

Connecting South West England: in place of A303/A358 widening



A report prepared by
Greengauge 21 for
Transport Action Network





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Executive Summary

In 2024, the National Highways' programme to create a dual carriageway linking the M3 and M5 motorways across Wiltshire, Dorset and Somerset was halted. Two planned widening schemes, the A303 Stonehenge tunnel and the A358 Taunton–Southfields (Ilminster), costing together well over £2.5bn, were cancelled.¹

These schemes had been seen by National Highways as a way to improve connectivity between London and the South East, and the South West. Without these schemes, and several others that would have been needed to complete the 'A303 Expressway', there is a question for Government: how does it intend to address the connectivity needs of South West England?



The A303 corridor

Source: Google Maps

1. <https://www.gov.uk/government/publications/fixing-the-foundations-public-spending-audit-2024-25/fixing-the-foundations-public-spending-audit-2024-25-html> and https://assets.publishing.service.gov.uk/media/672b9695fbd69e1861921c63/Autumn_Budget_2024_Accessible.pdf

In the absence of a plan based on road widening to provide the improvement in connectivity that South West England needs, with its growing population and undiminished tourism appeal, this report explores what could be done instead. We sought an approach that will drive economic growth in the South West, help address the additional costs arising for businesses from its peripherality, and support much-needed additional housing that doesn't rely on more car use and cause more congestion.

In other parts of the country—the Midlands, the North, London and Wales, for example—regional and inter-regional connectivity needs are now primarily being examined through better rail service (and infrastructure) provision, and through 'joined up' thinking on spatial planning and public transport.

To explore how this opportunity for the South West should be seized, we started by looking at what has already been developed by the relevant authorities across this wider transport policy domain. We found a coherent set of policies and plans, largely established by the two relevant 'sub national transport bodies' (STBs): Peninsula Transport and Western Gateway. Moreover, there is a good alignment with the outcomes of the long-term planning processes of Network Rail too.

These plans for better and expanded rail services have the potential to serve the connectivity needs of South West England well. But there will have to be a prioritisation of capital funding, which has so far been lacking. With such a huge saving of spending for this part of the country from the scrapped road schemes, such a re-think merits Government attention. The projects identified in this report—which spread across a broad palette of transport modes, cost considerably less than the £2.5bn+ promised for the two scrapped A303/A358 road schemes.



This report highlights that the Salisbury–Exeter railway line, which most closely parallels the A303, is sorely in need of investment (partly triggered by the upcoming retirement of its near life–expired diesel train fleet). Today, it is a railway that fails the most basic tests of meeting passenger needs of service reliability and the ability to get a seat. As a first step we propose an acceleration of current plans to improve this route.

The report is not restricted to rail, and it is fortunate that South West England has perhaps the nation’s best developed arrangements for bus–rail coordination. We believe these can, and should, go much further. The alternative is ever–greater dependency on private car use, with its inefficiencies, relatively poor safety record, and continuing adverse environmental impacts (air quality, traffic noise, water run–off, carbon, etc.). The alternative is joined–up public transport and enhancements to active travel: safe and attractive walking, wheelchair and cycling routes.

The necessary transport arrangements can and should be tailored to local housing and other development plans. They have been entirely absent from the (cancelled) A303 corridor projects. We suggest a shift in investment to address local, regional and national policy aims together.

	Measure	Features	Next Step
1	An integrated public transport network (bus-rail)	Covering the whole South West region, creating public transport/ community hubs.	DfT instruction to GWR to take prime responsibility.
2	Enhance the capacity and capability of the Salisbury–Exeter railway	Double track Exeter–Axminster.	GBR to adopt as its primary deliverable for the South West.
3	Open new train stations and improve services to support sustainable housing expansions	For example Wellington (Somerset) and Devizes Gateway (Wiltshire), and any related infrastructure improvements, as priorities.	DfT to release its funding contributions; GBR to lead on service expansion; STBs (with local authorities) to drive forward with integrated transport–land use plans.
4	Replace the diesel train fleet on the Salisbury–Exeter line	Adopting a discontinuous electrification solution.	Ministerial and GBR leadership and commitment to funding this South Western Railways initiative.
5	Adopt a rail sector climate change adaptation strategy for South West England	Cross-route operational management designed to sustain rail access to South West England through adverse weather events.	GBR and Network Rail to establish this as a model programme with the support and guidance of the Climate Change Committee.
6	Support rail freight development in the South West with a new regional R&D grant	Overcoming the high costs and risks of being a ‘first in field’ adopter of rail-based logistics service provision in the South West.	In conjunction with the Rail Freight Group, and in support of the national rail freight growth target (+75%), GBR to devise a suitable regional incentive funding package.
7	(i) Fund the creation of a national cycle route , and (ii) create local active travel networks centred on public transport hubs.	New long distance cycle route broadly parallel to the A303 to be added to the national cycle network. Local authorities to work up active travel plans, centred on public transport hubs.	Engage Sustrans and invite transport campaign and community groups to work with local authorities to devise plans.

Many of these are not new proposals: they have already passed through important planning stages, with local and wider public consultation. But pulling them together into a coherent **programme** for improving connectivity for South West England is new, addressing regional and local connectivity needs. The South West is owed nothing less.

For rail, we have added an important and new operational component. A lot of work has gone into trying to make the rail network linking the South West with the rest of the country **resilient** to climate change induced adverse weather events. But the Climate Change Committee has also pointed out the need for climate change **adaptation** measures. These centre on using adjacent and parallel alternatives when needed, after resilience measures have been taken.

The South West is connected to the rest of the country by three railways (combining into to just two west of Taunton/Yeovil, and just one, west of Exeter). Traditionally these have come under separate route based management from Paddington and Waterloo. Increasingly, it is being found necessary to use existing cross-connections to switch train services at times of adverse weather between these routes. The Somerset levels, for instance, are flood-prone. At such times, trains are increasingly switched to connect London and Exeter via Yeovil Junction rather than Taunton.

This has influenced our suggested prioritisation of investment on the Salisbury-Exeter line, with an expanded programme of capacity improvements starting at its western end, from Exeter at least to Axminster, so that the ambitions of Devon Metro (increasingly important for student access to higher and further education, as well as to health and employment centres) can be met. At the same time, the prioritisation of this investment is intended to create the ability to accommodate long-distance services diverted from the Westbury-Taunton line **as a matter of routine**, and without disrupting Salisbury line service reliability. Climate change is an inescapable policy driver.

The report examines the alignment of this wider transport agenda for the South West's connectivity needs with Government's five national missions², and finds an exceptional policy fit with them, and with the priority being given to house-building, for which the South West's need is as great as any other region:

1. Kickstart economic growth (importantly, in every region)
2. Build an NHS fit for the future
3. Safer streets
4. Break down the barriers to opportunity
5. Make Britain a clean energy superpower.

Summary

England's South West has a transport connectivity deficit. Over £2.5bn that was to be spent on the A303/A358 widening schemes will now not be spent. And there are no funds allocated for widening further sections of the 'M3-M5' corridor that would be needed to avoid traffic queues forming as they do today along this route during peak weekend and holiday periods.

It cannot be right for Government to neglect the transport connectivity needs of such a large and significant part of the country. The report sets out a way that Government can ensure the South West plays its part in meeting its national policy aims cost-effectively.

2. https://assets.publishing.service.gov.uk/media/6751af4719e0c816d18d1df3/Plan_for_Change.pdf

During the course of 2024, two major highway schemes were cancelled which connect the South West. The A303 tunnel scheme at Stonehenge and the A358 upgrade which connects the A303 with the M5 motorway at Taunton¹, had formed part of a long-term plan to create an alternative dual carriageway route between London and Exeter. National Highways refers to these projects as 'linking the M3 and M5 motorways'.

The Stonehenge scheme was cancelled in the spending review in July after a lengthy decision making process and legal battles. The A358 scheme cancellation was confirmed in the Autumn budget statement.

The A303 scheme at Stonehenge was costed at £2.5bn and the A358 dualling scheme was expected to cost £397m.

The schemes were described as unaffordable and scrapped within the first four months of the new government coming to power. For others, it wasn't just the economic cases for these schemes that were in doubt, but that they were found to be incompatible with the UK Government's commitment to decarbonisation² and protection of world heritage sites.³









1. Treasury documentation released after the Budget speech of 31st October 2024 showed that the Transport Secretary has decided not to progress with the A358 Taunton-Southfields (placing it in the unfunded and unaffordable category).

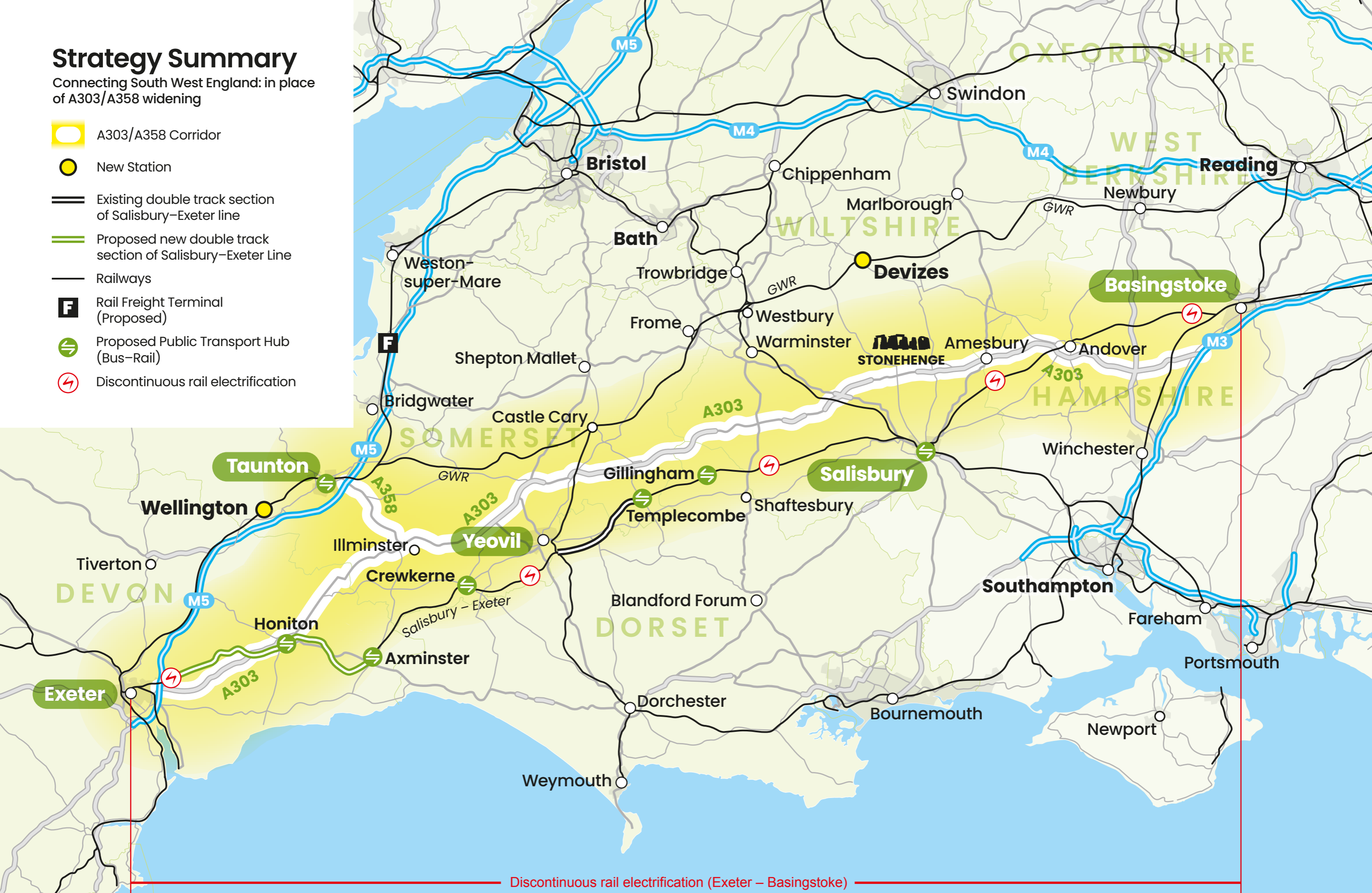
2. The pledge made at the COP 29 Summit held in Azerbaijan is an aim of an 81% cut in carbon emissions by 2035 (not including international aviation and shipping).

