



Worcestershire Rail Investment Strategy 2

2022 - 2050

Executive Summary: Worcestershire Rail Investment Strategy II (WRIS-2)

1. In 2017 Worcestershire County Council (WCC) prepared its economically evidenced Rail Investment Strategy (WRIS), measured against Gross Value Added (GVA) and new jobs.
2. This prioritised enhanced local, regional and GB-wide rail connectivity on the basis of its value to the growing economy, population and precious environments of the County.
3. These priorities included transformed connectivity to London, GB-wide services at Worcestershire Parkway and new regional Birmingham-Worcestershire-Bristol services.
4. The WRIS addressed quality, access and car park capacity improvements at County railway stations and supported rail industry schemes such as Worcester Area re-signalling.
5. The strategy has been proactively developed since 2017, with WCC-led Worcestershire Parkway and Kidderminster Station enhancements completed.
6. A compelling London services business case has been prepared by the WCC-led North Cotswold Line Task Force, and station access, car park and key masterplans progressed.

Responding to COVID-19 (CV19)

7. CV19 led to significant rail service reductions, including in Worcestershire, and changed working patterns and passenger demand now challenge industry planning and funding.
8. This WRIS-2 takes direct account of post-CV19 Department for Transport recovery forecasts and uses West Midlands Rail Executive's (WMRE) post-CV19 service demand testing.
9. This provides WCC with comprehensive analysis covering the economic value of the County's rail services and detailed 30-year forecasts of passenger demand by rail corridor.
10. In parallel preparation with WMRE's own revised 30-year strategy, WRIS-2 benefits from integration of relevant WMRE, Midlands Connect and Network Rail service propositions.
11. WMRE's work shows 'Cross City South' covering Redditch, Bromsgrove, Worcester and South-West services as the second highest regional growth corridor, growing by c. 60% by 2050.
12. WRIS-2's principal conditional outputs (page 3 over) for further WCC development are.





WRIS-2's Conditional Outputs

- London/Oxford - Ongoing preparation of Outline Business Case for faster, Worcester-London 2 trains per hour (tph) and direct 1 tph Kidderminster/Droitwich Spa to London.
- GB-wide connectivity - Exeter - Worcestershire Parkway - Manchester and Midlands Connect Birmingham Worcestershire Parkway - Bristol/ Cardiff services.
- Worcestershire - Bristol - 2023 implementation of Department for Transport (DfT) options for 1 tph Worcester Tewkesbury-Cheltenham Spa-Gloucester-Bristol service, which came into service with effect from 14 May 2023.
- Birmingham/HS2 - Earliest restoration of Worcester, Bromsgrove, Redditch and Kidderminster - Birmingham frequencies removed during CV19, and future expansion.
- Stations and access - Worcester Shrub Hill Quarter and Redditch masterplans implementation, and ongoing development of car park expansion schemes to ensure growth can be facilitated, as and when demand fully recovers and enhanced access to National Rail network.
- Industry engagement - Securing Worcester Area Modernisation/re-signalling, King's Norton capacity (to restore Redditch/Bromsgrove-Birmingham frequency lost via COVID-19/Camp Hill scheme) and electrification of Snow Hill Lines, Birmingham-Bristol and Bromsgrove - Worcester via Network Rail, DfT and the future 'Great British Railways' (GBR).
- Funding innovation - Developing radically innovative Third-Party financing models given limited.
- Industry/government monies to facilitate WCC's desired changes.
- Key national policy objectives - Maximising the role Worcestershire's railway plays in the Levelling Up and De-carbonisation agendas.
- Fares and ticketing - Close engagement with GBR in a full review of fares and the means of purchasing tickets, especially as work, tourism and leisure patterns change.

Conditional Outputs

WRIS 2 priorities		WRIS 1 Economic Model 2017		West Midlands Rail Investment Strategy Demand Model 2022	When?
	Worcestershire Rail Investment Strategy 1 - 2017 (retained)	GVA £m p.a.	New jobs		
NCL 1	2 trains per hour between Worcester and London Paddington with 1 train per hour having fast journey time of 1 hour 50 minutes or less	19.04	421		CP8 2029 - 2034
NCL 2	1 train per hour between Kidderminster, Droitwich Spa and London Paddington	13.08	273		CP7 2024 - 2029
NCL 3	1 train per hour between Kidderminster, Droitwich Spa and London Paddington				
WAB 2	New direct train service between (Birmingham), Bromsgrove, Worcestershire Parkway, Cheltenham Spa, Gloucester and Bristol Temple Meads	5.66	145	66%	CP7 - CP8
WAB 3	Support for additional infrastructure capacity and re-signaling between Stoke Works, Droitwich Spa, Worcester and Great Malvern, Hereford to support train service growth and development				CP7 -CP8 2029 - 2034
WPK 1	Introduction of calls at Worcestershire Parkway in the hourly Exeter - Bristol - Manchester service	4.4	108	+66%	CP7
ELC 1	Electrification of Snow Hill Lines and Birmingham - Bristol Line to support train service growth and development				CP8 2029 - 34
ACS 1	Additional car park capacity at existing stations and/or new stations to accommodate forecast passenger growth				CP7 - CP8

