We will help to improve the health and wellbeing of communities in the Peninsula | D1: Develop a set of station standards to prioritise investment towards a network that is accessible and welcoming to all. | D2: Support flexible lifestyles with consistent data connectivity. | |
| **A Resilient Network** | We will enhance the resilience of the transport network | R1: Future-proof the network to protect against the impacts of climate change. | R2: Ensure train services operate when customers need and expect them to, and better manage things when they go wrong. | R3: Ensure that there is resilience to the key strategic spine of our network. |
| **Underpinning Growth** | We will help the Peninsula to be a great place to live and work | G1: Unlock the potential of rail freight through facilities and network capacity. | G2: Ensure that the network around our key towns and cities can accommodate future service growth. | G3: Ensure that rail maximises its potential to deliver social value through skills, employment and supply chain. |

There is clearly a significant degree of similarity between the Western Gateway and Peninsular STBs' objectives, and it is these that shape the objectives of this SOBC.

#### 3.2.1.3.1 South West Rural Mobility Strategy

The South West Rural Mobility Strategy was developed jointly by the Peninsula Transport and Western Gateway and sets out their joint mobility policy for the whole South West of England. It aims to support the levelling-up of local rural communities and economies.


*Figure 3-10: South West Rural Mobility Strategy, Western Gateway/Peninsula STBs*

The framework for the delivery of future mobility in the rural South West has interfaces that an improvement to the Salisbury to Yeovil Junction service could support. For example, an improved rail service can support the strengthening of larger rural settlements and provide 30 minute rural communities by linking the growing communities to employment, health, and education.

### 3.2.2 Central Government

#### 3.2.2.1 Future of Rural Transport (DfT)

Published by DfT in 2023, this policy is focussed on providing rural communities with travel options that are convenient, safe and at a reasonable cost. The document recognises that for many in rural areas, this means completing most journeys using a private car. It states that the current provision of walking, cycling, public transport and taxis does provide additional travel options, but does not always fully meet the needs of local people.

This policy looks at the technologies and innovations emerging within the transport sector, and how rural areas might benefit from their introduction. There is reference to the need to improve

rail and bus services and the opportunity for new innovations in transport to connect with these services in improving rural connectivity.

#### 3.2.2.2 Labour Government 5 Missions

At a central Government level and following the general election in July 2024, the Labour Government established its 5 Missions to Re-Build Britain. These five missions and how transport can support the delivery of those missions are set out below:


*Figure 3-11: How transport can support the 5 Missions, DFT 2024*

#### 3.2.2.3 DfT 5 key priorities

Following the 4 July 2024 election, the transport minister announced the five key priorities for transport, these are:

1. Improving performance on the railways and driving forward rail reform
2. Improving bus services and growing usage across the country
3. Transforming infrastructure to work for the whole country, promoting social mobility and tackling regional inequality
4. Delivering greener transport
5. Better integrating transport networks

The rail improvements included in this SOBC align to these objectives or are a catalyst that will encourage the development of other initiatives in other transport modes, this will be discussed later in this document.

#### 3.2.2.4 Future of Rural Transport (DfT)

Published by DfT in 2023, this policy is focussed on providing rural communities with travel options that are convenient, safe and at a reasonable cost. The document recognises that for many in rural areas, this means completing most journeys using a private car. It states that the current provision of walking, cycling, public transport and taxis does provide additional travel options, but does not always fully meet the needs of local people.

This policy looks at the technologies and innovations emerging within the transport sector, and how rural areas might benefit from their introduction. There is reference to the need to improve rail and bus services and the opportunity for new innovations in transport to connect with these services in improving rural connectivity.

#### 3.2.2.5 Rail Network Enhancement Pipeline (RNEP)

RNEP is the established mechanism for funding railway enhancements. The proposal outlined in this SOBC aligns with the RNEP's four strategic priorities for investment as follows:

*Table 3-6: Rail Network Enhancement Pipeline Priorities*

| | |
|---|---|
| **Priority 1 - Keeping people and goods moving smoothly and safely.** | • The project will upgrade/close affected level crossings reducing safety risk<br>• Provide performance benefits through a reduction in the length of single line sections<br>• Increases the resilience of the railway against Climate Change as seen with the Summer 2025 Emergency timetable implemented in response to the Soil Moisture Deficit |
| **Priority 2 - Delivering the benefits from committed programmes and projects already underway.** | • Links to CP8 Salisbury Area re-signalling<br>• Forms part of a wider programme of rail service improvements proposed through Wessex Route Strategic Planning teams in published strategic documents |
| **Priority 3 - Offering more: new and better journeys and opportunities for the future.** | • Supports housing growth in Wiltshire, Dorset and Somerset<br>• Supports economic growth at key regional hubs along the West of England Line<br>• Connects populations to employment opportunities in regional centres including Salisbury and Yeovil.<br>• Supports the rebalancing of the economy in the South West by connecting the population to employment and services within the wider South West region |
| **Priority 4 - Changing the way the rail sector works for the better.** | • Explores development and third party funding opportunities to increase affordability<br>• Explores opportunities to deliver new infrastructure as part of an enhanced signalling renewal<br>• Promotes modal shift from road to rail by providing an enhanced rail service |

#### 3.2.2.6 Williams-Shapps 'Plan for Rail'

The 2021 Williams-Shapps 'Plan for Rail' outlines proposals for reforming Britain's rail industry. Key outcomes include the creation of Great British Railways (GBR), which will consolidate existing rail functions, manage infrastructure, revenue, and network planning. In addition, the plan outlines proposals to reform the franchise system. The overall aims are to enhance efficiency, collaboration, and value for passengers and taxpayers.

The new labour Government, elected in July 2024, have expressed a wish to continue with a version of rail reform and the establishment of GBR. Shadow Great British Railways (Shadow GBR)

was launched in September 2024, and the Rail Reform Bill continues to progress through the parliamentary process.

#### 3.2.2.7 Decarbonisation

Another key focus for Network Rail and the UK Government is decarbonisation and promoting sustainable travel. The Government aims to achieve a net-zero rail network by 2050 through several initiatives: eliminating diesel-only trains by 2040, implementing cost-efficient electrification programs, investing in environmentally responsible technology, and enhancing railway accessibility as a means of sustainable travel.

Additionally, expanding rail infrastructure can contribute to broader decarbonisation efforts beyond rail. For instance, encouraging active transportation modes like cycling to railway stations not only reduces car journeys but also enhances air quality and reduces traffic congestion. This approach benefits those without private cars, fostering better connections to education, employment, and leisure opportunities.

### 3.2.3 The Local Planning Process

One of the key processes that will influence the need for changes to rail service provision is the local planning process. The Local Planning Authorities (LPA) are in scope of this SOBC include Dorset Council, Somerset Council and Wiltshire Council.

One of the key parts of the planning process is the production of a Local Plan for the local authority area. The Local Plan sets out the vision for future development in the local authority area. In England and Wales, every LPA should have an up-to-date Local Plan in place which is reviewed at least every five years.

Railways are a major driver of economic growth, specifically, rail can unlock housing supplies to bring communities that have traditionally been cut off within reach of major urban conurbations, employment, and services. An increase in housing inevitably draws employers and business into an area to be connected to the workforce.

It is therefore essential that Local Authorities, both through the STB and independently, are partners in the development of this SOBC.

It should be noted that in line with the Government's mission around building the economy, the planning system is under review, with an onus on building more houses and setting higher targets for LPAs to meet.

The updated National Planning Policy Framework (NPPF) sets a mandatory housing target of 370,000 homes per year for England. The NPPF also includes measures to ensure that local authorities update their plans to meet these targets, prioritizing land with lower environmental value and introducing "golden rules" for green belt development. It is imperative that housing allocations are situated close to the railway or that the railway is easily accessible to ensure that demand is sufficient to justify rail investment.

#### 3.2.3.1 Tisbury (Wiltshire)

The Tisbury Community Area is made up of 16 rural parishes in the south west of Wiltshire and Tisbury is the largest village in the Community Area (CA). The area is characterised by small rural villages and farms; and surrounded by the Cranborne Chase and West Wiltshire Downs Area of Outstanding Natural Beauty (AONB), covering 983sq.km. This is a significant draw for visitors and reflects the changing nature of the area from one of agriculture to tourism in recent years.

Tisbury's proximity to neighbouring towns in Dorset mean that many residents travel to towns such as Shaftesbury, Gillingham, and Wincanton for their immediate day-to-day needs. There are two A-roads passing through the area: the A303 running east to west and the A30 Salisbury to Shaftesbury Road. Locally the road network is poor and adds to the remoteness of the area, with car ownership and commuting to neighbouring towns being above average for the region.

In terms of housing, the strategy for Tisbury Community Area envisions modest growth of both housing and employment to ensure development is balanced to minimise out-commuting of the area and also to provide support for local services and communities. The Wiltshire Core Strategy, published in 2015, stated that approximately 420 new homes will be provided between 2006 and 2026; 200 within Tisbury and the remainder (220) to be built in the rest of the Community Area.

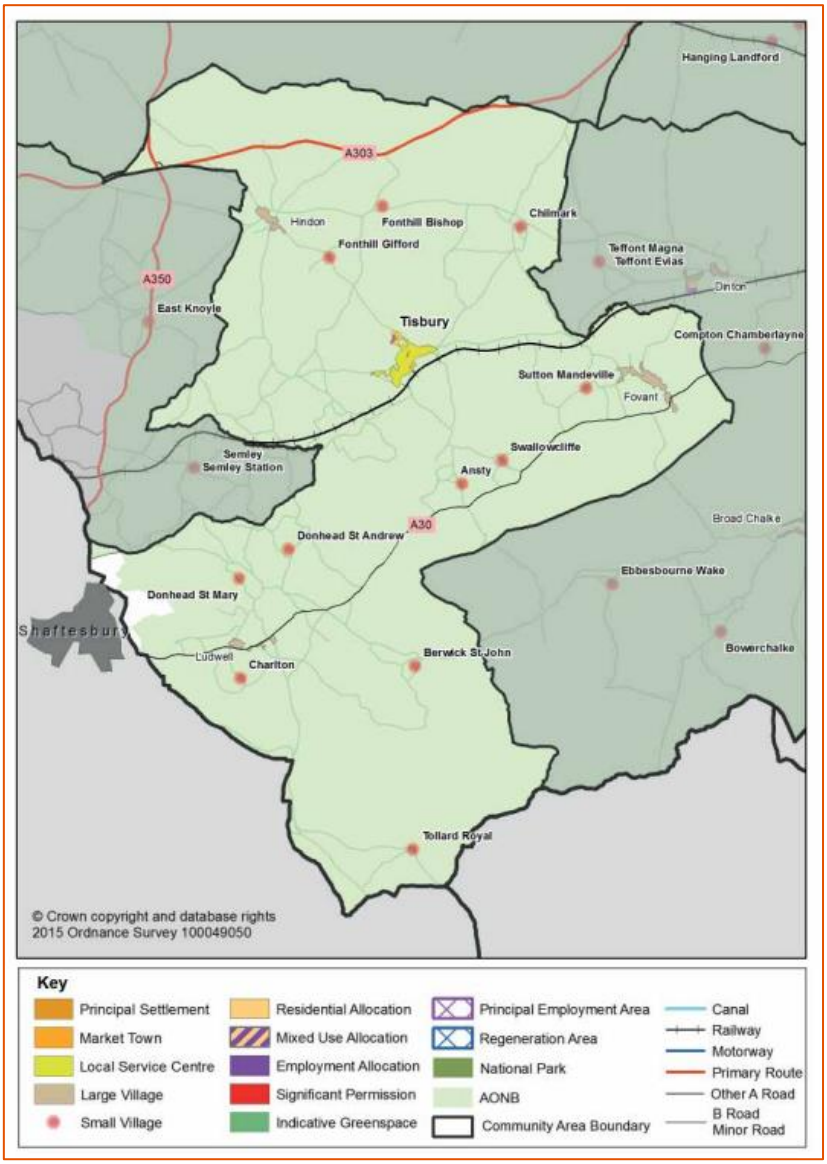



*Figure 3-12 Tisbury Community Area, Wiltshire Core Strategy, pg.177*

The Station Works site to the south of Tisbury station is a known location for a potential future development and could provide 86 homes and a care home.

Wiltshire Council is currently reviewing its Local Plan to align with the NPPF and address housing needs. This review includes a consultation on the emerging spatial strategy and how to meet local housing needs, which will involve approximately 45,600 new homes.

#### 3.2.3.2 Gillingham (North Dorset)

Gillingham is a medium size rural town close to the Blackmore Vale with three rivers passing through it: the Stour, Lodden and Shreen Water. The town has experienced the fastest growth rate of the towns in north Dorset and the southwest over the past two decades. Its location in the heart of the Blackmore Vale lowlands, within close proximity to the A303/A350 and sitting on the main Salisbury to Exeter railway link means that the town is in a key position to attract further economic growth.

The town is characterised by a higher than average elderly population and there is a need to encourage and retain younger people and families to the town with the provision of suitable housing, employment, and community services. Population growth projections, according to Gillingham Town Council figures forecast an increase to in excess of 17,000 people by 2031; up from 11,756 (2011 Dorset Council Census data).

Gillingham has been designated as one of three towns for major growth, the others being Blandford and Shaftesbury which are not covered in this study; and will act as a centre for population, housing and employment growth; and the development of major community services.

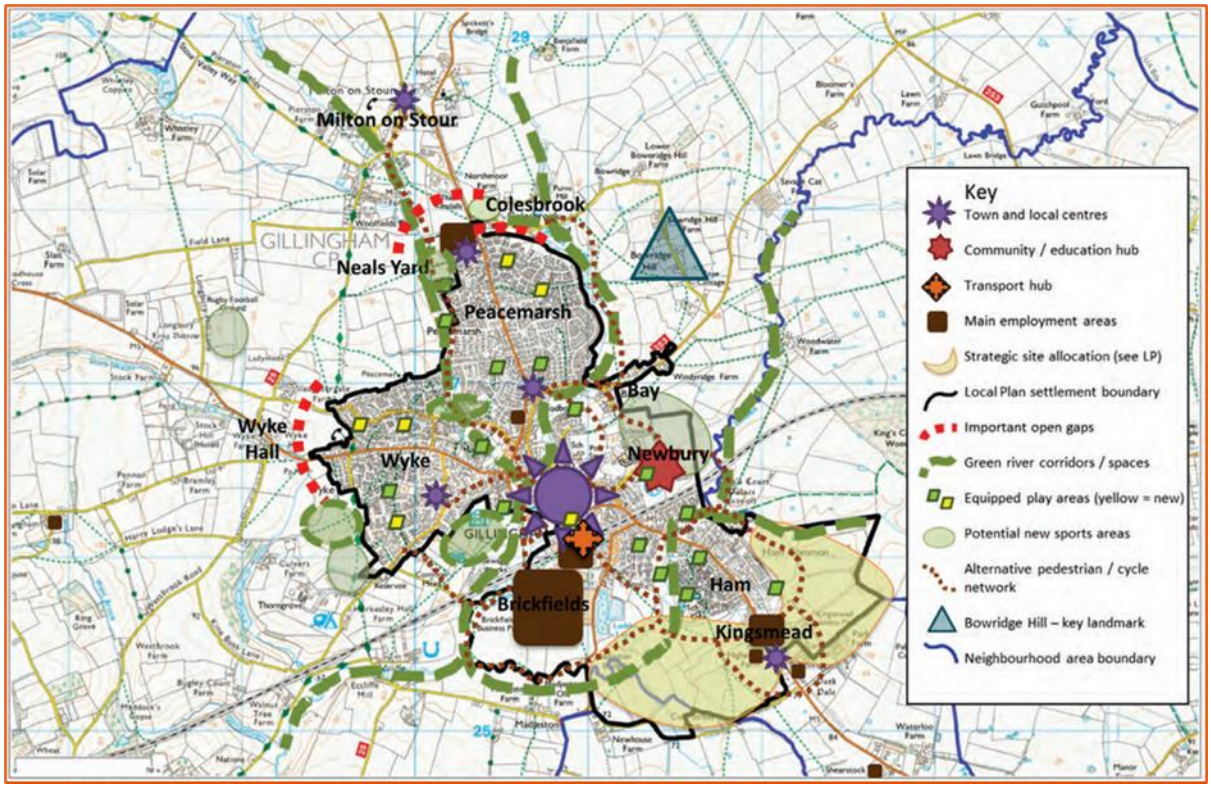



*Figure 3-13: Overview of Neighbourhood Plan and Strategy Area. Gillingham Neighbourhood Plan 2016-2031, P11*

The Gillingham Neighbourhood Plan 2018 has identified the need to create an integrated hub for public transport at the station to strengthen its benefits to the town and local economy. The Neighbourhood Plan envisages:

- Sufficient space to accommodate waiting buses and taxis to facilitate more effective links between the different services.
- Sufficient car parking and set-down area close to the station entrance for current and future anticipated demand.
- Improved public shelter and rest facilities (toilets, food and beverage), providing travellers with a warm and welcoming environment as they wait for onward connections.
- Easy and safe access by car, bus taxi, walking or cycling providing connections to the High Street.

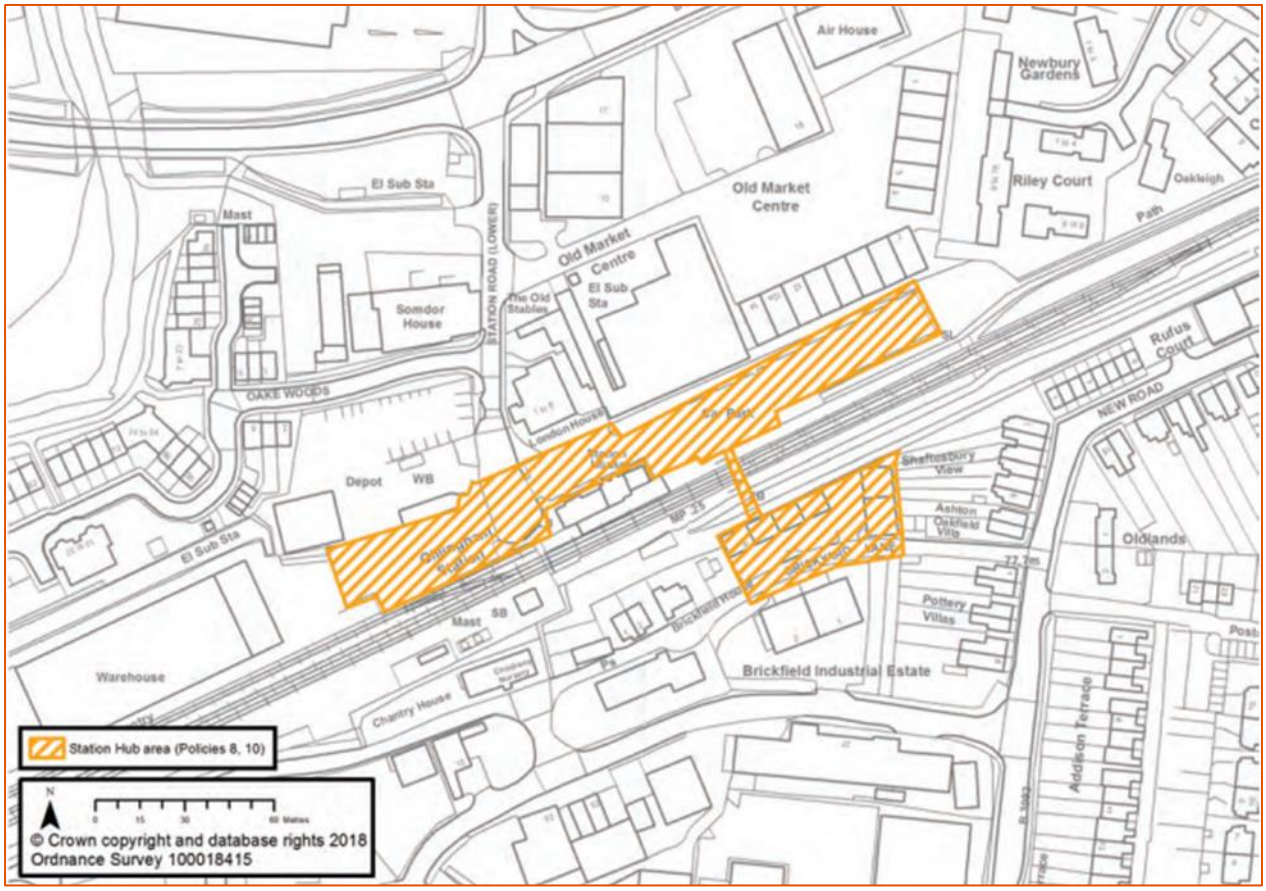



*Figure 3-14: Station Road Transport Hub proposed area. Gillingham Neighbourhood Plan 2016-2031, P29*

In terms of housing the Gillingham Neighbourhood Plan has set a target of at least 2200 over the plan period, 25 % of which will be classed as affordable. The Local Plan has set out a multi-faceted approach to the strategic allocation of sites for new housing to include infilling and regeneration within the settlement boundary, development of sites to the south of the town; mixed use regeneration of land on Station Road (approx. 200 homes) to the south of the town centre; as well as development of land to the south and south-west of Bay.

Approximately 1800 of the 2200 will be in the southern extension of Gillingham and the Neighbourhood Plan has highlighted the need for a careful 25 year phased approach to delivering the housing growth. This phased approach has been agreed between the consortium of developers and the Gillingham Growth Board; and ratified by the Local Planning authority. Aligned with the housing growth will be improvements in the road network, community and

education facilities; sewerage, drainage and consideration of the floodplain. (Gillingham Neighbourhood Plan 2016-2031, P13)

The Neighbourhood Plan goes further and has noted the possibility of employing sites outside of the existing town boundaries for future housing growth. However there has been no indication that local residents would support, through consultation, more development than is currently planned.

Dorset Council's housing target will increase to 3,230 homes per year, which is a significant increase from the previous target. Dorset Council will need to find land for approximately 48,450 homes over the plan period, so it remains to be seen how this will impact Gillingham.

#### 3.2.3.3 Sherborne (West Dorset)

This historic market town with a population of 10,361 (2021 Census data) is situated in northwest Dorset and rests on the River Yeo, on the edge of the Blackmore Vale. The town is 6 miles east of Yeovil and sits on the A30, London to Penzance Road; and is a served by Sherborne railway station.

Although Sherborne is not within the Area of Outstanding Natural Beauty (AONB) like a number of the other towns in Dorset, there are a high number of heritage assets in the town, including Sherborne Castle and Sherborne Abbey and the surrounding topography, which restrict development opportunities.

In the 2021 Dorset Local Plan review, Northern Functional Areas, it was noted that the longer term growth of Sherborne will be delivered through development focused to the west of the town. Three areas were allocated for development, delivering housing and employment land:

- Further land at Barton Farm - to the northwest of the current Barton Farm site delivering a link between the A30 and the B3148 Marston Road.
- Land North of Bradford Road – between the A30 and Bradford Road, enabling a new access route off of the A30 to deliver an alternative route to The Abbey Primary School and onto Bradford Road
- Land South of Bradford Road – to deliver additional homes, primary school provision and employment land with direct access onto the A30 through the North of Bradford Road development. Access to The Abbey Primary School through this site would relieve some traffic pressure on Lenthay Road

As previously noted, Dorset Council's housing target will increase to 3,230 homes per year, which is a significant increase from the previous target. Dorset Council will need to find land for approximately 48,450 homes over the plan period, so it remains to be seen how this will impact Sherborne.

#### 3.2.3.4 Templecombe (South Somerset)

This village in Somerset, England, situated on the A357 road, 12 miles east of Yeovil, and 30 miles west of Salisbury. Templecombe is the main settlement in the civil parish of Abbas and Templecombe, along with the hamlet of Combe Throop. The parish had a population of 1,657 at the 2021 census.

Somerset Council are currently developing their Local Plan in light of NPPF housing targets and guidance, however, before becoming a unitary authority, South Somerset District Council had adopted a Local Plan in 2015. This Local Plan was for 2006 to 2028.

There were no housing allocations made in Templecombe in the adopted Local Plan and in the South Somerset Plan Review 2016-2036 Templecombe was classed as a 'village'. It states that villages are settlements which are considered to be sustainable locations for small scale growth and that villages do not have identified development areas, but growth is expected to take place adjacent to the existing built settlement.

There is currently no housing target set for Somerset, based on the NPPF, so it remains to be seen what allocations may be made in Templecombe.

#### 3.2.3.5 Yeovil (South Somerset)

This town in the south of Somerset has a population of 49,698 (2021 Census data); and has the largest town centre in the district. Yeovil is supported by a number of small market towns, district and local centres that serve their own local catchment areas. The town has seen mixed fortunes over the years with competition from out-of-town retail parks like the Peel Centre in West Dorset. Additionally, the town centre has seen an increase in shop vacancy rates, currently standing at 16.9 %, which is higher than the national average of 11.2 %.

Regeneration of the town has been set out in the Yeovil Refresh, a series of initiatives to ensure that new commercial and public investment is attracted to a number of key regeneration sites. This could add value to the local economy and help fulfil Yeovil's role as the principal economic, service and retail centre for South Somerset. The existing local bus network suffers from a lack of connectivity in places; and sustainable travel schemes are also being considered in order to promote connectivity.

As well as being served by two railway stations the major roads running through the town include the A30 and A37; as well as the A303 which links the rest of the district. Congestion is an issue of concern in Yeovil, with a heavy reliance on private cars for journeys to access work and services. Road congestion has also led to low levels of air quality in parts of the town, which has led to Yeovil being designated as an Air quality Management Area. The Local Authority has identified the need to decarbonise in conjunction with the regeneration of the town to ensure it remains a focal point for economic activity and future sustainable growth. This focal point has been centred around existing links to high tech manufacturing, advanced engineering and continuing to build upon strong historical links to the aeronautical industry. For context Yeovil has 21 times the concentration of employment in aerospace than the national average. Jobs in health and social care also feature prominently. Given these factors, its size and scale of housing supply Yeovil has been deemed a Principal Town in the district.

In terms of housing the South Somerset Plan Review 2016-2036 has identified the need for 5091 to be built. This level of provision is intended to maintain the balance with the town's potential job growth and to support Yeovil as a focus for economic growth in South Somerset. Distribution of the new housing will be spread across the town and town centre (822 and 500 homes respectively); and provision has been made for two Sustainable Urban Extensions (SEU) to the south and north-east of the town. These SEUs will provide:

- Keyford (south area):
  - Approximately 2.58ha of land for economic development
  - Approximately 800 homes
  - One Primary School
  - Health centre

    - Neighbourhood centre (small local shops and businesses to supplement existing retail and commercial offerings in the town centre)
- Mudford (north-east area):
    - Approximately 2.58ha of land for economic development
    - Approximately 756 homes
    - One Primary School
    - Health centre
    - Neighbourhood centre (small local shops and businesses to supplement existing retail and commercial offerings in the town centre)

#### 3.2.3.6 Summary on housing and New Housing Targets

The table below gives the overall totals for proposed new homes for each of the settlements, taken from their respective adopted Neighbourhood or Local Plans.

*Table 3-7: Housing figures based on adopted Local and Neighbourhood Plans*

| Location | Tisbury (Wiltshire) | Gillingham (N. Dorset) | Templecombe (Somerset) | Sherborne (W. Dorset) | Yeovil (Somerset) |
|---|---|---|---|---|---|
| **Number of homes planned** | 420 | 2200 | TBC | TBC | 5091 |

It must be noted that following the Government's new targets for housing set out in NPPF, the numbers above will change to align with the new targets. As already stated, local authorities will undertake a review of their existing proposed housing sites and call for new sites where necessary.

### 3.2.4 BSIPs

Bus Service Improvement Plans (BSIPs) were established in response to the government's 2021 National Bus Strategy: Bus Back Better. A BSIP aims to set out, at a local level, what a Local Authority's vision is to improve bus services through initiatives that:

- Are more attractive for passengers
- Are more affordable
- Are easier to understand and use
- Are faster and more reliable
- Are zero emission

The councils of Dorset, Wiltshire and Somerset all established BSIPs soon after the government's policy publication followed by bids for funding to deliver on their initiatives and plans out to 2030. Local authorities were also responsible for reviewing and updating their BSIPs on a yearly basis to align with Department for Transport guidance, emerging trends; and to ensure that their initiatives remain relevant to local priorities.

A review of the Bus Service Improvement Plans (BSIP) for Dorset, Wiltshire and Somerset have set out the aspirations of the respective Councils and Local Transport authorities (LTAs); the existing context and challenges they face in terms improving bus services for the communities they serve. All three authorities recognised the need to form closer working relationships, through 'Enhanced Partnerships', with the bus operators that served their communities. This has enabled the authorities, local user groups and bus operators to prioritise funding and deliver the best overall outcomes: increasing patronage, delivering service levels, and improving connectivity.

The three authorities also recognised that whilst a number of bus services operate wholly within county boundaries, there are many bus services that operate into neighbouring authority areas. As such there is a need for collaborative working between neighbouring authorities to ensure regional aspirations and deliverables are aligned. To this end, there is representation from the different authorities at each other's Bus Advisory Boards and Forums.

BSIP aims explanation:

- **Integration with other modes** – better integration with other modes including inter-bus transfer, coach, rail, cycling, walking and community volunteer transport. This would improve onward journeys and encourage collaboration between transport providers through co-ordination of timetables
- **Transport decarbonisation** – encouraging modal shift to bus travel; and decarbonising and modernising bus fleets to support the achievement of zero emissions at the tailpipe. A good example of this is the Salisbury Reds bus operator who have committed to reducing their carbon footprint by 75 % by 2035; and achieving Net Zero by 2045. Practical steps have included the operator and Wiltshire County Council securing £11.4m from central government in 2024 to fund 23 new electric buses; and plans to modernise their bus depots to support the new vehicles by 2026
- **Accessible and reliable services** – accessibility improvements not merely on bus vehicles, but also bus stations and stops. Increasing bus priority measures to improve journey times. Improving connectivity for rural communities to reduce isolation and encourage inclusivity for vulnerable people
- **Comfortable network and facilities** – a focus on bus stop design, improved waiting facilities at bus stations; and modernised bus fleets
- **Cost of travel and integrated fares** – facilitating easier travel on different operator's services; working with train operators to add additional "through-fares" from rail stations to destinations not on the rail network; introducing lower and capped fares in key towns; and concessions for young people, families and groups

The BSIPs for each county also revealed common themes across all three in terms of geography, demographics, car ownership and existing bus services. In summary:

- **Geography** – Dorset, Wiltshire and Somerset are predominantly rural in nature with market towns and villages spread across the regions and connected by the rural road networks. The dispersed pattern and distances between these settlements presents a challenge in operating and planning bus services, as there is limited population between the settlements; and no critical mass to provide a robust customer base. Furthermore depending on where residents live within the counties, some will look to out-of-county locations for work, shopping or leisure, as some of these areas are geographically closer to them, rather than within the county

- **Demographics** – when considering demographics for the whole county areas, the population age profile of all three counties is significantly older than the national average for those aged 65+ (19 % as of 2022). In Dorset, for example, 29.6 % of the population is aged 65 and over. The BSIPs also indicate that residents aged 25-59 years old is set to decline over the coming years as this demographic seek opportunities in larger cities. In Wiltshire the Local Authorities forecast a drop of 38 % in that demographic by 2038; and a 36 % increase in over 60s over the same period. As elderly people tend to rely on the bus

services for accessing key services, they will also make use of concessionary travel passes. This in turn risks placing an over-reliance on concessionary income to support services

- **Car ownership** – Latest census data for all three counties shows high levels of private car ownership. Nationally 76.5% of households have one or more cars. In Wiltshire and Somerset 87% of households own at least one car; and in Dorset the figure is 80%. The BSIPs all identify the rural nature of their respective counties, the lack or total absence of regular bus services leading to a perception of public transport being an unattractive option

#### 3.2.4.1 Existing bus services

Focussing on the existing services that link Tisbury to key neighbouring towns, services are operated by Go Coast Way trading as Salisbury Reds. The company serves routes across Wiltshire and Dorset; and is the sole private operator providing services to and from Tisbury. Five routes connect Tisbury with neighbouring towns and villages; the key ones being Salisbury, Winton, Wincanton and Shaftesbury. An illustration of the service provision to and from Tisbury is shown below:

*Figure 3-15: Bus service provision in Tisbury*

| Tisbury services (daily in both directions): | Mon-Fri Services: | Saturday services: | Earliest service arrival at Tisbury (Mon-Fri): | Latest service arrival at Tisbury (Mon-Fri): |
|---|---|---|---|---|
| **25 Salisbury-Wilton-Dinton-Chilmark-Tisbury/Wincanton** | **5** | **2** | 10:36 | 16:20 |
| **26 Gillingham-Hindon-Salisbury, via Tisbury** | **8** | **3** | 07:29 | 14:58 |
| **26A Salisbury-Wilton-Fovant-Tisbury-Hindon** | - | **1** (Sat only, 18:48) | - | - |
| **27 Salisbury-Wilton-Fovant-Tisbury-Shaftesbury** | **2** | - | 17:32 | 18:34 |
| **86 Tisbury-Shaftesbury** | **1** (Thursday only) | - | 09:22 | - |

From the table above it is clear that the existing services are sparce, with some buses only providing 1 or 2 services per week and no services in the evenings beyond 18:34. This demonstrates a clear need to increase patronage in a sustainable way that provides connectivity to employment, services, leisure and retail as set out in the BSIPs.