3. A303 Amesbury to Berwick Down Examining Authority's Report of Findings and Conclusions and Recommendation to the Secretary of State for Transport <https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/TR010025/TR010025-002181-STON%20-%20Final%20Recommendation%20Report.pdf>.

Strategy Summary

Connecting South West England: in place of A303/A358 widening

-  A303/A358 Corridor
-  New Station
-  Existing double track section of Salisbury–Exeter line
-  Proposed new double track section of Salisbury–Exeter Line
-  Railways
-  Rail Freight Terminal (Proposed)
-  Proposed Public Transport Hub (Bus–Rail)
-  Discontinuous rail electrification



Discontinuous rail electrification (Exeter – Basingstoke)

Some believe that the problem with major road schemes such as these stems from an underlying assumption of road traffic growth which can be shown to be incompatible with decarbonisation targets. Professor Greg Marsden, at the Institute for Transport Studies at the University of Leeds, explains it like this:

“As yet, there is no robust cross-government strategy to tackle emissions at a whole economy scale. As the largest sector of emissions, that statement will continue to be true unless the ambition for transport is higher. This would likely mean not planning for the kind of traffic growth futures we currently are”.⁴

Transport Action Network, who commissioned this report, point out that National Highways’ remit is purely roads based:

“is in no position to consider and deliver a non-road alternative which might provide a better solution such as improved passenger and freight rail services.”

With Government’s launch of its vision for an Integrated National Transport Strategy, for the first time in a quarter of a century, a more rounded holistic look at transport issues may now be feasible.

This report aims to take advantage of a fresh approach and is designed to explore what an alternative to the capacity expansion of the A303 (and A358) might look like and how it would fit in with the new government’s missions and targets—and support their delivery.

4. Local Transport Today, Issue 903, November 2024. Note too a recent survey by Buro Happold and the Transport Planning Society which found that over three quarters of transport planners believe the UK is not likely to reach its carbon reduction targets on the current trajectory—see <https://highways-news.com/urgent-transport-decarbonisation-essential-to-avert-climate-catastrophe-say-uk-transport-planners/>.

Implications for highway network use

The two cancelled highway schemes, along with other future upgrades, were designed to create a dual carriageway between London/South East England and the West Country—Somerset, Devon, Cornwall, parallel with, and to the south of, the M4/M5 route. The idea was to fashion a primary route out of a set of local (single carriageway) main roads. It is a programme that has been underway for over 40 years.

The long-running London–Exeter road upgrade is still far from complete—and with the two now cancelled widening schemes this is likely to remain the case for decades to come. Meanwhile, the A303/A358 does not provide an all-year round dependable route for car users, coach service providers or road haulage operators. The sections that remain with single carriageways constrain road capacity.

That being the likely case over the decades ahead, some long distance (South West–South East) road users in future years would likely instead use parallel highway routes. These parallel routes include the A30 (which passes through the centres of Salisbury and Yeovil), the A35 (along the Dorset–Devon coast) and (most likely) the M4/M5 motorways that connect London and Devon, but less directly, to the north. Others might—if the quality of service on offer was up to scratch, switch travel mode.

Of course a lot of traffic on the A303 is essentially local in nature, and there are few alternative roads available, especially across Salisbury plain. There are better alternatives available for longer distance users of the A303/A358 than for short distance local travel. There are also very few bus services.¹

1. The A358 is an exception with a 90-minute interval Taunton–Ilminster bus service.

Non-vehicular road use

The A303/A358 is almost totally absent of provision for active travel (walking, and cycling or wheelchair use) being largely devoid of footpaths and with no provision for cyclists. Crossing the road is hard, and it is not suitable for cycling or horse riding, with traffic speeds far too high for comfort.

Aim of this report

The now abandoned A303/358 road widenings would have increased highway capacity, and at peak times² reduced journey times for road users along some sections of the corridor. The now abandoned road schemes would have had some positives for road users as well as wider negative consequences.

So, the questions to be addressed here are these:

“what alternatives exist to this corridor road widening programme, and, in particular, what other types of policy and investment could add equivalent transport capacity and shorten journey times?”

and

“what alternative vision would such policies and measures be attempting to realise?”

2. Peak times for the A303 corridor are different in many respects to other roads being more seasonal in nature and focussed around weekends and holiday times.

No single measure is likely to suffice, just as expanding road capacity would fail to address all the issues. It follows that our aim must be to identify a viable set of measures, so that the Department for Transport and its Ministers, with the support and influence of the regional and local authorities with transport responsibilities for this part of England, can point to a suitable alternative approach.

On this basis we exclude other road widening schemes, which would fail to deliver on the Government's missions and would likely also offer poor value for money. We explore what else could be done to meet the connectivity needs between South West and South East England—both at inter-regional and local levels.

The implication is a need to develop proposals across the transport modes for a substantial geographical area. We focus on initiatives for public transport, in particular rail, and also bus, and also seek to embrace active travel modes—walking, and cycling in particular—which can open up access to longer public transport trips.

Key sources

There are useful policies and strategies set by Sub-national Transport Bodies (STBs) and by local authorities. They contain transport strategies that respond, as would be expected, to their own policy priorities, which are generally centred on economic, as well as wider social policy and environmental aims.

We will later turn to examine (and use) the work of the adjoining STB to the west (Peninsula Transport), but an immediate area of study lies in the **Western Gateway STB**, which covers a north-south area from Gloucestershire to Dorset. The rail network across this area is shown below (the Western Gateway STB is the area shaded grey):



Western Gateway STB and the rail network

Source: <https://westerngatewaytransport.org.uk/wp-content/uploads/2024/10/Western-Gateway-Rail-Strategy-Final-Technical-Report-v3.00-Signed.pdf>

A report³ from the Western Gateway STB envisages the “creation of Transit Oriented Communities that are less reliant on car travel, with...reduced carbon emissions...[providing].. Health and Social Wellbeing improvements”. This is very clearly a different vision from that underpinning the planned widening of the A303/A358. And it is a most helpful perspective for this report.

Across the two most relevant STBs, we have found that a substantial volume of effort has gone into formulating public transport initiatives in our area of interest—a very broadly drawn ‘A303’ corridor. They have been developed as a matter of good practice.

3. <https://westerngatewaytransport.org.uk/wp-content/uploads/2024/10/Western-Gateway-Rail-Strategy-Final-Technical-Report-v3.00-Signed.pdf> report written in 2020.

The various plans and proposals are not drawn together in a single place, nor are they necessarily fully reconciled with one another. But the component parts of a coherent alternative exist, and here they can be brought together in a snapshot of possibility. We are lifting the lid on a documented treasury of forward thinking, albeit one largely held in suspense absent the funding needed to implement even modest schemes in this part of the country.

Most helpfully, for rail at least, plans have been developed on a route by route basis after consultation with all relevant stakeholders, as we shall see. To these we can add other components. This approach may have helpful implications for how the highway network could be designated and re-designed with a greater focus on public transport and active travel.

In summary, this report is informed by the relevant policies and strategies of the STBs and local authorities, and by those developed by the rail sector. They are in general well-aligned with one another. In this part of England at least, Network Rail has gone to considerable lengths in its Continuous Modular Strategic Planning (CMSP) process to engage deeply with the relevant STBs and local authorities in setting forward its objectives and plans.

Having reviewed them, we have identified a plausible raft of policies and measures that could be taken forward for early implementation at lower capital costs than the highway widening schemes now abandoned:

- For the South West region as a whole, and in particular its connection with South East England/London
- For the A303 corridor across Wiltshire and Somerset and into Devon, both locally and over longer distances.

Higher cost projects—such as electrification of the GWR main line from Paddington onwards across Somerset, Devon and Cornwall—would be for later.

Climate change resilience and adaptation measures

The need for climate change resilience measures is well understood by infrastructure authorities and the rail sector in particular has been busy implementing protective measures over the last several years in South West England. These are characterised by, for example, works needed to protect infrastructure from more extreme weather events, including more severe and more prolonged levels of rainfall. But climate change **adaptation** measures are a further important factor to be considered, as we will suggest.

Climate change adaptation measures, according to the Climate Change Committee need to be formulated because resilience measures can take us only so far. Besides protecting where possible their own facilities, infrastructure managers also need to look at those that are adjacent or lie in parallel, to see how services can be maintained in the event of breaches caused by extreme weather events.⁴ National Rail has recognised the need to move on resilience and has announced extra investment to tackle this.⁵ However, resilience measures can only reduce, but not prevent, disruption from climate change impacts.

It is evident already in our geographic zone of interest that rail services are being switched between routes as and when needed as a result of climate impacts. For example, much greater use is now being made of the periodic need to divert Paddington–Exeter/west country trains away from the Great Western route over the Somerset levels. Such services are instead routed via Yeovil Pen Mill and access Exeter over the western part of the London & South Western route between Waterloo and Exeter.

4. <https://www.greengauge21.net/why-the-nation-needs-a-climate-change-adaptation-strategy-for-transport/>

5. <https://www.openaccessgovernment.org/network-rails-2-8-billion-climate-crisis-investment/175656/>

The need for such operational devices is going to grow and with it the need to regard the rail network—even the whole transport network (rail and highways)—as a single system, rather than a set of separate entities at the strategic investment planning level.

Funding

Policies and measures identified to deliver them all need to be framed within the context of seeking funding from central Government. Very little transport investment can be funded by local authorities or STBs without central Government funding and (in effect) Department for Transport approval. The EU's peripherality funds which were so important to the South West have of course vanished.

There may be some scope for private sector funding of transport infrastructure and services, and there is renewed interest in the context of the current tight climate on Governmental spending. But, in practice, capturing financial returns from transport measures is difficult and this type of approach in general centres on seeking to extract some value from the gains transport investment may offer to property and development values. In a rural context, (which is essentially the nature of our 'study area') such prospects are, we suggest, vanishingly small. Any alternatives will need public sector funding.

Government is saving over £2.5bn capital outlay from not implementing the two A303/A358 schemes. This amount of funding could and should be applied to address the region's transport needs in a different and better way. But in reality, the 'saving' will have already been taken into account by DfT as one less pressure on its budget in an era of constrained public spending. There is currently no expectation that even a part of this capital outlay will be diverted to other projects to address the connectivity needs of South West England. But in this report, we suggest it should be.

Repurposing a relatively modest proportion of the nominally saved highways' capital expenditure would bring significant benefits to this, the part of England, which is 'deprived' of the benefits (and spared the downsides) from these National Highways' projects.

Summary

Given the 'stop' on the A303/A358 highway schemes, we are looking for other measures and types of investment that could add capacity and shorten journey times ('improve connectivity'). They should in general improve transport services sufficiently to make a difference—indeed, to provide the possibility of other means of transport for some journeys currently made by car, or which use road haulage. We will cover the transport needs of people and freight and logistics.

Better connectivity is characterised by more reliable and dependable services, able to address the needs of the whole community, with better accessibility, quicker and more frequent connections, and accordingly, the capacity to accommodate increased levels of demand.

The aim here is:

- to identify a viable transport policy and programme to improve connectivity to, from and within South West England
- to review the adopted policies and strategies of the relevant public bodies, looking to the STBs in particular
- to identify a suitable raft of policies and measures that do not rely on major highway schemes and can be taken forward for implementation at (much) lower capital costs than the road widening schemes now abandoned
- to consider how transport policies and measures could contribute to the UK Government's missions and commitment to decarbonisation.

3

Rail service enhancements and network upgrades

There are two rich sources of work on policies and strategies for the rail sector. These are:

- The policies and programmes set out by the relevant STBs and by the local authorities, and
- The plans and strategies set out in the series of reports prepared by Network Rail, under its Continuous Modular Strategic Programme (CMSP).