WRIS 2 priorities		WRIS 1 Economic Model 2017		West Midlands Rail Investment Strategy Demand Model 2022	When?
WOS 1	Shrub Hill Station Masterplan to support train service growth to London, Birmingham and west of England and Shrub Hill Quarter regeneration			+61% - 66%	TBC
TKT 1	Cross industry review of ticketing and fares structures to match new and developing train services (incl. with Great British Railways when established)				CP7
	WRIS2 In Development				
ACS 2	Station car parks development assessment at Blakedown, Kidderminster, Alvechurch and Pershore				CP6 and CP7
DTW 1	Droitwich Station Masterplan options and car park expansion				CP6 - CP8



Conditional Outputs (continued)

WRIS 2 priorities		WRIS 1 Economic Model 2017		West Midlands Rail Investment Strategy Demand Model 2022	When?
RED 1	Redditch Station Masterplan development and delivery, and engagement with rail industry to restore pre-COVID Cross City frequency			+39%	CP6 and CP7
RWK 1	Rushwick / West of Worcester New Station development			+61%	CP7-CP9
WOP 1	Worcestershire Parkway access / car park expansion			+66%	CP6 and CP7
FND 1	Developing Third Party funding innovation (all schemes) in context of rail industry funding challenges				CP6 and CP7
FND 2	Maximising opportunities for funding bids (all schemes) to developing government sources e.g. Levelling Up				CP6 and CP7
DCB 1	Adopting all rail industry best-practice to support successful application of the decarbonisation agenda				
HON 1	Assessment of incremental value of re-opened Stratford-Honeybourne line to North Cotswold priorities NCL 1-3				CP7 and CP8
	WCC support via WMRE & Midlands Connect membership				
WAB 1A	Support for DfT / GWR prospective increase from 1 train/2 hours to 1 train per hour between Worcester FS/SH, Cheltenham Spa, Gloucester and Bristol			+66%	2023
WAB 3A	WCC / LVC support to Worcester Area Modernisation				
WAB 4	Support for NR King's Norton scheme / Cross City frequency restoration			+39%	CP7
MRH 1	Support for Midlands Connect 2 trains per hour Birmingham - Bromsgrove - Worcester - Hereford			+61%	CP8

WRIS 2 priorities		WRIS 1 Economic Model 2017		West Midlands Rail Investment Strategy Demand Model 2022	When?
MRH 2	Support for Midlands Connect 2 trains per hour Birmingham - Worcestershire Parkway Bristol / Cardiff			+66%	CP8
WMRE 1	Support for West Midlands Rail Executive / West Midlands Trains for 1 train per hour Worcester Shrub Hill - Birmingham restoration			+37%	2023
WMRE 2	Support for West Midlands Rail Executive future 2 trains per hour Birmingham - Stratford to support Wythall development options				CP8



ONE – Introduction

In 2017 Worcestershire County Council (WCC) published its ambitious, forward-looking Worcestershire Rail Investment Strategy (WRIS) for the role of the railway over the next 30 years in supporting the County’s economy, growing communities and its precious environment.

This drew upon innovative analysis of the benefits for Worcestershire’s economy of better rail connectivity, prioritising service improvements, station regeneration, new stations and car park expansion via uplift in ‘Gross Value Added’ (GVA) and new jobs, setting a clear agenda for engagement with the complex organisations of the railway industry.

Key priorities included faster and more frequent ‘North Cotswold Line’ services to Oxford and London, preparing for the new opportunities made possible by Worcestershire Parkway, pressing the rail industry for Birmingham-Bristol Corridor service to call in the County, and transforming ease of access to the National Rail network for Worcestershire residents.