#### 3.2.4.2 Volunteer Led and On Demand services

Supplementing the existing commercial bus services are those provided by volunteer groups or Council funded buses that cover routes with no provision of a regular bus service. They provide door-to-door wheelchair accessible services for locals trying to access health and basic services, or social gatherings and retail. The services are aimed at those with disabilities that could not otherwise use regular bus or train services; the elderly, parents with young children, students and young people. Users are required to register with the provider and can benefit from concessions such as the English National Concessionary Travel Scheme.

- **Tisbus** – a volunteer led fleet of mini-buses providing door-to-door services and scheduled shopping trips in the Tisbury and Nadder Valley region. Users pay a subscription and can book their seats in advance
- **Slinky Bus** – provided by Somerset Council and also provides a door-to-door service with fares of up to £4.40 for a return journey up to 3 miles; and £5.40 return for journeys over 3 miles. Services cover south Somerset including Yeovil

## 3.3 Case for Change

### 3.3.1 Primary Driver – Performance

Having a railway service that passengers can rely on is a key priority of the rail industry, and both Western Gateway and Peninsula Transport, as noted in their transport strategies. Western Gateway note the priority to '*Improve operational reliability of the network to give confidence in rail as a mode of choice*', whilst Peninsula Transport note and recognise the priority to '*Ensure train services operate when customers need and expect them to, and better manage things when they go wrong*'.

The reliability of the railway is often cited as a key barrier to increasing mode share and maintain confidence of existing customers. Transport Focus identify the metric of satisfaction with punctuality and reliability of rail as the most important driver of overall satisfaction.

The section is currently running at around 88 % of its maximum capacity, 80 % is normally considered the highest level for robust operation. The capacity used is determined by the time take for the trains to traverse the single line section in both directions, including the dwell times at stations, along with the margin required between the trains at either end of the section. 88 % capacity used leaves 7 minutes in the hour free to absorb late running and recover the train service. Extending Tisbury loop to include the station would remove to time to travel from the loop to the station and the dwell time at the station for the single line boosting the ability of the line to recover by around 50 %.

Performance on the West of England Line often suffers due to the infrastructure constraints that exist upon this route, including:

- Large amounts of single line sections, with limited passing loops.
- Line speed restrictions due to topography and gradients

Whilst some of these infrastructure limitations may be overcome through proposals outlined in this business case, at present they can contribute to performance issues. Nationally, the West of England Line is the worst performing single line section on the network, caused, in terms of reactionary delay minutes.

An evaluation of the capacity used on the key West of England Line sections is shown in the table below. This highlights the section between Axminster and Pinhoe as the most constrained followed by the Tisbury Loop to Templecombe section.

*Table 3-8: Capacity used on key West of England Line route sections*

| | | | Median Subthreshold Delays | | Journey Time | | Junction Margins | | Total | Free | Capacity Used | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start | End | Stations | Normal | Autumn | Up | Down | Start | End | Planned | Capacity | Planned | Normal | Autumn |
| Tisbury Loop | Templecombe | 3 | - 1/2 | 1 1/2 | 24.5 | 20.5 | 4 | 4 | 53 | 7 | 88% | 88% | 91% |
| Yeovil Jn | Axminster | 1 | 0 | 1 | 19 | 20.5 | 1 | 2.5 | 43 | 17 | 72% | 72% | 73% |
| Axminster | Pinhoe | 2 | 0 | 1 1/2 | 27.5 | 26.5 | 2.5 | 1 | 57.5 | 2.5 | 96% | 96% | 98% |

The top two locations that caused the most congestion nationally in June 2024, in terms of the percentage of trains less than three minutes late ('Time to 3'), were Salisbury to Gillingham (Dorset) and Pinhoe, which are both on the West of England line. These locations had almost 100 more congestion events than the next locations and both had over 5000 delay minutes. The most affected flows are the Exeter St Davids to London Waterloo and the London Waterloo to the Exeter St Davids (which affect each other). With performance generally decreasing on the Exeter to London Waterloo services after Pinhoe (shown in the following graph).

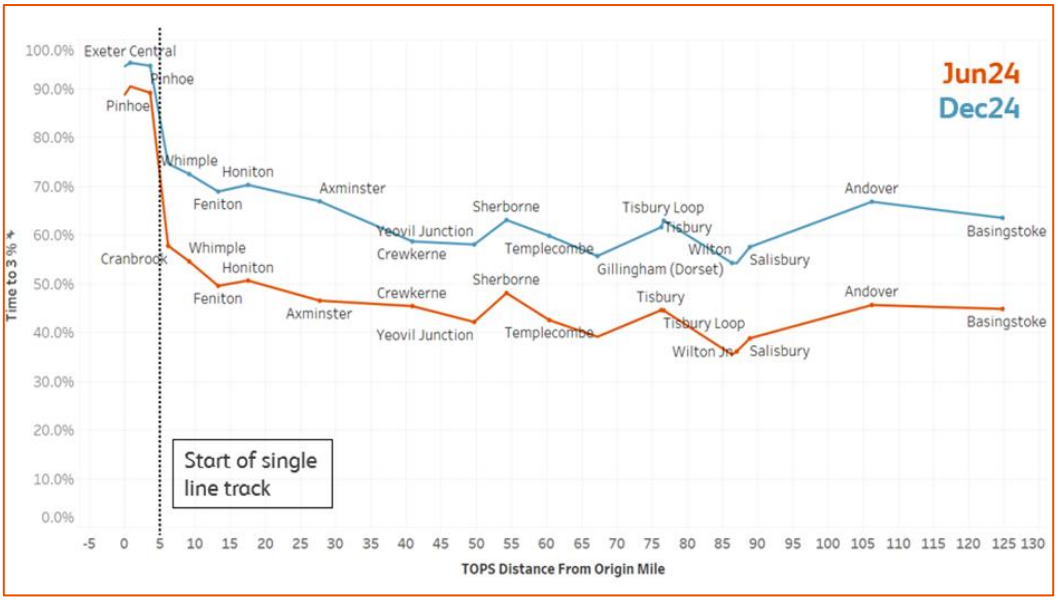



*Figure 3-16: Time to 3 performance metric, Exeter Central to Basingstoke, June 2024 vs. Dec 2024*

The biggest drop for the Exeter to London Waterloo services happens between Pinhoe and Cranbrook, when the line goes down to single line track. The distance between Pinhoe and Cranbrook is 2.6 miles, and the 'time to 3' % drop over that distance was 31.4 % in Jun24 (from 89.2 % to 57.8 % ) and 20.1 % in Dec24 (from 94.7 % to 74.6 % ). These drops in performance after Pinhoe contribute to over 60 % of the overall drop over the section in both timetables.

Whilst in the opposite direction on the Waterloo to Exeter services, performance generally decreases after the Tisbury Loop (shown in following graph).

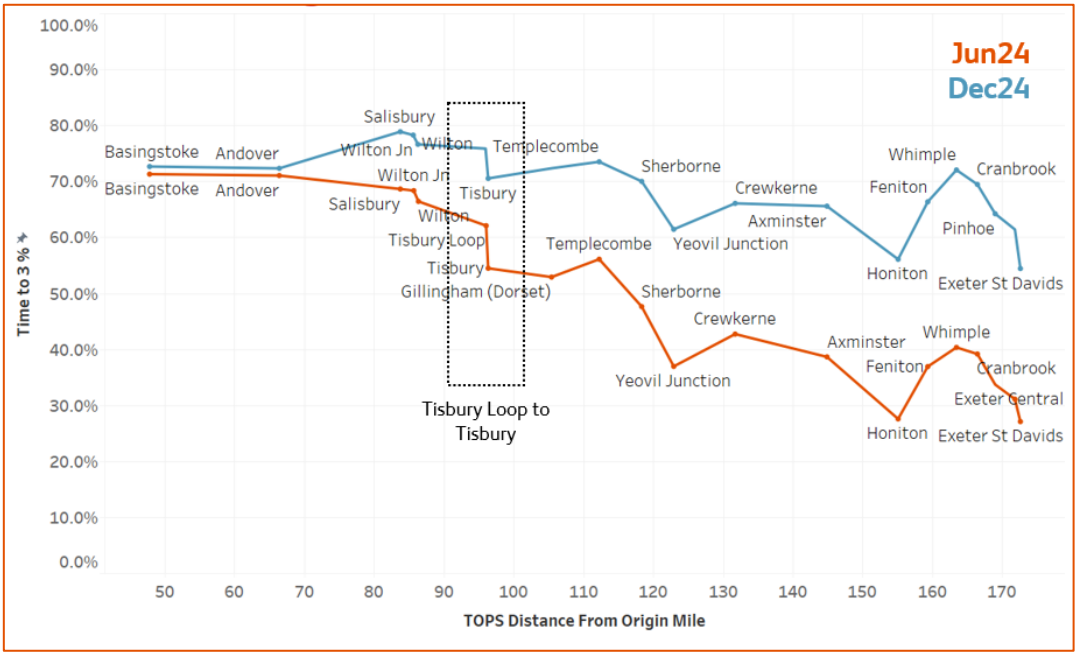



*Figure 3-17: Time to 3 performance metric, Basingstoke to Exeter Central, June 2024 vs. Dec 2024*

In both timetables, the biggest drop between Salisbury and Gillingham (Dorset) happens between the Tisbury Loop and Tisbury, with both dropping by over 5 % . The distance between the two

locations is less than 0.5 miles. The other decreases that occur for these services are larger than the drop at Tisbury (in Dec24 the drop between Templecombe and Yeovil Junction was 12 % and between Axminster and Honiton was 9.5 % ) however these drops happen over a much greater distance ( > 10 miles).

In the June 2024 timetable, these flows caused the most congestion delay minutes nationally. They had over 1200 congestion events, where the next biggest flow to flow pair had 673. The number of delay minutes attributed to these flow-to-flow pairs in June 24 was over double the next highest pair, and these delay minutes are equivalent to over 5 days of delay on these services (7760mins is around 5.4 days and 9248mins is around 6.4 days).

In the December 2024, Pinhoe and Salisbury to Gillingham (Dorset) were no longer the top two locations that are causing the most congestion, however, they were still in the top five. Pinhoe has the highest number of delay minutes in December 24, with over 180 more minutes (3 hours) than the next highest.

The train flows causing the most congestion in December 24 timetable are still Exeter St. David's to London Waterloo and London Waterloo to Exeter St. David's (which are impacting each other), both having over 1000 more delay minutes than the next flow-to-flow pair.

The graph below shows the planned path of the train along with the actual path the train achieved. A narrow band as seen at the start of the day indicates good performance, a wider band indicates significant variability and days of poor performance with a gap between the lines indicating that the planned path was not achieved within the period of the analysis.

As previously stated, Axminster to Pinhoe is the most capacity constrained section of the West of England Line, with Tisbury Loop to Templecombe the next most constrained. However, because of the single line sections they interact with each other to amplify delays. If either of the single-track sections were removed the delays would pass relatively peacefully out of the West of England Line.

The combination of the two constraints keeps the delays bouncing back and forth along the system. Improvements at Tisbury could have the most impact on mitigating delays flowing to and from London Waterloo. The graph below shows delays bouncing back and forth and growing on the various single line sections of the West of England line as the day progresses. The extension of Tisbury would build additional resilience and better enable the West of England line to recover from delays.

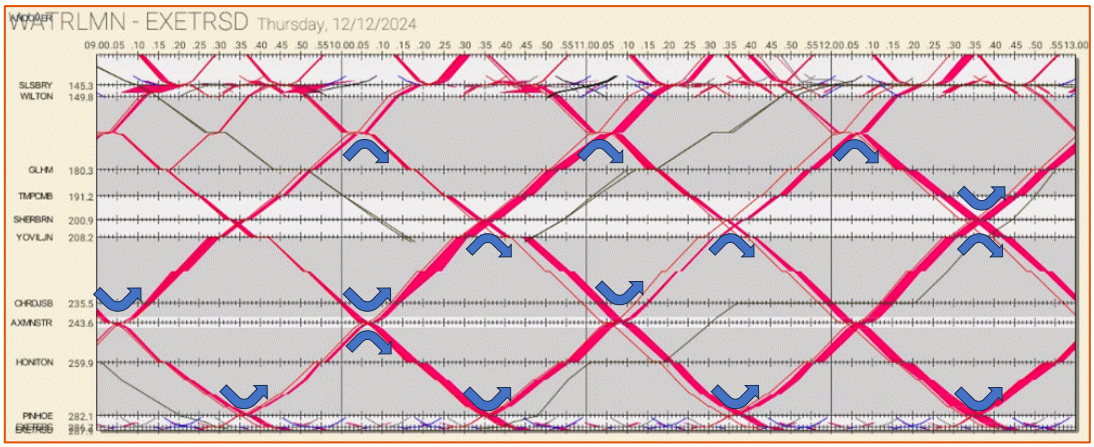



*Figure 3-18: Train Graph showing how poor performance grows throughout the morning*

Network Rail's Southern Region have recently started deploying a new performance analysis tool to better understand how sub-threshold delays form and how low-level reactionary delays pass around the network. There is currently a limited resource pool able to use these tools and these resources are currently being deployed to support the development of a robust timetable for the SWML timetable recast and focussed on performance issues relating to other areas of the Southern Region.

National resources are focussed, for the near future, on the East Coast Main Line timetable change being introduced in December 2025. It is hoped that by the time further development of the Tisbury Loop scheme is underway the analytical capability will be available to accurately quantify the potential benefits set out below.

Delays spread from the West of England to the wider network causing further reactionary delays on their journey to London Waterloo.

There are three key areas of interaction:

1. **Woking**

   The West of England Line service is followed through Woking by the Weymouth service, this in turn is followed by the service from Portsmouth Harbour which crosses Woking Junction prior to the fast service to Weymouth.

   The signalling at Woking is very restrictive which leads to the high levels of reactionary delay seen in the area. To avoid coming into Woking on approach control the service from Weymouth needs an unrestricted run into the platform. The signalling is more restrictive in the down direction with the service to Weymouth need to have the route set all the way through Woking as far as Woking Junction to avoid getting approach controlled on the approach to Woking and passing through the station at half the speed it is planned to pass at; this makes it particularly vulnerable to any delays impacting the crossing move from Guildford.

   This interaction results in delays from the West or England travelling down towards Southampton Central, impacting both freight and Cross-Country services on the section from Worting Junction towards Southampton Central.

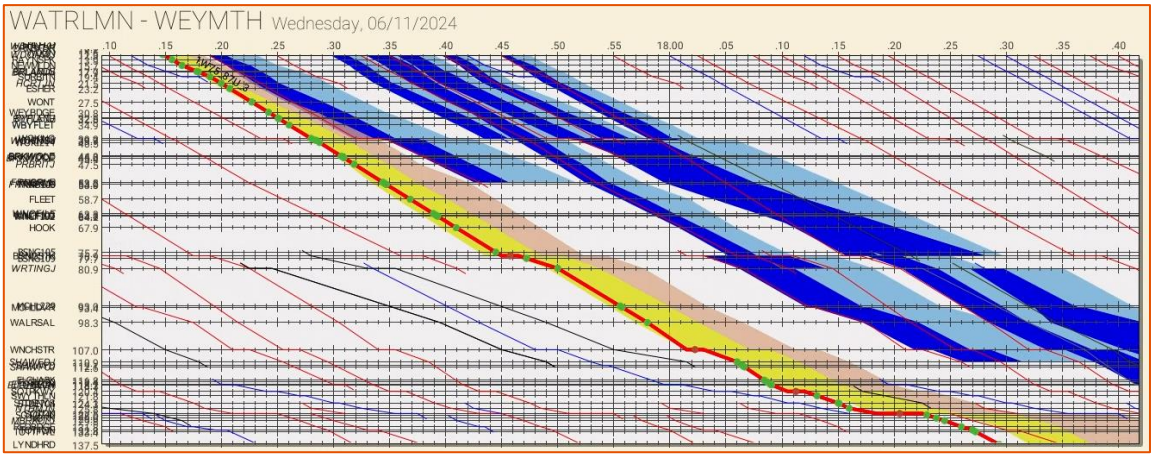



*Figure 3-19: Train Graph showing delay experienced by services to Weymouth*

These then impact on the Great Western services crossing at St. Denys with delays spreading along the south coast via the Govia Thameslink Railway (GTR) services between Southampton Central and Brighton, as can be seen by the thickening of the line in the following train graph.

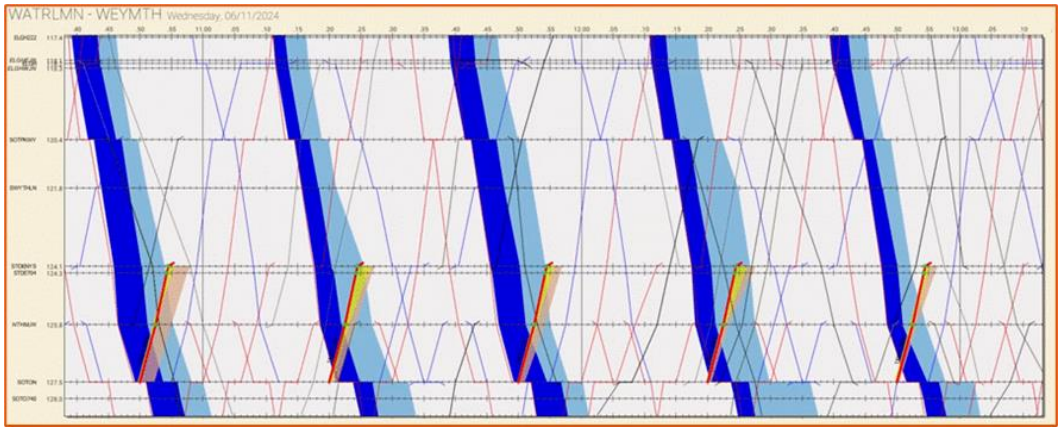



*Figure 3-20: Train Graph showing delay experienced by services between Southampton and St Denys*

These delays spread to other services along the south coast, as can seen below.

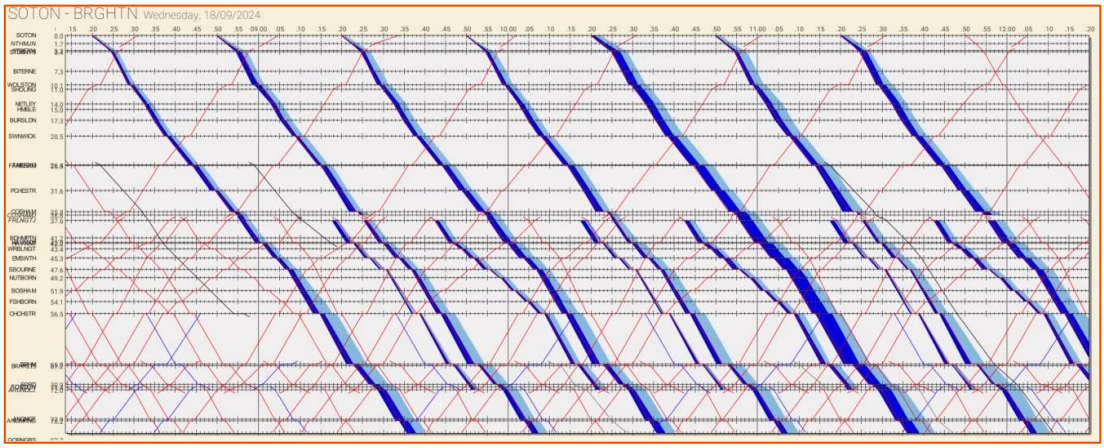



*Figure 3-21:Train Graph showing delay experienced by services between Southampton and Brighton*

The Littlehampton services run at the front of a flight of six trains up the Brighton Main Line to London Victoria and London Bridge then through the Thameslink Core.

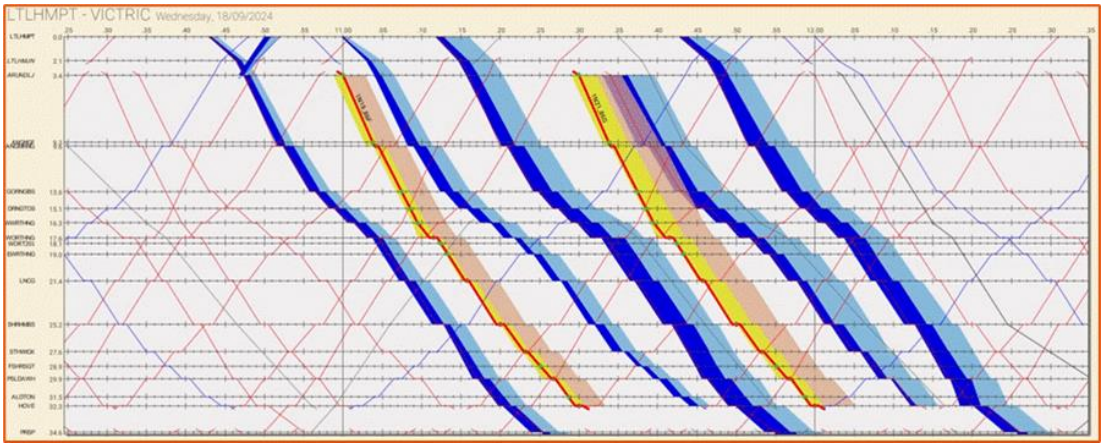



*Figure 3-22:Train Graph showing delay experienced by services between Littlehampton to Hove*

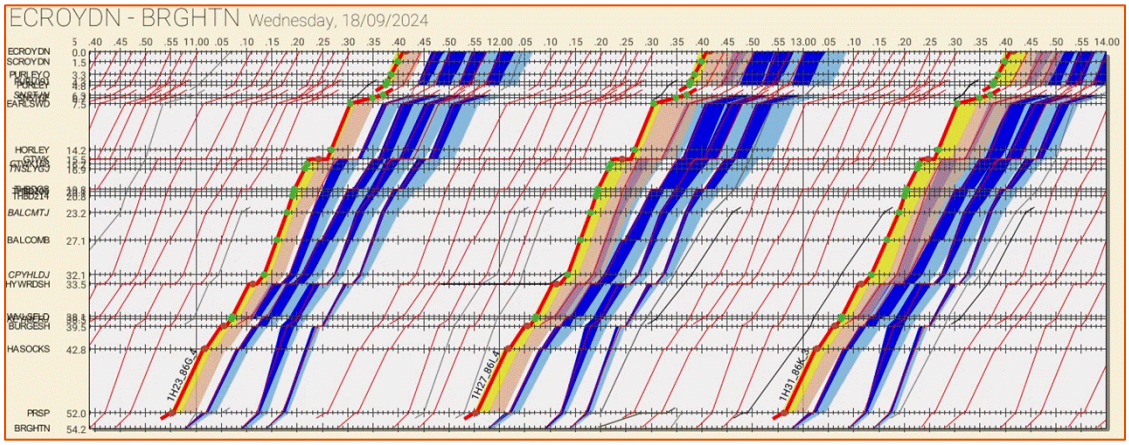
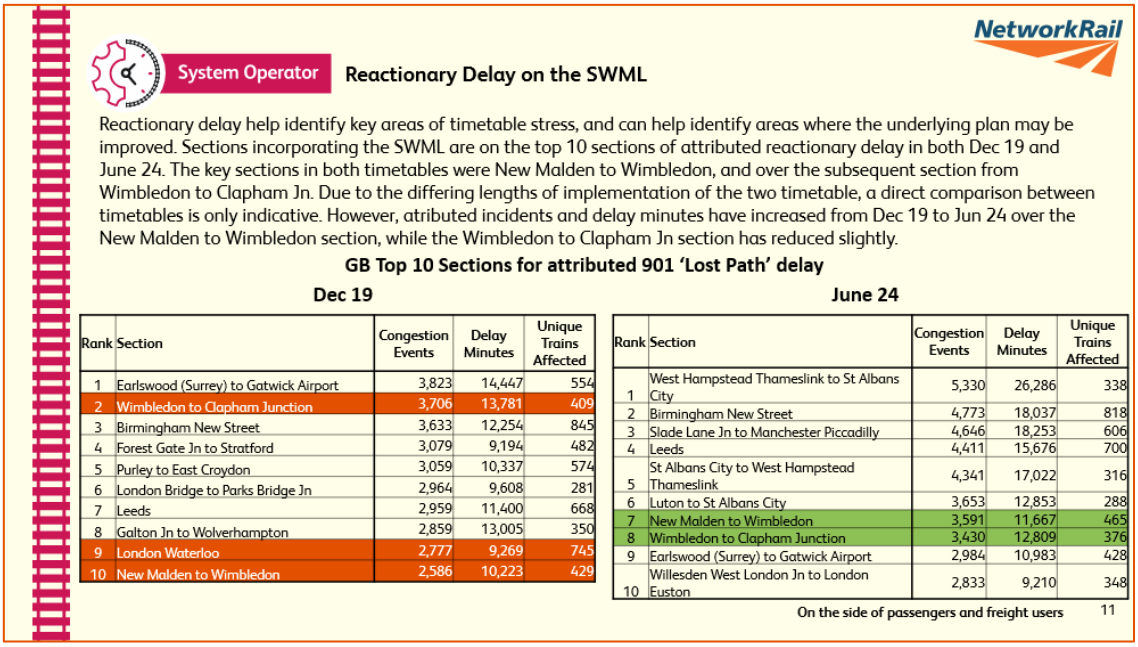



*Figure 3-23: Train Graph showing delay experienced by services between Brighton and East Croydon*

## 2. Woking to Waterloo

Performance analysis conducted by System Operator highlighted the sections from New Malden to Wimbledon and from Wimbledon to Clapham Junction were in the top 10 worst performing sections nationally for reactionary delay.



System Operator **Reactionary Delay on the SWML**

Reactionary delay help identify key areas of timetable stress, and can help identify areas where the underlying plan may be improved. Sections incorporating the SWML are on the top 10 sections of attributed reactionary delay in both Dec 19 and June 24. The key sections in both timetables were New Malden to Wimbledon, and over the subsequent section from Wimbledon to Clapham Jn. Due to the differing lengths of implementation of the two timetable, a direct comparison between timetables is only indicative. However, atributed incidents and delay minutes have increased from Dec 19 to Jun 24 over the New Malden to Wimbledon section, while the Wimbledon to Clapham Jn section has reduced slightly.

**GB Top 10 Sections for attributed 901 'Lost Path' delay**

**Dec 19**

| Rank | Section | Congestion Events | Delay Minutes | Unique Trains Affected |
|---|---|---|---|---|
| 1 | Earlswood (Surrey) to Gatwick Airport | 3,823 | 14,447 | 554 |
| 2 | Wimbledon to Clapham Junction | 3,706 | 13,781 | 409 |
| 3 | Birmingham New Street | 3,633 | 12,254 | 845 |
| 4 | Forest Gate Jn to Stratford | 3,079 | 9,194 | 482 |
| 5 | Purley to East Croydon | 3,059 | 10,337 | 574 |
| 6 | London Bridge to Parks Bridge Jn | 2,964 | 9,608 | 281 |
| 7 | Leeds | 2,959 | 11,400 | 668 |
| 8 | Galton Jn to Wolverhampton | 2,859 | 13,005 | 350 |
| 9 | London Waterloo | 2,777 | 9,269 | 745 |
| 10 | New Malden to Wimbledon | 2,586 | 10,223 | 429 |

**June 24**

| Rank | Section | Congestion Events | Delay Minutes | Unique Trains Affected |
|---|---|---|---|---|
| 1 | West Hampstead Thameslink to St Albans City | 5,330 | 26,286 | 338 |
| 2 | Birmingham New Street | 4,773 | 18,037 | 818 |
| 3 | Slade Lane Jn to Manchester Piccadilly | 4,646 | 18,253 | 606 |
| 4 | Leeds | 4,411 | 15,676 | 700 |
| 5 | St Albans City to West Hampstead Thameslink | 4,341 | 17,022 | 316 |
| 6 | Luton to St Albans City | 3,653 | 12,853 | 288 |
| 7 | New Malden to Wimbledon | 3,591 | 11,667 | 465 |
| 8 | Wimbledon to Clapham Junction | 3,430 | 12,809 | 376 |
| 9 | Earlswood (Surrey) to Gatwick Airport | 2,984 | 10,983 | 428 |
| 10 | Willesden West London Jn to London Euston | 2,833 | 9,210 | 348 |

On the side of passengers and freight users 11

*Figure 3-24: Slide showing the reactionary delay experienced on the SWML*

For the New Malden to Wimbledon section the service pairs which interacted with each other most are shown in the table below. The chain of delay starts with the West of England which then spreads delays back on to the following Weymouth, Portsmouth and Alton services. In the timetable period analysed this accounted for around 4,000 minutes of attributed delay. This is shown in the following table.

*Table 3-9: Reactionary delay caused by a West of England Line train between New Malden and Wimbledon*

| Rank | Reactionary Pair | Congestion Events | Delay Minutes | Unique Trains Affected |
|---|---|---|---|---|
| 1 | 1A - Alton to London Waterloo >>> 1P - Portsmouth Harbour to London Waterloo | 288 | 1086 | 35 |
| 2 | 1W - Weymouth to Waterloo >>> 1P Portsmouth Harbour to London Waterloo | 163 | 635 | 31 |
| 3 | 2J - Hampton Court to London Waterloo >>> 2H - Shepperton to London Waterloo | 160 | 497 | 27 |
| 4 | 1L - Exeter St Davids to London Waterloo >>> 1W - Weymouth to London Waterloo | 158 | 519 | 26 |
| 5 | 1P - Portsmouth Harbour to London Waterloo >>> 1A- Alton to London Waterloo | 128 | 486 | 34 |
| 6 | 1W - Weymouth to Waterloo >>> 1A - Alton to London Waterloo | 108 | 367 | 28 |
| 7 | 1P - Portsmouth Harbour to London Waterloo >>> 2L - Basingstoke to London Waterloo | 94 | 381 | 20 |
| 8 | 1A - Alton to London Waterloo >>> 1W - Weymouth to Waterloo | 83 | 325 | 34 |
| 9 | 2L Basingstoke to London Waterloo >>> 1T - Portsmouth Harbour to London Waterloo | 69 | 263 | 11 |
| 10 | 1W - Weymouth to London Waterloo >>> 2L Basingstoke to London Waterloo | 68 | 270 | 18 |

The slide below shows how the performance of SWR compares to other operators nationally and breaks the performance into individual service groups. The poorest performing services groups have direct interactions with the West of England services.