The South West region is fortunate in having active and well-supported local authorities who want to get more from their rail network, and in having some up to date plans as part of Network Rail's CMSP—plans which are lacking in certain other parts of the country. There are also some excellent groups supporting community railways and specific routes such as the Salisbury–Exeter line, and the region is leading nationally on bus–rail coordination (which we discuss in Section 4 below).

Yet satisfaction with the region's rail network is not as good as it should be. There has been a lengthy period of poor performance, with lower than satisfactory levels of service reliability. Remarkably, in the case of the Salisbury–Exeter line at least, rail usage has nonetheless increased, reaching and exceeding pre-Covid levels of demand at many of its stations.

But there are no major investments now planned and committed that would improve rail connectivity for the South West. Yet improvements have been identified and could bring discernible benefits, including for HM Treasury, the prospect of increased rail revenue receipts.

Rail and road geography

Essentially there are two railways of relevance when exploring alternatives to road investment. These are the lines built in the 19th century linking London and the west country. The line most closely following the course of the A303 is the London & South Western railway (L&South West) line from London (Waterloo) to Exeter via Salisbury. The Great Western Railway (GWR) line runs parallel but to the north from London (Paddington) over the ‘Berks and Hants’ route between Reading via Westbury to Taunton and thence Exeter.



Rail routes London & South East—South West England

(only selected stations shown, and map simplified)

Source: https://assets.nationalrail.co.uk/e8xgegruud3g/6U719lkpxPPkHQR8s8EYuj/e3fccc7b40a84b026bfa9e5a668af7f5/National_Rail_network_map_June_2024_v40b.pdf

While these lines were built in competition with one another, much later, during the British Rail era, under the Dr Beeching notion that duplicate main lines should be rationalised, the L&SWR route was downgraded, reduced to a single track operation and passing loops at key stations in place of the double track main line. This constrains the timetable that can be operated today and has an adverse effect on train service reliability and punctuality.

In recent years, with increased impacts of high levels of more substantial and more frequent rainfall levels, significant use has been made of a connecting line (Castle Cary–Yeovil Junction) between these two routes, but this connection is also single track.

To the north of the 'Berks and Hants' line lies a third route, the London–Bristol main line and this provides a further viable, but longer and therefore slower, route between London and the West Country. This main line and its extension southwards via Taunton parallels the M4 and M5 motorways. (There is no long distance highway paralleling the Berks & Hants line between Reading and Taunton).

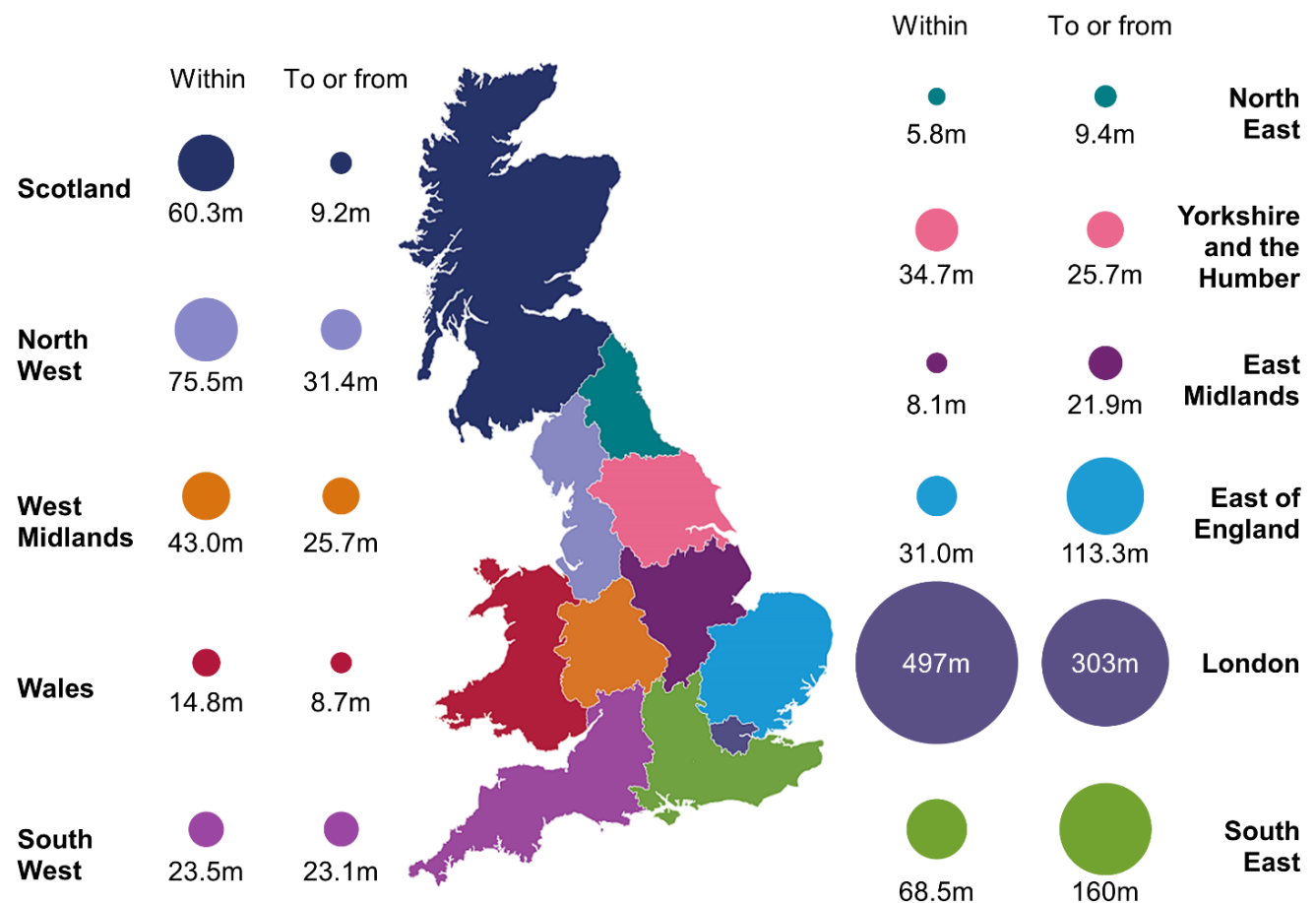
Finally to the south, it can be seen that there is no coastal rail route available between Weymouth/Dorchester and Exeter. Today, there is a trunk road (A35), but no end-to-end scheduled bus service.¹ The south coast of England is surprisingly missing a key public transport connection between Dorset and Devon.

It makes sense then to look first at what could be done to improve train services on the Salisbury–Exeter line (the L&South West route). It is under-achieving but unlike the other main lines to the north, serves a string of intermediate towns, many of which would have residents that use the A303, and where additional housing is likely .

1. <https://www.rome2rio.com/s/Dorchester-Dorset-England/Exeter>

Rail demand levels

The level of rail use in South West England is substantial, as is the use of rail for inter-regional travel, shown below for 2022/23.



Intra and inter regional rail demand

Source: <https://dataportal.orr.gov.uk/media/3g5pcn30/regional-rail-usage-apr-2022-mar-2023.pdf>

The total number of rail journeys for the South West region was 46.6 million from April 2022 to March 2023, which equates to 89% of the 52.2 million journeys made three years earlier. Passenger demand recovery from the Covid period is continuing, with the Salisbury–Exeter line now recording demand back above pre-Covid levels.² Most of the South West’s volume of 23.1 million rail journeys in 2022/23 were to or from London (50%), the South East (25%) or Wales (11%). Rail travel between the South West and South East/London accounts for 75% of the South West’s current inter-regional travel.

[i] Salisbury–Exeter (L&South West route)

This is the railway line that forms the closest parallel to the A303.



(Waterloo–) Salisbury–Exeter rail line

Source: South Western Railway Exeter, Yeovil, Westbury and Salisbury to London Waterloo train timetable.

2. Source: Salisbury Exeter Rail User Group (SERUG); interview October 2024. SERUG data show an increase in passenger use of **+42%** at stations on the route between Salisbury and Exeter between March 2019–February 2020 (i.e. pre-Covid) and between July 2023 and June 2024 (most recent data available) with some stations (Templecombe and Yeovil Junction) showing increases of over 60%.

The Salisbury–Exeter line, a past main line, is (since 1967) 75% single track. According to SERUG³, this makes it:

“difficult to recover the timetable without impacting on other services (both on and off the Wessex Route) or creating lengthy gaps by turning services short of their destination.”

In a pattern not untypical of lengthy single track lines, after around midday, each day, train punctuality declines as delays mount up for trains waiting to cross each other in designated passing loops.

With services disrupted and trains waiting to enter single line sections:

“West of England line services normally terminate/start at Basingstoke or Salisbury instead of going to/from London Waterloo, ...[and]...it is almost impossible for the line west of Salisbury to act as a diversionary route for [other] services” [from the GWR line between London (Paddington) and the West Country].⁴

This was recognised by Network Rail in its strategic examination of the route in 2019, which resulted in a report which has the full support of the various statutory bodies in the region (see Annex A for a summary of this line).

There is an important and growing role for this railway. Devon County Council has for several years now championed the ‘Devon Metro’ concept (see plan, below). This is intended to deliver dependable commuter rail services into Exeter where the economy is growing with, in particular, a strong secondary/higher education/college sector.

3. Salisbury Exeter Rail User Group.

4. SERUG.



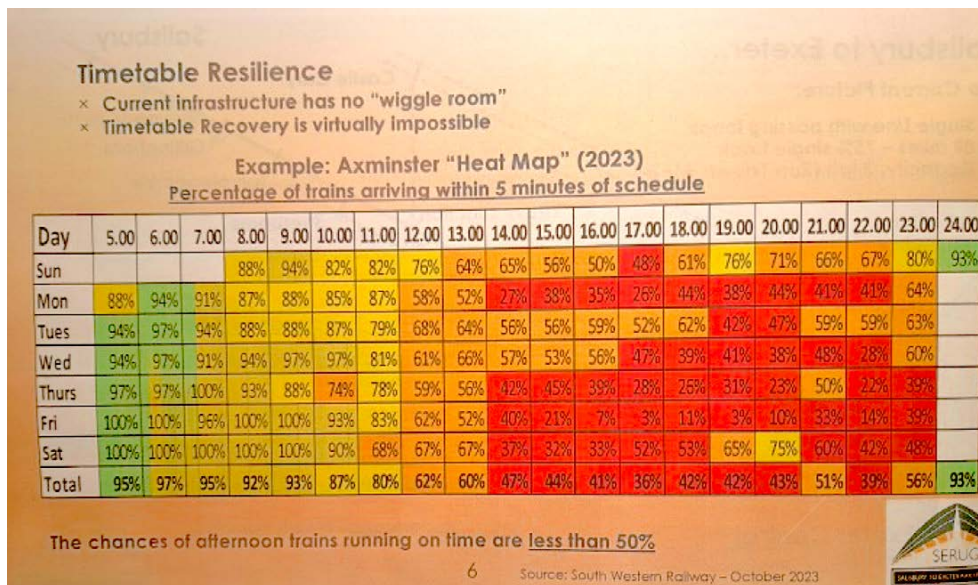
Devon Metro map

Source: <https://www.traveldevon.info/train/devon-rail-network/>

Crucial to the success of Devon Metro is the line eastwards from Exeter to Axminster, especially as this serves an area with significant planned housing expansion. Service frequency at the multiple local stations over this section of line is crucial, therefore, to deliver a key part of the housing and development plans for South West England. This is the western part of the Salisbury-Exeter line, and like the rest of the route suffers from being single track. Devon Metro would be an hourly Axminster to Exeter St David’s service that calls at all stations.

A sensible overall strategy for the Salisbury–Exeter line would recognise the need for several important policy objectives to be met:

- for its rail service to be **dependable**—that is, able to offer a reliable day-long train service, with sufficient capacity to meet growing demand levels. The aim has to be to ensure the standard timetable pattern is reasonably robust (rather than on the point of collapse). This is currently a risk that gets stronger later in the day, each day, as trains are held up awaiting entry to single track sections of route, as shown below in a chart from the line’s rail user group.



Train service punctuality on a single track railway declines through the day: example—Axminster on the Salisbury–Exeter line

Source: Graphic hard copy, as supplied by SERUG

- to provide the added **resilience** of having two inter-connected railways (Salisbury-Exeter and the Berks and Hants line) in the face of climate change induced, more extreme, weather events
- to deliver the **capacity** and capability to support the expansion of the Exeter growth area eastwards in a sustainable way, with reduced dependence on car use in major new housing settlements and to increase opportunities for those already living there.

A plan to deliver this outcome was contained in Network Rail's plan of 2020, under its Continuous Modular Strategic Planning report (CMSP) process. But this plan has not yet come to fruition, in the absence of the necessary funding. If implemented it would allow more services to be scheduled between Salisbury and Exeter, to overcome overcrowding problems that exist as demand continues to increase. A very partial alternative—of using longer trains—must await train fleet replacement, which is not too far distant.

As with any overall long term strategy, programming in phases to achieve all the outcomes makes good sense. The early phases could comprise:

Phase 1a (taken from the CMSP⁵—Package 1a) comprise:

- A new loop in the Whimple/ Cranbrook area
- Extension of the Honiton Loop

This would give performance, resilience and additional capacity benefits, with 2 trains/hour made possible to most stations between Exeter St. David's and Axminster—so allowing the completion of the Devon Metro aspirations.

Phase 1b delivers incremental journey time improvements by extending the loop at Tisbury (westwards and eastwards). It also delivers additional capacity between Salisbury and Yeovil Junction—two trains/hour to all stations.

5. <https://sacuksprodnrdigital0001.blob.core.windows.net/regional-long-term-planning/Southern/West%20of%20England%20Study%20Continuous%20Modular%20Strategic%20Planning.pdf>

A (modest) start is now expected on early phase measures to improve capacity and reliability but as of Autumn 2024, funding for this programme is yet to materialise. This would provide a new passing loop at Feniton, which would allow a second train to operate each hour between Exeter and Honiton—but not Axminster (which is a key bus rail hub)—just shy of the Devon Metro aspiration. With no extra capacity east of Honiton, there is no capacity either for diversions from the GWR Berks and Hants line, let alone increasing Exeter–Salisbury train frequency.

These current plans contrast unfavourably with that set out in Network Rail's 2020 CMSP proposals which offered a passing loop at Cranbrook, an extension of the existing Honiton loop westwards, and the existing Axminster loop eastwards, the existing Yeovil Junction double track section extended westwards along with westward extensions of existing loops at both Gillingham and Tisbury.

The much wider 2020 programme would have allowed, it was suggested, 3 trains/hour to operate, offering better timetable resilience, faster journey times and the ability to accommodate diversions from the GWR line.

In reviewing the prospects for an enhanced role for this railway, which so closely follows the route of the A303, it is clear that infrastructure works are needed. Without them, residents of the many towns served by the A303 (and the A30 it connects into, to reach Exeter)—Mere, Wincanton, Gillingham, Sherborne, Shaftesbury, Crewkerne, Yeovil, Chard, Axminster and Honiton—will increasingly rely on car use. The alternative available is, frankly, an unreliable and slow hourly train service.

There is a challenge looming that could be turned into a great opportunity—ideally linked with the infrastructure improvements described. The London–Salisbury–Exeter train fleet is diesel (class 158/9), with the fleet maintained at Salisbury. East of Basingstoke, these trains run over the (third rail) electrified main line between London and Southampton. These are the only diesel trains left running into Waterloo.

Here some very interesting innovative plans are emerging. It is of course inconceivable that this train fleet could be replaced by a new diesel fleet with an operating life of 35–40 years. But South Western Railway now has more electric units than it needs. It has been examining, in what it describes as a wholly collaborative programme with Network Rail and train manufacturers, installing batteries in spare electric units that would operate this route. This would require the creation of a new depot at Salisbury—and there will inevitably be a transition period as the fleet is swapped over.

Thus the line would be partly electrified (3rd rail) but only in places away from safety risk areas such as accommodation crossings (for footpaths). A discontinuous system like this can place less pressure on the need for extra grid capacity supply to the railway. The electrical power for the estimated 80km of third rail electrification needed would be obtained from local power suppliers rather than needing new national grid connections. It is an imaginative approach and would be much cheaper than a whole line electrification—for which Salisbury–Exeter, with its modest service frequencies—would be a low priority.

There would be many benefits: faster journey times, more capacity from longer trains, more suitable arrangements for getting on/off, avoiding the end-door passenger crush of the class 158/9 trains operating today's service. Outside our corridor of interest, air quality in Waterloo station would also improve, as its operation becomes all-electric.

It is also important to consider wider connectivity aims: not all travel is to/from London. Of course, Salisbury and Exeter (St Davids) are both key hub stations on the national rail network offering onward rail connections. But, as capacity is restored along the line in the years ahead, it should be possible to consider provision of through services from other places, such as (say) Portsmouth/Southampton to Exeter, addressing a travel market for which all other options look sub-optimal. Access from Devon by rail to the Dorset

towns could also be provided by selected through services from Exeter which after reaching Yeovil Junction would serve Yeovil Pen Mill, and then run south to reach Dorchester and Weymouth, delivering south coast public transport connectivity currently unavailable.

[ii] The Berks and Hants route (GWR)

In contrast with the Salisbury–Exeter line, this is a double track route, with relatively few intermediate stations, and it carries fast trains between London, Reading and South West England (mainly to Plymouth or Penzance). The line is also a key route for rail freight, especially for aggregates shipped from quarries in the Mendips particularly to London for use in construction projects. There is a local service over the eastern section of the line which reaches Great Bedwyn. Electrification from London runs out at Newbury.

Westbury serves as a key interchange, Frome is on a loop, and Castle Cary, despite minimal immediate catchment, has evolved into a ‘railhead’. There are no stations remaining west of Castle Cary before Taunton, where the route is joined by the line from Bristol, which is used by west of England cross country trains and services from the South West into south Wales.

In the longer term, the plan is to electrify this line (Newbury–Taunton), no doubt having learned the lessons of the original Great Western main line electrification programme which badly over-ran its budget, but there is no schedule for doing so. Electrification of the Bristol area network would no doubt take precedence, but the now common use of bi-mode trains (electric and diesel) leaves this too in something of a limbo.

So plans for the Berks and Hants line are modest, but they could lead to significant benefits along the corridor. There is a plan to create a ‘Gateway’ station for Devizes. Its potential funding (“Restore your Railways”) has now been lost and a new station is unlikely to cost under £25m. But, with a suitable

bus connection to Devizes and facilities for safe cycle access, this would be a new station between Pewsey and Westbury—filling a gap of 20 miles. It would create the opportunity for non-car dependent housing development at this important Wiltshire town.

This would be the trigger for a long-sought after service re-specification with the current Bedwyn-Newbury shuttle service replaced by a London (Paddington)-Westbury semi-fast service calling at stations west of Newbury, including Pewsey. It could allow modest acceleration of West of England-Paddington trains and a much more usable local service along the northern fringes of the A303 corridor. So it brings all-round benefits, including improving the economics of services on the 'Berks and Hants' line and the case for Newbury-Taunton route electrification. However, Devizes Gateway is not funded at present, and location of new infrastructure in a National Landscape will need to be considered carefully. It would be undesirable if the project relied on car-based access over a wider catchment. These are significant issues to address, but rail is not currently meeting the growing needs of this part of Wiltshire.

This in turn plays into a view for an enhanced contribution from rail in Wiltshire. As a recent study has noted⁶, the area:

“...is experiencing significant growth supported by Wiltshire and Swindon’s existing and emerging local plans for investment in housing and economic development. The considerable forecast growth will continue to put pressure on an already constrained railway.

6. <https://transwilt.org/2024/10/24/transwilt-welcomes-network-rail-study/> and the Wiltshire Rail Strategic Study, Final Report, October 2024, Network Rail (Wales and Western—https://www.wiltshire.gov.uk/media/14237/Wiltshire-Rail-Strategic-Study/pdf/Wiltshire_Rail_Strategic_Study.pdf?m=1729761350220)

Combined with local policies to meet government net-zero targets and the market for rail freight through Wiltshire [which is] forecast to grow, accelerated by DfT’s freight growth targets for 75% growth in freight carried by rail by 2050, the reliance on rail will increase and Wiltshire needs a reliable and robust railway to support forecast levels of housing and economic growth.”

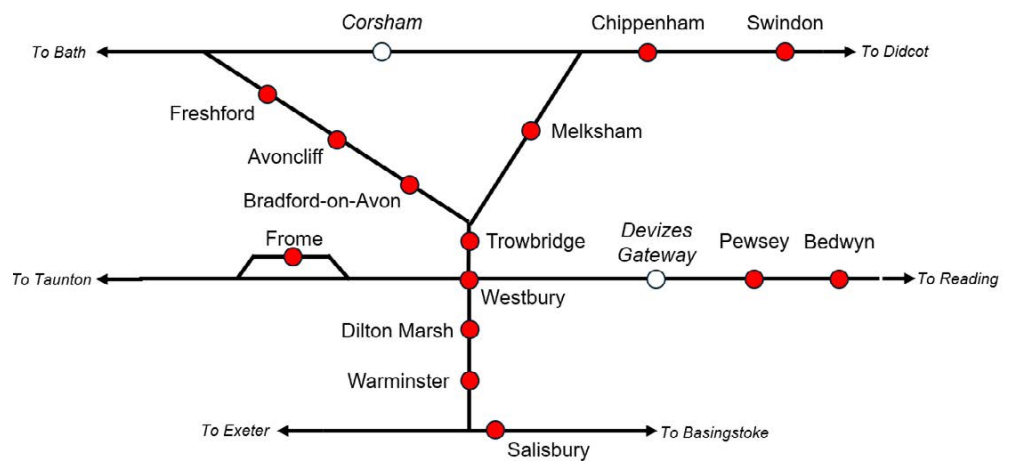
The Wiltshire Rail Strategic Study highlights the weakness in north south connectivity. Noting that travel by rail is intrinsically a network opportunity:

“North-south connectivity along the TransWilts corridor from Swindon (a key interchange station for services on the GWML) to Westbury (with connections to a large number of destinations) and Salisbury (the county’s only city) ... is limited and is served by slower, stopping services.”

As a first stage, this study identified the Paddington–Westbury service (noted above to bring rail services back to Devizes), a new Bristol–Oxford service, and a local Swindon–Westbury hourly service, which would subsequently be extended to Salisbury (and or to Taunton) (see plan opposite).

The route between Westbury and Taunton could also be provided with a local rail service. Intermediate stations including those at Somerford and Langport have long been closed. They represent further opportunities for housing growth plans with the possibility of rail-based linkages to education and employment centres.