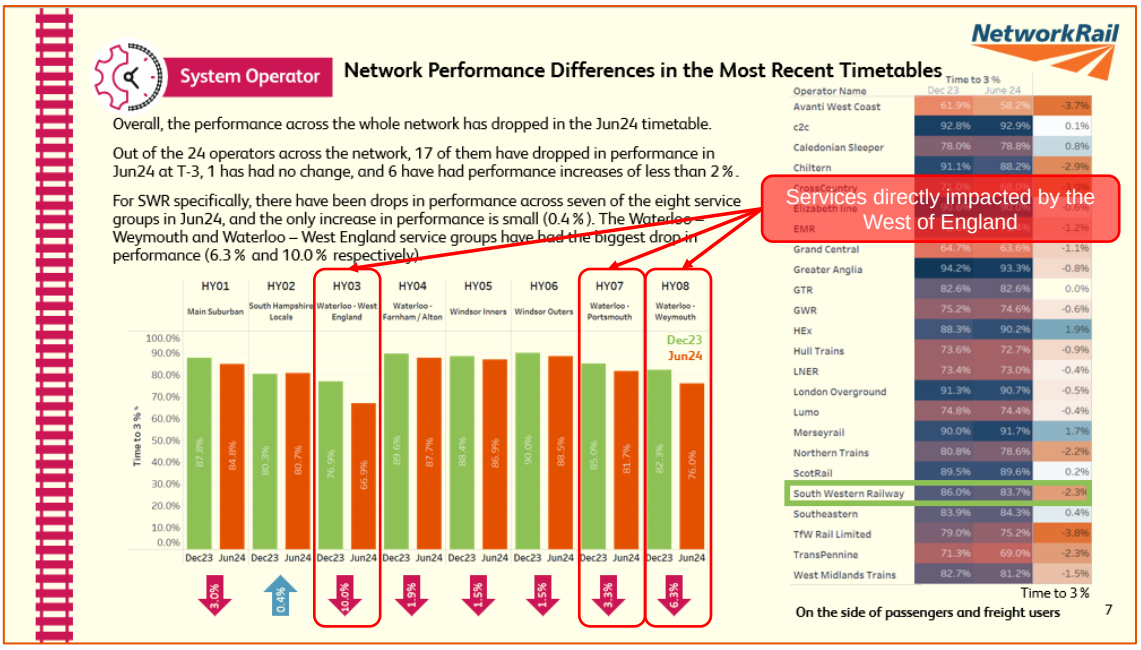



*Figure 3-25: Slide showing SWR performance in comparison to other TOCs and the key services groups impacted*

## 3. London Waterloo

The graph below shows how the level of lateness growing on the West of England Line impacts arrivals into London Waterloo during the evening peak. The 1645 West of England (1L52) arrival causes disruption to London Waterloo arrivals for around 20 minutes with the 1745 arrival causing disruption to subsequent arrivals for around 60 minutes.

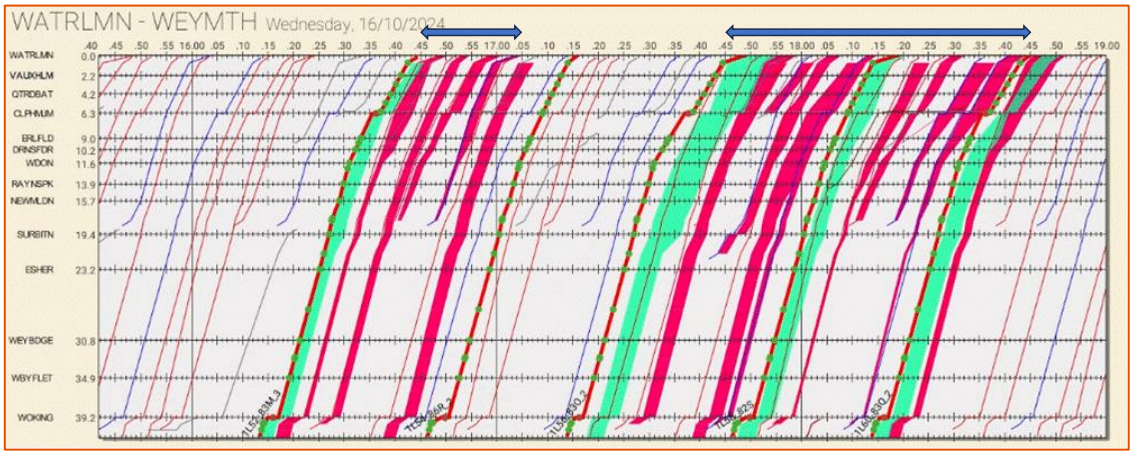



*Figure 3-26: Train Graph showing delay experienced by services between London Waterloo and Woking*

This level of lateness arriving at London Waterloo delays peak departures resulting in wider disruption to the service. The 1745 arrival results in the next five departures from London Waterloo leaving late.

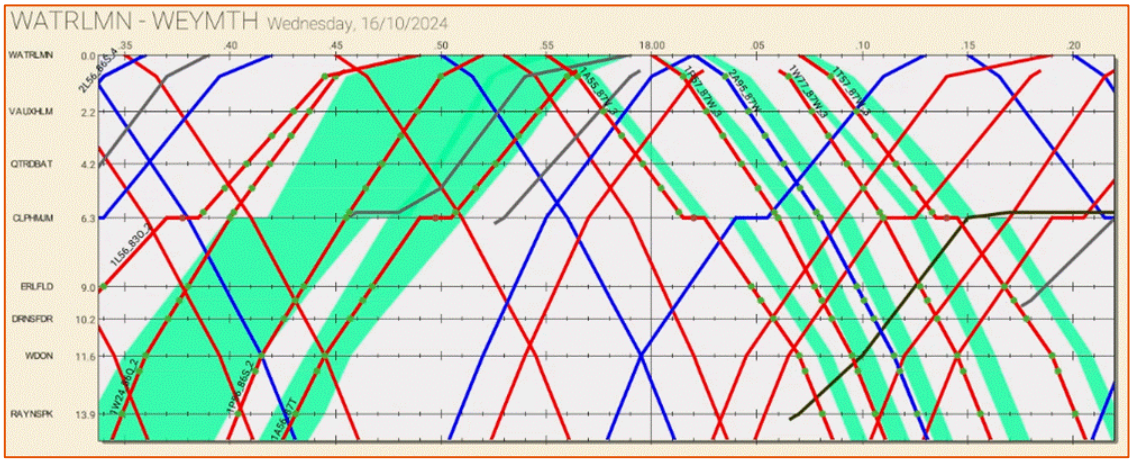



*Figure 3-27: Train Graph showing delay experienced by services between London Waterloo and Raynes Park*

Infrastructure should not be designed to meet only one possible timetable, to ensure that Tisbury Loop is a benefit in the event of a change in the timetable structure the following assessment has been conducted against known potential changes and aspirations.

#### 3.3.1.1 SWML timetable recast

The current version of the SWML timetable recast fundamentally changes the timetable structure of the West of England Line; moving the passing point from Tisbury Loop to Gillingham. The services also have an extended dwell time of around 10 minutes to build recover into the West of England Line.

In this scenario a moderately late running down service (over 5 minutes) could be held at Tisbury Loop to enable the train to London Waterloo to run right time. On the existing configuration for Tisbury Loop the service from London Waterloo would be running around 12 minutes late and not recover the lateness in the extended dwell time at Yeovil Junction. This would then delay the next service to London Waterloo when they pass at Yeovil Junction and maintain the spiral of reactionary delays on the London end of the West of England Line. The extension of Tisbury Loop would provide the additional recovery into the system that in conjunction with the extended dwell time at Yeovil Junction to return the West of England Line to right time operation.

This means that even with changes to the timetable an extension of the Tisbury Loop would still have performance benefit and allow service recovery to be improved.

#### 3.3.1.2 Devon Metro

The Devon Metro scheme will increase the frequency on the western end of the West of England Line between Exeter St. David's and Axminster and provide additional passing loops on this section of route.

A train graph of the development timetable is shown below. An area of performance risk in the timetable is the eight-minute turnround at Axminster for the shuttle service, it is expected that the service will be able to recover up to four minutes in the turnround.

Any lateness imported on to the shuttle above this level will result in the shuttle delaying further services on the West of England Line. The extension of the Tisbury Loop will increase the resilience of the train service on the West of England Line and reduce the level of lateness the Devon Metro would need to absorb to provide a resilient service.

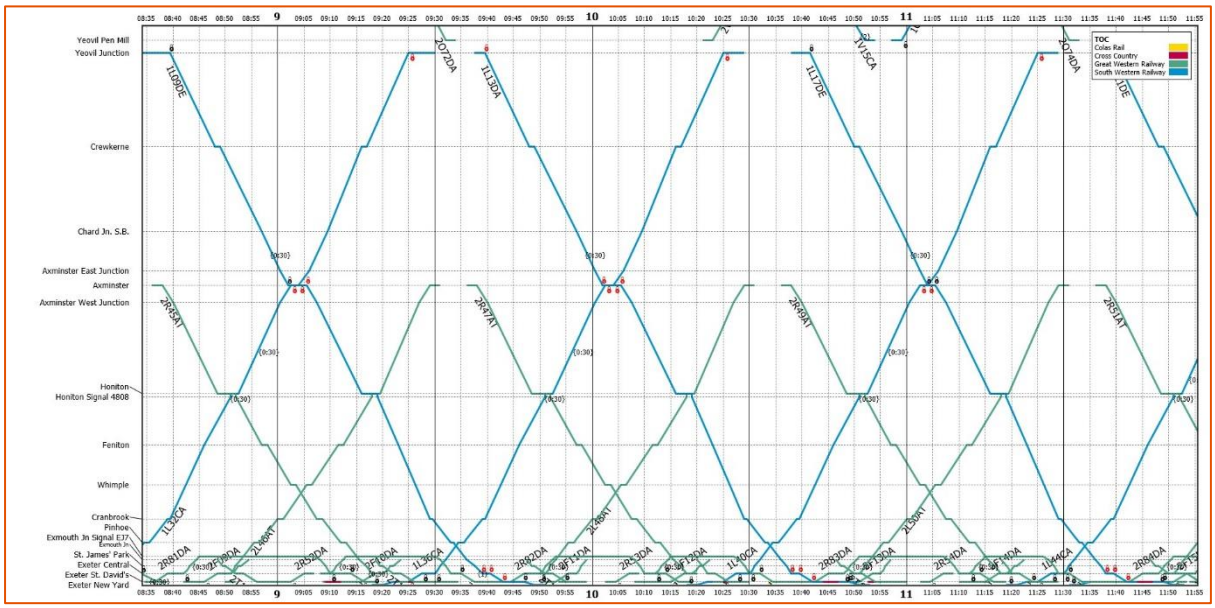



*Figure 3-28: Train Graph of the Devon Metro development timetable*

The Tisbury Loop extension can recover around two minutes of late running in either direction; a significant portion of the time recovered is when the train is stationary as the dwell time at Tisbury has been moved off the single line section.

### 3.3.2 Secondary Driver – Productivity

Over the long term, the sustainable economic growth of regional economies is recognised to be driven by increasing productivity. Investing in infrastructure to increase productivity is therefore a key objective of central Government and has driven much of the investment in the rail industry in the past twenty years.[2]

Many of the barriers to improved productivity have been identified as spatial. For instance:

- Economic activities take place in one place (which enables greater specialisation)
- People that have the right skills tend to live in another area (for a variety of economic, social and environmental reasons)

This means that rail can provide a key role in supporting economic growth by connecting business-to business and business-to-people.

Enabling employers and businesses to gain access to each other and to a wide pool of labour, is essential to higher productivity.

There are three measures of connectivity to business and employment centres:[3]

1. Access to businesses for other businesses which relates to agglomeration resulting from clustering of economic activities and knowledge spill over between sectors
2. Access to labour supply for businesses and increasing labour productivity by reducing the cost of reaching a larger pool of labour
3. Access to employment of a working age population

Office for National Statistics (ONS) data for '[Productivity in towns and travel to work areas, UK: 2019]' makes some key points about productivity:

- The most productive Travel to Work Areas (TTWAs) are mainly located on well-connected transport routes in the south of England, in particular motorway and rail routes heading to and from London, with a large town or small city as a focal point
- Labour productivity is lowest in rural TTWAs or those with only small towns in relatively isolated locations such as coastal areas
- Rail transport facilitates economic clustering by connecting businesses and workers across regions
- Rail reduces reliance on road transport, helping to ease congestion and improve reliability of travel times, which is crucial for business efficiency

[2] Guidance on capturing the benefits of rail transport proposals, Better Value Rail Toolkit
[3] Guidance on capturing the benefits of rail transport proposals, Better Value Rail Toolkit


Transport can increase productivity of an area in three ways:

- By reducing transport costs and thereby improving accessibility around and between jobs. This, in effect, brings firms closer together. This is described as a 'proximity effect'
- Where transport investment changes the scale or location of employment in an area or between areas. This is termed a 'cluster effect' whereby the change in the number of jobs in an area directly affects the 'effective density'
- By facilitating new jobs through more direct links (e.g. linkages to new business parks, rather than time savings between established locations), where encouraging new business activity (inward investment) to the area will increase the density of activity, and as a result productivity benefits will accrue[4]

This highlights that improvements to rail services within the scope area of this SOBC have the potential to positively impact the economic productivity of Dorset, BCP and Hampshire, as well as contributing to national productivity.

*Figure 3-29: Transport and the economy, Transport for the SE*

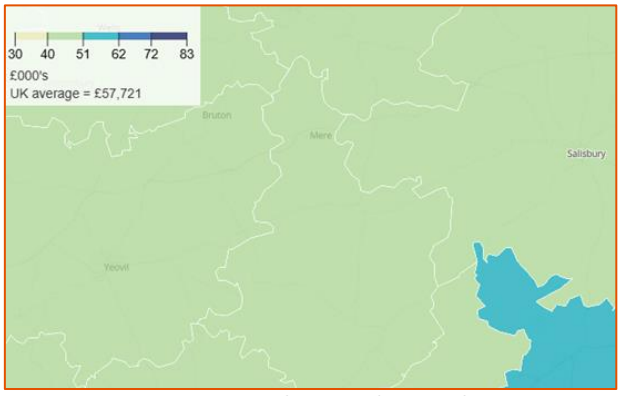



*Figure 3-30: GVA by Travel to Work Area*

The ONS's GVA by TTWA tool (TTWA – Travel to Work Area) highlights, in light green, that whilst Gross Value Add by job filled is not the lowest in the country across the scope area, it is within the lower brackets.

Western Gateway STB recognises transport as a critical driver of economic growth with previous analysis having identified that transport initiatives in the wider West of England region could create 20,000 jobs and contribute £1.2 billion in additional GVA annually by 2030.

### 3.3.2.1 Generalised Journey Time (GJT)

One aspect of providing the well-connected transport links noted by the ONS as an essential contributor to productivity is improved journey times. In rail, a measure that exists to reflect the journey time experience of a customer is Generalised Journey Times (GJT). GJT captures, in one single measure, rail journey time, frequency (the interval between trains) and interchange (the inconvenience associated with changing trains to complete a journey).

[4] https://transportforthesoutheast.org.uk/app/uploads/2020/10/FINAL-Economic-Connectivity-Review.pdf

Improving GJT through increased service frequency enables rail to present a more attractive and competitive transport mode. This, in turn, works to promote modal shift and supports business and commuter travellers to be more productive by minimising the disruption that travel has on the working day.

The following 'decay curve' shows how the willingness to travel varies by journey purpose, and how GJT can impact that willingness to travel (**not** West of England Line specific).

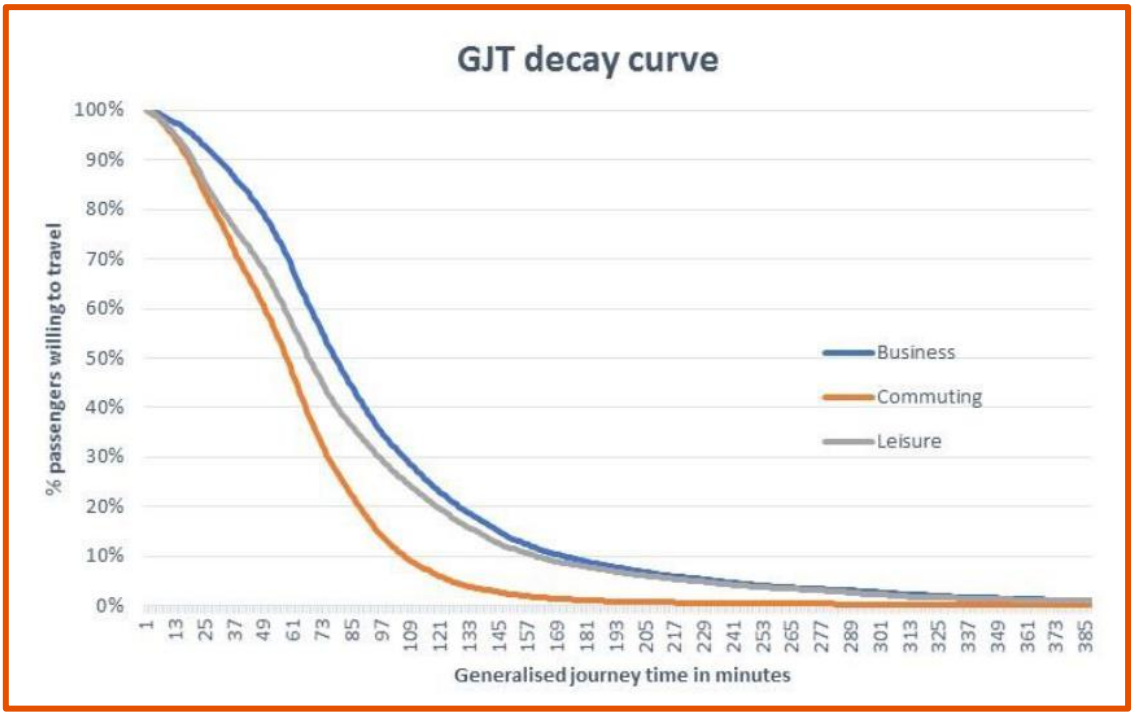



*Figure 3-31: GJT Decay Curve, Better Value Rail Toolkit*[5]

When a steep decay curve for commuting is shown, this suggests that a journey time is low, and therefore a large proportion of people are willing to commute by rail. As journey time increases, the result is a smaller number of people being willing to commute by rail. It falls very sharply when the generalised journey time is above 50 minutes or so.

### 3.3.3 Secondary Driver – Connectivity

In the context of connectivity as a driver for change, improvements to this would have a beneficial impact on the communities living along the route and wider region. This has been made clear in the Western Gateway and Peninsula Transport objectives.

Improving connectivity is also a focal point of the Bus Service Improvement Plans for Dorset, Wiltshire and Somerset. One example of existing connectivity issues is that of inter-modal change at Tisbury between train and local bus services. For example the earliest bus service (No. 26 bus) that serves Tisbury during the week is a 07:20 service from Hindon, arriving in Tisbury at 07:29; and terminating at Swallowcliffe. Passengers trying to make an onward connection by train in the direction of Exeter must wait until 07:58 for the train service. Thereafter the next bus arrival into Tisbury is just over a 90 minute wait, meaning that connectivity is poor and impractical. Additionally there is only one service (the 27 bus) that stops outside the station.

[5] Guidance on capturing the benefits of rail transport proposals, Better Value Rail Toolkit (Appendix C.01)

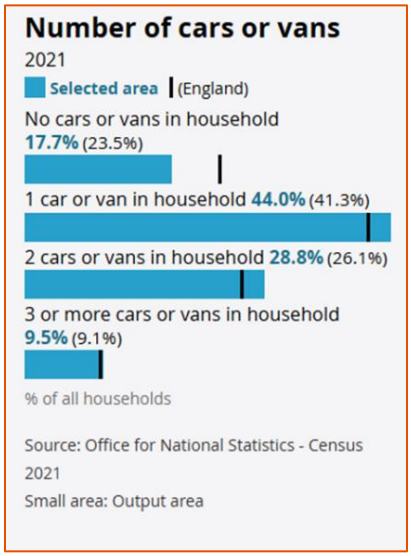



*Figure 3-32: Number of cars and vans in illustrative rail corridor, ONS*

Private car ownership within the towns and wider counties is relatively high compared to the national average, as highlighted in the Bus Service Improvement Plans that were explored earlier in this study. The irregular timetables and infrequency of bus services means that a reliance on private cars is inevitable, leading to the road traffic congestion on rural roads and consequent vehicle emissions.

Both Western Gateway and Peninsula Transport and the BSIPs for Dorset, Wiltshire and Somerset are aligned in making clear the need to encourage the modal shift away from private car ownership to rail and bus. Delivering on the common aims of the BSIPS namely: integration with other modes, accessible and reliable services, comfortable network and facilities, affordable and integrated fares; and decarbonisation would contribute directly to improved connectivity for the communities in question.

#### 3.3.3.1 Travel to Work

Despite being a largely rural area, in the main settlements along the scope area, as shown above, some 17.7 % have no cars within their household. This is despite 59 % of the population being in employment, almost all of the working-age population within the selected LSOAs.

Improving connectivity for travelling to work by rail not only has a connectivity benefit in its own right, but also feeds into productivity benefits as highlighted previously.

There are significant employment sites at both Salisbury and Yeovil with both settlements having large hospitality and industrial sectors. At Yeovil, for example, in addition to the retail and hospitality employment associated with the town's high street, the largest employer is Leonardo Helicopters. The company employs around 3,300 jobs at its factory in Yeovil[6] where it designs, builds, and tests its helicopters. Other significant sectors of employment in the area include health, education, and the military. There are several business and trading parks around Yeovil.

In the Salisbury area, the main employer is the Ministry of Defence given the number of large military sites in the surrounding Salisbury Plain. However, Salisbury also contains a significant draw for employment with its popular city centre shopping and leisure provision, as well as large industrial employment site at Churchfields.

Other employers of note in the area include Thales whose office in Templecombe provides a home for the company's Maritime and Air Operations businesses and employs over 750 people[7]. There is also a significant business park site to the south of Gillingham station.

[6] Exports, investment and growth in the South West at the Home of British Helicopters - The Great South West
[7] https://www.thalesgroup.com

*Table 3-10: AM arrivals and PM departures from stations on the West of England Line for commuting*

| | AM Arrivals | | PM Departures | |
|---|---|---|---|---|
| | From Exeter | From London | Towards Exeter | Towards London |
| **Yeovil Junction** | 06:53, 07:44, 08:25, 09:29 | 07:03***, 08:32***, 09:38 | 15:38, 16:38, 17:38 | 15:29*, 16:29, 17:29 |
| **Sherborne** | 06:26, 07:00, 07:26^, 07:56, 08:35, 09:35 | 06:05**, 06:57***, 08:26***, 09:32 | 15:32, 16:33, 17:32, 18:07* | 15:35*, 16:35, 17:36 |
| **Templecombe** | 06:04^, 06:34, 07:08, 07:34^, 08:04, 08:43, 09:44 | 06:50***, 08:19***, 09:25 | 15:25, 16:25, 17:25, 17:59* | 15:43*, 16:43, 17:44 |
| **Gillingham** | 06:11^, 06:41, 07:15, 07:42^, 08:11, 08:50, 09:51 | 06:39***, 08:08***, 08:37, 09:16 | 15:16, 16:18, 17:17, 17:52* | 15:51*, 16:18**, 16:51, 17:52* |
| **Tisbury** | 06:22^, 06:52, 07:26, 07:53^, 08:22, 09:01, 09:28**, 10:02 | 06:28***, 07:57***, 08:26**, 09:06, 10:06 | 15:06, 15:39**, 16:07, 17:06, 17:37*, 18:09 | 15:01, 16:02*, 16:28**, 17:01, 18:02 |
| **Salisbury** | 06:01*, 06:39^, 07:07, 07:41, 08:08^, 08:37, 09:17, 09:43** | 08:06**, 08:43, 09:20^, 09:45 | 15:25**, 15:47, 16:47, 17:23*, 17:54 | 15:21, 15:47***, 16:21, 16:47**, 17:21, 17:47*** |

* Yeovil Junction Starter/Terminator
** Gillingham Starter/Terminator
*** Salisbury Starter/Terminator
^Yeovil Pen Mill Starter/Terminator

The arrivals and departures of services along the corridor noted in the table above show some of the challenges people face in accessing employment by rail. At Yeovil Junction, Sherborne, Templecombe, Gillingham, and Tisbury for example, passengers are faced with a roughly 90-minute gap in services from the London direction. The next service that does arrive is a Salisbury-starting service meaning that for anyone wishing to access employment in Templecombe, but travelling from east of Salisbury, they must interchange at Salisbury or drive to work.

It is also worth noting that Yeovil Junction is not located within the urban area of Yeovil and therefore those people travelling by rail will be required to use another mode to continue their journey to work.

#### 3.3.3.2 Education

Roughly 22 % population selected along the corridor are aged between 5 and 24, however only 17.8 % of the population are in full-time education. Only 32 % of residents along the corridor have received Level 4 qualifications or above. There are several schools situated along the route, mostly within the larger areas of Salisbury, Yeovil, and Gillingham. Sherborne also hosts the famous Sherborne school, a prestigious boarding and day boys' school which proves a draw for children and families from across the local and wider area.

*Table 3-11: AM arrivals and PM departures from stations on the West of England Line for education*

| | AM Arrivals | | PM Departures | |
|---|---|---|---|---|
| | From Exeter | From London | Towards Exeter | Towards London |
| **Yeovil Junction** | 06:53, 07:44, 08:25, 09:29 | 07:03***, 08:32***, 09:38 | 15:38, 16:38, 17:38 | 15:29*, 16:29, 17:29 |
| **Sherborne** | 06:26, 07:00, 07:26^, 07:56, 08:35, 09:35 | 06:05**, 06:57***, 08:26***, 09:32 | 15:32, 16:33, 17:32, 18:07* | 15:35*, 16:35, 17:36 |
| **Templecombe** | 06:04^, 06:34, 07:08, 07:34^, 08:04, 08:43, 09:44 | 06:50***, 08:19***, 09:25 | 15:25, 16:25, 17:25, 17:59* | 15:43*, 16:43, 17:44 |
| **Gillingham** | 06:11^, 06:41, 07:15, 07:42^, 08:11, 08:50, 09:51 | 06:39***, 08:08***, 08:37, 09:16 | 15:16, 16:18, 17:17, 17:52* | 15:51*, 16:18**, 16:51, 17:52* |
| **Tisbury** | 06:22^, 06:52, 07:26, 07:53^, 08:22, 09:01, 09:28**, 10:02 | 06:28***, 07:57***, 08:26**, 09:06, 10:06 | 15:06, 15:39**, 16:07, 17:06, 17:37*, 18:09 | 15:01, 16:02*, 16:28**, 17:01, 18:02 |
| **Salisbury** | 06:01*, 06:39^, 07:07, 07:41, 08:08^, 08:37, 09:17, 09:43** | 08:06**, 08:43, 09:20^, 09:45 | 15:25**, 15:47, 16:47, 17:23*, 17:54 | 15:21, 15:47***, 16:21, 16:47**, 17:21, 17:47*** |

* Yeovil Junction Starter/Terminator
** Gillingham Starter/Terminator
*** Salisbury Starter/Terminator
^Yeovil Pen Mill Starter/Terminator

The table above demonstrates the challenges faced by those living on the corridor to accessing education. At Yeovil Junction, services arriving from the Exeter direction provide adequate connection times for students wishing to access the town's college and schools. However, a significant gap in services between 07:03 and 08:32 means that students arriving at Yeovil Junction from the London direction may struggle to complete their journey from the remote station site in time for the beginning of the academic day. At Salisbury, however, AM arrivals already provide a good level of access to the city for students arriving.

At both stations, the hourly service pattern present in the afternoon means that students may face a long wait for a train home should they miss any of their services. This is the case in both directions.

Whilst Salisbury and Yeovil prove the largest draws for education within the scope area, Southampton, Basingstoke, and Andover, whilst outside the scope of this SOBC, also provide significant education opportunities within easy reach of areas along the discussed route. These areas can be accessed through connectivity provided at Salisbury.

Rail services provided at Salisbury and Yeovil Junction stations ought therefore to provide simple access and convenient connectivity to these education opportunities.

#### 3.3.3.3 Social Mobility and Quality of Life

Improvements in connectivity can provide an improvement in the quality of life for rural residents and an opportunity to tackle Transport Related Social Exclusion (TRSE) to the centres of employment, health, education, services, and leisure.

These issues of isolation and poor access to basic services have been identified as key challenges in the Western Gateway and Peninsula Transport studies and BSIPs. This is also pertinent owing to the age profile of residents in the area. With the population of over 65s higher than the national average and an increased reliance on public transport to access basic services by this particular demographic, it is necessary to ensure connectivity exists to encourage locals to make full use of transport services.

The conurbations located along the line of route experience mixed levels of TRSE. As the map from Transport for the North's tool below highlights, those living within the centre of these conurbations can face much higher levels of TRSE than those living in the surrounding areas. This is despite their easy access to railway stations along the route and could be related to the low frequency of rail services and poor provision of other public transport modes.


*Figure 3-33: Transport Related Social Exclusion, Transport for the North*

Whilst ONS data for the illustrative rail corridor shows that 51.5 % of households in the noted communities are not deprived in any way, 33 % are deprived in one dimension, 12.6 % in two dimensions, and 2.7 % in three dimensions.

Given the high proportion of TRSE noted within settlement centres, this deprivation may be exacerbated by a lack of access to suitable transport provision.

### 3.3.4 Secondary Driver – Growth

Local plans for housing development and acknowledgement of the National Planning Policy Framework (NPPF) changes have been set out previously within this document.

Although included as a secondary driver, housing and employment growth are essential to making a case for rail frequency increases, particularly in rural or less built-up areas. Equally, rail investment can provide the transport solution that unlocks housing and employment growth.

In addition to the housing developments already mentioned, there is a site specific to Tisbury with the potential to be unlocked through investment in Tisbury station and the service. Known as the

'Station Works' site, the plot to the south of Tisbury station currently comprises warehousing, industrial units, and other run-down structures.


*Figure 3-34: Artist's impression of the Station Works development, https://www.devcomms.co.uk/*

There are plans for development of this site to deliver 86 dwellings, and a care home of up to 40 bedspaces. The developer has set aside a portion of land adjacent to the railway for Network Rail to deliver a second platform at Tisbury station. Through delivery of the proposed rail improvement scheme and the station works development, there is an opportunity to unlock mutually beneficial development. Delivering the housing provides Network Rail with land for an additional platform and opens the door to joint-working to deliver a new footbridge across the railway in place of the existing User Worked Level Crossing to the north of Tisbury station.

On a wider scale, the proposed housing developments set out in section 1.2.3 also suggest a growth in development along the corridor. Whilst rail is not necessarily the main mode of transport for these communities, it can play a part in connecting them with work, education and leisure opportunities.

## 3.4 Impact of Doing Nothing

A 'Do Nothing' scenario would mean the rail service remains unattractive and fails to deliver against the value drivers:

### 3.4.1 Performance

The west of England Line will continue to suffer from some of the highest levels of congestion related delay in the country, with service performance remaining well below satisfactory standards, and continued knock of impacts to the wider network. This will diminish customer confidence in the railway and inhibit improvements in local productivity across the West of England Region.

### 3.4.2 Productivity

The corridor between Salisbury and Yeovil will continue to see an over-reliance on the private vehicle for access to education, employment and leisure opportunities. With this potential growth in congestion on the roads, overall productivity and growth may be slowed. Similarly, continued poor performance on the railway will continue to damage public opinion and trust in the mode, potentially leading to a reduced patronage and even further increase in reliance on the private vehicle.

### 3.4.3 Connectivity

A failure to address the issue around connectivity would mean a missed opportunity to align railway strategy with the strategies and objectives set out in the wider regional aims of Transport Bodies and Local Authorities. It would mean continued reliance on already congested rural road networks, the continued use of private cars by locals to access centres of employment, healthcare, education and leisure and retail. Journey times would also suffer given the already poor provision of interchange and onward journey options by rail and bus.

Furthermore a 'do nothing' scenario would be detrimental to local residents in terms of social isolation, particularly the over 65 demographic who are more likely to use public transport to access basic services. The irregularity and infrequency of rail and bus services would mean connectivity remaining poor and giving a perception that public transport is not a viable option.

### 3.4.4 Missed Opportunities

Network Rail's Southern region currently plans to carry out a relock and recontrol of Salisbury signalling area in Control Period 8 (CP8). This provides a real opportunity to achieve efficiencies through delivery of the project as part of this renewal. It is assumed that cost savings could be made by delivering this scheme (or at least providing passive provision for this scheme) through these planned works in CP8. As such, any failure to capitalise on this opportunity could potentially result in higher project costs at a future time.

Separately, the previously mentioned proposed Station Works Site development in Tisbury seeks to deliver a number of new homes next to the railway. The plans for this development include the provision of a parcel of land for Network Rail's use to deliver a new platform at Tisbury station.

The delivery of this scheme (particularly of iterations which seek to deliver additional platform and associated interchange bridge in Tisbury) would also provide an alternative means of crossing the railway at Tisbury to the existing Chantry Level Crossing. This alternative, safer means of crossing the railway could provide a much-needed safety mitigation, reducing the risk posed by the existing level crossing and helping the development achieve the relevant planning consents.

Failing to deliver this scheme and associated crossing works risks slowing progress of the new development and therefore the provision of land for an additional Tisbury platform.