On this subject, there is an even more recent initiative that aims to deliver part of the Wiltshire Rail Strategic Study’s ambitions. As a letter from the Office of Road and Rail Regulation (ORR) dated 15th November 2024 states:



Source: Wiltshire Rail Strategic Study, Final Report, October 2024, Network Rail (Wales and Western).⁷

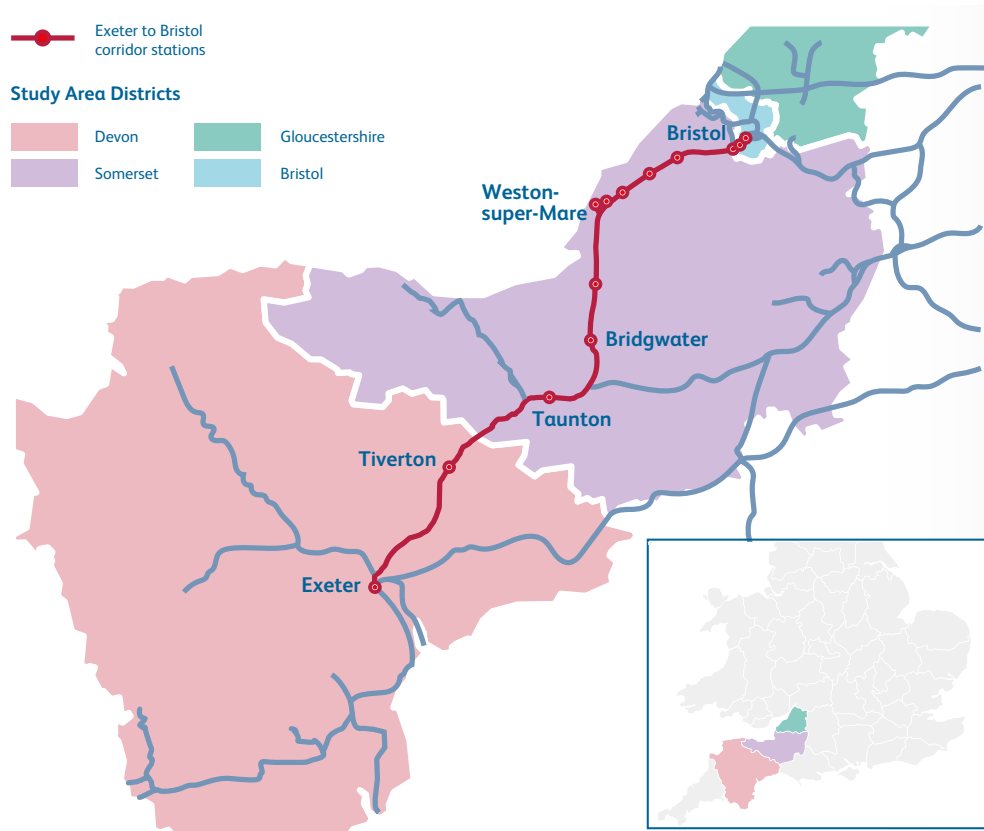
“We have carefully considered Go-op Co-operative Limited’s (Go-op’s) application for a track access contract with Network Rail Infrastructure Limited (Network Rail)... We have decided to approve access rights from December 2025 to December 2030. In taking this decision, we placed particular weight on the benefits of new regional services between Swindon, Taunton and Weston-Super-Mare.”

The Go-op Co-operative is new to rail, and there will no doubt be challenges to bring these ORR-granted train access rights to fruition. But if they succeed, further towns in the wider ‘A303’ corridor could be provided with their own rail services.

7. in collaboration with partner organisations and stakeholders including: Western Gateway Sub-national Transport Body (STB), Wiltshire County Council, Swindon Borough Council, Great Western Railway (GWR), South Western Railway (South WestR), TransWilts Community Rail Partnership, Bedwyn Trains Passenger Group and Pewsey Vale Rail User Group.

[iii] Taunton–Exeter

A complete understanding of the rail network alternative to the A303/A358 schemes requires looking at the plans for the railway between Taunton and Exeter, which is paralleled by the M5 motorway. Here we can draw on another Network Rail strategic study carried out in partnership with the two relevant STBs: Peninsula Transport and Western Gateway.⁸ Dated May 2022, the Bristol to Exeter rail corridor strategic study, asks: “**How can rail best support sustainable economic and housing growth between Exeter and Bristol?**” Great question!



8. <https://sacuksprodnrdigital0001.blob.core.windows.net/regional-long-term-planning/Wales%20and%20Western/Bristol%20to%20Exeter%20rail%20corridor%20strategic%20study.pdf>

It concludes by saying:

“Both Peninsula Transport and Western Gateway Sub-national Transport Bodies identify the need for modal shift in this corridor. Rail has a key role in taking traffic off the highway network. This is essential for meeting decarbonisation targets. It’s also imperative for addressing congestion issues, which increase journey times and hinder economic productiveness. The rail corridor closely follows the M5 motorway and intersects with numerous routes on the Major Road Network including the A38 and A370.”

The report identifies the following strategic priorities for improved services in the study corridor:

- long-distance passenger travel (including for leisure) with origins and destinations further afield
- the regional travel market between Bristol, Exeter and the major urban centres
- commuter travel into Exeter from Cullompton, Tiverton, Wellington and Taunton;
- commuter travel into Bristol from the Greater Weston area, including Yatton and Nailsea (plus demand from Bridgwater, though this is suppressed by the current level of service and journey time)
- to/from Tiverton Parkway and Taunton, acting as rail hub for North Devon, Exmoor, South Somerset, and Somerset West and Taunton
- freight traffic with origins and/or destinations in and beyond the study corridor (demand is currently limited).

Cullompton and Wellington stations have been closed for many years. Plans to restore rail services to Wellington are well-advanced, with a local housing developer having gained approval in May 2024 to deliver the access to a new Wellington station as part of an estate of 200 new homes.

The report concludes that:

“the key rail priority for supporting sustainable growth between Bristol and Exeter is improving connectivity, including easier access by rail to employment, education, leisure and social activities.”⁹

And it calls for electrification:

“Decarbonisation in the corridor should be achieved by full or partial overhead line electrification to allow non-diesel passenger and freight trains. This owes to the need to accommodate a large volume of services over long distances and at high speed, including freight. A decarbonised Bristol to Exeter corridor has an important function in decarbonising rail and supporting the UK government policy objective of net zero carbon emissions.”

The study also identifies opportunities for significant development of rail freight in the corridor, to support decarbonisation objectives and improve safety by encouraging modal shift from road to rail.

9. <https://sacuksprodnrdigital0001.blob.core.windows.net/regional-long-term-planning/Wales%20and%20Western/Bristol%20to%20Exeter%20rail%20corridor%20strategic%20study.pdf>

[iv] Rail resilience and electrification: a summary

The ambitions for enhanced rail connectivity for the South West were set out in 2016¹⁰, are shown summarised in the ‘super-graphic’ below. Ambitions have been much-curtailed since.



Source: <https://www.peninsulatransport.org.uk/wp-content/uploads/2021/11/PRTF-Closing-the-Gap.pdf>

Investment in the rail network and its services in the South West has been highly constrained for the last five years. Elsewhere, some significant (that is multi-£bn) projects are proceeding, if slowly—the Trans Pennine Route Upgrade and East-West Rail, for example—but investment in South West England is very modest in comparison. There are a couple of (arguably surprising) survivors from the ‘Restore your Railways’ programme which has

10. <https://www.peninsulatransport.org.uk/wp-content/uploads/2021/11/PRTF-Closing-the-Gap.pdf>

now been closed down (in Cornwall, the creation of a Falmouth Newquay service, for example) and in Devon a second station for Okehampton.¹¹ Other station re-openings remain 'work in progress' (for instance to serve Devizes in Wiltshire and Wellington, Somerset).

Main line electrification has not advanced, despite it being clear that there is no long term alternative for the lengthy Bristol/Newbury-Penzance (the Great Western main line). False comfort is taken from the operation of bi-mode units (electric and diesel) over these lengthy journeys.

In practice, across the wider A303/A358 'corridor', much of the focus for rail has been on climate change resilience measures, for instance across the Somerset levels. Further west, there is investment in a substantial staged set of measures to protect the section of the Great Western main line where it is totally exposed to climate change effects along its coastal section (Dawlish-Teignmouth).

Notably, these investments at best allow the railway network to sustain itself better through adverse weather events. They do not bring the prospect of service level improvements. This is the only rail link to Plymouth and Cornwall, and the call for consideration of re-creating a second line to provide network resilience, building on the success of the Okehampton line restoration continues unanswered.¹²

The rail system operates as a network as this brief review has made clear. Our focus has been on three east-west routes, which connect London/South East England with South West England.

11. The station is planned to open in Spring 2026 thanks to £15 million funding from the Government (£13.4m), Devon County Council (£1.4m), West Devon Borough Council (£120,000) and Network Rail (£25,000).

12. See for example <https://www.greengauge21.net/rural-reconnections-the-social-benefits-of-rail-reopening-exeter-okehampton-tavistock-plymouth-a-case-study/> While the new sea wall at Dawlish has been successfully completed, sea water ingress into diesel powered trains remains a problem during stormy weather at high tides, and at such times the line can still need to be taken out of use.

The two east-west routes that converge at Taunton provide the main rail linkage for South West England with South East England, London and indeed, the rest of the country. Two characteristics, perhaps, stand out:

- across the Somerset levels these lines are subject to closures due to flooding
- apart from the substantial flows of stone traffic from quarries in the Mendips—London, there is very little freight being carried.

These two challenges—the need for flood resilience and the ambition to carry freight flows that would otherwise entail road haulage—each serve to emphasise the importance of a network. The railway needs to be able to divert services when flood defences are breached. And this is especially the case with freight, since for this sector, investment in a rail-based solution is otherwise likely to be too high a risk.

Each of the two lines via Taunton carry people making journeys that could be instead made by car, using the A303/A358. For each of them the prospect of main line electrification is real.

By way of great contrast, the railway that most closely tracks the A303—the Salisbury—Exeter line—the challenge is simply sustaining daily operational performance, and doing so with rolling stock nearing life expiry.

The challenge of sustaining a reliable train service through the working day with only a single track line and passing loops surely makes investment along this route a priority. While it is essential that a long term progressive plan is drawn up, to ensure that each local enhancement fits in with a clear long term vision, here we propose a modest start. The aim must be to get to a 2 trains/hour service (or better) in time for the new fleet to be in operation over the whole route in 3–4 years' time. The aim must be to achieve a good level of performance reliability that is evidently today unachievable. The investment case needs to be refreshed and prioritised.

It is helpful that there is in prospect an innovative way forward to replace the diesel fleet, with a laudable approach of using a rare surplus of much higher quality electric rolling stock, which will be equipped with batteries to make possible operation over a discontinuous electrified line. This would provide a much more affordable approach to route electrification.

It represents a real means of bringing better travel options to the towns and communities served by the A303 and A358.

However, the Department for Transport doesn't look at capital expenditure by region across the transport modes. Rather it is held to HM Treasury expenditure levels set by the Department separately for rail and for highways.

Coach, bus and bus-rail integration

[i] Coach

Scheduled coach use of the A303/A358 is minimal, although of course used for tours, excursions and contract hires. There are well-established scheduled coach services between South West and South East England, and they tend to use the M4 and M5 route instead. This allows good services to intermediate locations such as Bridgwater. Coach travel remains much cheaper than rail travel in most circumstances. KPMG research for Confederation of Passenger Transport (CPT) estimates the average price of a coach trip from London to Bristol is just £11, for example.¹

National Express continues to dominate the market while Megabus has recently ceased operations in England. But there is a new player emerging. German-owned budget travel company Flixbus has signed a partnership agreement with First Bus and a major part of its operation will focus on South West England.² It is planning to use First Bus depots in Bristol, Bath, Taunton and Truro. It remains to be seen whether it looks at serving new routes in and around the South West.

[ii] Bus

The bus services in what would be classed in general as a rural area continue to experience cut-backs. The ability of local government to support these services has been diminishing over many years, not on a targeted basis, but simply as a result of cuts to local authority budgets.

1. Source: KPMG research for CPT <https://www.cpt-uk.org/news/economic-impacts-of-coach-services-report/#:~:text=The%20Economic%20Impact%20of%20Coach,supply%20chains%2C%20commerce%20and%20communities>

2. Local Transport Today Issue 903 p16

Yet there are services which operate without subsidy and these can be characterised as **Interurban** routes.³ Characteristically these routes link towns/cities, and a number of intermediate locations, without any grant support. They are truly commercial, and often are operated with modern double-deck vehicle fleets equipped with valued facilities—luggage stowage racks, high-back seats, free Wi-Fi, even USB-charging points, and can facilitate level boarding. In many ways, these standards are in line with (even ahead of) those offered by the local rail network.

Better services exist where there isn't rail competition. Marketed as an Express Bus, the X5 for example, links Salisbury with Swindon via Amesbury, Pewsey and Marlborough each hour/hour and a half, providing a largely missing link in the rail network (at least as far as the intermediate towns are concerned). Would this service survive the introduction of the hoped for trans-Wilts rail service described earlier? Yes, probably, because they serve differing intermediate locations. But the question serves to underline the point that it makes good sense to consider public transport as a whole, not just bus or rail separately.

A bus route serving the A303 towns from Salisbury, Route 25 (shown opposite) reaches Mere and Wincanton (see below), but its service frequency is poor, with departures (all in the afternoon) from Salisbury reaching as far as Mere (taking about 1 hour) three times/day and Wincanton just once.