## 3.5 Investment Proposal

### 3.5.1 Objectives

As established in the previous sections of this strategic case, there are three key drivers for change associated with this proposal. The following objectives have been developed with these drivers and national and local government objectives considered. They have been designed to assist the development of the investment proposal for delivering service enhancements for the West of England Line between Salisbury and Yeovil Junction.

A) Productivity
- Improve productivity within the region through performance and reliability improvements which better connect communities with work, education, healthcare, and leisure opportunities.

B) Connectivity
- Provide an additional 1tph serving stations between Salisbury and Yeovil Junction throughout the day, improving choice and connectivity for residents living in locations with a currently low level of service and poor access to amenities.

C) Growth
- Unlock potential growth along the corridor by providing a reliable, regular service as an alternative to the dominant private vehicle.

D) Safety
- Reduce the risk of level crossing misuse through replacement of Chantry Level Crossing with an accessible interchange bridge. Encourage residents to travel by rail and reduce the risk of road traffic collisions through supressing growth in road journeys.

### 3.5.2 Scope

The core of this proposal is an improvement to the rail service provision between Salisbury and Yeovil Junction. Although primarily driven by additional service provision, improvements to performance and passenger experience are also considered as rail service enhancements due to historic poor performance on the West of England Line.

#### 3.5.2.1 Improve Performance

Performance is historically poor along the West of England Line due to its long single-line sections. A known area of concern for performance is at Tisbury Loop where Down services must typically wait for Up services to cross before departing on towards Tisbury. Should there be any delay to either service, this has a knock-on impact to the other. This is particularly problematic if an Up service is delayed as this delays the Down service rejoining the single line, and ultimately delays further Up services which must themselves wait for the late-running Down service to cross.

Given this, an improvement to this performance picture is viewed through this business case as a rail service enhancement. By providing a more reliable service at Tisbury, there are positive implications for services along the line as well as through increasing passenger confidence in the railway as a means of travelling.

#### 3.5.2.2 Increased Service Frequency

The primary proposal for service enhancements between Salisbury and Yeovil Junction is the provision of an additional 1tph along the corridor throughout the day. A limited number of services currently run in the peak which provide a 2tph service at some locations along the

corridor. This proposal would see an expansion of these services throughout the day by extending the current Salisbury starters/terminators out to Yeovil Junction.

### 3.5.3 Timetable Findings

Network Rail's Advanced Timetable Team (ATT) were tasked with analysing the feasibility of increasing service provision between Salisbury and Yeovil Junction. The analysis undertaken looked at two service scenarios:

- **Scenario 1** – the extension of the Salisbury to London Waterloo service to Yeovil Junction throughout the day, calling at all stations and providing all stations with a 2tph service
- **Scenario 2** – the extension of the Salisbury to London Waterloo service to Yeovil Junction throughout the day, calling at all stations but with stops removed from the Exeter St. David's to London Waterloo services

These scenarios and the ATT findings are detailed below.

#### 3.5.3.1 Scenario 1 – All Stations Stop

Scenario 1 would see an uplift in trains between Salisbury and Yeovil Junction to two trains per hour (tph) throughout the day, with all trains calling at all intermediate stations; Tisbury, Gillingham, Templecombe, Sherborne. This scenario seeks to provide additional connectivity to all locations along the route whilst maintaining existing links to London and Exeter.

Analysis found that without infrastructure intervention, a 2tph can only be achieved through the introduction of lengthy dwell times at stations and a reliance on minimum Timetable Planning Rule (TPR) margins. This would increase journey times, build more performance risk into the timetable and create poor passenger experience.

In order to deliver the proposed service, whilst reducing the requirement for minimum planning margins and extended dwells, an extension of Tisbury Loop by approximately six miles towards Wilton was proposed.

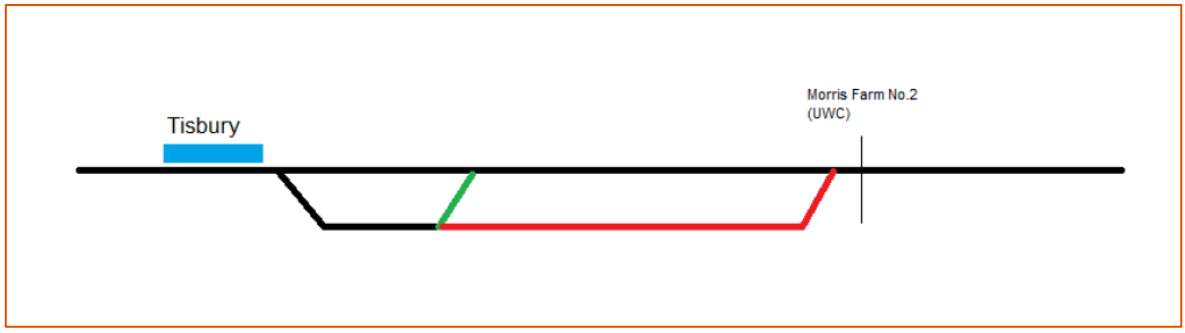



*Figure 3-35: Diagram of 6 mile eastward extension of the Tisbury Loop*

This would allow trains to pass dynamically whilst moving at linespeed. Extending the loop westward, into Tisbury station and providing an additional platform would further improve passenger experience, provide some journey time improvement, and reduce the amount of single track further.

The following train graph clearly shows trains crossing in opposite directions between Tisbury and Wilton South Junction.

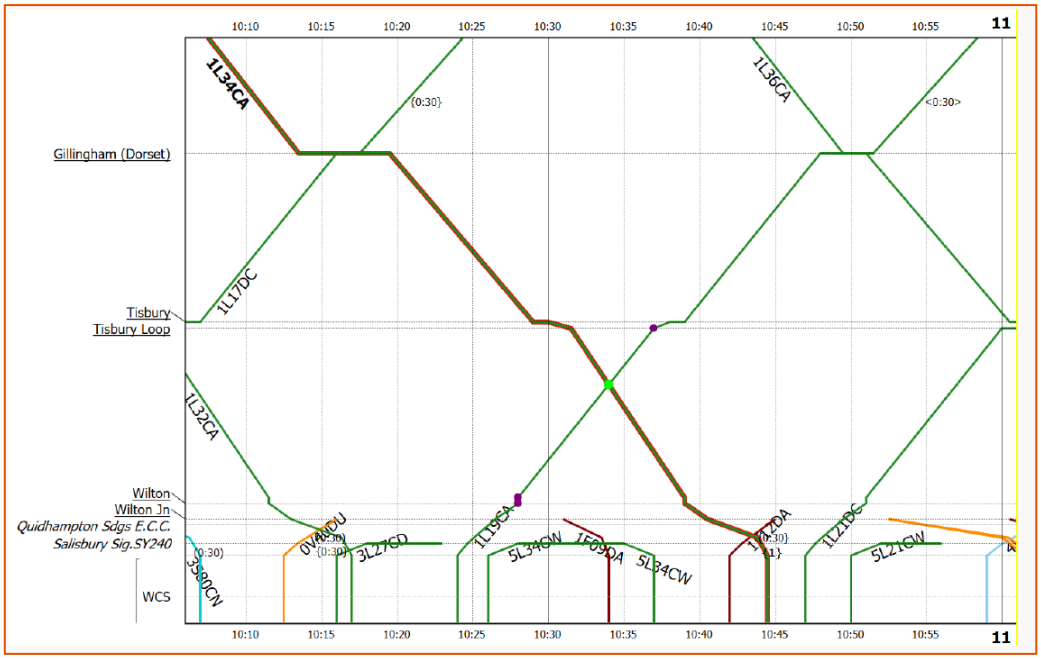



*Figure 3-36: Train Graph of the extension of Salisbury services to Yeovil Junction calling at all stations*

### 3.5.3.2 Scenario 2 – Semi-Fast

Scenario 2 seeks to uplift services between Salisbury and Yeovil Junction to 2tph throughout the day, however unlike Scenario 1, this option would see trains have different calling patterns. In this scenario, longer-distance services to/from Exeter and London would omit calls at Tisbury, Templecombe, and Sherborne, calling only at Gillingham between Salisbury and Yeovil Junction.

The extended Salisbury services would then pick up calls at Tisbury, Gillingham, Templecombe, and Sherborne. This scenario seeks to deliver journey-time savings and performance enhancements whilst maintaining existing levels of connectivity along the route. However, this scenario would mean that passengers travelling from the stations removed from London/Exeter services would need to interchange at Yeovil Junction, Gillingham, or Salisbury to then join a long-distance service.

Analysis found that the same conflicts occur to the east of Tisbury, meaning that Tisbury Loop extension towards Wilton South Junction would still be required for this option. The main difference with this scenario's infrastructure requirement is that the shifted path of long-distance services would also create conflicts on the single-line section between Gillingham and Templecombe.

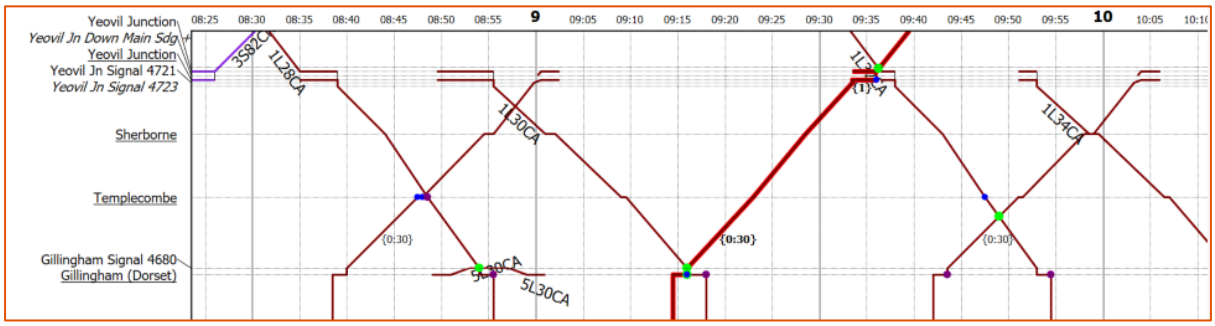



*Figure 3-37: Train Graph showing single line conflicts between Gillingham and Templecombe*

An extension of Gillingham Loop towards Templecombe would therefore be required to overcome these conflicts and deliver this service option.

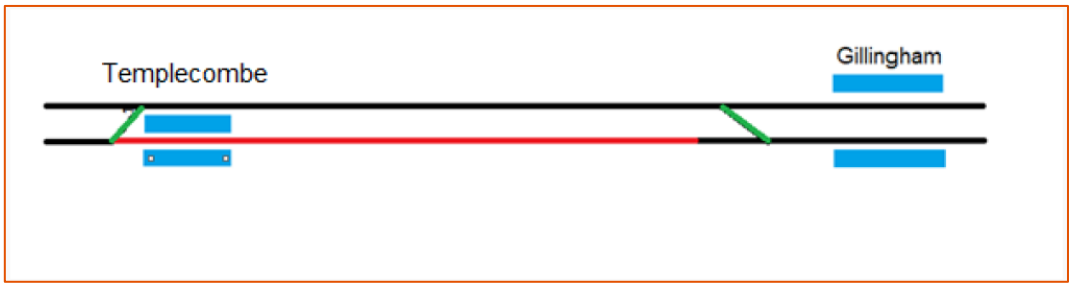



*Figure 3-38: Diagram of the extension of the Gillingham Loop towards Templecombe*

### 3.5.3.3 Recommendations

The above suggested infrastructure for scenarios 1 and 2 represents the minimum infrastructure requirement to deliver the additional services outlined. ATT noted that these services would still require a dwell of up to five minutes in Tisbury Loop for Down services to allow Up services to pass.

In order to remove this long dwell, an extension of Tisbury Loop into Tisbury station and provision of an additional platform could provide an enhanced passenger experience.

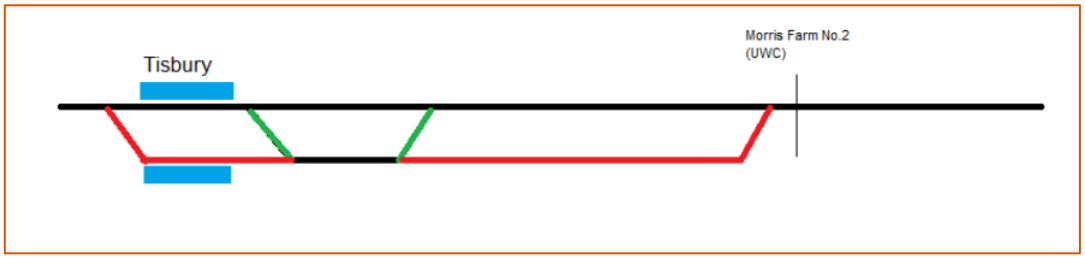



*Figure 3-39: Diagram showing eastward and westward extension of the Tisbury Loop*

This would allow a smaller dwell in the station, allowing those wishing to alight at Tisbury to leave the train. This could provide either a journey time benefit or provide a performance buffer.

*Table 3-12: Timetable Analysis findings*

| Intervention | Scenario 1 | Scenario 2 | Result |
|---|---|---|---|
| **Extend Tisbury Loop by 6 miles toward Wilton South Jn** | | | Both scenarios have conflicts that will be resolved with this intervention |
| **Extend Tisbury Loop into Tisbury station plus 6 miles toward Wilton South Jn** | | | Both scenarios have services that dwell in Tisbury Loop awaiting a clear platform at Tisbury. This intervention would allow trains to dwell in the station providing a better passenger experience |
| **Extend Gillingham Loop** | | | Scenario 2 has conflicts that would be resolved with this intervention. Journey times would be increased for Scenario 1 |

#### 3.5.3.4 Scenarios vs. Objectives

Scenario 1 improves productivity and connectivity and helps to unlock growth across the route through enhancing the service provision at all stations along the route. The option fails to significantly improve safety as an increase in services may see increased risk at level crossings along the route, particularly at Chantry Level Crossing in Tisbury station.

Scenario 2 could improve productivity through enhanced journey times between the region and London/Exter directions but fails in increasing connectivity by reducing connectivity at certain stations. This overall means no additional growth is expected at stations with reduced connectivity, whilst some may be seen at Yeovil and Gillingham where additional services will be achieved.

The additional recommendation to extend Tisbury Loop into Tisbury station would, alone, not necessarily enhance productivity, connectivity or growth. However, an enhanced passenger experience and potential performance/journey time boost would provide some benefits in these areas. The option would have a positive impact on safety as it is assumed that the associated works would see a station interchange bridge replace Chantry Level Crossing at Tisbury station.

*Table 3-13: Timetable scenarios vs. SOBC objectives*

| | Scenario 1 | Scenario 2 | Extension of loop into Tisbury station |
|---|---|---|---|
| **Improved Productivity** | | | |
| **Improved Connectivity** | | | |
| **Unlock Growth** | | | |
| **Enhance Safety** | | | |

#### 3.5.3.5 Preferred Option

Despite two service scenarios being tested by ATT, one clearly has the potential to achieve the stated objectives of local and national organisations above the other.

Scenario 1, the 'all stations stop' option, provides enhanced connectivity along the corridor, reducing generalised journey times through an increased service offering, and driving growth in the area by providing an attractive alternative to the private vehicle.

Whilst Scenario 2's improved journey times may look to grow productivity through faster journeys to economic and social hubs, the option removes the direct connection between local communities and Exeter, London and other destinations. This runs the risk of leaving these areas less appealing for development and therefore risks slowing growth.

In agreement with funders and stakeholders, Network Rail has agreed to progress Scenario 1 and the recommendation to extend the loop into Tisbury station to Strategic Outline Business Case stage.

Given the known infrastructure requirements of these options, three infrastructure scenarios have been identified to be developed further:

**Option 1A:** Additional 1tph + Tisbury Loop extension into Tisbury station and eastward

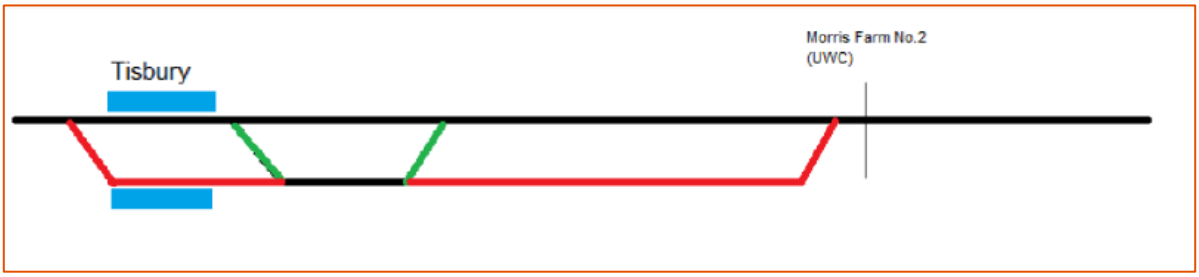



*Figure 3-40: Option 1A*

**Option 1B:** Additional 1tph, Tisbury Loop extension eastward


*Figure 3-41: Option 1B*

**Option 1C:** Tisbury Loop extension into Tisbury station, no additional services

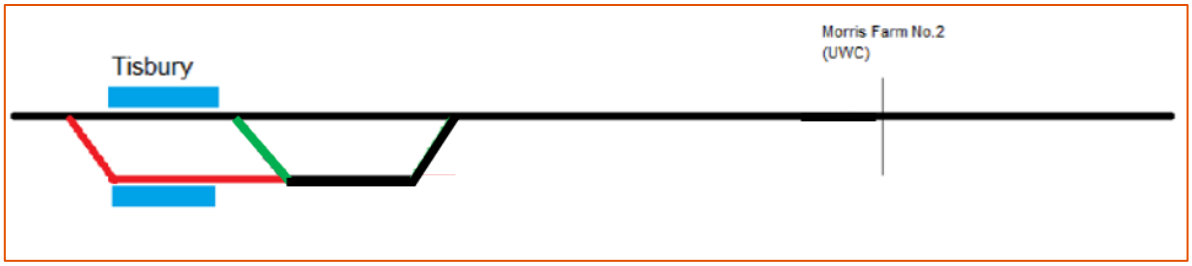



*Figure 3-42: Option 1C*

### 3.5.4 Infrastructure Development – Shortlisted Options

#### 3.5.4.1 Option 1A – Additional 1tph + performance improvement

**Extension of Tisbury Loop Eastwards approximately 6 miles and extension westwards into Tisbury Station with a new 8 (or 3 car) Car Platform**

Under this option the extension of the Tisbury Loop is westwards into the station with the addition of a new platform which removes the need for services to wait outside Tisbury station for services to clear the single platform, whilst also reducing the length of single line section, helping to improve overall line performance.

In addition, the extension of the Tisbury Loop eastwards towards Morris Hill Farm Level Crossing, provides an extended dynamic loop for trains to cross in opposite directions, which enables an additional 1tph to be accommodated within the timetable. The proposed new loop is shown below.

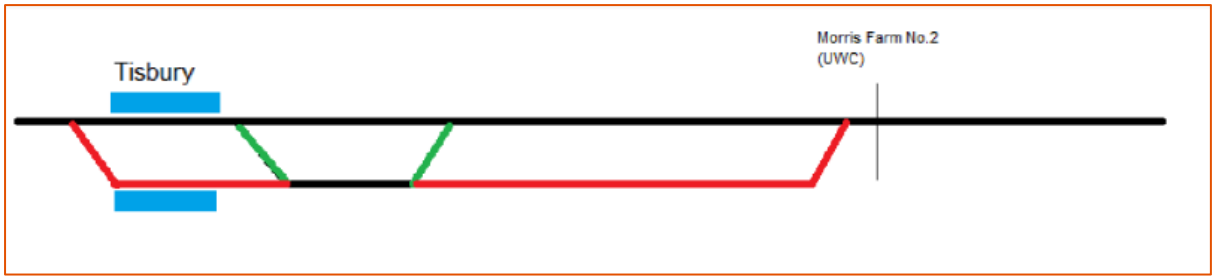



*Figure 3-43: Option 1A*

The proposal was initially for the eastern end of loop to start just before Morris Hill Farm Level Crossing; however, investigations found that this would result in the need for French Horn Bridge to be rebuilt to avoid this conflict, the prefeasibility work has proposed extending the loop a further 640m to avoid the need to rebuild for French Horn Bridge to be rebuilt. This would however bring the loop beyond Morris Farm Crossing and thus alterations into scope, this should be investigated at the next later design stage.

*Figure 3-44: French Horn Bridge*

In addition, the pre-feasibility work highlighted a potential conflict with the River Nadder underbridge

*Figure 3-45: River Nadder Underbridge*

For the purposes of this study the existing alignment was held in its current central position, and paralleled for the proposed doubling, which results in a conflict with the River Nadder underbridge. However, to avoid the need for a rebuild it may be possible for mainline re-alignment so both lines run centrally to the underbridge. It is assumed that this currently proposed conflict can be

designed out in the next design stage. However, should this not be possible the bridge will need to be demolished and rebuilt.

In terms of station works, the proposed new platform is 200m in length to accommodate 8 car trains and would be situated opposite the existing platform. This platform would be able to accommodate 3-car/6-car Class 159 or 8-car Class 450 units. The platform width is proposed to be 3.5m but could be narrowed locally to accommodate the proposed footbridge intervention (interfacing project) as long as minimum structural / walking clearances and standards are maintained. There is an existing 210 metre retaining wall along the alignment of the proposed platform. At this stage it is assumed that the existing structure would be demolished and replaced with a suitable platform structure.

In addition, a new footbridge is proposed, to enable step free access between the new and existing platform. This is proposed to be a standard NR footbridge with lifts.

There is a minimum viable product version for Tisbury station, under this option, a 135m platform is provided which incorporates a nominal length for starter signal and ramp at the Westbound end. The platform provided would be suitable for present day rolling stock operation (3-car length), with passive provision provided for potential future extension to 8-car platforms, with signals positioned beyond the platform in the correct location for future 8-car platform extension.

At the Tisbury station end the dynamic loop ends approximately 250m west beyond the proposed platform. The proposed turnout is an EVs-21 Transition turnout, allowing traffic to run at 40mph back on to the mainline. The dynamic loop has a total length of 9.31km.

Under this option there would be six footpath level crossings and three user worked level crossings impacted; an assessment would need to be carried out to determine what upgrade/mitigation that would need to put in place. Particular level crossings of interest include Tisbury Quarry, Morris Hill Farm and Chantry.

Due to the new proposed double tracking over Tisbury Quarry Level Crossing, the level crossing will need a widening / renewal intervention, and therefore is likely to be rebuilt.

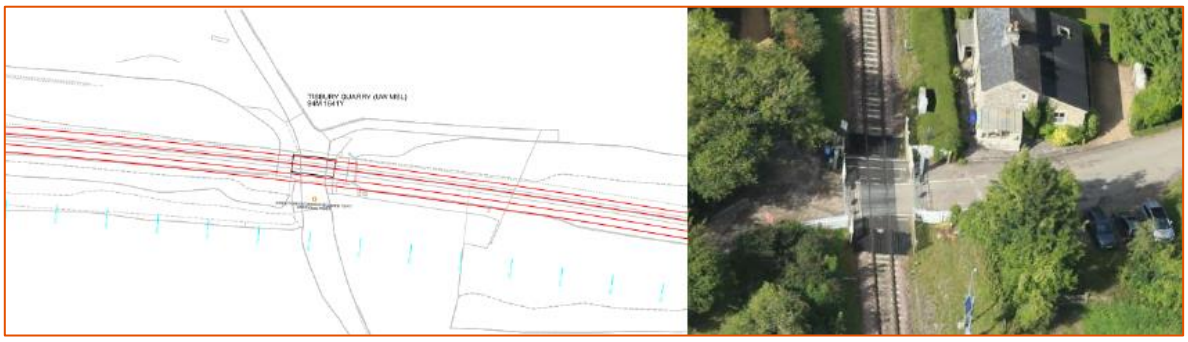


*Figure 3-46: Tisbury Quarry Level Crossing*

It is likely that Morris Hill Farm Level Crossing will be impacted to avoid the need for rebuilding of French Horn bridge, the exact requirements for mitigations will be refined at the next stage of development.

Chantry Level Crossing is located just outside Tisbury station and would be impacted by these proposals. The level crossing would be closed in any option that includes an extension of the Tisbury Loop into the station, Options 1A and 1C, as station accessibility requirements would

necessitate a footbridge with lifts. For Option 1B, the eastward extension of the loop where an increased service frequency is implemented, would require a level crossing assessment to determine the mitigation. The impact on Chantry Level Crossing by the Station Works site development is discussed later in this document.

From a signalling perspective, it is assumed one direction running shall be operated in this configuration. Under this option 2 existing signals will be removed, and 8 new signals will be installed.

In addition, over this extensive distance, there will likely be embankment work, troughing realignment, drainage work, and other enabling works required to accommodate the new proposed loop.

#### 3.5.4.2 Option 1B – Additional 1tph

**Extension of Tisbury Loop Eastwards approximately 6 miles**

Under this option Tisbury Loop is extended eastwards towards Morris Hill Farm Level crossing, to enable an extended dynamic loop, which enables an additional 1tph to be accommodated within the timetable. The proposed new loop is shown below.

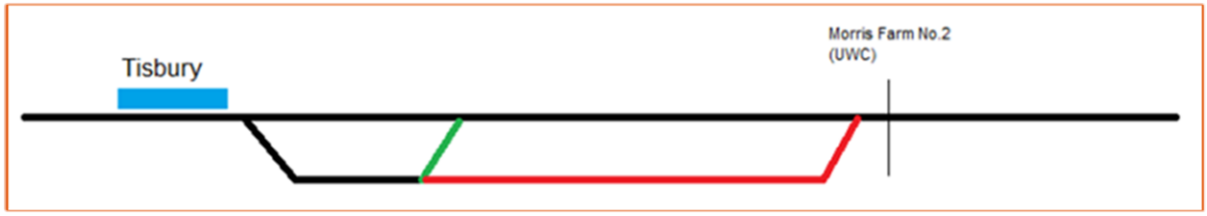



*Figure 3-47: Option 1B*

An initial pre-feasibility study for this intervention has indicated that the existing turnout east of Tisbury station would be recovered (removed), shown in green in the diagram above, and the proposed extension of the loop tied into the current loop at this point (plain line of the existing turnout). The proposed new loop would be approximately 8.7km in length. The dynamic loop begins with an EVs-21 Transition turnout, allowing traffic to run at 40mph from the mainline.

In terms of structures, there is potential that both the River Nadder Underbridge and French Horn Bridge may need to be demolished and replaced, unless conflicts can be designed out at the next stage, as described under Option 1A.

From a signalling perspective, it is assumed single direction running shall be operated in this configuration. Under this option two existing signals will be removed, and three new signals will be installed.

Five footpath level crossings and three user worked level crossings will be impacted by this option; an assessment would need to be carried out to determine what upgrade/mitigation that would need to put in place. As described in Option 1A, Tisbury Quarry Level Crossing will require rebuild and Morris Hill Farm Level crossing may be impacted depending upon the outcomes of the French Horn Bridge interface.

In addition, over the length of the extension, there will likely be embankment work, troughing realignment, drainage work, and other enabling works required to accommodate the new proposed loop.

### 3.5.4.3 Option 1C – Performance Improvement

#### 3.5.4.3.1 Extension of Tisbury Loop into Tisbury Station with a new 8 Car Platform

Under this option the extension of the Tisbury Loop into the station with a new 8-car platform removes the need for services to wait outside Tisbury station for services to clear the single platform, whilst also reducing the length of single line section, helping to improve overall line performance. The proposed new loop location is show below.

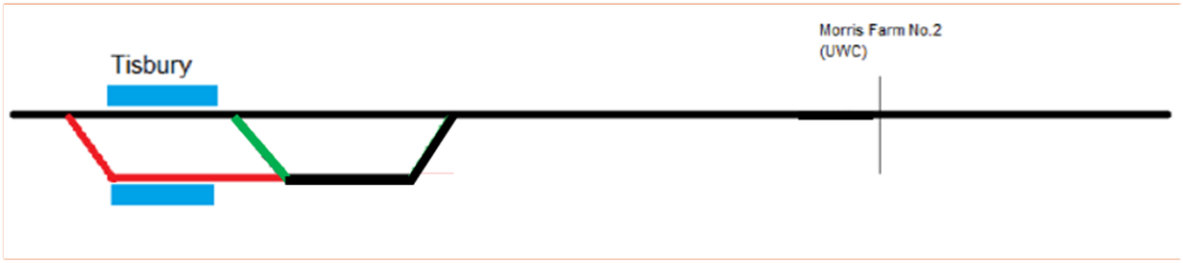



*Figure 3-48: Option 1C (8-car option)*

An initial pre-feasibility study for this intervention has indicated that the existing points would be recovered (removed), shown in green in the diagram above. In addition, 949m of new plain line will be required for the new loop. The turnout is an EVs-21 Transition turnout, allowing traffic to run at 40mph from the mainline. The loop ends approximately 250m beyond the proposed new platform.

In terms of station works, the proposed new platform is 200m in length to accommodate 8 car trains and would be situated opposite the existing platform. This platform would be able to accommodate 3-car/6-car Class 159 or 8-car Class 450 units. The platform width is proposed to be 3.5m but could be narrowed locally to accommodate the proposed footbridge intervention (interfacing project) as long as minimum structural / walking clearances and standards are maintained. There is an existing 210 metre retaining wall along the alignment of the proposed platform. At this stage it is assumed that the existing structure would be demolished and replaced with a suitable platform structure.

In addition, a new footbridge is proposed, to enable step free access between the new and existing platform. This is proposed to be a standard NR footbridge with lifts.

From a signalling perspective, it is assumed bi-directional running shall be operated in this configuration. Under this option two existing signals will be removed, and five new signals will be installed.

Chantry level crossing would be impacted as described in Option 1A and would therefore need to be replaced by an accessible footbridge with lifts.

#### 3.5.4.3.2 Extension of Tisbury Loop into Tisbury Station with a new 3 Car platform

This option represents, a minimum viable product version of Option 1C, by providing a 3-car platform instead of 8-car. This option still delivers the same benefits in terms of performance, through the provision of the loop into Tisbury Station. The proposed new loop location is shown below.

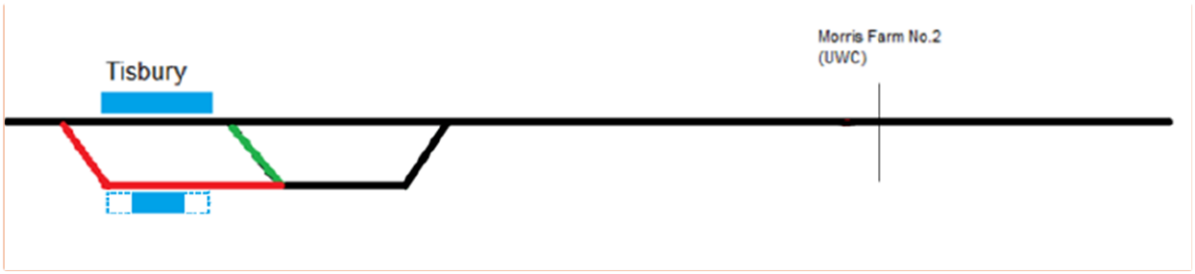



*Figure 3-49: Option 1C (3-car option)*

Under this option, a 135m platform is provided which incorporates a nominal length for starter signal and ramp at the Westbound end. The platform provided would be suitable for present day rolling stock operation, with passive provision provided for potential future extension to 8-car platforms, with signals positioned beyond the platform in the correct location for future 8-car platform extension. A new footbridge would be provided as per Option 1A.

As per the 8-car option, the extension of the Tisbury Loop into the station would remove the need for services to wait outside Tisbury station for services to clear the single platform, whilst also reducing the length of single line section, helping to improve overall line performance.

Chantry level crossing would be impacted as described in Option 1A and would therefore need to be replaced by an accessible footbridge with lifts.

#### 3.5.4.4 Options against Objectives

The below table shows how the three shortlisted options deliver against the project's objectives. This is for illustrative purposes and is a subjective view of how the options meet the objectives and not a SMART (Specific, Measurable, Achievable, Relevant, and Time-bound) assessment.

| | A | B | C | D |
|---|---|---|---|---|
| | Productivity | Connectivity | Growth | Safety |
| Option 1A (Additional 1tph + Tisbury Loop extension into Tisbury station and eastward) | | | | |
| Option 1B (Additional 1tph, Tisbury Loop extension eastward) | | | | |
| Option 1C (Tisbury Loop extension into Tisbury station, no additional services) | | | | |


*Figure 3-50: Objective attainment for each option*

All options deliver against 'Productivity', Options 1A and 1B owing to GJT improvements, and Option 1C owing to performance improvements. Options 1A and 1B both provide additional connectivity, whereas the focus of Option 1C is performance/ productivity and therefore it does not deliver against the 'Connectivity' objective.

All options deliver to varying degrees against 'Growth', Options 1A and 1B because of the increase in frequency encouraging housing and employment growth, and Option 1C because of a more reliable and resilient service.

In terms of the 'Safety' objective, Option 1C delivers more strongly owing to the closure of Chantry Level Crossing and because there is no additional safety risk to other crossings associated with an increase in service frequency. Option 1A also includes the closure of Chantry Level Crossing and therefore delivers against the objective more strongly than Option 1B.

As will be shown in the recommendations for this SOBC, Option 1C is the preferred option owing to the performance benefit it provides and because it delivers some of the infrastructure required to unlock future capacity on the line; it is also deliverable at the lowest capital cost. The above table suggests it meets less of the objectives; however, the importance of performance improvements on the West of England Line cannot be underestimated. The potential of an extension of the Tisbury Loop to improve the reliability of West of England Line services and the knock-on effect that could have on services across the network needs further investigation.

### 3.5.5 Project Considerations

#### 3.5.5.1 Risks

The following strategic risks have been identified, but not limited to:

- **Affordability –** preferred option identified to deliver against strategic objectives may not be affordable within funding availability
- **Structures and level crossings–** challenges associated with closing/modifying levels crossings, modifying/replacing structures
- **Re-Signalling –** wider route re-signalling goes ahead without passive or active provision for proposals outlined within this SOBC
- **Safeguarded Land –** land set aside from the Station Works site is no longer available
- **Third party land/ Rail and Road Access –** Third party land acquisition during construction is not acceptable

#### 3.5.5.2 Constraints

The following strategic constraints related to the Tisbury Loop proposals have been identified as follows:

- **Funding –** The project will be constrained by funding availability and the need for affordability
- **Rail and Road Access –** Third party land will be required during construction. In addition to rail possession access
- **Station Works adjacent development –** Adjacent development proposals constrain available land take and opportunities in the station area

#### 3.5.5.3 Assumptions

The key assumptions for the project are detailed below:

| Assumption | Confidence | Impact |
|---|---|---|
| Cost savings could be achieved by delivering this scheme (or at least providing passive provision for this scheme) through the Salisbury are signalling CP8 project | Medium | High |
| The development adjacent leave passive provision for future additional platform at Tisbury station. | Medium | High |
| SWR will be able to operate a reliable additional 1tph service if the appropriate infrastructure interventions are implemented | Medium | High |
| Proposed structure conflicts can be resolved via adjustment of the track alignment. | Medium | High |
| All structures are able to accommodate the proposed new track without rebuild | Medium | High |
| Existing embankments and cuttings are assumed to capable of accepting proposed track without any special stabilisation works | Medium | Medium |

#### 3.5.5.4 Interfaces/Interdependencies

- **Third party development adjacent to Tisbury station –** There is an interface with any future development proposed adjacent to Tisbury station.
- **Salisbury are signalling CP8 project -** Network Rail's Southern region currently plans to carry out a relock and recontrol of Salisbury signalling area in Control Period 8 (CP8). The proposal included within this SOBC, is within scope of the Signalling project.

#### 3.5.5.5 Opportunities

- **Track and S&C -** opportunity to rationalise turnout speeds to better reflect acceleration or braking characteristics of trains, to better balance the best operational solution against cost of S&C provided. In addition, there may be opportunity to tighten track curves.
- **Enhanced Renewal -** Network Rail's Southern region currently plans to carry out a relock and recontrol of Salisbury signalling area in Control Period 8 (CP8). This provides a real opportunity to achieve efficiencies through delivery of the project as part of this renewal. It is assumed that cost savings could be made by delivering this scheme (or at least providing passive provision for this scheme) through these planned works in CP8.
- **Building in resilience –** explore opportunities to provide longer sections of double track to provide operational flexibility and performance resilience. For example, to reconnect the loop (main line) into the terminated / buffer stop Down line that comes off the Wilton South junction. This would require a further 4 miles of plain line and associated works.
- **Third party funding –** Opportunities for third party funding at Tisbury station to improve accessibility and station environment. The Station Works Site development in Tisbury seeks to deliver a number of new homes next to the railway. The plans for this development include the provision of a parcel of land for Network Rail's use to deliver a new platform at Tisbury station. The delivery of this scheme (particularly of iterations which seek to deliver additional platform and associated interchange bridge in Tisbury) would also provide an alternative means of crossing the railway at Tisbury to the existing Chantry Level Crossing. This alternative, safer means of crossing the railway could provide a much needed safety mitigation, reducing the risk posed by the existing level crossing and helping the development achieve the relevant planning consents.

#### 3.5.5.6 Level crossing safety

There are a total of eight crossings that could potentially fall within the scope of this project proposals. This includes six foot crossings, one user worked crossing with miniature stop lights and two other user worked crossings.

The Tisbury Quarry is a single track crossing that will require rebuild to make suitable for double track. The current risk score for each of the level crossing is shown below.

*Table 3-14: Level Crossing Risk Score*

| Crossing Name | Risk Score |
|---|---|
| **Tisbury Quarry** | **4** |
| **Sweatmans** | **6** |
| **Dinton Mill No.2** | **6** |
| **Mill Path** | **6** |
| **Tisbury Quarry** | **6** |
| **Dinton Mill No.1** | **7** |
| **Morris Farm No.2** | **10** |
| **Church Path** | **11** |
| **Golden/ Telfont Mill** | **13** |
| **Chantry** | **5** |

For any level crossing impacted by the proposal, a full assessment will need to be carried out to understand any increases in risk, and appropriate mitigations put in place to reduce risk, to ensure they are still safe and viable to be maintained. Therefore, the proposals outlined within this SOBC could offer an opportunity to improve safety for people crossing the railway through upgrade or closure of level crossings.

### 3.5.6 Other considerations – rolling stock

The Class 158/159 diesel rolling stock that is currently operated on the West of England Line is coming to end of operational life in the early to mid-2030s. This provides the opportunity to consider decarbonisation of the line and the most efficient use of available rolling stock, whilst balancing the amount of new or enhanced infrastructure required.

Therefore, the economic case for this study assumes the future partial electrification of the West of England Line as the base case assumption for the rolling stock. It is assumed that from 2032 there will be partial electrification of the line using islands of electrification, and that modified/ retrofitted Class 450s will operate as battery multiple units (BEMUs).

Network Rail and SWR are currently developing a business case that will identify the right solution to the question of rolling stock replacement on the West of England Line.

## 3.6 Strategic Impacts

Investment as part of this project will deliver a range of strategic outcomes and impacts, this section will explore how these align to the investment objectives, which were developed from Western Gateway STB's themes and other local and central government policies. The objectives are interlinked, with improvements in connectivity driving productivity and growth, whilst increased growth in housing and employment strengthens the case for connectivity improvements.

### 3.6.1 Productivity

"*Improve productivity within the region through performance and reliability improvements which better connect communities with work, education, healthcare, and leisure opportunities.*"

Improvements in rail service provision can support an increase in productivity in the following ways:

- **Enhanced Labour Market Access:** Better rail connectivity allows potential employees to access a wider range of jobs. An example of this is the investment in rail at Corby which led to increased employment in retail and transport sectors, with 30 % of businesses citing rail as important for client and supplier access[8].
- **Business Location and Investment:** Improved rail services make areas more attractive for business relocation and investment. An example of this can be seen in the case of rail investment at Oxford Parkway and Bromsgrove where businesses reported improved access to talent and markets, which can lead to higher productivity and growth[9]
- **Time Savings and Efficiency:** Faster, more reliable, high performing rail services reduce commuting times, which directly improves productivity. The Transpennine Route Upgrade and East Coast Upgrade are expected to deliver faster journeys and better regional connectivity, which is expected to unlock economic potential in cities like Leeds, Manchester, and York[10]

#### 3.6.1.1 Performance

It has already been shown that nationally, the West of England Line has been shown to be the worst performing single line section on the network in terms of reactionary delay minutes.

The top two locations that caused the most congestion nationally in June 2024 were Salisbury to Gillingham (Dorset) and Pinhoe, which are both on the West of England Line.

Improvements to the performance and reliability of the railway are a key driver of productivity; for this reason, performance simulation analysis was undertaken on Option 1C to understand what benefit the performance focussed scheme could provide.

The analysis looked at the following performance metrics:

- **T-1**: '*Time to One*' which is the percentage of trains less than one minute late
- **T-3**: '*Time to Three*' which is the percentage of trains less than three minutes late

The analysis findings are set out below.

[8] Economic Impacts of new or improved rail lines: Executive summary
[9] Economic Impacts of new or improved rail lines: Executive summary
[10] How our railway helps our cities - Network Rail

#### 3.6.1.1.1 Down Direction: London Waterloo to Exeter St. David's

For both the T-1 and T-3 metrics, improved punctuality is shown when compared to the Base owing to the westward extension of the loop and the additional platform.

Services from both directions can arrive concurrently so they are not delaying each other on approach. The extent of the performance improvements can be seen in the following graphs.

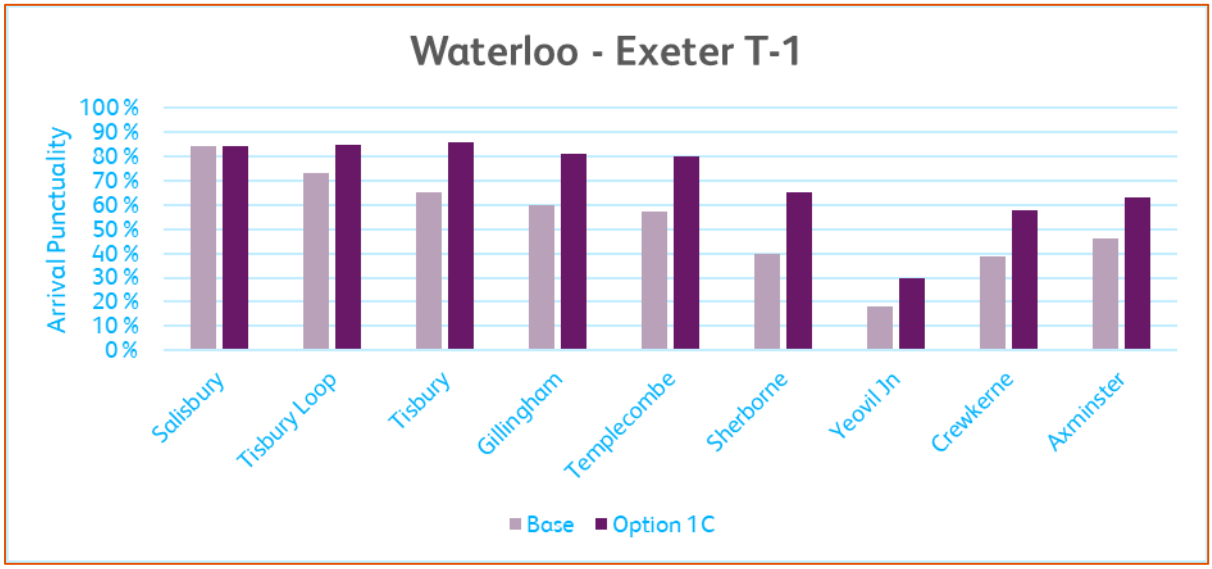



*Figure 3-51: Base vs. Option 1C, T-1 metric, Down direction*

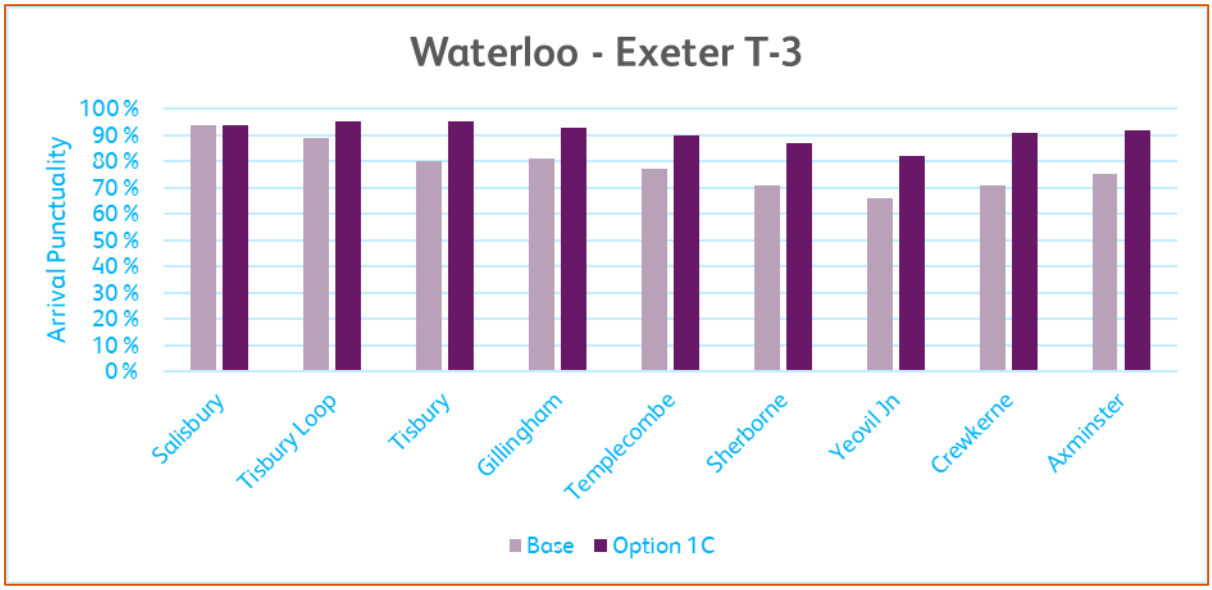



*Figure 3-52: Base vs. Option 1C, T-3 metric, Down direction*

In conclusion, the westward extension of the Tisbury Loop and additional platform at Tisbury does improve the performance of westbound services and does so substantially.

#### 3.6.1.1.2 Up Direction: Exeter St. David's to London Waterloo

Eastbound services are positively impacted by the extension of the loop and the addition of a second platform; however, these benefits are not as pronounced as those shown for the Down direction services.

Eastbound service performance is impacted by how westbound trains are timed to arrive at Tisbury. This means that westbound trains benefiting from improved performance may be ready to depart before the eastbound service can arrive at Tisbury and therefore may be held at Gillingham to enable the westbound service to proceed unhindered.

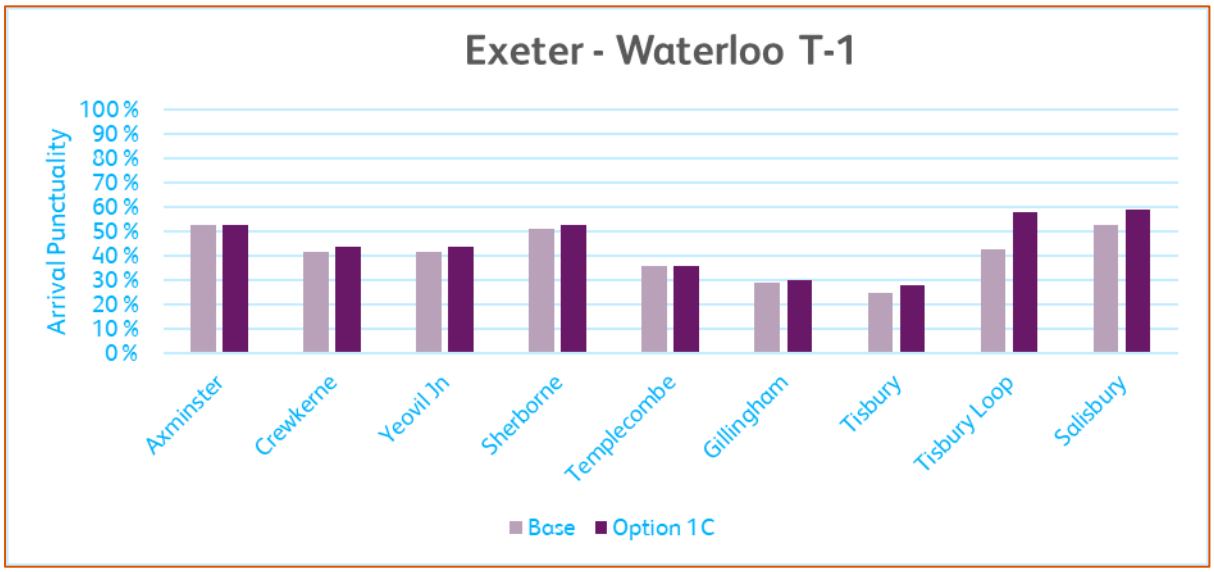



*Figure 3-53: Base vs. Option 1C, T-1 metric, Up direction*

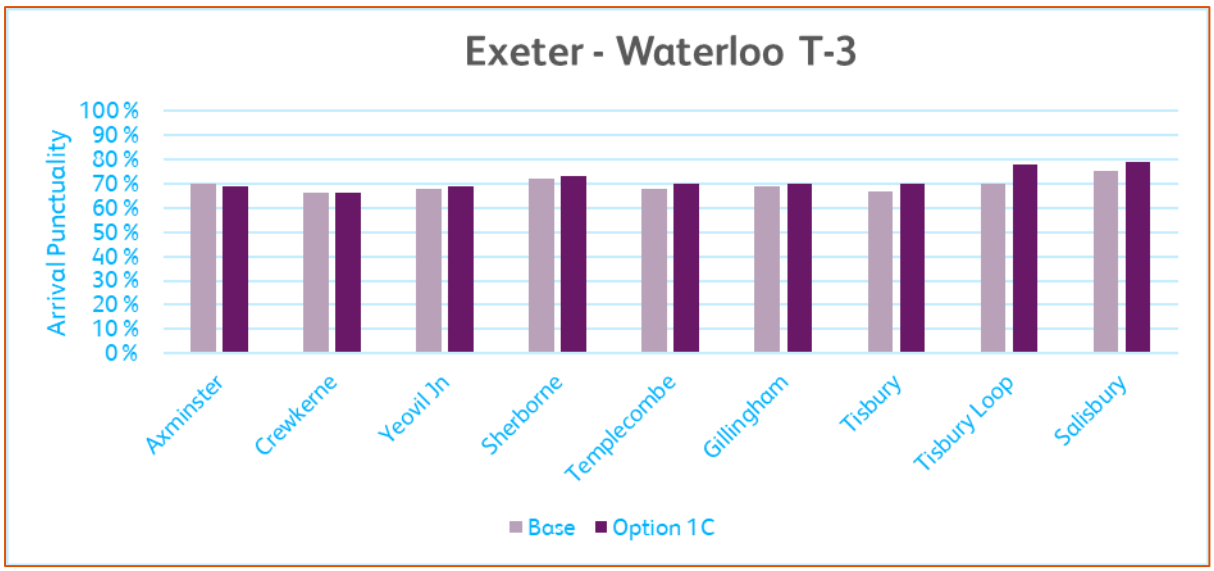



*Figure 3-54: Base vs. Option 1C, T-3 metric, Up direction*

In conclusion, the westward extension of the Tisbury Loop and additional platform at Tisbury does improve the performance of eastbound services. This improvement is shown to be greater after eastbound services leave Tisbury.

Extending the Tisbury Loop even further westward could provide further performance and make this less of an issue, but at an increased capital cost.

#### 3.6.1.1.3 Options 1A & 1B – Performance Impact

Performance simulation analysis was not undertaken for the other two preferred options as there is a recognition that in the current economic climate the most likely approach for delivering change associated with the Tisbury Loop is the implementation of a performance based solution, Option 1C.

The working assumption for Option 1A, where the Tisbury Loop is extended both west and eastward is that based on the analysis for Option 1C, there could be performance benefit achieved, but that this may be tempered by the increased frequency of service.

Option 1B includes an extension of the loop eastward only, and therefore some of the performance benefits of an additional platform would not be realised, however, there will be a reduction in single track meaning some performance benefit can be assumed. Similarly to Option 1A, the operation of additional services could reduce this benefit.

The extension of Tisbury Loop in these options would drop the level of occupation of the single line section from 52 minutes of the hour to 44 minutes, reducing the capacity utilised from 87 % to 73 %. While at an individual service level the performance would be similar to what is currently seen on the West of England Line it would double the number of services exposed to the performance risk associated with the single line sections which interact with the main flows into London Waterloo which would in turn double the already significant performance risk the West of England Line poses to the wider network.

Further analysis of these options should be considered if this proposal is developed beyond SOBC, to confirm the performance impact associated with the additional service.

### 3.6.1.2 Generalised Journey Time (GJT)

Reducing the time taken to travel could increase the level of economic activity. Previous analysis from the Long Distance Market Study, published by Network Rail, has shown that when the time and cost of travel (of any mode) between two places are very long (more than 3 hours), the majority of people do not travel to undertake business interactions.

As the travel time decreases from 3 hours, the barriers to business activity reduce and the interactions between businesses become more likely to take place. Therefore, rail schemes that help to reduce the time (and cost) of travel will increase the level of economic and social activities undertaken.

**Generalised Journey Time (GJT)** captures, in one single measure, rail journey time, frequency (the interval between trains) and interchange (the inconvenience associated with changing trains to complete a journey).

The following 'decay curve' (shown previously in this document) shows how the willingness to travel varies by journey purpose, and how GJT can impact that willingness to travel (**not** West of England Line specific).

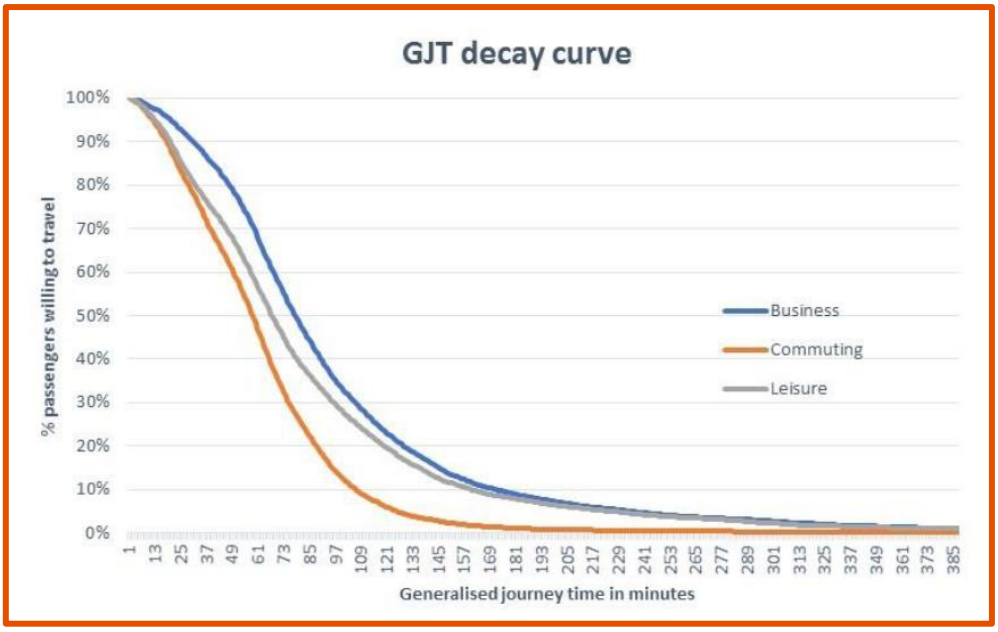



*Figure 3-55: GJT Decay Curve, Better Value Rail Toolkit*[11]

The GJT analysis for this SOBC was undertaken using four proposed timetables, provided by GWR, and assessed against the current timetable to understand the potential GJT impact of each option.

The three options were as follows:

- Option 1A (+1tph, all station stops, east and westward extension of Tisbury Loop)
- Option 1b (+1tph, all station stops, eastward extension of Tisbury Loop)
- Option 1C (all station stops, westward extension of Tisbury Loop)

The following table shows local journeys between Gillingham and Salisbury. Options 1A and 1B show the most GJT improvement, with Option 1A, where the loop is extended the most, seeing the better total GJT.

*Table 3-15: GJT analysis for Gillingham (Dorset) – Salisbury*

| | Rail Journey Time (In Vehicle Time) *(mins)* | Interchange Penalty *(mins)* | Service Frequency Penalty *(mins)* | Total GJT *(mins)* |
|---|---|---|---|---|
| **Today** | 27 | 0 | 29 | 55 |
| **Option 1A** | 25 | 0 | 25 | 50 |
| **Option 1B** | 26 | 0 | 25 | 51 |
| **Option 1C** | 25 | 0 | 29 | 54 |

A similar story is shown for journeys between London Waterloo and Yeovil Junction with the longest extension of the Tisbury Loop, Option 1A, showing the best improvement in GJT.

[11] Guidance on capturing the benefits of rail transport proposals, Better Value Rail Toolkit (Appendix C.01)

*Table 3-16: GJT analysis for London Waterloo – Yeovil Junction*

| | Rail Journey Time (In Vehicle Time) *(mins)* | Interchange Penalty *(mins)* | Service Frequency Penalty *(mins)* | Total GJT *(mins)* |
|---|---|---|---|---|
| **Today** | 180 | 0 | 32 | 212 |
| **Option 1A** | 178 | 1 | 31 | 210 |
| **Option 1B** | 180 | 1 | 31 | 211 |
| **Option 1C** | 178 | 0 | 32 | 211 |

This is repeated for journeys between Salisbury and Tisbury. Option 1C, as in the other scenarios analysed, shows a slight improvement in GJT. This is a minor improvement because there is no additional services operated as a consequence of the infrastructure change.

*Table 3-17: GJT analysis for Salisbury – Tisbury*

| | Rail Journey Time (In Vehicle Time) *(mins)* | Interchange Penalty *(mins)* | Service Frequency Penalty *(mins)* | Total GJT *(mins)* |
|---|---|---|---|---|
| **Today** | 16 | 0 | 29 | 45 |
| **Option 1A** | 15 | 0 | 25 | 40 |
| **Option 1B** | 15 | 0 | 25 | 41 |
| **Option 1C** | 15 | 0 | 29 | 44 |

In conclusion, there is some improvement in GJT across all options, with Option 1A showing the most improvement.

### 3.6.2 Connectivity

"*Provide an additional 1tph serving stations between Salisbury and Yeovil Junction throughout the day, improving choice and connectivity for residents living in locations with a currently low level of service and poor access to amenities.*"

The Rail Minister, Lord Peter Hendy, has stated on the Green Signals podcast that "*…connectivity drives growth, jobs and homes*". This is an important recognition that improvements to connectivity can unlock economic growth in an area and that transport is a key driver.

Preferred options 1A and 1B provide an extension of Tisbury Loop that will enable an additional 1tph service to operate between Salisbury and Yeovil Junction. It has already been shown that the current level of service may not encourage the levels of patronage for local journeys for education, employment, and leisure resulting in high levels of car usage.

By implementing a 2tph service throughout the day, both options will deliver improved connectivity to education, employment, goods and services, and leisure opportunities. Providing additional journey opportunities and therefore making a more attractive service for passengers.

From an employment perspective, any rail service options that connect communities to employment in regional hubs, such as Salisbury and Yeovil are key to widening the pool of prospective employees and unlocking economic growth across the region.

However, this may only be really effective for those residents living along the rail corridor itself as they have more direct access to their local railway station and are therefore more likely to be encouraged to use rail for local journeys by an increase in frequency.

Those residents that are more likely to stay in their car, once in it, may need to be incentivised to use the railway for a local journey.

Providing improved access to the railway through fast, efficient, and comfortable bus services, safe and segregated cycle paths, and walkways, as well as making stations accessible to all passengers, are key ways in which potential passengers can be incentivised to use rail.

This suggests that should Options 1A and 1B considered for further development, connectivity needs to be considered more broadly and from a multi-modal perspective. Not only will this provide a plan for an integrated public transport network, but also provide an opportunity to maximise the wider benefits of connectivity, and push the cultural change needed to get people out of their cars. However, the railway has a role to play in the mosaic of integrated public transport and active travel solutions that could improve connectivity across the region and should be seen as a catalyst for wider transport improvements.

For instance, the railway industry also needs to show that a reliable and resilient train service can be operated that gives passengers a level of confidence that they will make their hospital appointment or arrive at work/college on time. The railway industry continues to work within available funding to identify efficient ways to deliver performance improvements; the new Alliance structure and introduction of Great British Railways (GBR) seeks to bring track and train closer together to make improvements easier to achieve.

### 3.6.3 Growth

"*Unlock potential growth along the corridor by providing a reliable, regular service as an alternative to the dominant private vehicle.*"

The cost of rail infrastructure changes and the operation of new services can be high, and therefore the passenger demand for any proposed service increases, in the example of Options 1A and 1B, needs to be such that modal shift is likely to be achieved. The business case must demonstrate that demand is sufficient to justify the investment that would allow the extension of services to be delivered.

The Economic Case for this SOBC is using a background passenger demand forecast of +45 % increase in demand from 2023 until 2046, which is the final forecast year as per Transport Analysis Guidance (TAG). This demand is a DfT EDGE forecast, based on the January 2024 Demand Driver Generator (DDG).

The following table sets out the growth expected to 2046 (the +45 %) for each of the proposed options. This shows that in 2023, the base year, there were 1,250,000 people travelling through Tisbury, based on the +45 % uplift, this equates to 1,812,000 people travelling through Tisbury by 2046.

*Table 3-18: Demand figures per option*

| | Base Year (2023) | Background demand Uplift (2046) | Option 1A (2046) | Option 1B (2046) | Option 1C (2046) JT benefit to Axminster | Option 1C (2046) JT benefit to Tisbury only |
|---|---|---|---|---|---|---|
| **Demand through Tisbury (passengers/year)** | 1,250,000 | 1,812,000 | 1,854,748 | 1,846,666 | 1,819,957 | 1,814,739 |

Option 1A, both an extension of the Tisbury Loop into the station and eastward to enable a +1tph service, sees the highest increase in demand associated with the service change (a further 42,748 passengers above the background demand). Option 1B, the eastward extension of the Tisbury Loop to enable a +1tph services, sees an increase of 34,666 passengers above the background demand. This is lower than for Option 1A because this option does not have the added journey time benefit associated with extending the loop into Tisbury station.

There are two Option 1C scenarios, both reflecting the westward extension of Tisbury Loop; the first shows the journey time benefit being experienced from Tisbury through to Axminster, and the second with the benefit only being experienced at Tisbury. As these options do not include a service frequency increase, there is expected to be a lower impact on demand. The scenario with journey time benefit through to Axminster sees a further 7,957 people above the background demand uplift, and the remaining scenario sees a further 2,739 increase in passengers above the background demand uplift.

Through the Government's planning reforms, there is a desire to modernise the National Planning Policy Framework (NPPF) to ensure that more housing is delivered, including in "grey belt" areas (low-quality land within the Green Belt) and that affordable housing requirements are met. Higher housing targets are being set to stimulate construction and address the housing crisis.

However, if local authorities do not plan for this housing and employment growth to be situated along the rail corridor, with easy access to rail services, then it will be difficult to show that additional services are required.

Any future investment in West of England Line that is focussed on a frequency increase for connectivity and modal shift benefits (Options 1A and 1B), rather than in response to overcrowding, needs to be aligned to economic growth, the delivery of housing targets and integration with other modes. Without this alignment, it is unlikely that a case could be made for changes to rail services that require enhancement funding.

### 3.6.4 Safety

"*Reduce the risk of level crossing misuse through replacement of Chantry Level Crossing with an accessible interchange bridge. Encourage residents to travel by rail and reduce the risk of road traffic collisions through supressing growth in road journeys.*"

#### 3.6.4.1 Level Crossings

There are several level crossings that could be impacted by proposals to extend the Tisbury Loop; at this early stage of development a full assessment of level crossing risk has not been undertaken.

However, Chantry Level Crossing (LX) at Tisbury station is considered in this SOBC owing to the opportunity that an additional platform and extension of the loop presents to close the level crossing.

Chantry Footpath (FP) LX is a passive level crossing supporting a Public Right of Way (PRoW) (TISB15). The path is one of many interconnecting rural rights of way in the local area, many of which cross the West of England Line.

*Figure 3-56: Chantry Level Crossing*

The crossing connects the edge of the village to a mainly disused industrial estate, called the Station Works site, and then on through the countryside; it is predominantly used by local residents.