Scheduled bus services in the area are generally thin.⁴ But there are some good bus connections to stations further west on the Salisbury–Exeter line.



Express Bus X5

Image: sebusscene.blogspot.com

3. See <https://www.greengauge21.net/the-interurban-bus-network/>

4. Transport Secretary Louise Haigh in November announced an extra £712m to local authorities to enhance bus services and £243m directed to bus operators to maintain lower fares and increase service frequency (additional to the previously announced £150m to support the £3 fares cap (which is particularly helpful for rural journeys which tend to be longer).









Reds Salisbury Route 25 bus map


The Salisbury-Devizes Route 2 that crosses the A303 where some services stop at Stonehenge, a key tourist destination, is also poor. But if improved, alongside the more frequent Route 49, there could be the potential of serving two important railheads: Swindon and Salisbury.

While there is often much enthusiasm for demand responsive services, with minibuses or similar, in practice there have been many attempts over the years to initiate these with local authority support, they are very difficult to sustain in practice. Other options available in towns and cities such as Uber have limited availability in deep rural areas.

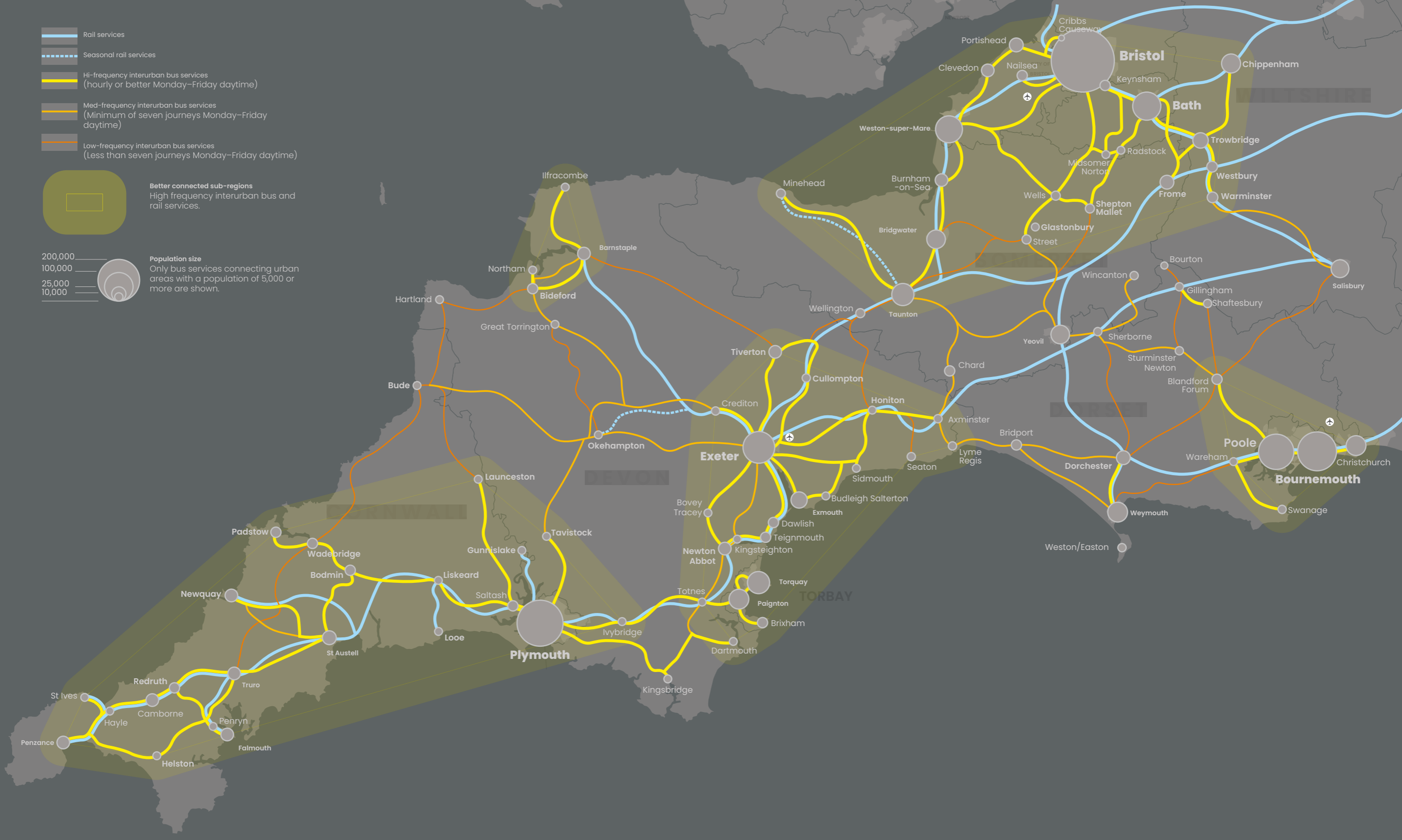
South West England's Rail and Interurban bus network

-  Rail services
-  Seasonal rail services
-  Hi-frequency interurban bus services (hourly or better Monday–Friday daytime)
-  Med-frequency interurban bus services (Minimum of seven journeys Monday–Friday daytime)
-  Low-frequency interurban bus services (Less than seven journeys Monday–Friday daytime)

 **Better connected sub-regions**
High frequency interurban bus and rail services.

 **Population size**
Only bus services connecting urban areas with a population of 5,000 or more are shown.

200,000
100,000
25,000
10,000



[iii] Bus-rail integration

It remains a mystery to those who have experienced the coordination of public transport modes elsewhere (the Netherlands, Germany, Switzerland, for example), why it is that bus and rail seem to occupy such separate domains in England. (We say England, because the devolved authorities in Wales and Scotland have better developed integration across their public transport modes.)

In fact, here in the west country, there are some of the best examples of bus-rail coordination. At Okehampton, for example, station (and rail line) re-opening led to the creation of a multi-modal transport hub. A new rail link bus service was provided from Tavistock. The long-standing Bude-Exeter bus was shrunk to a Bude-Okehampton route to take advantage of the much faster journey times the re-established rail link could offer into Exeter. The train operating company GWR has played a leading role in achieving this transformation which helps spread the value of the new rail link to Okehampton's wide catchment and hinterland.

Tavistock rail link bus at Okehampton's re-opened railway station

There are other bus-rail connections, some of them long-standing and dating back to the closures of branch lines in the 1960s. In south Devon, for example, Totnes has been developed as a key bus-rail interchange with services to Kingsbridge/Salcombe and to Dartmouth (provided by different local bus operating companies). But finding out whether bus routes are available when booking a rail ticket remains a hit and miss affair. Buses of Somerset route 28 (Taunton to Minehead) is reported as showing up for booking on all rail operators, for example, while other routes do not.

One issue that affects confidence in the use of rail, particularly late services, is the lack of confidence that there will be a bus or taxi available for passengers to complete their journey. There needs to be some form of operator guarantee that if the train misses the last bus (and of course there should be bus services meeting rail services) then there should also be a way of having a back-up demand responsive service, or possibly taxis, to enable passengers to complete their journeys safely and in comfort.



Totnes bus-rail connections

Image: <https://bristolrailcampaign.org.uk/bus-branch-lines/>

Freight transport in Great Britain is of course dominated by road haulage. Of the 216 billion tonne-kilometres of domestic freight that were moved in the UK in 2022, the majority (81%) was carried by road, 12% by water (predominantly coastal shipping) and 7% by rail.¹

It is widely recognised that the South West is the region which lags most in the development of rail freight and this is in part because of a lack of suitable terminals² as can be seen in the map below. There are no inter-modal rail freight terminals west of a line drawn between Bristol and Southampton. But industry studies suggest there is a market here for rail freight nonetheless:

“ There are clear opportunities for emerging rail freight markets in the South West. The Bristol to Exeter corridor is key to helping realise these. In particular for two key traffic types:

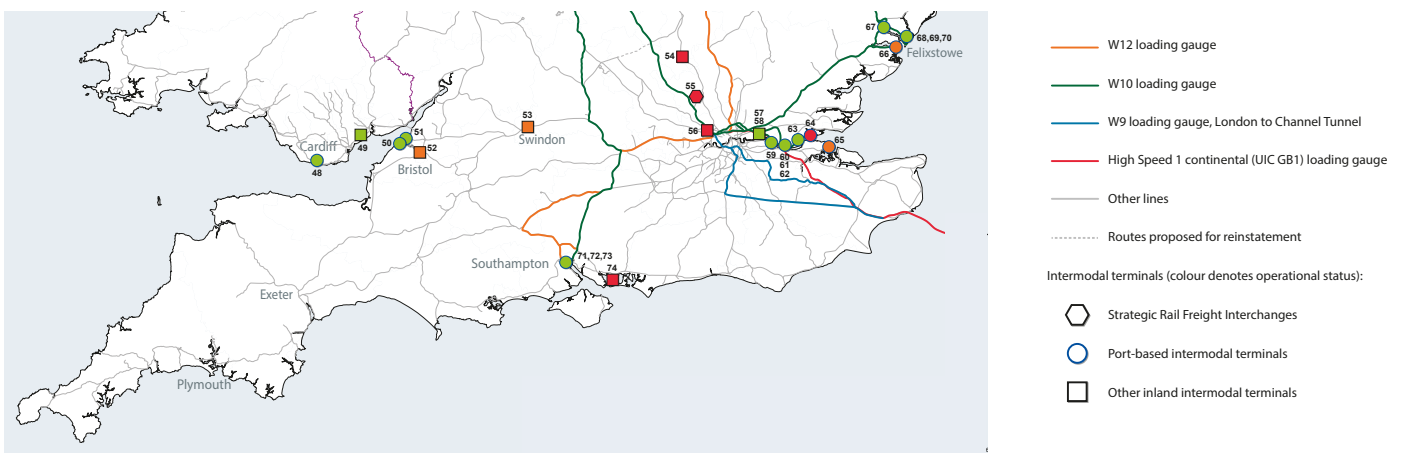
- **intermodal services—transporting mixed goods in containers to and from the South West**
- **express logistics services—transporting parcels and other light consumer goods to and from the South West.”³**

The Gravity Smart Campus site at Bridgwater is seen as representing an opportunity to build in rail freight services as part of a new land-use development. A new rail freight facility could enable significant commercial development, involving intermodal, express logistics, or waste-to-energy freight, for example. There could be significant environmental benefits from such an approach.

1. Transport Statistics Great Britain (December 2023).

2. Signals Passed at Danger Richard Faulkner and Chris Austin, 2023, p144.

3. <https://sacuksprodnrdigital0001.blob.core.windows.net/regional-long-term-planning/Wales%20and%20Western/Bristol%20to%20Exeter%20rail%20corridor%20strategic%20study.pdf>



Rail freight terminals, southern England

Source: <https://www.networkrail.co.uk/wp-content/uploads/2022/02/Network-Rail-freight-map-intermodal-sector.pdf>

Opportunities to grow rail freight in South West England, have also been highlighted by Julian Worth, Chair of the Chartered Institute of Logistics and Transport’s Rail Freight Forum.⁴

Rail freight has a foothold in the transport of consumer goods to Cardiff and Bristol. There is also scope for organic growth in aggregates (from the Mendip quarries), with volumes currently driven by material for HS2.

Additionally, according to Worth, there is considerable scope for growth with intermodal traffic, helped by gauge clearance⁵ of the Great Western main line.

4. <https://www.modernrailways.com/article/freight-potential-south-west>.

5. Gauge clearance is needed because containers on rail pose challenges to the structure gauge available at the ‘upper corners’ of the containers when carried on the railway, especially when passing under brick arch bridges. Typically, the works needed can be accommodated within works needed for main line 25kV electrification schemes—as is happening presently with the Trans Pennine Route Upgrade for example. The suggestion is that gauge would need to be eased to W8 at the very least, but ideally to W9 or better still W10/12, according to Worth.

The most significant opportunity, Worth suggests, is in the South West, where there is no movement of consumer goods by rail. This would require gauge clearance of railways west of Bristol and Westbury. Worth suggests that simple modal transfer terminals would be suitable and proposes locating these at Plymouth (Tavistock Junction) and Burngullow in mid-Cornwall, with the possibility of a third at Exeter, using spare haulage capacity on trains before they encounter the 'Devon banks' (the steeply graded section of line between Newton Abbot and Plymouth).

Worth goes on to suggest that the first step could be to initiate a feeder service from the terminal at Wentloog (Cardiff) in South Wales, and Portbury (near Bristol) could be linked to that too. This could provide the impetus for a direct service from Southampton Docks in the future. For domestic intermodal, a service could run from distribution centres at Avonmouth, similar to the model in Scotland for transporting goods from the central belt to the Highlands. According to Worth:

“Starting such a service would require regional support at the outset, with the sub-national transport bodies having a key role to play.

The imperative for growing rail freight is the move towards net zero. Trunk haulage over 200km should switch to electric rail. The South West peninsula, with its long thin spine, is ideally suited as nowhere is far from the railway, and battery trucks could then convey goods from rail terminals to stores, creating an entirely net zero operation.”

Rail freight does not need to be electrically powered to deliver a substantial carbon gain over road haulage. As the viability of traditional diesel trucking in the face of carbon reduction measures and targets becomes less plausible, the search for alternatives will increase. The most likely approach is the use of electric batteries, but their weight is significant for HGVs and reduces payloads, as well as limiting HGV operating range.

The logistics sector is anticipating, where possible, a switch to rail for longer hauls, with electrically powered local distribution fleets completing customer deliveries. Freight movements to/from South West England are by definition, 'longer hauls'.

The synergy between electrification and gauge clearance and its impact on infrastructure clearance costs is appealing. But progress on main line rail electrification is currently at a snail's pace. The Midland Main Line project commenced in 2016 but is not expected to be completed until the early 2030s.⁶⁷ So the prospects for West of England main line electrification are poor. Here, perhaps a better approach would be to undertake the gauge clearance work for intermodal rail freight early, reducing the cost of subsequent electrification, and making a start on carbon reduction for west of England logistics operations.

There are other freight movements that might arise. Until relatively recently, there was a substantial bulk movement of china clay by rail from Cornwall to the Midlands. Whether new mineral deposits in Cornwall/west Devon will come to fruition in economic terms cannot be known, but there is a Lithium source⁸, able to access existing rail freight terminals in Cornwall—and there is the potential of a major battery manufacturer establishing on a site at Bridgewater⁹, which can readily have its rail connection restored. Developments in growing rail freight are uncertain, but measures taken in utilising rail capacity in the interim should take into account their potential realisation in the years ahead and the high carbon costs if it were not possible to accommodate them. Reducing the need for continuing HGV flows reduces congestion and has safety benefits too.

6. Answer given in the House of Commons on November 21, to Neil O'Brien, the Conservative MP for Harborough, Oadby and Wigston, who had asked the Parliamentary Under-Secretary of State for Transport, Lilian Greenwood, about the project.

7. [Why is rail electrification so slow in the UK?](#) | New Civil Engineer October 2024

8. Cornish Lithium plc is a pioneering mineral exploration and development company "focused on the environmentally responsible extraction of lithium from geothermal waters and hard rock in the historic mining district of Cornwall."

9. https://www.bridgewatermercury.co.uk/news/23899091_efforts-connect-gravity-rail-network-balance/

The importance of active travel for health and wellbeing is increasingly being recognised, and the National Travel Survey shows consistently that most car trips are relatively short—in 2023 25% of car trips were under one mile and 71% were under five miles. There is considerable scope for shorter trips to switch to active travel modes, and for walking and cycling to be better integrated with public transport by improving links and facilities at public transport hubs.

The details of interventions to promote active travel locally is outside the scope of this report, as this would generally be for Local Authorities to take forward in their Local Transport Plans and Local Cycling and Walking Infrastructure Plans. However active travel is an essential component of any alternative vision to reduce car use and Active Travel England needs Government backing and support to enable them to make walking, wheeling and cycling the preferred choice for everyone to get around in England.

The work done by Sustrans to promote and maintain the National Cycle Network should also be acknowledged, noting that it falls to a charity and their thousands of volunteers and supporters to carry this work forward, in contrast to the backing and financial resources available to National Highways and public transport operators.

We looked at a recent study by Oxford University which showed that if people switch just one trip a day from car driving to cycling or walking it reduces their carbon footprint by about half a ton a year.¹ That's almost a 30% reduction in transport-related emissions for an average U.K. urban resident. If one in five people did that across Europe it would cut emissions for all car travel in Europe by 8%.

1. <https://www.ox.ac.uk/news/2021-02-02-get-your-bike-study-shows-walking-cycling-and-e-biking-make-significant-impact>

“Suddenly, active travel is starting to get really interesting. It is a big player on the decarbonization stage and we’ve only just scratched the surface. We are under-researching and under-considering active travel as part of the solution. We’re the first generation to understand this problem and we are the last to be able to actually do something about it. It’s a big responsibility.”²

2. Chris Boardman speaking at a panel discussion called “Active Travel: a people powered panacea?” organized by the U.K. government at the COP29 talks in Baku.

The strategic case for investment in rail-based alternatives

Responsibility for transport is not devolved in England, but the established sub-national transport bodies have played a growing and important role in policy development. Their work looks set to be taken forward by more empowered County/unitary local authorities under current Government devolution plans.



The geography of the sub-national transport bodies

We have a locus of the A303/358 corridor which connects South East England with South West England, crossing the Western Gateway STB en route to the South West peninsula.

We have already noted work by the Western Gateway STB supporting local rail service development centred on Wiltshire. The best strategic oversight for the A303 'corridor' we found comes from the perspective of Peninsular transport, which covers Somerset, Devon and Cornwall.

Its rail strategy report dated 2023 sets out five priority themes:¹

1. **Improving choice:** making rail the natural choice for passengers and freight through quicker, simpler and more affordable journeys.
2. **Reducing emissions:** switching passengers and freight to rail to relieve pressure on roads.
3. **Supporting demographic change:** making stations more accessible and growing the rail network to connect new communities as the population expands.

1. <https://www.peninsulatrtransport.org.uk/rail-strategy-for-the-south-west/>

4. **A resilient network:** continuing to highlight risks of disruption to the rail network in vulnerable areas.
5. **Underpinning growth:** making the region's towns and cities more accessible by rail.

These five themes provide a coherent framework on which to set investment priorities for rail across the west country generally, and in relation to the specific question of an appropriate investment alternative to the now cancelled A303/A358 highway schemes. The transport planning profession has moved away from the policy-vacant posture used in assessing investment cases on a scheme by scheme basis, and these themes instead paint a clear picture of what the STB wants to achieve from rail.

It is worth looking at these themes at two levels of focus:

- (i) for the inter-regional connectivity gain that it would be argued the A303/A358 investment would have conferred, by the provision of extra highway capacity and no doubt claimed faster journeys; and
- (ii) at a local level, where there may have been an added impetus for housing and other development which relied substantially (or entirely) on car-based travel, encouraged by the upgraded road corridor.

Inter-regional connectivity

There is a substantial and long-standing body of evidence on the relationship between regional peripherality and economic productivity. Of particular value is some work carried out for the South West Regional Development Agency before it was abolished.

Research by the Universities of the West of England and Bath as long ago as 2006 sought to understand the drivers of productivity differentials apparent at two levels:

- (i) Between the regions and nations of the UK; and
- (ii) Between the sub-regions of South West England.

The research showed that productivity in the South West was 33% below the benchmark level of London. It was estimated that 7% of the productivity gap experienced by the South West region was explained by two travel time variables: the average travel time to London and to the next four largest conurbations (Birmingham, Manchester, Leeds and Glasgow).

The research paper² suggested that the negative effects of peripherality derived in part from journey times and from the lack of proximity to large markets—the absence of ‘agglomeration’ factors. The analysis at the sub-regional level within the South West region offered further insight. With Bristol set as a benchmark, productivity levels in Gloucestershire and Wiltshire were not significantly different, but Dorset had productivity 13% lower, Somerset 18% lower, Devon 25% lower and Cornwall 28% lower.

It noted the extra challenges of achieving economic growth in those areas beyond a two-hour London journey time threshold. It is indeed noticeable that the current expansion of economic activity in south Devon that is now apparent at and around Exeter (about 2 hours’ journey time from London), is not replicated at the larger city of Plymouth (about 3 hours’ journey time).

2. <https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1435-5957.2008.00209.x>—an article by Body, Hudson, Plumridge and Webber on regional productivity differentials.

Productivity is an economic measure not without its academic critics, and it is clearly possible for places to prosper at longer distance from the national capital. The conclusion here is simply that accessibility to London, with its international gateways, and to the other major centres across Britain, does matter in helping achieve economic growth ambitions—which the new Labour Government has set for the nation as a whole.

The link between regional connectivity and economic growth will be important in making investment cases to DfT and HM Treasury.³ It is especially critical for strengthening tourism in the region. In looking at measures to improve rail services in our area of interest, it serves as a reminder of the importance of end-to-end journey times, as well as service frequency and service reliability. It also points to possible developments elsewhere that could benefit residents and businesses in the South West. The western rail access to Heathrow Airport project, still held up due to a lack of funding, is a case in point.

Sustainable local development

We have seen that the local authority and sub national transport body rationale for new stations has centred on their role in allowing sustainable expansion of local housing. Without a local rail service, the concern is that significant new housing development will mean increased car-dependency and pressure on the local highway system.

The same logic applies to expanding existing settlements where there already is a rail station available. In both cases, the sustainability of housing expansion is made possible by the provision of low-carbon rail services, with good bus and active travel connections, for access to key amenities including education and employment. The same argument applies to new or expanded facilities for employment and education activities.

3. Further evidence is available at <https://www.greengauge21.net/wp-content/uploads/GWP-COS.pdf>

Research into 'spillover' economic effects for the South West Regional Development Agency (RDA) led its author to conclude that it makes good sense to seek to enhance agglomeration benefits by strengthening the major city urban cores, as a means to increase labour productivity.⁴ This supports the emphasis being placed by Devon County Council and Peninsula Transport on creating Devon Metro (for both Exeter and Plymouth), with 'Devon Metro' at Exeter being a key driver of measures already planned for the western end of the Salisbury-Exeter line.

The vision and strategic case for rail investment in place of A303/A358 widening

The Western Gateway STB envisaged the "creation of Transit Oriented Communities that are less reliant on car travel, with...reduced carbon emissions Health and Social Wellbeing improvements". This is a suitable vision we propose to adopt here for generating alternatives to the A303/A358 schemes.

We can also take the five objectives set by the Peninsula Transport STB and apply them as the framework for rail investment. They work at both the level of inter-regional connectivity, and in terms of local development and local travel.

However, the fourth objective, a resilient network, doesn't go far enough: "Continuing to highlight risks of disruption to the rail network in vulnerable areas" is a more modest ambition than Network Rail has already set itself, with a major programme to improve resilience across the lines we have examined here.

4. Webber, D. (April 2010), §4.27 What does firm level productivity data tell us about agglomeration and spillover effects? for South West Regional Development Agency.

So, for this reason, we would choose to strengthen this wording and highlight that the main threat is, of course, climate change induced adverse weather events. There is a risk of failing to keep up with the levels of disruption and remedial works needed for the rail network, especially in this vulnerable part of England. The situation has become even more marked since the five objectives were set in 2023.

And for reasons we explain here, this policy driver needs to go even further.

Resilience, yes but adaptation measures are needed too.

Even where substantial investment has been made into infrastructure resilience, we still face headlines such as:

“Storm strands trains on Dawlish coast, 30th September 2024. Two Intercity Express trains were stranded at Dawlish and Teignmouth during a storm last night, along the stretch of coastal railway in south Devon which was partly destroyed by heavy seas just over ten years ago.”⁵

Roads are being affected too. Urgent changes in the highways sector to address the mounting threat posed by climate change were called for in a recent report from the Chartered Institution of Highways & Transportation (CIHT).⁶

But the advocacy of the CIHT for a long-term infrastructure strategy went further, stressing the importance of viewing critical infrastructure such as roads, rail and digital networks as an interconnected system. It recommends a systematic approach to climate change adaptation, involving a comprehensive long-term commitment from the UK government to fund local roads maintenance and renewal.