The crossing has a timber deck with a small step within the traverse, protected by timber gates and owing to a lack of available sighting, Whistle Boards (WB) and a warning bell are fitted to warn of approaching trains.

The crossing connects the edge of the village to a mainly disused industrial estate, called the Station Works site, and then on through the countryside; it is predominantly used by local residents. The crossing has a timber deck with a small step within the traverse, protected by timber gates and owing to a lack of available sighting, Whistle Boards (WB) and a warning bell are fitted to warn of approaching trains.

The decision on whether it is safe to cross is left to the user based on their ability to see and/or hear an approaching train. Signs on both crossing approaches direct the user to "*Stop Look Listen Beware of Trains*" and "*Not to cross while bell is sounding*".

The Station Works site is subject to a planning application to develop a housing estate and care home. Should the development progress, a solution to increased safety risk at Chantry LX will need to be found.

Currently, this level crossing is ranked as the 47$^{th}$ riskiest of 142 open footpath crossings and 125$^{th}$ out of 299 of all crossings on the Wessex Route.

The key risk drivers are:

- Railway cause: insufficient sighting (36 %)
- User distracted / forced by dog (loss of control) (22 %)
- User does not stop look listen (20 %)
- Slips, trips, falls or snagged on crossing (12 %)
- User is unaware of crossing (6 %)
- User tries to cross in front of train (4 %)

The top three drivers in the list above account for 78 % of the risk at the crossing, this indicates the main risks are from reduced sighting due to track curvature and vegetation growth, and the reliance on the user not to be distracted and follow the direction of signage.

At present the mitigation provided by the bell and WBs is suitable and the risk at the level crossing is acceptable. However, the progression of the Station Works development and/or the delivery of one of the options included in this SOBC provide an opportunity to close the level crossing.

Options 1A and 1C, which both include the extension of the loop into the station and the addition of a second platform, would require an accessible solution to crossing between platforms and therefore a bridge with lifts would be provided. This would enable the crossing to be closed and the PRoW to be diverted across the bridge.

### 3.6.4.2 Station Improvements

Options 1A and 1C offer an opportunity to make improvements to Tisbury station. The implementation of an additional platform and the associated accessible bridge will provide a safe route across the railway, as discussed above.

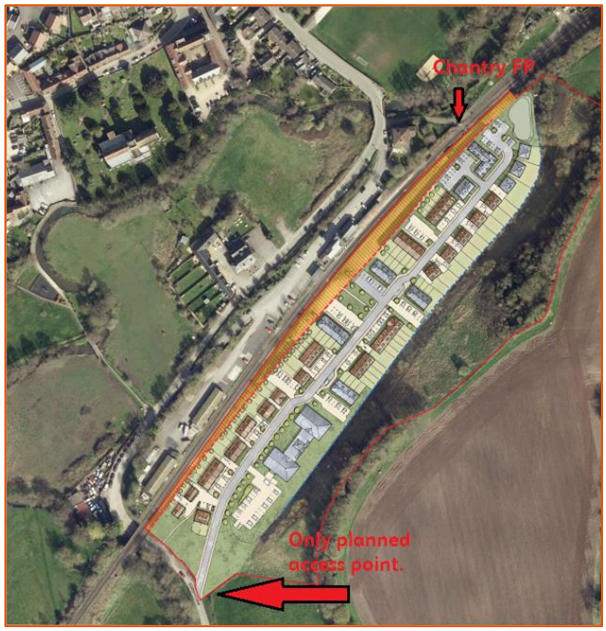



*Figure 3-57: Land set aside for a new platform in current plans for development of the Station Works site*

The land required for the additional platform is not wholly in Network Rail's possession. However, the Tisbury Neighbourhood Plan makes express provision for any development on the Station Works site to set aside land that can be used for an additional platform and station entrance.

It is proposed that the area in yellow be allocated for any future platform at Tisbury station. The only planned access point to the new development is via the underbridge to the south, a location impacted by flooding.

At the time of drafting the application has been rejected due to a lack of suitable pedestrian egress and exit.

Regardless, of whether the Station Works development is brought forward, the changes proposed to the station as part of Options 1A and 1C provide the opportunity to carry out maintenance and improvement works on the current platform and other station assets.

The SWR Station Travel Plan for Tisbury, suggests some recommendations for improving access to the station:

1. Provide improved pedestrian walking routes, particularly through forecourt to route towards town centre
2. Improve cycle parking at the station, such as providing shelter
3. Provide physical bus stops on Station Road (where stops B and C are marked), with appropriate signage from station
4. Improve bus timetables to include Tisbury Station

These recommendations should be considered if the loop extension into Tisbury station is developed further.

## 3.7 Recommendations

The recommendations for this SOBC have been categorised as:

- Wider recommendations: these are the recommendations that are better led by local stakeholders, such as the local authorities or Western Gateway STB
- Railway recommendations: these are the recommendations that are better led by the railway industry

The recommendations are detailed below.

### 3.7.1 Railway Recommendations

Although the service frequency changes tested through this SOBC have not resulted in a value for money business case, there are opportunities for the rail industry to seek incremental improvements that align with the 'wider recommendations' detailed above.

The railway recommendations are as follows.

#### R1. Progress Option 1C

This SOBC has shown that the best case for investment is Option 1C, the westward extension of the Tisbury Loop into Tisbury station. The aim of this option is to provide performance improvement and a better passenger experience through the delivery of an additional platform, whilst providing some of the infrastructure required to increase frequency in the future.

The strategic case for this SOBC has shown the wider performance issues that are caused by the West of England Line in terms of reactionary delay and the resilience of the line and service to climate related issues such as Soil Moisture Deficit (SMD). These alone, regardless of any SOBC level BCR, are sufficient to warrant further development and investigation of Option 1C.

More in depth analysis is required to bring together all the performance benefits that this scheme could have, see recommendation **R4**, below, so that they can be incorporated at an Outline Business Case (OBC) or other level of development.

The opportunity to develop Option 1C further is through alignment with the signalling renewals workbank as described in recommendation **R2**, below. This will allow assumptions on design and delivery efficiencies to be refined, and the efficiencies that enhanced renewals can provide will be maximised.

The impact of extending the loop further for performance improvement, rather than for additional services, should also be considered to understand the feasibility and increase in performance benefit that could be achieved.

#### R2. Seek opportunities through the renewals workbank

Network Rail's renewals programme seeks to provide a modern equivalent for infrastructure renewals, replacing assets with modern, technologically advanced equivalents rather than simply replicating the old infrastructure. This approach aims to improve efficiency, reliability, and sustainability.

Improving the capability of rail infrastructure to provide for the performance improvements that an extension to the Tisbury Loop can deliver is likely to require additional enhancements funding to make a step change in capability.

However, it is recommended that Wessex Strategic Planning seek to influence the renewals programme and continue to identify opportunities within the renewals workbank to make incremental changes to the capability of the infrastructure, specifically in respect to signalling infrastructure in the Salisbury signalling area. The Salisbury signalling renewals scheme is planned for delivery in Control Period 8 (CP8 - 2029 to 2034) and remitting of the project will start in 2026. The Wessex Strategic Planning have already opened up discussions with Asset Managers.

It is shown through the cost estimates for this SOBC that it is more efficient for infrastructure enhancements to be delivered in conjunction with renewals, particularly in the case of signalling. Further refinement of costs at the next stage could demonstrate an even greater level of efficiency.

Importantly, developing Option 1C in alignment and synergy with the Salisbury signalling renewals scheme will allow the capital costs of the loop extension to be refined and efficiencies maximised so they are not based on high level assumptions, as is the case at SOBC level.

It has also been shown that asset renewals and enhancements can improve infrastructure reliability and performance through the delivery of modern assets.

### R3. Seek incremental service change opportunities

Network Rail is responsible for coordinating and validating timetables for the national rail network. Each train and freight operating company develops the timetable they would like to run in their area, and Network Rail then coordinates all the different timetables to produce a single national rail timetable.

The timetable is updated for the national rail network twice a year, once in May, and once in December. This allows train and freight operating companies a regular opportunity to make changes to their services – run more or new services, change the timing of their services, and/or change their routes.[12]

Through the timetable change process, the rail industry should identify what service improvements can be progressed in advance of delivering the full all day service frequency increases. For instance:

- Improving Sunday and Public holiday timetable to reflect growing leisure demand
- Individual, extensions to Salisbury services to Gillingham or Yeovil Junction that are not operated on a repeating, hourly basis but which provide incremental frequency benefits

Over time, these incremental service changes can make the best use of current capability, whilst being aware of the operational, resilience and performance impacts that could occur. This recommendation does not guarantee that there are opportunities to extend individual services beyond Salisbury, only that they should be looked at as part of industry timetable processes.

12 https://www.networkrail.co.uk/wp-content/uploads/2017/11/How-rail-timetabling-works-factsheet.pdf

#### R4. Performance analysis

Subject to funding, additional performance analysis should be undertaken to bring together all the performance analysis and simulation work that has been undertaken by Network Rail and SWR on the West of England Line.

This analysis includes work looking at reactionary delay caused by West of England Line services to the rest of the rail network. Further analysis is required to disaggregate this delay to confirm the amount of the circa £40m of delay experienced on the SWML is attributable to the Tisbury area and to understand how the extension of the Tisbury Loop could reduce this.

In addition, further work will be required to understand how the extension of the Tisbury Loop could have mitigated against the reduction in service frequency that has been implemented in summer 2025 owing to Soil Moisture Deficit (SMD). This strategic case has addressed this at a high level based on emerging performance data, but a complete data set is required to provide a deeper understanding of how Option 1C could have mitigated the need to reduce the service.

This additional performance analysis should be undertaken as part of further development of Option 1C in conjunction with the development of the Salisbury signalling renewals scheme as described above.

It is not recommended that analysis to understand the performance improvement that could be achieved by implementing Options 1A and 1B is undertaken at this time as the focus should be on Option 1C. Although these options may also provide performance benefit owing to the longer length of loop extension, it should be noted that additional services may absorb any performance benefit provided by enhanced infrastructure.

Providing a robust timetable that can be operated on resilient infrastructure is key to building passenger confidence and encouraging modal shift away from the car.

### 3.7.2 Wider Recommendations

This SOBC has demonstrated that there are significant benefits and a good strategic case for improving rail service performance and that local connectivity has the potential to be improved through additional services.

A case can be made for making performance improvements on the West of England Line, as shown in the railway recommendations above. However, to make the case for frequency improvements will require evidence that passenger numbers will be sufficient to justify the investment in railway infrastructure and operations.

The wider recommendations are as follows.

#### W1. Focus housing and employment growth on the rail corridor

To improve the economic case for rail service enhancements demand needs to be maximised and rail needs to be a convenient mode of choice. This increase in demand could be achieved by locating both employment and housing developments close to a railway station. This is, perhaps, the most important of the recommendations described here.

The government's National Planning Policy Framework (NPPF) reforms and housing targets will see the need for significant housing to be allocated within the scope area of this SOBC.

Where possible, housing allocations should be made within easy reach of railway stations, this not only supports the case for train service improvements but is likely to require investment in active travel modes rather than other, possibly more expensive, ways of connecting people from further afield.

The local authorities within the scope area of this SOBC are all assessing where their housing and employment allocations should be made, so refreshing the rail only economic case should be considered, as well as incorporating the allocations into the multi-model study, recommended above.

### W2. Take advantage of regeneration and development proposals

This recommendation is focussed on incorporating rail improvements into wider regeneration plans. For instance, the proposed redevelopment of the Station Works site at Tisbury offers an ideal opportunity to remove Chantry Level Crossing.

Section 106 or CIL funding should be considered for rail improvements, particularly where enhancements can be made to railway stations to improve facilities or accessibility, or to active travel routes to improve permeability and tackle severance.

### W3. Make improvements to other public transport modes

Upgrades to other public transport modes, such as bus services, should be explored to show how local authorities are working with transport operators to provide better access to railway. This has the potential to show central government that there is a commitment to connectivity and reiterate the need for integration with an enhanced rail service offering.

Local Authority BSIP proposals offer a vehicle for seeking funding for bus improvements. BSIP funding for Local Transport Authorities in 2025/26 includes:

- Dorset Council: £3,815,959
- Somerset Council: £6,849,770
- Wiltshire Council: £6,874,997[13]

Local Authorities are already prioritising these funds to support wider connectivity across their respective areas, including community transport schemes, rural accessibility, and service frequency uplifts. In addition, Bus Operators have received funds from the Bus Service Operators Grant (BSOG) to support services and keep fares down.

These recommendations reinforce the importance of an integrated public transport system within the scope area with rail improvements at its core, whilst also providing tangible connectivity benefits in the short term.

[13] https://www.gov.uk/government/publications/bus-service-improvement-plans-local-transport-authority-allocations/total-combined-bus-funding-allocations-2025-to-2026

# 4 Economic Case

## 4.1 Executive Summary

The Economic Case for the **Tisbury Loop** (Salisbury to Yeovil Junction Service Enhancements) Strategic Outline Business Case (SOBC) assesses value for money calculated from the total benefits to society and the private sector against the costs to government of the scheme over a 60-year appraisal period, in accordance with DfT Transport Analysis Guidance (TAG)[14].

This appraisal models the following benefit drivers:

- **Passenger journey time benefits:** passengers experience an improved timetable offering as new infrastructure enables an additional +1 train per hour (+1tph) between Tisbury and Yeovil Junction station and/or re-timings to allow existing down trains to arrive earlier at stations between Tisbury and Axminster.

- **Performance benefits:** fewer delays within the immediate study area due to the extension of the Tisbury Loop and new platform which allows trains to pass within the station rather than be held outside.

The benefits drivers are modelled against the following cost drivers:

- **Capital expenditure:** the infrastructure costs of building the proposed schemes.

- **Operating expenditure:** costs of train leasing, staffing, fuel, and maintenance to provide and operate the additional services.

The appraisal considers four infrastructure interventions:

- **Option 1:** Eastward extension of the Tisbury Loop, to enable an additional +1tph between Tisbury and Yeovil Junction.

- **Option 2:** Westward extension of the Tisbury Loop with a new **8-car platform**, to enable existing down trains to arrive earlier at stations between Tisbury and Axminster.

- **Option 3:** Westward extension of the Tisbury Loop with a new **3-car platform**, to enable existing down trains to arrive earlier at stations between Tisbury and Axminster.

- **Option 4:** Eastward extension and westward extension of the Tisbury Loop with a new 8-car platform, to enable an additional +1tph between Tisbury and Yeovil Junction, and existing down trains to arrive earlier at stations between Tisbury and Axminster.

The appraisal considers two different delivery options for each of the above infrastructure interventions:

- **Option A:** delivery as a standalone enhancement.

- **Option B:** delivery alongside the planned CP8 Salisbury re-signalling.

[14] A full explanation of TAG can be found at gov.uk/guidance/transport-analysis-guidance-webtag

The central case assumes **partial electrification** of the West of England line to at least Yeovil. The appraisal assumes the service extensions enabled by the eastward extension of the loop will be operated by battery electric multiple units (BEMUs).

Background passenger demand growth on the West of England line is included in the appraisal and is assumed to be +45% (2023-2046). This forecast is based on DfT's EDGE demand forecasting framework. Varying the passenger demand scenario does not have material impact on the conclusions of the economic case.

Appraisal results are summarised in Table 4.1. Under all central case scenarios considered, the BCRs are below one and the Value for Money rating is **Poor**. The upfront capital costs and (where applicable) ongoing train operating costs outweigh the journey time benefits generated by the proposals.

*Table 4.1. Summary of central case appraisal outputs*

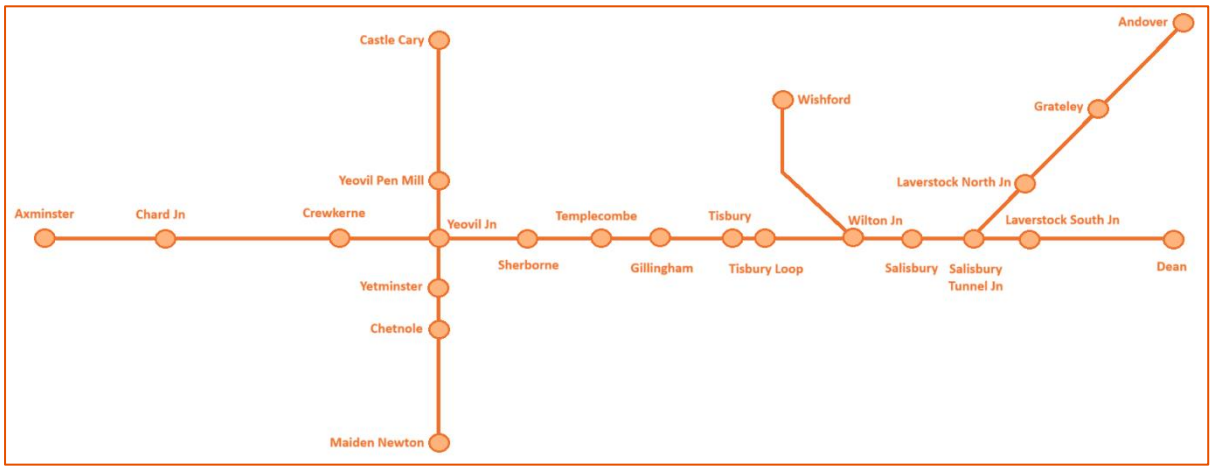
| Strategic case option | Appraised economic case option (central case) | Benefit Cost Ratio (BCR) | Value for Money (VfM) |
|---|---|---|---|
| 1B | **Option 1A:** Eastward extension of Tisbury Loop, BEMU units, stand-alone | **0.05** | Poor |
| 1C | **Option 2A:** Westward extension of Tisbury Loop, 8-car platform, stand-alone | **0.20** | Poor |
| 1C | **Option 2B:** Westward extension of Tisbury Loop, 8-car platform, delivered alongside CP8 re-signalling | **0.21** | Poor |
| 1C | **Option 3A:** Westward extension of Tisbury Loop with, 3-car platform, stand-alone | **0.21** | Poor |
| 1C | **Option 3B:** Westward extension of Tisbury Loop with new 3-car platform, delivered alongside CP8 re-signalling | **0.22** | Poor |
| 1A | **Option 4A:** Eastward and Westward extension of Tisbury Loop, new 8-car platform, BEMU units, stand-alone | **0.08** | Poor |
| 1A | **Option 4B:** Eastward and Westward extension of Tisbury Loop, new 8-car platform, BEMU units, delivered alongside CP8 re-signalling | **0.08** | Poor |

Sensitivity analysis tests how the Value for Money for the options including an **eastward extension** would change if partial electrification was not delivered on the West of England Line, and if the service extensions were operated by diesel units. Under all options tested the BCRs drop below zero and the Value for Money worsens due to the environmental disbenefits of additional diesel emissions.

The **eastward extension** options appraise extending the Basingstoke-Salisbury services from the Summer 2023 timetable to Yeovil Junction. Further sensitivity analysis on the eastward extension considers a more recent timetable base where London-Salisbury services are extended to Yeovil Junction. The benefits are increased by a magnitude of two but the BCRs still remain far below one as the costs still outweigh the benefits.

Performance modelling was completed on the **westward extension** options only. The performance model captured benefits within the study area shown in Figure 1.1. and did not capture the wider reactionary delay across the network that can be traced back to the single-line sections of the West of England line. **This represents a major risk when drawing Value for Money conclusions from the economic case.**

*Figure 4-1. Study area for Tisbury Loop performance modelling*



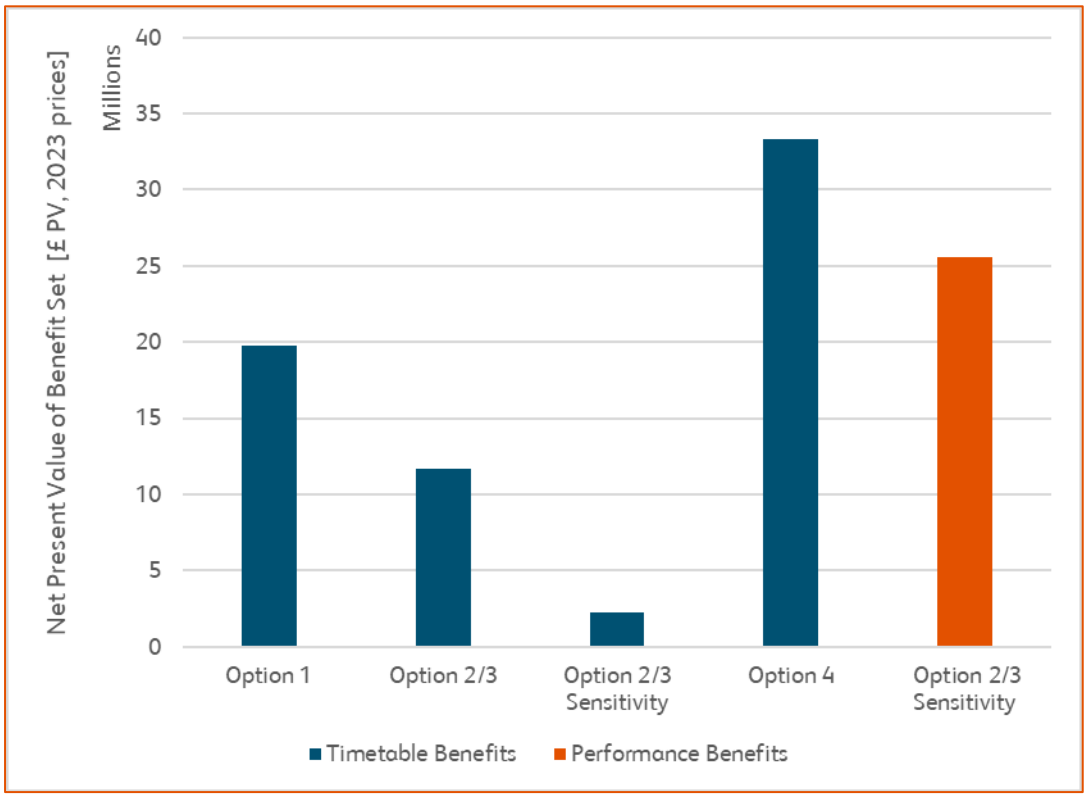

Performance benefits were included in sensitivity analysis due to differences in the timetables modelled in the performance model versus those modelled in the economic case. Appraisal results are summarised in Table 4.2. With the inclusion of the performance benefits, the BCRs are significantly increased but remain below one as the costs still outweigh the benefits.

*Table 4.2. Summary of sensitivity appraisal outputs including performance benefits*

| Strategic case option | Appraised economic case option (sensitivity) | Benefit Cost Ratio (BCR) | Value for Money (VfM) |
|---|---|---|---|
| 1C | **Option 2A SEN:** Westward extension of Tisbury Loop, 8-car platform, stand-alone | **0.64** | Poor |
| 1C | **Option 2B SEN:** Westward extension of Tisbury Loop, 8-car platform, delivered alongside CP8 re-signalling | **0.69** | Poor |
| 1C | **Option 3A SEN:** Westward extension of Tisbury Loop with, 3-car platform, stand-alone | **0.67** | Poor |
| 1C | **Option 3B SEN:** Westward extension of Tisbury Loop with new 3-car platform, delivered alongside CP8 re-signalling | **0.72** | Poor |

Figure 4-2 shows the relative magnitude of the performance benefits (captured in sensitivity tests on the option 2 and option 3 **westward extension** options only). The performance benefits within the immediate study area outweigh the timetable benefits enabled by the westward extension (options 2 and 3).

*Figure 4-2. Relative magnitude of performance benefits vs timetable benefits*




Key risks of the economic case include:

- **Performance** modelling not capturing the full picture as the modelling outputs are limited to the immediate study area. Reactionary delay across the wider network is understood to be material but is not represented in the modelling.

- The **SWR timetable recast** which may change the timetable in the modelled area. Current proposals for the recast involve trains passing at Gillingham rather than in Tisbury Loop. Further work needs to be done to understand how this would impact the need for the Tisbury Loop infrastructure and/or the timetable changes from which the benefits are derived.

The SOBC recommends progressing the westward extension option (option 1C in the strategic case, options 2 and 3 in the economic case) to OBC. The economic case notes this option currently offers **Poor Value for Money** but agrees that the performance benefits are not fully captured in the economic appraisal, and that further work would be required to fully understand the magnitude of the potential performance benefits and interfaces with the SWR recast.

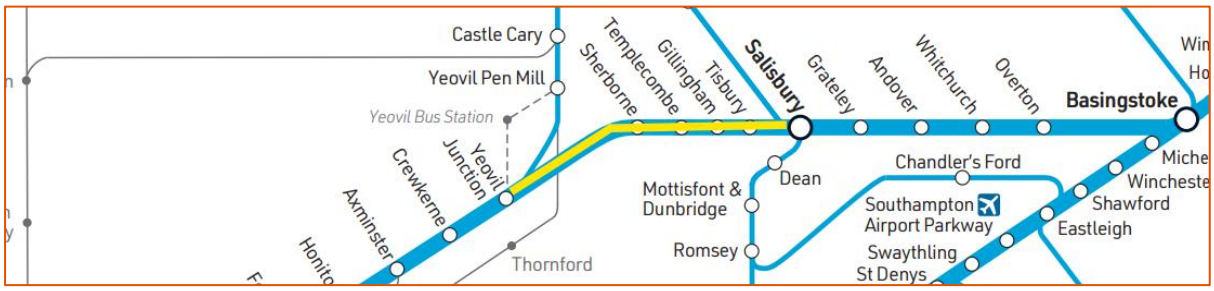
## 4.2 Appraisal overview and assumptions

This section provides an overview of the appraisal and the key assumptions, including demand forecasting.

### 4.2.1 Appraisal overview

The **Tisbury Loop** programme proposes infrastructure enhancements that would enable an improved timetable offering in the core Tisbury Loop study area, as shown in Figure 4-3.

*Figure 4-3. Tisbury Loop Study Area*




In line with TAG guidance, the 'with-scheme' case is appraised against a 'without-scheme' case. The 'without-scheme' or **Do Minimum** case represents a future where the proposed scheme is not funded and developed, and the timetable remains as in the assumed base timetable. The base timetable assumed is the Summer 2023 timetable in which the Salisbury terminators operate between Salisbury and Basingstoke. In the current timetable (Summer 2025) the Salisbury terminators operate between Salisbury and London Waterloo.

The **Tisbury Loop SOBC** appraisal therefore tests extending services to Yeovil Junction which run to/from Basingstoke. At a high level this offers:

- **Northbound (Up):** Approximately 1tph Exeter St. David's to London Waterloo and 1tph Salisbury to London Waterloo/Basingstoke. In the AM peak some of the services starting from Salisbury are extended back to start from Gillingham/Honiton/Yeovil Pen Mill/Yeovil Junction. This gives 1tph through Tisbury with 2tph in the AM peak.

- **Southbound (Down)**: Approximately 1tph London Waterloo to Exeter St. David's and 1tph London Waterloo/Basingstoke to Salisbury. In the PM peak some of the services terminating at Salisbury are extended to terminate at Gillingham/Yeovil Pen Mill/Yeovil Junction. This gives 1tph through Tisbury with 2tph in the PM peak

The strategic case notes the current timetable (Summer 2025) has a short-term timetable change in place to reduce the service between Yeovil Junction and Exeter St David's from 1tph to 0.5tph to accommodate speed restrictions due to weather conditions causing Soil Moisture Deficit (SMD). Such emergency timetable changes are not included in the economic appraisal.

#### 4.2.1.1 Infrastructure options

The appraisal considers four infrastructure interventions:

- **Option 1:** Eastward extension of the Tisbury Loop, to enable an additional +1tph between Tisbury and Yeovil Junction.

- **Option 2:** Westward extension of the Tisbury Loop with a new **8-car platform**, to enable existing down trains to arrive earlier at stations between Tisbury and Axminster.

- **Option 3:** Westward extension of the Tisbury Loop with a new **3-car platform**, to enable existing down trains to arrive earlier at stations between Tisbury and Axminster.

- **Option 4:** Eastward extension and westward extension of the Tisbury Loop with a new 8-car platform, to enable an additional +1tph between Tisbury and Yeovil Junction, and existing down trains to arrive earlier at stations between Tisbury and Axminster.

#### 4.2.1.2 Delivery options

The appraisal considers two different delivery options for each of the above infrastructure interventions:

- **Option A:** delivery as a standalone enhancement.
- **Option B:** delivery alongside the planned CP8 Salisbury re-signalling.

#### 4.2.1.3 Central case appraisal options

The central case assumes **partial electrification** of the West of England line to at least Yeovil. The appraisal assumes the service extensions enabled by the eastward extension of the loop will be operated by battery electric multiple units (BEMUs).

*Table 4.1. Overview of central case design options, passenger impacts and infrastructure*

| Design option | Infrastructure required and delivery | Overview of passenger impact |
|---|---|---|
| Option 1A | Eastward extension of Tisbury Loop, BEMU units, stand-alone | +1tph between Tisbury and Yeovil Junction |
| Option 2A | Westward extension of Tisbury Loop, 8-car platform, stand-alone | Existing down trains to arrive earlier at stations between Tisbury and Axminster |
| Option 2B | Westward extension of Tisbury Loop, 8-car platform, delivered alongside CP8 re-signalling | Existing down trains to arrive earlier at stations between Tisbury and Axminster |
| Option 3A | Westward extension of Tisbury Loop with, 3-car platform, stand-alone | Existing down trains to arrive earlier at stations between Tisbury and Axminster |
| Option 3B | Westward extension of Tisbury Loop with new 3-car platform, delivered alongside CP8 re-signalling | Existing down trains to arrive earlier at stations between Tisbury and Axminster |
| Option 4A | Eastward and Westward extension of Tisbury Loop, new 8-car platform, BEMU units, stand-alone | +1tph between Tisbury and Yeovil Junction<br>Existing down trains to arrive earlier at stations between Tisbury and Axminster |
| Option 4B | Eastward and Westward extension of Tisbury Loop, new 8-car platform, BEMU units, delivered alongside CP8 re-signalling | +1tph between Tisbury and Yeovil Junction<br>Existing down trains to arrive earlier at stations between Tisbury and Axminster |

#### 4.2.1.4 Sensitivity options

The economic appraisal considers three sensitivity tests:

1. Sensitivity analysis to assess how the Value for Money for options including an **eastward extension** would change if partial electrification was not delivered on the West of England Line, and if the service extensions were operated by diesel units.

2. Sensitivity analysis to assess how the Value for Money for options including a **westward extension** would change if existing down trains arrive early **at only Tisbury** station and performance benefits are included.

3. In the base timetable assumed in the economic appraisal (Summer 2023) most Salisbury terminators/originators operate between Salisbury and Basingstoke. Sensitivity analysis on

the **eastward extension** options considers a more recent timetable base where services between Salisbury and London Waterloo are extended to Yeovil Junction.

### 4.2.2 Appraisal assumptions

A summary of key appraisal assumptions is below in Table 4.2. A full table of appraisal assumptions can be found in the economic case appendix.

*Table 4.2. Summary of key appraisal assumptions*

| Assumption | Value | Source | Comment |
|---|---|---|---|
| Current year and model base year | 2025 | TAG | Current year at the time of appraisal is the model base year |
| First year of benefits | Option **1A/4A/4B**: 2033<br>Option **2A/2B/3A/3B**: 2032 | Project Team | Opening year of scheme |
| Appraisal period (years) | 60 | Project Team | The maximum is 60 years under TAG. |
| Price base year | 2023 | TAG (Unit A1.1, Para 2.6.3) | Values converted from model base year to price base year using GDP deflator. |
| Base year for discounting | 2023 | TAG (Unit A1.1, Para 2.7.6) | |
| Discount rate (Social Time Preference Rate) | 3.5 % for 30 years from the current year, 3.0 % for the next 45 years and 2.5 % thereafter. | TAG (May 2023 v1.21 data book) and HM Treasury Green Book | |
| Capital cost optimism bias | 56 % at Project Development Stage 1, aligning with PACE ES stage 1 | TAG (Unit A5.3, May 2023 v1.21 data book, Table 3) | Optimism bias is not applied to cost savings |
| Operating cost optimism bias | Option **1A/4A/4B**: 21 % at Project Development Stage 3 or 4 | TAG (Unit A5.3, May 2023 v1.21 data book, Table 3). All rates treated as per annum | Optimism bias is not applied to cost savings |
| Final forecast year, and from which benefits increase with population growth | 2046 | TAG (Unit A5.3, 3.3.1) | This cap year also applies to fare increases applied (see below) and any real terms cost increases applied (see above). |
| Average fare increases ( % per annum above RPI) | 1.0 % to final forecast year<br>0.0 % thereafter | DfT advice | Revenue growth includes increase in RPI relative to GDP deflator until final forecast year. |

### 4.2.3 Demand forecasting

The demand forecast used in the appraisal is the DfT TAG central case, based on the January 2025 release of the DfT's Demand Driver Generator (DDG) dataset of forecasted variables that are deemed to impact rail demand growth. The dataset is run through the DfT's Exogenous Demand Growth Estimator (EDGE) model to produce a demand forecast specific to trains travelling through Tisbury station, which is deemed an appropriate forecast to apply to the modelled geography. The forecast is referred to as the Jan24 DDG forecast hereafter.