5. Source: Rail News.

6. Rob Hakimian, New Civil engineer, 12 November 2024.

This is indeed a wake-up call to the highways sector alongside a welcome recognition of the call from the Climate Change Committee for utility and infrastructure owners to look at parallel or adjacent networks to retain service continuity at times of disruption.

Industry regulator, the Office for Road and Rail (ORR) has recently published guidance on the need for climate change adaptation measures.⁷ Yet currently, DfT's climate change approach hasn't embraced adaptation measures.⁸

Here, in South West England we have three east west railways that converge at Taunton and then Exeter which are already in practice acting together to provide service continuity by switching services between lines as needed. This is welcome, but it is a case of climate change/weather events driving ad hoc arrangements, day by day—with the honourable objective of trying to get travellers home.

We suggest here that the oversight and development of these lines needs to be examined together, explicitly recognising that a climate change adaptation approach applied here is necessary to sustain a service offer—not over an individual route, but between key centres (London/Bristol and Taunton/Exeter/Plymouth⁹). For intermediate locations and stations, the adaptation measure may need to invoke the use of buses of a suitably high standard for customer journey completions at times of disruption.

7. [Climate change adaptation at the Office of Rail and Road](#)

8. <https://www.greengauge21.net/why-the-nation-needs-a-climate-change-adaptation-strategy-for-transport/>

9. Inclusion of Plymouth (and by extension the whole of Cornwall and south Devon) implies the need to re-prioritise the need west of Exeter to examine again the case for the re-creation of a second rail route that avoids the vulnerable section of coastal railway—see <https://www.greengauge21.net/rural-reconnections-the-social-benefits-of-rail-reopening-exeter-okehampton-tavistock-plymouth-a-case-study/>

The implications for investment in the wider A303/A358 corridor is that sufficient capacity needs to be provided not only for the operation of both the Waterloo–Salisbury–Exeter hourly service and the hourly Devon Metro Exeter–Axminster service, but also, as needed, an hourly Paddington–Castle Cary–Yeovil Junction–Exeter service. The Salisbury–Exeter line is the least susceptible to flooding yet it could not currently fulfil its inevitable role under a climate change adaptation strategy unless its capacity is increased.

Conclusions and recommendations

Investment in place of the A303/A358 schemes should be focussed on those measures that deliver results when measured against the visions of the Peninsula Transport and Western Gateway STBs. These support sustainable housing development and embrace the need to tackle climate change impacts.

We identify measures designed to reduce car dependence and additional pressures on the road network covering the area between the M3 to the east and the M5 to the west.

There are 7 key components:

1. Delivering a showcase **integrated public transport network** across a swathe of Wiltshire–Dorset–Somerset–Devon—the broad A303/A358 corridor
2. Enhancing the capacity and capability of the **Salisbury–Exeter railway**
3. Opening **new station and enhancing services** to deliver sustainable housing expansions—for example Wellington, Somerset, and Devizes Gateway, Wiltshire
4. Replacing the diesel fleet providing today's Salisbury–Exeter railway services with a **discontinuous electric solution** using adapted existing rolling stock
5. Adopting an explicit **climate change adaptation** strategy to sustain rail access to South West England through adverse weather events
6. Supporting the re-introduction of **rail freight** in the South West with a new regional R&D grant as necessary to get services up and running
7. Funding the creation of a **national cycle route**, broadly parallel to the A303, in addition to much improved local active travel networks.

The seven specific recommendations

1) Integrated public transport network

The South West is leading the way towards a joined up national public transport network, although there is still much to do to bring it up to international best practice.

The leading train operating company on bus-rail integration with most experience is GWR, and we propose that DfT invites GWR to take on a lead role in establishing this showcase integration programme (including at stations served by South Western Railway). Capital/operating grant funding may be needed to sustain otherwise uneconomic bus services, or to aid deployment of suitably equipped vehicles. Suitable model bus-rail interchanges include: Axminster, Castle Cary, Devizes Gateway (new station), Gillingham, Honiton, Sherborne, Taunton, and Wellington (new station).

2) Enhancing the capacity and capability of the Salisbury–Exeter railway

This is a first stage in a rolling programme, and should be focussed on the western section of the route, Exeter–Axminster (and later onwards to Yeovil Junction) with re-doubling of tracks. It is a more ambitious programme than is currently planned and will have significant capital costs. But these need to be provided given the identification here of the pivotal role this section of railway is increasingly going to have to play as climate change-driven weather events intensify. It can be integrated with the operator-led plans for providing electric trains with traction batteries to replace the ageing diesel trains on the route, and discontinuous electrification to transform the customer experience of rail travel along the Salisbury–Exeter corridor.

3) Opening new station and improve services to support sustainable housing expansions at, for example Wellington (Somerset) and Devizes Gateway (Wiltshire), along with related necessary infrastructure improvements, as priorities

These example schemes are being co-funded by the local authorities and need DfT top-up funding to proceed. They should be used as a model for supporting sustainable housing development in the South West, and should be accompanied by every effort to minimise car dependence in new housing areas at Wellington and Devizes. .

4) Replacing the diesel basis of today's Salisbury–Exeter railway services with a discontinuous electric solution using adapted existing rolling stock

South Western Railway is making great progress with this project which will need capital funding for depot works at Salisbury. There are major benefits from this development, not least in carbon and other emission reductions and Ministers and the DfT and GBR should provide the firm leadership that this will need to succeed through the various technical and regulatory hurdles that may lie ahead.

5) Adopting an explicit climate change adaptation strategy to sustain rail access to South West England through adverse weather events









This requires an integration of train control operational planning across the railways serving the west country to ensure service integrity through adverse weather events. Under rail sector stewardship, this could extend to bus/road adjacent routes too.

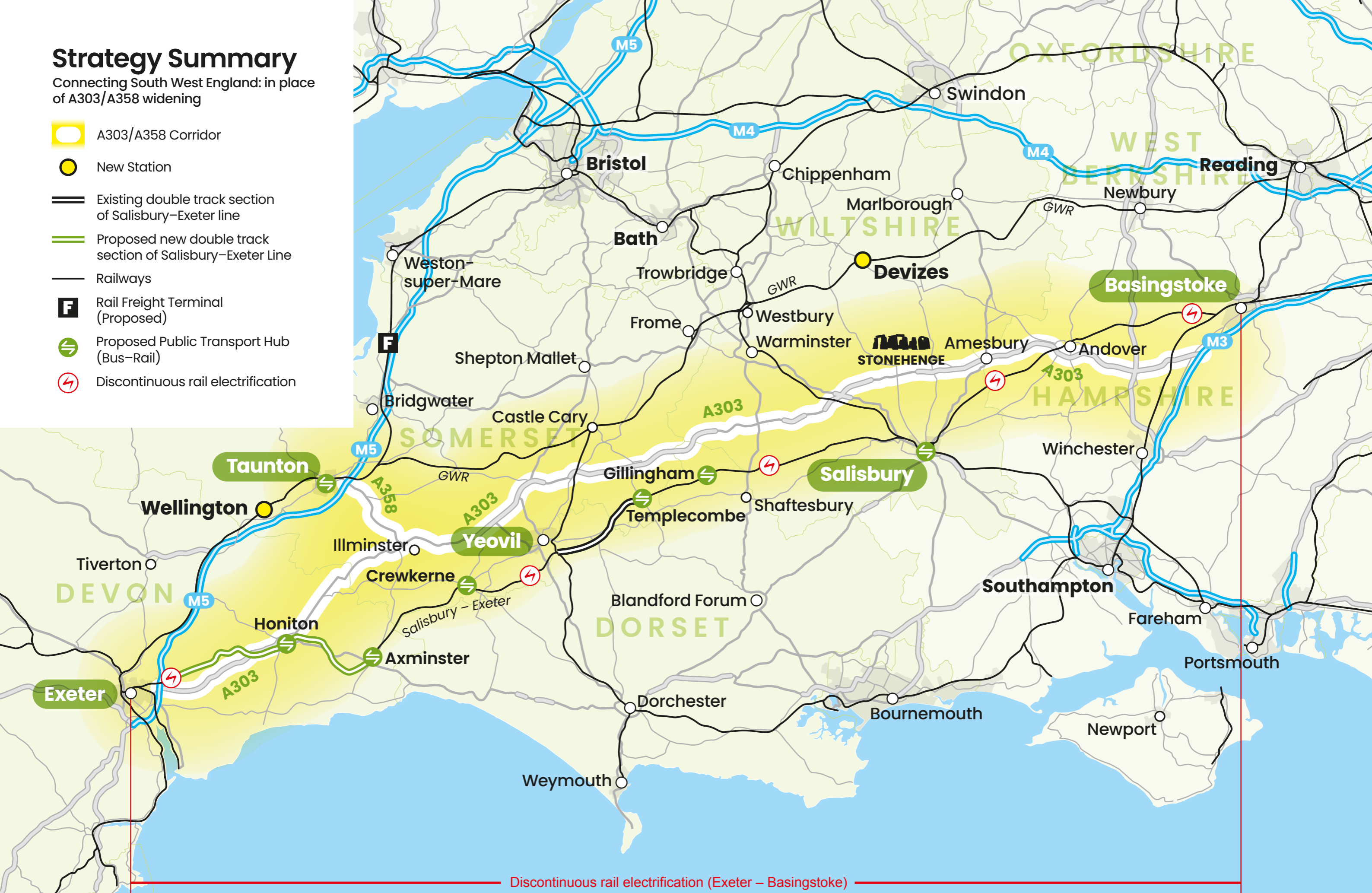
6) Supporting rail freight development in the South West with a new regional R&D grant

Financial help may be needed to overcome the high costs and risks of being a first in field adopter of rail freight in the South West.

Strategy Summary

Connecting South West England: in place of A303/A358 widening

-  A303/A358 Corridor
-  New Station
-  Existing double track section of Salisbury–Exeter line
-  Proposed new double track section of Salisbury–Exeter Line
-  Railways
-  Rail Freight Terminal (Proposed)
-  Proposed Public Transport Hub (Bus–Rail)
-  Discontinuous rail electrification



Discontinuous rail electrification (Exeter – Basingstoke)

7) Funding the creation of a national cycle route, broadly parallel to the A303 in addition to much improved local active travel networks focused on public transport nodes.

It is nearly 25 years since the national cycle network was created¹ and funding is needed to launch a showpiece new off-road route that can take in destinations that include Stonehenge. This would link to, and be in addition to, much improved networks for walkers, wheelchair users and cyclists, particularly to public transport hubs.

1. <https://www.sustrans.org.uk/our-blog/news/national-cycle-network-how-an-unsung-national-treasure-is-transforming-lives-across-the-uk/>

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Salisbury–Exeter, the closest parallel

The West of England line (Salisbury–Exeter) serves a number of functions, principally business and commuter flows in and out of London and Exeter, as well as Salisbury (and onwards to Southampton) and Basingstoke.

It is also an important rail line for leisure and educational travel to London, Salisbury and Exeter in particular.

The use of the line as a diversionary route for freight in the east and passenger and freight services in the west highlights its importance of the line beyond the regular services that operate on it.

The line therefore has a complex mix of passenger uses and multiple periods throughout the day when larger volumes of passengers are travelling on different sections of the line.

There is currently an hourly service from London Waterloo to Exeter St. David's with an additional train each hour from London Waterloo to Salisbury and some additional peak services in the Exeter area. The Salisbury – London Waterloo services are extended to and from Yeovil Junction in the peaks in the “peak direction” resulting in one train per hour in one direction and two trains per hour in the opposite direction.

Peak services to London Waterloo are usually overcrowded with some standing on services when they leave Andover. Some peak services into Exeter stations in the AM peak and out again in the PM peak are also overcrowded. The services in the AM peak arrive at less than ideal times for commuting passengers. This high level of crowding is also seen in the peaks at locations including Salisbury and Basingstoke.



**Connecting South West
England: in place of A303/
A358 widening**

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