The demand forecast is +45 % and is applied from 2023 until 2046, which is the final forecast year in TAG. Beyond 2046 until the end of the appraisal period, demand increases in line with national background population growth, as specified by TAG.

## 4.3 Appraisal methodology

This section summarises the methodology and addresses the main benefits and costs modelled in the economic appraisal.

### 4.3.1 Passenger journey time benefits

The proposed enhancements will allow an improved timetable offering in the study area as new infrastructure enables an additional +1tph between Tisbury and Yeovil Junction station and/or re-timings to allow existing down trains to arrive earlier at stations between Tisbury and Axminster. Benefits relating to this derive from:

- **User benefits:** passengers experience lower Generalised Journey Times (GJTs) due to an improved timetable.
- **Revenue impacts**: additional passengers encouraged to travel by rail due to the improved timetable.
- **Non-user benefits:** from a reduction in road vehicles as a result of modal shift from road to rail.

The benefits are measured using the MOIRA2.2 timetable modelling software where the timetables with the service changes were run against a Summer (June) 2023 'Do Minimum' timetable.

Crowding is not modelled in MOIRA2.2. Benefits are calculated for one modelled year (base year) then grown over time with exogenous demand forecasts as detailed in Section 4.2.3.

*Table 4.3. Journey time benefit assumptions*

| Assumption | Value | Comments |
|---|---|---|
| Benefit start date | Option **1A/4A/4B**: 2033<br>Option **2A/2B/3A/3B**: 2032 | |
| Days of operation assumed per year | 363 | |
| Base timetable | Summer 2023 Weekday timetable | As supplied in MOIRA2.2 software by Resonate |
| GJT demand elasticities | PDFH v6.0 | |
| Demand and revenue data | MOIRA2 Year to March 2024 base matrix, adjusted for split ticketing | |

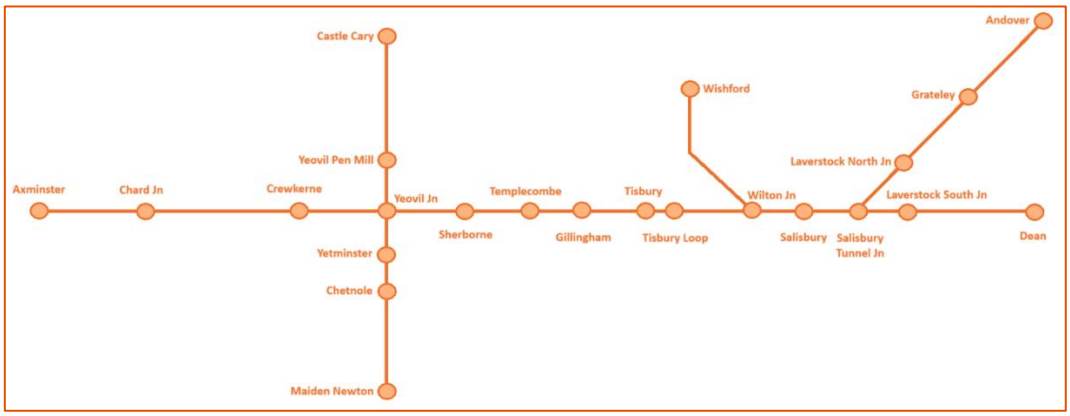
### 4.3.2 Performance benefits

At present Tisbury station has a single platform and services must dwell in the Tisbury Loop for other services to pass. This impacts West of England Line delays due to dwelling services in the loop being held by late Eastbound services. The proposed **westward extension** of the Tisbury Loop and the incorporation of a second platform are expected to improve performance. Trains will be allowed to arrive earlier at the second platform at Tisbury station and pass each other in the station instead of passing at Tisbury Loop as presently, resulting in fewer knock-on delays. Benefits derive from:

- **User benefits:** reduced delays and the impact on existing passengers.
- **Revenue impacts**: additional passengers travelling who otherwise would have been deterred by poor performance.
- **Non-user benefits:** from a reduction in road vehicles as a result of modal shift from road to rail.

Modelling was commissioned using RailSys, which is rail industry software that enables the technical and operational planning of the railway and timetables. This model calculated Average Minutes Lateness (AML) on arrival at stations within the study area displayed in Figure 4-4.

*Figure 4-4. Tisbury Loop performance model boundaries*




AML was reported for the two timetables detailed in Table 4.4.

*Table 4.4. Performance modelling timetables*

| Scenario | Modelled timetable | Comments |
|---|---|---|
| Do Minimum | December 2024 | Does not align with the Summer 2023 base timetable assumed in the economic appraisal, although we do not note any major differences in our study area between the two timetables |
| Do Something | As above with Down trains arriving up to 4.5 minutes earlier at Tisbury station only | Does not align with the central case timetable modelled for Options 2 and 3 where Down trains arrive up to 4.5 minutes earlier at Tisbury and all stations down to Axminster<br>*Modelled in MOIRA as the Option 2 and 3 sensitivity timetable.* |

Performance modelling only considered the **westward extension** in isolation. It did not look at the eastward extension, or a combination of both extensions.

Neither of the timetables modelled in RailSys match exactly with the timetables modelled in the economic appraisal. This introduces risk into the results and conclusions drawn. As a sensitivity, the Do Something timetable modelled in RailSys was replicated in MOIRA2. This is referred to as the Option 2 and 3 sensitivity timetable.

Schedule 8 payment rates estimate the revenue impact of a one-minute delay per service group at designated monitoring points. The total revenue benefit of the AML changes in the Option 2 and 3 sensitivity timetable is the sum of the changes in these rates across the impacted service groups at relevant monitoring points. Judgement was applied to assign appropriate monitoring points to the stations output from RailSys.

*Table 4.5. Summary of change in AML by service group (negative signifies reduction in AML)*

| Timing Point | Direction | AML Change (seconds) | Service Group | TOC |
|---|---|---|---|---|
| **Salisbury** | Forward | -2 | EF13 | SWR |
| **Frome** | Forward | -5 | | |
| **Weymouth** | Forward | -8 | | |
| **Salisbury** | Forward | -11 | HY03 | GWR |
| **Yeovil Junction** | Forward | -6 | | |
| **Romsey** | Forward | -1 | HY08 | |
| **Salisbury** | Reverse | -0.03 | EF13 | SWR |
| **Westbury** | Reverse | -9 | | |
| **Exeter Central** | Reverse | -28 | EF11 | |
| **Salisbury** | Reverse | -0.3 | HY03 | GWR |
| **Yeovil Junction** | Reverse | -48 | | |
| **Salisbury** | Reverse | 2 | HY08 | |

The user and non-user impacts of the AML changes are estimated using ratios of user to non-user benefits to revenue, derived from modelling the effect of a one-minute change in journey time for each impacted service code within scope.

The performance modelling was run for a weekday timetable but benefits are applied to all days of the week. This is noted as a risk.

*Table 4.6. Performance benefit assumptions*

| Assumption | Value | Comments |
|---|---|---|
| Benefit start date | Option **2A/2B/3A/3B**: 2032 | Performance benefits only apply to the options modelling a westward extension, and as a sensitivity |
| Days of benefit assumed per year | 363 | Performance model run on weekday timetable but benefits applied to all days of the week |

| Assumption | Value | Comments |
|---|---|---|
| Payment rates | CP8 Schedule 8 payment rates | Commercially confidential |
| GJT demand elasticities | PDFH v5.1 with Oxera Semi-Elasticity | |
| Demand and revenue data | MOIRA1 Year to March 2025 base matrix, adjusted for split ticketing | |

### 4.3.3 Capital costs

Capital costs are derived from assured cost plans provided by the Network Rail Southern Region Cost Planning Team. The costs are estimated at PACE Stage 1 and are appraised with +56 % optimism bias, deemed appropriate for an SOBC as per TAG.

The current Cost Plan Outturn (funding request) are shown below in Table 4.7. Inflation and risk are removed from the costs for the economic appraisal as per TAG.

Schedule 4 disruption estimates are accounted for in the cost plan. To represent disruption costs during construction, user and non-user disbenefits were assumed as 100 % and 25 % of revenue losses respectively.

*Table 4.7. Bridge between cost plan and costs reported in the economic appraisal (£m)*

| Stage of economic appraisal | Option 1A | Option 2A | Option 2B | Option 3A | Option 3B | Option 4A | Option 4B |
|---|---|---|---|---|---|---|---|
| Total funding request in 1Q25 prices, including risk and inflation (AFC) | 62.0 | 34.8 | 32.7 | 33.6 | 31.5 | 88.1 | 83.8 |
| Excluding inflation | 52.7 | 29.5 | 27.8 | 28.5 | 26.8 | 74.8 | 71.1 |
| Excluding risk (base cost / point estimate). *This is the input into the economic appraisal.* | 44.3 | 25.1 | 23.6 | 24.3 | 22.8 | 62.9 | 59.9 |
| Net Present Value of capital costs presented in economic appraisal (£ 2023 prices, PV), including optimism bias and other adjustments as per TAG | **67.7** | **38.5** | **36.2** | **37.2** | **34.9** | **96.1** | **91.5** |

*Table 4.8. Capital cost assumptions*

| Assumption | Value | Comments |
|---|---|---|
| Project Development Level or PACE stage assumed | Pace Stage 1 | Source: Network Rail Southern Region Cost Planning Team |
| Optimism bias | 56 % | TAG (Unit A5.3, May 2023 v1.21 data book, Table 3) Aligns with PACE ES 1 or Project Development Level 1, appropriate for an SOBC |
| Changes in capital costs in real terms during appraisal period | RPI against GDP deflator until 2030, then GDP deflator +0.7 % until the cap year | DfT advice, based on TAG (Unit A5.3, para 2.4.4) |
| Schedule 4 costs as a proportion of total capital costs | Option 1A: 2.1 %<br>Option 2A: 1.9 %<br>Option 2B: 2.0 %<br>Option 3A: 1.9 %<br>Option 3B: 2.0 %<br>Option 4A: 1.5 %<br>Option 4B: 1.3 % | Derived from cost plan |
| User disbenefits during construction as a proportion of revenue disbenefits | 100.0 % | Economic Analysis Team assumption |
| Non-user disbenefits during construction as a proportion of revenue disbenefits | 25.0 % | Economic Analysis Team assumption |

## 4.4 Operating costs

The train service changes enabled by the proposed **eastward extension** of the Tisbury Loop will increase train operating costs due to:

- **Leasing:** the costs of leasing new vehicles to provide the additional services
- **Staffing**: the cost of additional staff members (drivers and guards) to operated services
- **Operation:** the cost of electricity, mileage-based maintenance, and variable track access charges (VTAC) required to run the additional services

Train mileages are calculated using train loading reports from MOIRA2.2. The additional train miles are shown in Table 4.9. Train operating costs are only captured for the options including an **eastward extension** of the loop. The westward extension does not require any additional units or mileages.

*Table 4.9. Additional train miles*

| Option | Units | Additional miles per day | Comments |
|---|---|---|---|
| **Option 1A**, central case (partial electrification to at least Yeovil) | 4-car class 450 (BEMU) | + 1,490 | Source: MOIRA2.2 timetable modelling. |
| **Option 4A**, central case (partial electrification to at least Yeovil) | 4-car class 450 (BEMU) | + 1,490 | |
| **Option 4B**, central case (partial electrification to at least Yeovil) | 4-car class 450 (BEMU) | +1,490 | |

Additional leasing and staffing requirements are sourced from SWR. SWR advised that there could be operating cost efficiencies if changes were made to the timetable used in the economic appraisal. This is recommended as an area for further work.

*Table 4.10. Additional leasing and staff requirements*

| Option | Additional units required | Additional staff required | Comments |
|---|---|---|---|
| **Option 1A**, central case (partial electrification to at least Yeovil) | 4 x 4-car class 450 (BEMU) | 15 drivers + 14 guards | Source: SWR |
| **Option 4A**, central case (partial electrification to at least Yeovil) | 4 x 4-car class 450 (BEMU) | 15 drivers + 14 guards | |
| **Option 4B**, central case (partial electrification to at least Yeovil) | 4 x 4-car class 450 (BEMU) | 15 drivers + 14 guards | |

As the operating costs assumptions from SWR are reasonably detailed, they have been modelled at with +21 % optimism bias. This is lower than the standard +41 % optimism bias recommended for an SOBC in TAG but reflects the higher maturity of the estimates from SWR.

*Table 4.11. Operating cost assumptions*

| Assumption | Value | Comments |
|---|---|---|
| Project Development Level assuming | Pace Stage 3 or 4 | Reflects reasonably detailed nature of estimates. Appropriate for an OBC as per TAG. |
| Optimism bias | +21 % | TAG (Unit A5.3, May 2023 v1.21 data book, Table 3). |
| Days of operation assumed per year | 363 | |
| Vehicle leasing costs; electricity, VTAC and maintenance costs | SWR vehicle leasing costs, electricity, VTAC and maintenance costs. Commercially confidential. | Considered commercially confidential |

| Assumption | Value | Comments |
|---|---|---|
| Staff employment costs (2021 prices) | SWR employment costs. Commercially confidential | Considered commercially confidential |
| Changes in operating costs in real terms during appraisal period | Real earnings growth for wages; RPI against GDP deflator until 2030, then GDP deflator +0.7 % until the cap year for others | DfT advice, based on TAG (Unit A5.3, para 2.4.4) |

## 4.5 Appraisal results

This section presents draft results for the economic appraisal.

### 4.5.1 Summary of results

This section presents appraisal results for the core appraisal under the central case timetable options. The tables show a summary of the appraisal outputs, broken down into benefit and cost category. The benefits presented are benefits to consumers and the private sector. The costs presented are costs or revenue impacts on the Broad Transport Budget and includes any increase in revenue from more passengers choosing to travel by rail as a result of the intervention.

The Benefit Cost Ratios (BCRs) are calculated as the Present Value of Benefits divided by the Present Value of Costs. Value for Money categories can be inferred from the BCRs using the *DfT's Value for Money Framework* (further details in the appendix).

#### 4.5.1.1 Central case options, delivery as stand-alone enhancement

Option 1A models an eastward extension only. Options 2A and 3A model a westward extension only. Option 4A models both eastward and westward.

*Table 4.12. Summary of appraisal results for central options delivered as stand-alone enhancement*

| Socio-economic appraisal (£m PV, 2023 prices) | Option 1A | Option 2A | Option 3A | Option 4A |
|---|---|---|---|---|
| **Net benefits to consumers and private sector (plus tax impacts)** | | | | |
| Rail user reliability benefits | 0.00 | 0.00 | 0.00 | 0.00 |
| Rail user journey time benefits | 12.16 | 6.09 | 6.09 | 19.55 |
| Non-user benefits - road decongestion | 2.21 | 1.40 | 1.40 | 3.77 |
| Non-user benefits - noise, air quality, greenhouse gases & accident benefits | 0.64 | 0.41 | 0.41 | 1.09 |
| Rail user and non-user disruption disbenefits during possessions | -1.15 | -0.58 | -0.56 | -1.15 |
| Benefits to society and the private sector | 3.78 | 0.00 | 0.00 | 3.78 |
| Indirect taxation impact on government | -0.68 | -0.56 | -0.56 | -1.27 |
| **sub-total (a)** | **16.96** | **6.76** | **6.78** | **25.77** |
| **Costs to government (broad transport budget)** | | | | |
| Initial capital costs | 67.73 | 38.51 | 37.25 | 96.14 |
| Non-user benefits - road infrastructure cost changes | -0.02 | -0.01 | -0.01 | -0.03 |
| Revenue transfer | -5.38 | -4.36 | -4.36 | -10.18 |
| NR operating costs and TOC operating costs transfer | 246.34 | 0.00 | 0.00 | 246.34 |
| **sub-total (b)** | **308.67** | **34.13** | **32.87** | **332.27** |
| **Net Present Value (NPV) (a-b)** | **-291.71** | **-27.38** | **-26.10** | **-306.49** |
| **Benefit Cost Ratio to Government (BCR) (a/b)** | **0.05** | **0.20** | **0.21** | **0.08** |

#### 4.5.1.2 Central case options, delivered alongside planned CP8 Salisbury re-signalling

2B and 3B model a westward extension only. Option 4B models both eastward and westward. Cost estimates were not produced for Option 1 combined with CP8 re-signalling.

*Table 4.13. Summary of appraisal results for central options delivered alongside CP8 re-signalling*

| Socio-economic appraisal (£m PV, 2023 prices) | Option 2B | Option 3B | Option 4B |
|---|---|---|---|
| **Net benefits to consumers and private sector (plus tax impacts)** | | | |
| Rail user reliability benefits | 0.00 | 0.00 | 0.00 |
| Rail user journey time benefits | 6.09 | 6.09 | 19.55 |
| Non-user benefits - road decongestion | 1.40 | 1.40 | 3.77 |
| Non-user benefits - noise, air quality, greenhouse gases & accident benefits | 0.41 | 0.41 | 1.09 |
| Rail user and non-user disruption disbenefits during possessions | -0.57 | -0.57 | -0.92 |
| Benefits to society and the private sector | 0.00 | 0.00 | 3.78 |
| Indirect taxation impact on government | -0.56 | -0.56 | -1.27 |
| **sub-total (a)** | **6.77** | **6.77** | **26.01** |
| **Costs to government (broad transport budget)** | | | |
| Initial capital costs | 36.23 | 34.93 | 91.52 |
| Non-user benefits - road infrastructure cost changes | -0.01 | -0.01 | -0.03 |
| Revenue transfer | -4.36 | -4.36 | -10.18 |
| NR operating costs and TOC operating costs transfer | 0.00 | 0.00 | 246.34 |
| **sub-total (b)** | **31.85** | **30.55** | **327.64** |
| **Net Present Value (NPV) (a-b)** | **-25.09** | **-23.79** | **-301.64** |
| **Benefit Cost Ratio to Government (BCR) (a/b)** | **0.21** | **0.22** | **0.08** |

Under all central case scenarios considered, the BCRs are below one and the Value for Money rating is **Poor**. The upfront capital costs and (where applicable) ongoing train operating costs outweigh the journey time benefits generated by the proposals.

### 4.5.2 Sensitivity analysis

This section covers sensitivity analysis on the options considering an **eastward extension**.

#### 4.5.2.1 Electrification

The central case assumes at least partial electrification of the West of England line. The appraisal assumes the service extensions enabled by the **eastward extension** of the loop will be operated by battery electric multiple units (BEMUs). The appraisal assumes retrofitted 4-car class 450s would operate in both the Do Minimum and Do Something in options 1A, 4A and 4B.

If partial electrification was not achieved on the West of England line, then the service extensions to Yeovil Junction would be operated by diesel units (DMUs). Sensitivity analysis assumes 3-car class 159s. Outputs from the sensitivity testing show that the environmental disbenefits (non-user disbenefits) from the additional diesel emissions outweighs the user benefits from the journey time changes in all three options considering an eastwards extension (Option 1A, 4A and 4B). This results in BCRs below zero which represent **Very Poor** Value for Money.

#### 4.5.2.2 Base timetable

The base timetable assumed in the economic appraisal is the Summer 2023 timetable in which the Salisbury terminators operate between Salisbury and Basingstoke. In the current timetable

(Summer 2025) the Salisbury terminators operate between Salisbury and London Waterloo. The **Tisbury Loop SOBC** appraisal tests extending services to Yeovil Junction which run to/from Basingstoke.

The **Salisbury Area Strategic Study (SASS)** was a separate piece of work which appraised multiple service enhancements in the Salisbury area, including one where Salisbury terminators were extended to Yeovil Junction, but assumed a base timetable where the Salisbury terminators ran into London Waterloo. This would align with Option 1 in the Tisbury Loop SOBC and is referred to as the Option 1 sensitivity timetable. Figure 4-5. shows that the timetable benefits for Option 1 sensitivity are twice the magnitude of those in the corresponding central case option. This represents the benefits that could be realised if Waterloo trains were extended to Yeovil Junction. However, even with these additional timetable benefits the BCRs remain far below one as the costs still outweigh the benefits.

### 4.5.3 Performance analysis

This section covers the performance benefits which are included as a sensitivity on options 2 and 3 which consider a **westward extension** only. Performance modelling did not consider an eastward extension, or the combination of both extensions, and therefore no conclusions can be made on the performance impacts of these options.

The performance modellers did not model the same (central case) timetable assumed in option 2 and 3 in the economic appraisal, which modelled trains in the Down direction arriving up to 4.5 minutes earlier at Tisbury station and all stations to Axminster. Instead, they modelled a timetable where trains in the Down direction arrived up to 4.5 minutes earlier at Tisbury station only. *This timetable was modelled in MOIRA2 as a sensitivity timetable for options 2 and 3.*

*Table 4.14. Summary of appraisal results for sensitivity options with performance analysis included*

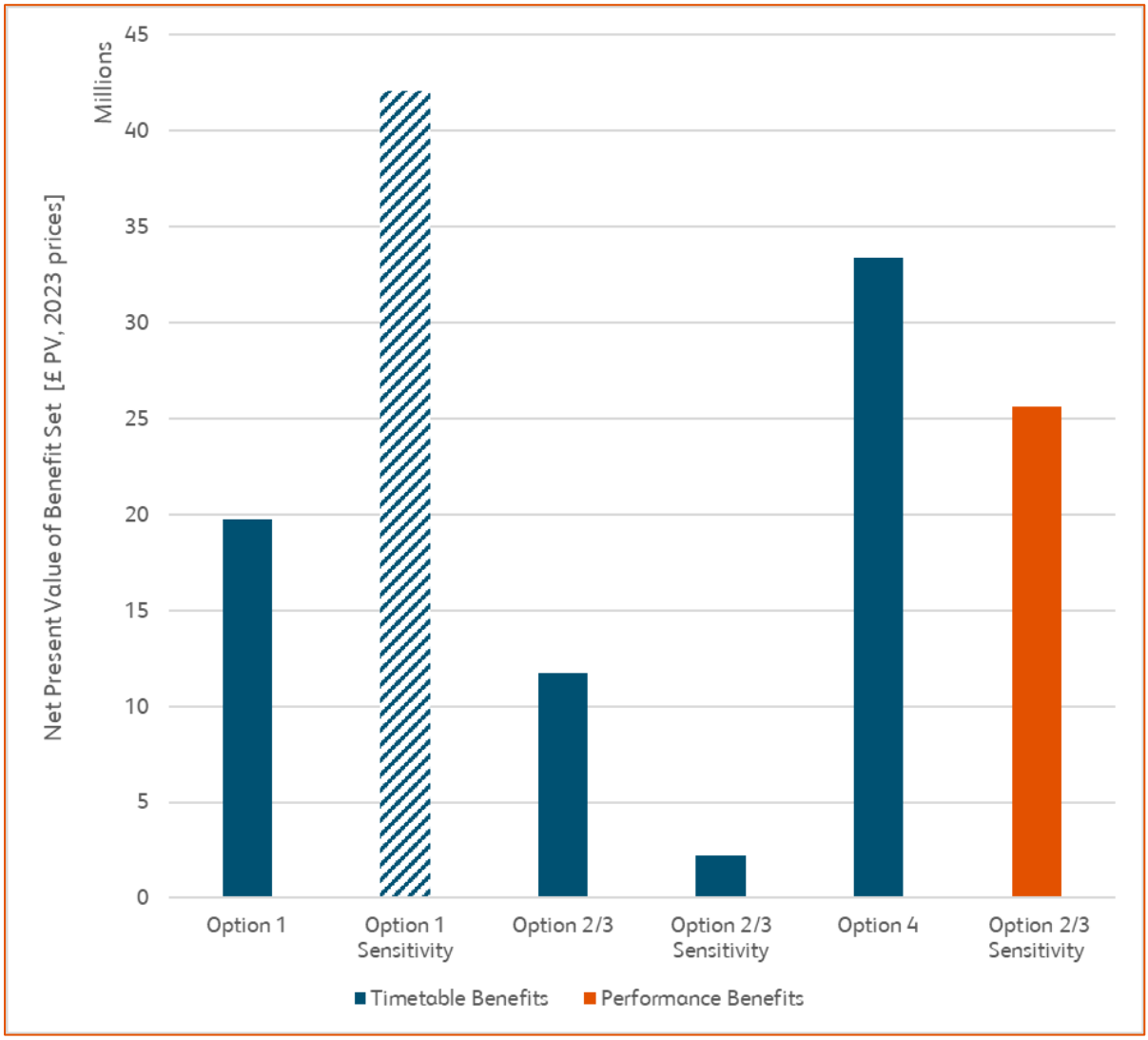
| Socio-economic appraisal (£m PV, 2023 prices) | Option 2A SEN | Option 2B SEN | Option 3A SEN | Option 3B SEN |
|---|---|---|---|---|
| **Net benefits to consumers and private sector (plus tax impacts)** | | | | |
| Rail user reliability benefits | 16.24 | 16.24 | 16.24 | 16.24 |
| Rail user journey time benefits | 1.26 | 1.26 | 1.26 | 1.26 |
| Non-user benefits - road decongestion | 3.13 | 3.13 | 3.13 | 3.13 |
| Non-user benefits - noise, air quality, greenhouse gases & accident benefits | 0.92 | 0.92 | 0.92 | 0.92 |
| Rail user and non-user disruption disbenefits during possessions | -0.58 | -0.57 | -0.58 | -0.57 |
| Benefits to society and the private sector | 0.00 | 0.00 | 0.00 | 0.00 |
| Indirect taxation impact on government | -0.80 | -0.80 | -0.80 | -0.80 |
| **sub-total (a)** | **20.17** | **20.18** | **20.17** | **20.18** |
| **Costs to government (broad transport budget)** | | | | |
| Initial capital costs | 38.51 | 36.23 | 37.25 | 34.93 |
| Non-user benefits - road infrastructure cost changes | -0.03 | -0.03 | -0.03 | -0.03 |
| Revenue transfer | -7.01 | -7.01 | -7.01 | -7.01 |
| NR operating costs and TOC operating costs transfer | 0.00 | 0.00 | 0.00 | 0.00 |
| **sub-total (b)** | **31.47** | **29.19** | **30.21** | **27.89** |
| **Net Present Value (NPV) (a-b)** | **-11.30** | **-9.01** | **-10.04** | **-7.71** |
| **Benefit Cost Ratio to Government (BCR) (a/b)** | **0.64** | **0.69** | **0.67** | **0.72** |

Under all performance sensitivity scenarios considered, the BCRs are higher than in the corresponding central case scenarios, but they still remain below one and the Value for Money rating remains **Poor**.

Figure 4-5. above shows the magnitude of the performance benefits relative to the timetable benefits for all modelled options, including the sensitivity analysis on Option 1 which considers a service extension to Yeovil Junction on the London-Salisbury trains instead of the Basingstoke-Salisbury trains extended in the central case.

The performance benefits associated with the **westward extension** are greater than the timetable benefits enabled by either the eastward or westward extension in isolation. The timetable benefits of delivering both extensions are greater than the performance benefits of the westward extension but the cost of delivering both extensions is over twice the cost of delivering the westward extension in isolation.

*Figure 4-5. Relative magnitude of performance benefits vs timetable benefits*



### 4.5.4 Waterfall charts

This section presents monetised appraisal results by benefit and cost drivers, rather than categorised by economic, social, environmental, and public accounts impact. Each benefit and cost driver below in Table 4.15. represents a variety of economic and social impacts. Waterfall charts illustrate the contribution to the Net Present Value (NPV) for each driver. Contributions include both benefits and costs, including any revenue impacts that are treated as 'negative costs'.

*Table 4.15. Summary of benefit and cost drivers*

| Benefit and cost driver | Description of primary impact |
|---|---|
| Passenger journey time benefits | Benefits resulting from an improved timetable offering |
| Disruption during construction | User and non-user disbenefits from disruption during construction of the scheme |
| Capital costs | Costs of construction, including schedule 4 compensation costs during the construction of the scheme |
| Operating costs | Increase in leasing, staffing, fuel and maintenance costs required to operate the additional services |

*Figure 4-6. Waterfall chart of benefit and cost drivers for Option 1A, central case*

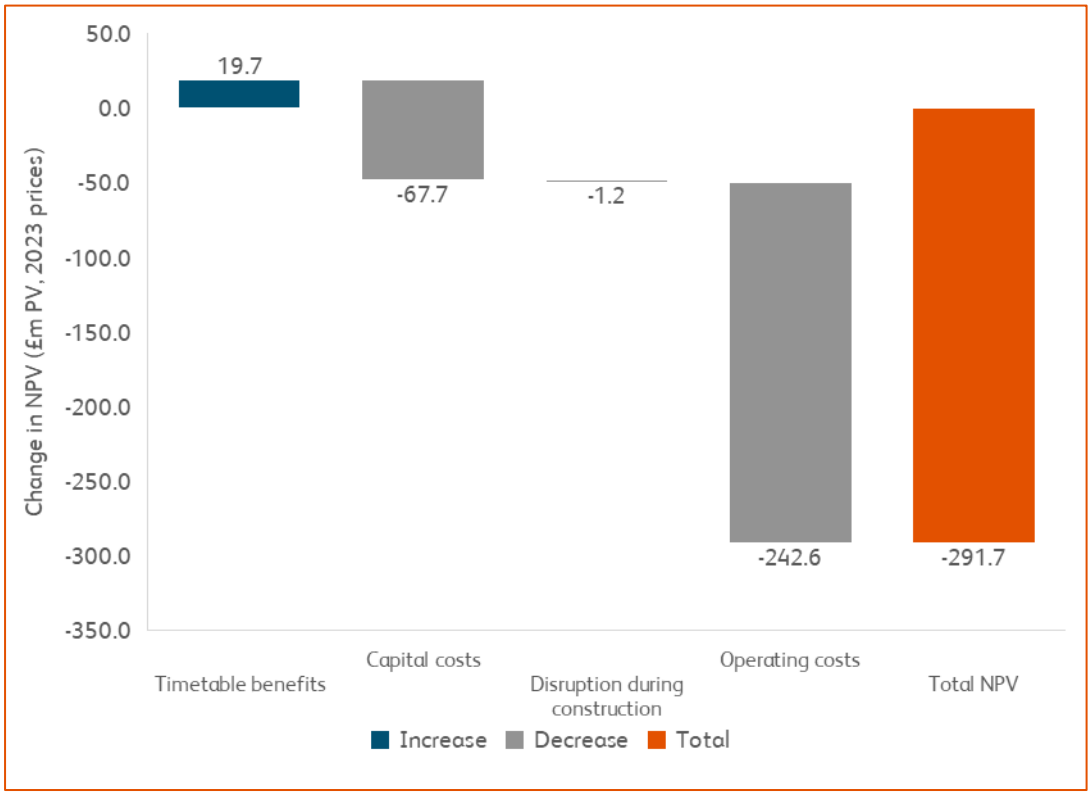



Figure 4-6 shows the relative magnitude of the cost and benefit drivers for **Option 1A central case** which considers an **eastward extension** of the loop, delivered as a standalone enhancement with partial electrification and service extensions to Yeovil Junction operated as Battery Electric

Multiple Units (BEMUs). The costs far outweigh the benefits. The train operating costs are the largest driver of the Poor Value for Money.

This option models extending Basingstoke-Salisbury services to Yeovil Junction, which delivers £19.7m (£ PV, 2023 prices) of benefit over a 60-year appraisal period. Sensitivity analysis detailed in section 4.5.2 shows that extending London-Salisbury services to Yeovil Junction would deliver £42m (£ PV, 2023 prices) of benefit. Although this roughly doubles the benefits, it would not change the Value for Money of the option as the costs would still far outweigh the benefits.

*Figure 4-7. Waterfall chart of benefit and cost drivers for Option 3B, central case*

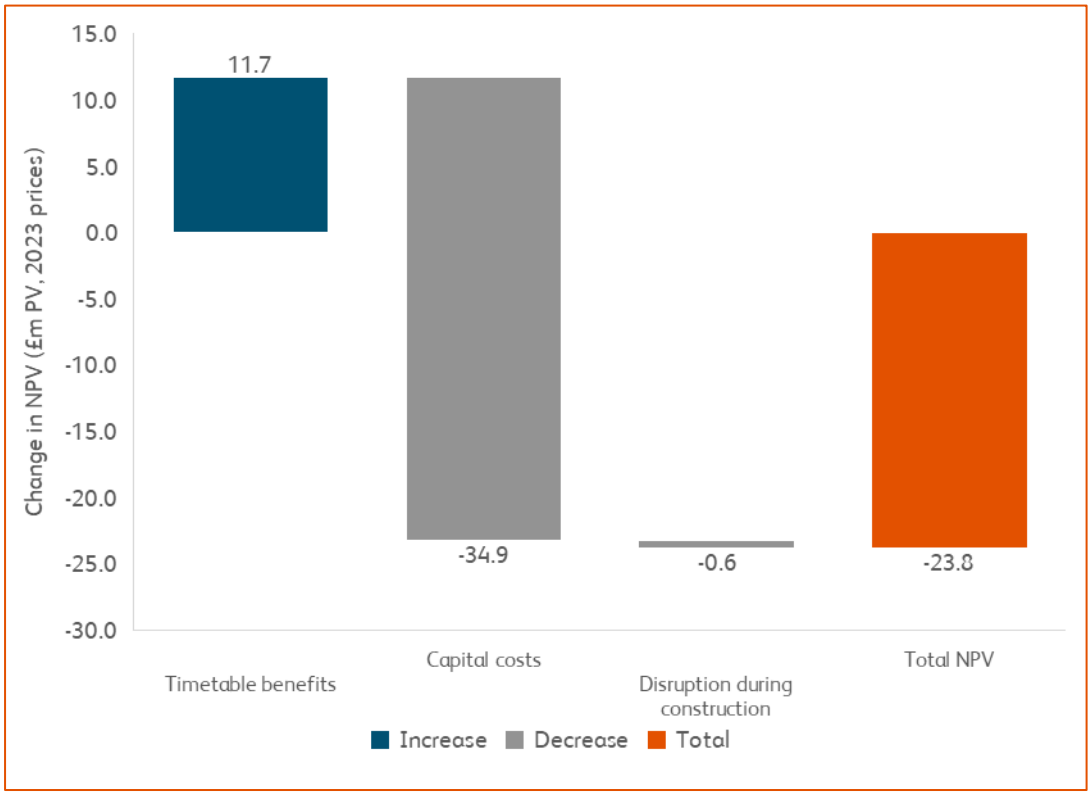



Figure 4-7 shows the relative cost and benefit drivers for **Option 3B central case** which considers a **westward extension** of the loop with a new 3-car platform, delivered with the planned CP8 Salisbury re-signalling. The central case option models Down services arriving up to 4.5 minutes earlier at Tisbury and all stations to Axminster but does not include any performance benefits.

This is the central case option with the highest BCR however the costs still outweigh the benefits, suggesting Poor Value for Money.

*Figure 4-8. Waterfall chart of benefit and cost drivers for Option 3B, sensitivity*

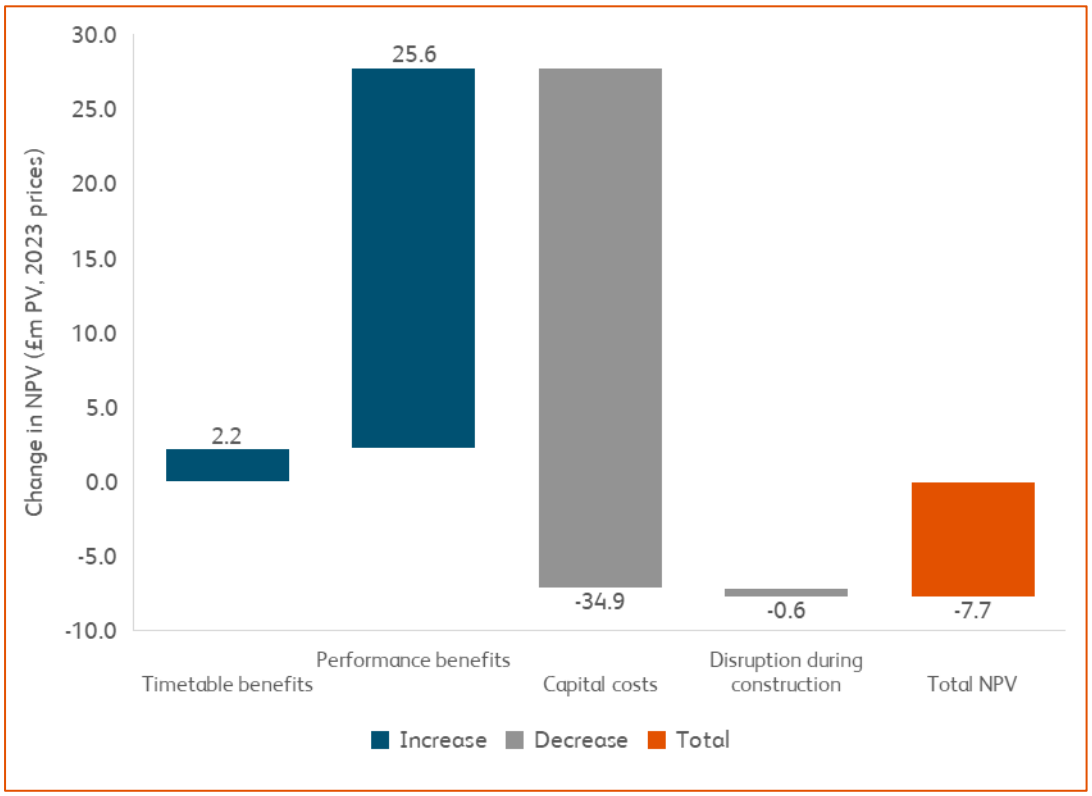



Figure 4-8 shows the relative cost and benefit drivers for **Option 3B sensitivity** which considers a **westward extension** of the loop with a new 3-car platform, delivered with the planned CP8 Salisbury re-signalling. The sensitivity option models Down services arriving up to 4.5 minutes at Tisbury only and includes performance benefits.

This is the sensitivity on the option displayed in Figure 4-7. The timetable benefits are smaller as the timetable change only improves journey times for passengers travelling to Tisbury. The performance benefits far outweigh the timetable benefits. The BCR is improved compared to the central case option but still represents Poor Value for Money as the costs outweigh the benefits.

## 4.6 Analytical risks and quality assurance

### 4.6.1 Risk register

Table 4.16 highlights the key analytical risks identified in the economic appraisal and modelling.

*Table 4.16. Risk register*

| Element | Risk | Potential materiality |
|---|---|---|
| Demand forecasts | Forecast demand is uncertain. | Medium |
| Timetable modelling | The base ('Do Minimum') timetable assumed in the appraisal was the Summer 2023 timetable, where Salisbury terminators operated between Salisbury and Basingstoke. The current timetable has Salisbury terminators operating between Salisbury and London Waterloo. This has been qualitatively addressed in the sensitivity section. | Medium |

| Element | Risk | Potential materiality |
|---|---|---|
| Timetable modelling | The option timetables were developed from the Summer 2023 timetable. We know SWR are proposing a timetable recast, and as a result, the option timetables modelled in this appraisal may not be timetables that could feasibly operate in the future. | Medium |
| SWR recast | In the current timetable, trains pass in the loop at Tisbury. SWR are developing a new timetable for the 2027 timetable recast and initial proposals indicate trains will pass at Gillingham instead of Tisbury. **Further work needs to be done to understand whether or not this negates the need for a loop at Tisbury.** | **Very High** |
| Emergency timetable changes | There have been two emergency (short-term) timetable changes on the West of England Line over the past couple of years as dry weather has caused 'Soil Moisture Deficit'. Speed restrictions have been put in place and the train service to Exeter reduced to 0.5tph. This train service change has not been included in the economic case. | Low |
| Performance | The strategic case highlights the wider reactionary delay across the network caused by delays on the single-track sections of the West of England line. **This is not reflected in the performance modelling** or the benefits derived from the modelling as the outputs are limited to an immediate study area. | **High** |
| Performance | The performance modelling used the December 2024 timetable as the base timetable in the RailSys model. This differs from the economic appraisal which used the June 2023 timetable as the base. However, on an initial glance we did not see any material differences between the two timetables. | Low |
| Performance | Performance modelling was only run for a weekday timetable. Weekend benefits are assumed to be equal to weekday benefits. There is a risk that this may not be the case. | Low |
| Operating costs | Given the risks that the option timetables appraised may not be the timetables that could run in the future (due to changes in the base timetable) there is also a risk that the train operating costs captured in the appraisal may differ. | Medium |
| Operating costs | The central case assumes at least partial electrification of the West of England line. If this is not delivered, then the Value for Money of the options with the service extensions would be lower. | High |
| Operating costs | The central case options with partial electrification assume retrofitted 4-car class 450s until the end of the 60-year appraisal period. However we know this rolling stock will likely life-expire by the 2040s. No assumptions on replacement rolling stock have been made. | Medium |
| Capital costs | Risk that appraised capital costs may change and that appraisal parameters may not capture all uncertainties | Medium |
| OMR costs | Ongoing operating, maintenance and renewal (OMR) costs have not been included in the economic appraisal as no assumptions were available. The inclusion of any additional costs would lower the BCRs and risk lowering the Value for Money of the scheme. | High |
| Disruption during construction | User and non-user disbenefits during construction have been estimated using high level assumption. Disbenefits may be different to those assumed. | Low |

### 4.6.2 Analytical assurance

The economic appraisal as it currently stands has been internally reviewed with the Network Rail Economic Analysis team in line with Network Rail's *Analytical Assurance Operational Policy.* An analytical assurance statement is attached as a separate appendix

## 4.7 Conclusions and next steps

The economic case concludes that the programme would achieve **Poor Value for Money** under all design options considered in the central case.

The central case for the **eastward extension** options assumes partial electrification on the West of England line. If partial electrification is not delivered, then these options would have Very Poor Value for Money due to increased diesel emissions from the service extensions to Yeovil Junction.

Sensitivity analysis on the **westward extension** options including performance benefits significantly improves the BCRs but does not improve the Value for Money, however it is noted that the economic appraisal does not fully capture the performance benefits of the scheme as the performance modelling is limited to an immediate study area and does not pick up any of the wider reactionary delay that is covered in detail in the strategic case.

The SOBC recommends progressing the westward extension option (option 1C in the strategic case, options 2 and 3 in the economic case) to OBC, undertaking additional performance analysis to better understand the magnitude of the potential benefits, and to align any delivery with the renewals work bank.

The economic case notes this option currently offers Poor Value for Money but agrees that the performance benefits are not fully captured in the economic appraisal, and that further work would be required to fully understand the magnitude of the potential performance benefits and interfaces with the SWR recast.

## 4.8 Economic Case Appendices

### 4.8.1 Appraisal assumptions

*Table 4.17. Full appraisal assumptions*

| **Further appraisal assumptions** | | | |
|---|---|---|---|
| These assumptions apply to the socio-economic appraisal, unless stated.<br>Assumptions apply to central case unless stated. Further assumptions are in tables in main text.<br>All years refer to financial years e.g. 2017 refers to 2017-18. | | | |
| | | | |
| **Assumption** | **Value** | **Source** | **Comment** |
| Current year and model base year | 2025 | TAG | Current year at the time of appraisal is the model base year |
| First year of benefits | Option **1A/4A/4B**: 2033<br>Option **2A/2B/3A/3B**: 2032 | Project Team | Opening year of scheme |

| Further appraisal assumptions | | | |
|---|---|---|---|
| Appraisal period (years) | 60 | Project Team | The maximum is 60 years under TAG. |
| Price base year | 2023 | TAG (Unit A1.1, Para 2.6.3) | Values converted from model base year to price base year using GDP deflator. |
| Base year for discounting | 2023 | TAG (Unit A1.1, Para 2.7.6) | |
| Discount rate (Social Time Preference Rate) | 3.5 % for 30 years from the current year, 3.0 % for the next 45 years and 2.5 % thereafter. | TAG (May 2023 v1.21 data book) and HM Treasury Green Book | |
| Unit of account | Market prices | TAG (May 2023 v1.21 data book, Table A1.3.1) | 19 % added to convert factor prices to market prices |
| Capital and operating cost assumptions | | | |
| **Assumption** | **Value** | **Source** | **Comment** |
| Changes in capital costs in real terms during appraisal period | RPI against GDP deflator until 2030, then GDP deflator +0.7 % until the cap year | DfT advice, based on TAG (Unit A5.3, para 2.4.4) | |
| Changes in operating costs in real terms during appraisal period | Real earnings growth for wages; RPI against GDP deflator until 2030, then GDP deflator +0.7 % until the cap year for others | DfT advice, based on TAG (Unit A5.3, para 2.4.4) | |
| Cost of TOC profit as percentage of any change in operating costs | 4 % | DfT advice | |
| Capital cost optimism bias | Central government: 56 % at GRIP stage 1 | TAG (Unit A5.3, May 2023 v1.21 data book, Table 3) | Optimism bias is not applied to cost savings |
| Operating cost optimism bias | 21 % at GRIP stage 3 or 4 | TAG (Unit A5.3, May 2023 v1.21 data book, Table 3). All rates treated as per annum | Optimism bias is not applied to cost savings |
| Schedule 4 costs as a proportion of investment cost | Option 1A: 2.1 %<br>Option 2A: 1.9 %<br>Option 2B: 2.0 %<br>Option 3A: 1.9 %<br>Option 3B: 2.0 %<br>Option 4A: 1.5 %<br>Option 4B: 1.3 % | Project team | |

| Further appraisal assumptions | | | |
|---|---|---|---|
| User disbenefits as a proportion of revenue disbenefits | 100.0 % | Economic Analysis Team assumption | User and non-user benefits are increased to allow for factor to market price adjustment. |
| Non user disbenefits as a proportion of revenue disbenefits | 25.0 % | Economic Analysis Team assumption | |
| Passenger benefit-related assumptions | | | |
| **Assumption** | **Value** | **Source** | **Comment** |
| Final forecast year, and from which benefits increase with population growth | 2046 | TAG (Unit A5.3, 3.3.1) | This cap year also applies to fare increases applied (see below) and any real terms cost increases applied (see above). |
| Values of time per hour (2010 prices) | Business (work): £10.02<br>Commuters: £9.95<br>Other: £4.54 | TAG (May 2023 v1.21 data book, Table A1.3.1) | Market prices |
| Rule of the half' | 50 % | TAG (Unit A.1.3 Para 2.1.6) | Time savings applied to new users at half the rate applied to existing users |
| Valuation of Time growth by user type | Work: real GDP per person<br>Non-work: real GDP per person | May 2023 v1.21, Tab "Annual Parameters", Column O<br><br>Note that from 2100 the series is extrapolated based on the change between 2099 and 2100 | |
| Average fare increases ( % per annum above RPI) | 1.0 % until final forecast year<br>0.0 % thereafter | DfT advice | Revenue growth includes increase in RPI relative to GDP deflator until final forecast year. |
| Car diversion rate | Option 1A: 29.7 %<br>Option 2A: 26.4 %<br>Option 2B: 26.4 %<br>Option 3A: 26.4 %<br>Option 3B: 26.4 %<br>Option 4A: 28.3 %<br>Option 4B: 28.3 % | TAG (May 2023 v1.21 data book, Table A.5.4.5) | Calculates marginal external costs of car use. May be a flow-weighted average. |
| Split of road decongestion benefits | Business: 50 %<br>Commute: 25 %<br>Other: 25 % | DfT advice | |

| Further appraisal assumptions | |
|---|---|
| Indirect tax costs | (1) Based on current fuel duty rates, resource costs of fuel and average fuel efficiency, and forecast changes in these parameters over the appraisal period.<br>(2) Based on diversion from taxable goods to non-taxed rail fares for 'commute' and 'other' rail revenue.<br>As a simplifying assumption, the share of petrol and diesel in total car miles is assumed to be 50 % /50 % throughout the appraisal period. No electric car mileage is assumed. |

| Financial assumptions | | | |
|---|---|---|---|
| **Assumption** | **Value** | **Source** | **Comment** |
| Current franchise revenue and operating costs transferred to government | 100 % | Network Rail assumption | Under ERMAs, government takes revenue and cost risk. Overall revenue and operating cost transfer assumptions are shown in the TEE tables. |
| Future franchise revenue and operating costs transferred to government | 100 % | Network Rail assumption | |
| Network Rail operating costs | All NR operating costs are treated as central government costs | | |

### 4.8.2 Further appendices

*Table 4.18. Value for Money categories from DfT's Strength in Number Framework*

| VfM Category | Implied by | Comments |
|---|---|---|
| **Very High (and Financially Positive)** | Negative BCR, negative PVC, and positive or zero-value PVB. | DfT's *Strength in Number Framework*, Box 5.2: Cost Saving Categories. Proposal generates benefits to wider society and 'pays for itself' in the long-run since outlays are less than revenues and cost-savings combined. |
| **Very High** | BCR greater than or equal to 4 | DfT's *Strength in Number Framework*, Box 5.1: Standard Categories. Relevant indicative monetised and/or non-monetised impacts must also be considered and may result in a final value for money category different to that which is implied solely by the BCR. |
| **High** | BCR between 2 and 4 | |
| **Medium** | BCR between 1.5 and 2 | |
| **Low** | BCR between 1 and 1.5 | |
| **Poor** | BCR between 0 and 1 | |
| **Very Poor** | BCR less than or equal to 0 | |

# 5 Financial Case

## 5.1 Introduction

The purpose of the financial case is to outline the affordability of the proposal, alongside funding arrangement and technical accounting information. The financial case also outlines the financial profile of the different options.

## 5.2 Costs

As part of the production of this SOBC, the project has undertaken pre-PACE development work through the form of a prefeasibility study covering for each of the proposed options. This has enabled Order of Magnitude capital cost ranges to be produced.

### 5.2.1 Expenditure so far

The project has spent £52,470 so far on producing a pre-feasibility study, Performance & Simulation Analysis and an Economic Case. This was funded by Western Gateway Sub-National Transport Body.

### 5.2.2 Anticipated final costs

The anticipated final costs for this project are derived from a cost plan developed as part of this SOBC. These costs are indicative, and the estimate will be refined as the project proceeds through the RNEP process (if applicable) and PACE stages.

| Capital Costs | | Option 1A | Option 1B | Option 1C | |
|---|---|---|---|---|---|
| **Anticipated Final Costs in Million (includes contingency)** | Standalone enhancement | £88.6 | £62.04 | £34.77 | £33.63 |
| | Delivered as part of renewal | £83.79 | - | £32.68 | £31.54 |
| **Interventions** | | Extension of Tisbury Loop Eastwards approximately 6 miles and extension westwards into Tisbury Station with a new platform | Extension of Tisbury Loop Eastwards approximately 6 miles | Extension of Tisbury Loop into Tisbury Station with a new 8 Car Platform | Extension of Tisbury Loop into Tisbury Station with a new 3 Car platform |

## 5.3 Future funding

### 5.3.1 Funding sources

The development of this SOBC has been partially funded by Western Gateway STB, with further funding for development and delivery from Network Rail's Wessex Strategic Planning team. Funding for post-SOBC stages is uncertain at this time and no commitment has been made by any organisation for future funding, however, discussions are underway to understand how development can be aligned with CP8 renewals development. The financial case will therefore set out possible options for funding this scheme going forward.

There are several opportunities to source funding for improvements on the West of England Line in the Tisbury Area. Whilst the extended loop westwards would provide significant performance benefits, the extended loop eastwards would enable an additional 1tph hour service whichwould deliver connectivity benefits to the area. As such the benefits are wide ranging and thus there is an opportunity to approach several funding streams.

#### 5.3.1.1 Rail Network Enhancements Pipeline

One option for future funding is the DfT Rail Network Enhancements Pipeline (RNEP). RNEP is the current approach to how rail enhancements are managed and funded in CP7 and beyond (2024-2029). To proceed to the next stage of development and unlock funding for that stage the project must proceed through a decision point. Each decision point must be informed by a business case.

This SOBC could be used to inform a decision to develop which will allow the project to proceed to Stage 2: Develop for development up to a decision to design, supported by an Outline Business Case. However, that is subject to DfT agreement for funding to the next stage, the RNEP process is shown below).

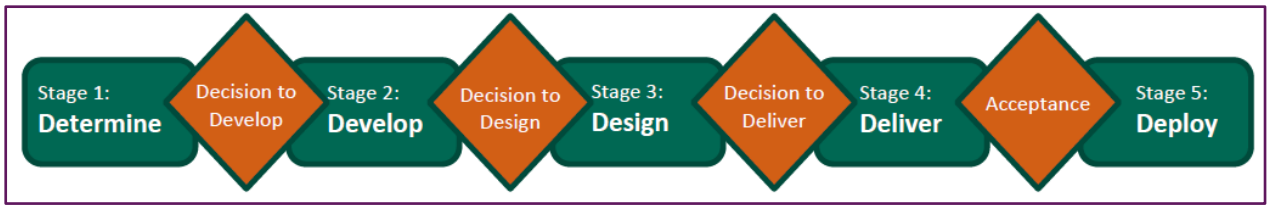



*Figure 5-1: Diagram showing RNEP process*

#### 5.3.1.2 Third Party funding

Another approach could be that future stages are funded either partly or completely by third parties. The next stage of development could be funded in a similar way to that of the SOBC i.e. Western Gateway STB. Network Rail has clearly defined procedures for third party investment in the railway and can act in an asset protection capacity or as a deliverer[15]. For example, any future development adjacent to Tisbury station, could offer an opportunity for Third Party investment in rail. Different approaches are detailed further in the Commercial Case.

## 5.4 Approach for subsequent stages

### 5.4.1 Development stage

The Strategic Case outlined within this document provides an overview of the key value drivers of the project and benefits it could provide to key stakeholders and communities. As such, opportunities will be explored to seek further funding from key stakeholders to progress part of or all of the project through further development.

### 5.4.2 Approach to design and delivery stages

The financial case will be updated for the Outline Business Case (OBC) and Full Business Case (FBC) submissions, with further detail outlining any funding contributions and arrangements for the subsequent stages of investment.

[15] https://www.networkrail.co.uk/industry-and-commercial/third-party-investors/network-rail-is-open-for-business/opportunities-for-third-parties/

# 6 Commercial Case

The commercial case provides evidence on the commercial viability of the proposal and the procurement strategy that will be used to engage the market.

As part of this SOBC, the Commercial Case will not outline a proposed commercial strategy, it will instead set out a range of potential options. A proposal for the preferred procurement strategy will be developed during PACE 1.

## 6.1 Outline Commercial and Procurement Strategy

### 6.1.1 Roles & Responsibilities

There are a number of options that could be pursued for allocating key roles of project sponsor and delivery agent, if the scheme is progressed. A brief description of the principal options is set out below to inform further discussion. The choice of sponsor would need to be made at the next stage and would usually be aligned to where the primary allocation of funding is coming from.

#### 6.1.1.1 Project Sponsor

**DfT**

Under this option, DfT would hold sole accountability as client of the project and ensuring that it meets the objectives set out in the Strategic Case. DfT working closely with key partners such Network Rail, have extensive experience in managing the development and delivery of large rail projects. A close working relationship with the delivery agent at each 'pipeline' stage will be required, with clearly defined processes for decision-making, communications, and escalation. Dependent on the preferred delivery model (see below), this option would have the advantage of building from prior experience and utilising an existing toolkit of project processes - for example, if Network Rail is the delivery agent, the joint governance processes for enhancements is set out in the 2016 Memorandum of Understanding with DfT. This would require a means of monitoring the long-term critical success factors.

**Western Gateway Sub-national Transport Body (STB)**

Under this option, Western Gateway STB would take sole accountability for the success (in terms of meeting both the short and long-term objectives) of the project and take on the day-to-day Sponsor role during progression of the infrastructure elements of the project.

The advantages of this option include the project geography fitting within Western Gateway's area of remit which is represented by relevant local authorities, and thus the project objectives having direct linkages to those set out within Western Gateway's 'Strategic Investment Plan' (SIP) and subsequent 'Regional Rail Strategy'. The key disadvantage of this option is the current lack of sponsorship experience and associated processes and toolkits within Western Gateway. In addition, Western Gateway has limited experience of managing financial risk in the development and delivery of large rail infrastructure projects.

**DfT & Western Gateway Joint Sponsorship**

Under this option, DfT and Western Gateway would take on a joint Sponsorship role, collectively owning the business case and accountability for delivery of the project objectives. This option has the advantage of being able to utilise DfT's organisational experience and tools, and Western Gateway's local knowledge, understanding of key markets and stakeholder relationships. It also provides an opportunity for Western Gateway to gain project Sponsorship experience without taking on sole accountability. In order to mitigate any risk associated with joint sponsorship, a clear plan would need to be set out detailing; the allocation of financial risk between Western

Gateway and DfT, individual roles and accountabilities within the sponsorship team and lines of decision-making and escalation.

#### Third Party

In this option, the scheme would be sponsored by a Third Party. This option may be suitable, for example, where a third party is providing funding necessary to deliver the scheme and will need to satisfy itself that the intended benefits set out in the business case will be delivered. This option has the advantage of potentially leveraging process and innovation from other sectors, and for some streamlining of the decision-making process (although the RNEP process will remain in place if any form of public funding or Government guarantee is required). Key disadvantages of this option include the potential inexperience of a Third Party sponsor in working with the rail industry, and the uncertain impact of commercial incentives/drivers at scheme Sponsor level.

### 6.1.1.2 Delivery Agent

There are two potential infrastructure delivery options, which could be used to deliver this enhancement scheme, details of which are outlined below.

#### Design, Build & Maintain (Network Rail)

Under the Design, Build & Maintain model, the Sponsor would appoint an agent responsible for completing [detailed] scheme design and subsequent construction. Network Rail usually undertake this role for DfT, utilising [sub-]contractors where required. This option has the advantage of utilising a 'tried and tested' method, without the risks associated with a more innovative approach. It would also enable the 'lessons learned' from the delivery of recent enhancement projects to be embedded within the process for planning and delivering this scheme.

#### Design & Build (Third Party)

Under this option, the Sponsor would directly procure a "third party" main contractor to undertake the design and build of the scheme. This mechanism would retain the advantages of early contractor involvement in the design of the scheme, and potentially provide opportunities for alternative allocation of risk. Network Rail's role as asset owner and maintainer would necessitate close engagement with any third-party delivery agent, and a process to ensure that designs and the as-built infrastructure are compliant with the relevant standards. This would be covered under the Asset Protection process. As all of the works are required on the existing infrastructure, interface risks would need to be managed very closely, requiring detailed joint consideration between the Project Sponsor, Third Party delivery agent, Network Rail, and the train operator(s).

## 6.2 Summary and next steps

The project Sponsor and Delivery Agent options described above offer ultimate flexibility, as any of the four potential sponsorship models could be combined with any of the delivery models described above. These options would need to be considered in further detail via a qualitative assessment against criteria to be defined during PACE1. For the design and delivery stages, the procurement and sourcing strategy will be updated and reviewed to inform the OBC and FBC.

# 7 Management Case

## 7.1 Introduction

The management case demonstrates whether a proposal is deliverable. It tests the project planning, governance structure, risk management, communications and stakeholder management, benefits realisation, and assurance, by providing evidence to funders of the competency of the proposal.

## 7.2 Project Management

### 7.2.1 Approach and Roles

For the SOBC stage, the project has been led by the Network Rail Southern Region Strategic Planning team with Network Rail Engineering Services Design Delivery undertaking the pre-feasibility study at pre-PACE stage.

### 7.2.2 Management methodology

The project will make use of the new Project Acceleration in a Controlled Environment, or PACE project management methodology to meet the client's aspiration to accelerate delivery and limit the cost of this scheme. This process is well established in the industry.

### 7.2.3 Governance arrangements

The governance arrangements for the project will depend on the approach taken to future funding/project management. This will be updated at the next stage of development.

### 7.2.4 Assurance and approvals

Assurance and approvals activities will occur throughout the lifecycle of the project. Potential significant assurance and approvals considerations are listed below:

#### 7.2.4.1 8.5.1 Industry Consent – Station and Network Change

Under the terms of the Network Code, the project will consult the rail industry for approval by means of 'Station Change' and 'Network Change' documentation. Early engagement with TOCs will help ensure buy-in to these processes.

#### *7.2.4.2* 8.5.2 Cost Estimation

To ensure the final programme and cost estimate for the scheme in the Final Business Case is robust, the project should undertake a QCRA & QSRA in the PACE 1 stage.

#### 7.2.4.3 Other assurance activities

Safety: The Sponsor and project will produce a Construction Design and Management (CDM) plan and follow the Common Safety Method (CSM) requirements.

Gateway reviews: Adherence to NR's new PACE process will ensure phase gate reviews occur.

Investment: Investment Authority will be obtained for any changes to funding, to seek financial guidance on the project and for any next stage.

Independent review: Independent review (e.g. Peer Review) could be undertaken to review and critique risks, decisions, designs, or submissions to provide additional assurance.

#### 7.2.4.4 Key milestones

A programme will need to be produced detailing expected milestones at the next stage of project development.

### 7.2.5 Risk management

#### 7.2.5.1 8.6.1 Approach

Network Rail has established risk management processes in the design and delivery of individual projects as well as part of a complex portfolio of national investment. For the Tisbury Loop scheme, the following could be employed:

- Risk register: The ongoing identification and mitigation of risks can be collated in a project risk register and fed into reports to governance structures.
- QCRA (Quantitative Cost Risk Assessment): To primarily manage the risks around cost estimates, a QCRA can be undertaken in the design stage to inform FBC.
- QSRA (Quantitative Schedule Risk Assessment): To primarily manage schedule risks.

### 7.2.6 Dependencies and Interfaces

The following projects and strategic studies should be considered as part of the wider picture for services in the scope area:

- West of England Continuous Modular Strategic Plan (CMSP)
- Rolling stock change and potential electrification of the West of England Line
- CP8 Salisbury area signalling renewals
- Station Works development

The Sponsor is committed to maintaining an interface with all projects to collect intelligence and manage project risks.

### 7.2.7 Management Case Summary

Management of the future development of the proposed service and infrastructure change will be conducted using and be aligned to PACE and SPEED principles as outlined above.

# 8 Abbreviations and Acronyms

| Acronym | Full Form |
|---|---|
| **AONB** | Area of Outstanding Natural Beauty |
| **ATT** | Advanced Timetable Team |
| **BCR** | Benefit Cost Ratio |
| **BEMU** | Battery Electric Multiple Unit |
| **BSIP** | Bus Service Improvement Plan |
| **CDM** | Construction Design and Management |
| **CIL** | Community Infrastructure Levy |
| **CMSP** | Continuous Modular Strategic Plan |
| **CP8** | Control Period 8 (2029-2034) |
| **CSM** | Common Safety Method |
| **DDG** | Demand Driver Generator |
| **DfT** | Department for Transport |
| **EDGE** | Economic Demand Growth Estimator |
| **FP** | Footpath |
| **GJT** | Generalised Journey Time |
| **GVA** | Gross Value Added |
| **LPA** | Local Planning Authority |
| **LX** | Level Crossing |
| **NPPF** | National Planning Policy Framework |
| **NR** | Network Rail |
| **ODM** | Origin Destination Matrix |
| **OBC** | Outline Business Case |
| **ONS** | Office for National Statistics |
| **PACE** | Project Acceleration in a Controlled Environment |
| **PRoW** | Public Right of Way |
| **QCRA** | Quantitative Cost Risk Assessment |
| **QSRA** | Quantitative Schedule Risk Assessment |
| **RNEP** | Rail Network Enhancement Pipeline |
| **SIP** | Strategic Investment Plan |
| **SMD** | Soil Moisture Deficit |
| **SOBC** | Strategic Outline Business Case |
| **SPEED** | Swift, Pragmatic, Efficient, Effective Delivery |
| **STB** | Sub-national Transport Body |
| **SWML** | South West Main Line |
| **SWR** | South Western Railway |
| **TOC** | Train Operating Company |
| **TTWA** | Travel to Work Area |
| **VfM** | Value for Money |
| **WB** | Whistle Board |

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