Since 2017 – A time of major change

This renewed Worcestershire Rail Investment Strategy 2 (WRIS-2) responds to substantial contextual change between 2017 and 2022 including:

- **Covid-19** and its multiple impacts on ways and places of work, demand for rail travel, government funding of railway services and future enhancements, and some resultant semi-permanent service reductions, including a number affecting Worcestershire.
- **Rail Industry re-organisation** with the government’s proposed new integrated lead body ‘Great British Railways’ due to become the ‘controlling mind’ of the industry in c. 2025 and with which Worcestershire will necessarily need to engage closely.
- **Government policy focus** including Levelling-Up and de-carbonisation agendas.
- **Local Plan changes** with expanded housing volumes and spatial changes in the South Worcestershire Development Plan (SWDP), Bromsgrove, Redditch and Wyre Forest Local Plans, at neighbouring authorities, and with Birmingham overspill challenges.
- **Worcestershire County Council-led rail developments** including Worcestershire Parkway and Kidderminster’s new station buildings opened in 2020, and evolving business cases for better Worcester - Oxford - London services, Worcester Shrub Hill and Redditch station Masterplans, a potential new west-of-Worcester station at Rushwick, and greater car park capacity at stations.
- **Wider rail industry developments** including Midlands Connect’s ‘Midlands Rail Hub’¹ which offers increased Birmingham - Worcester - Hereford frequencies and new Birmingham - Worcester - Bristol / Cardiff services from the 2030s, Network Rail’s parallel support for transformed Worcestershire connectivity on the Birmingham - Bristol Corridor, and West Midlands Rail Executive’s own wider regional Rail Investment Strategy post-Covid 19 review which is being concluded in parallel with this Worcestershire plan.

¹ <https://www.midlandsconnect.uk/projects/rail/midlands-rail-hub/>

TWO – Our approach to Worcestershire Rail Investment Strategy 2 (Evolution from the 2017 Rail Investment Strategy)

The 2017 Worcestershire Rail Investment Strategy (WRIS)² focused on Gross Value Added (GVA) and new jobs as key indicators of the best value to the County of different types of enhanced rail connectivity, including:

- **More frequent, faster services** e.g., sub-2-hour journey times and doubled frequency to London via the North Cotswolds and Oxford.
- **New direct GB-wide services** e.g., from Worcestershire to North-West, North-East, South-West England, the East Midlands and South Wales.
- **Specific new connectivity** related to Local Plan growth supporting major areas of housing development e.g., urban regeneration such as the Shrub Hill Quarter and Redditch, Rushwick, west of Worcester, and the major development proposed around Worcestershire Parkway.

This enabled a clear set of priorities for investment to be adopted within the strategy driven by outputs rather than led by infrastructure limitations and incorporated in parallel into Worcestershire Local Transport Plan 4³.

This economically evidenced approach was consistent with Network Rail's Long Term Planning processes and specifically with West Midlands Rail Executive's (WMRE) own 30-year strategy⁴ for the wider West Midlands region, published in 2019, which broadly supported the County's specific connectivity ambitions, and used a shared forecasting model developed by SLC Rail and SYSTRA. (Chaired by the Mayor of the West Midlands, WMRE plans strategic development of the region's rail network and co-manages the West Midlands Trains franchise with the Department for Transport; WCC is a full member of WMRE.)



A demand-led post-COVID 19 approach for WRIS-2

The collapse of rail passenger demand during the COVID lockdown from March 23rd 2020 not only required substantial funding support from government for the maintenance of services but challenged industry thinking and evidencing of future network development given its impact upon ways of working, locations of work, commuting and leisure travel, and hence of the nature of train services and connectivity that may be required in a post-COVID future.

WRIS-2 has thus been developed with its prioritisation process led by prospective passenger demand scenarios looking over a 30-year period towards 2050, taking specific account of evolving post-COVID forecasting led by the Department for Transport, and again directly sharing the data and modelling developed by SLC Rail and SYSTRA and being applied in WMRE's own post-COVID update of its 2019 Rail Investment Strategy.

² https://www.worcestershire.gov.uk/info/20055/strategies_plans_and_bids/1922/worcestershire_rail_investment_strategy

³ https://www.worcestershire.gov.uk/info/20055/strategies_plans_and_bids/1922/worcestershire_rail_investment_strategy ³ https://www.worcestershire.gov.uk/info/20055/strategies_plans_and_bids/806/the_local_transport_plan

⁴ <https://www.wmre.org.uk/our-strategies/west-midlands-rail-investment-strategy/>

THREE - The continuing challenge for Worcestershire’s rail network

Many improvements in Worcestershire’s rail connectivity and stations have occurred in the past 10 years, with better London frequencies, extension of the electrified Cross City Line to serve the new Bromsgrove Station, completion of Worcestershire Parkway and Kidderminster’s much expanded station, and modern, new trains on London and West Midlands local services.

However direct rail connectivity and frequency remains limited in serving the County’s 605,000 population (2021⁵) and c. 20%+ Local Plan population growth and spatial change, as shown at Figure 1 and 2 below:

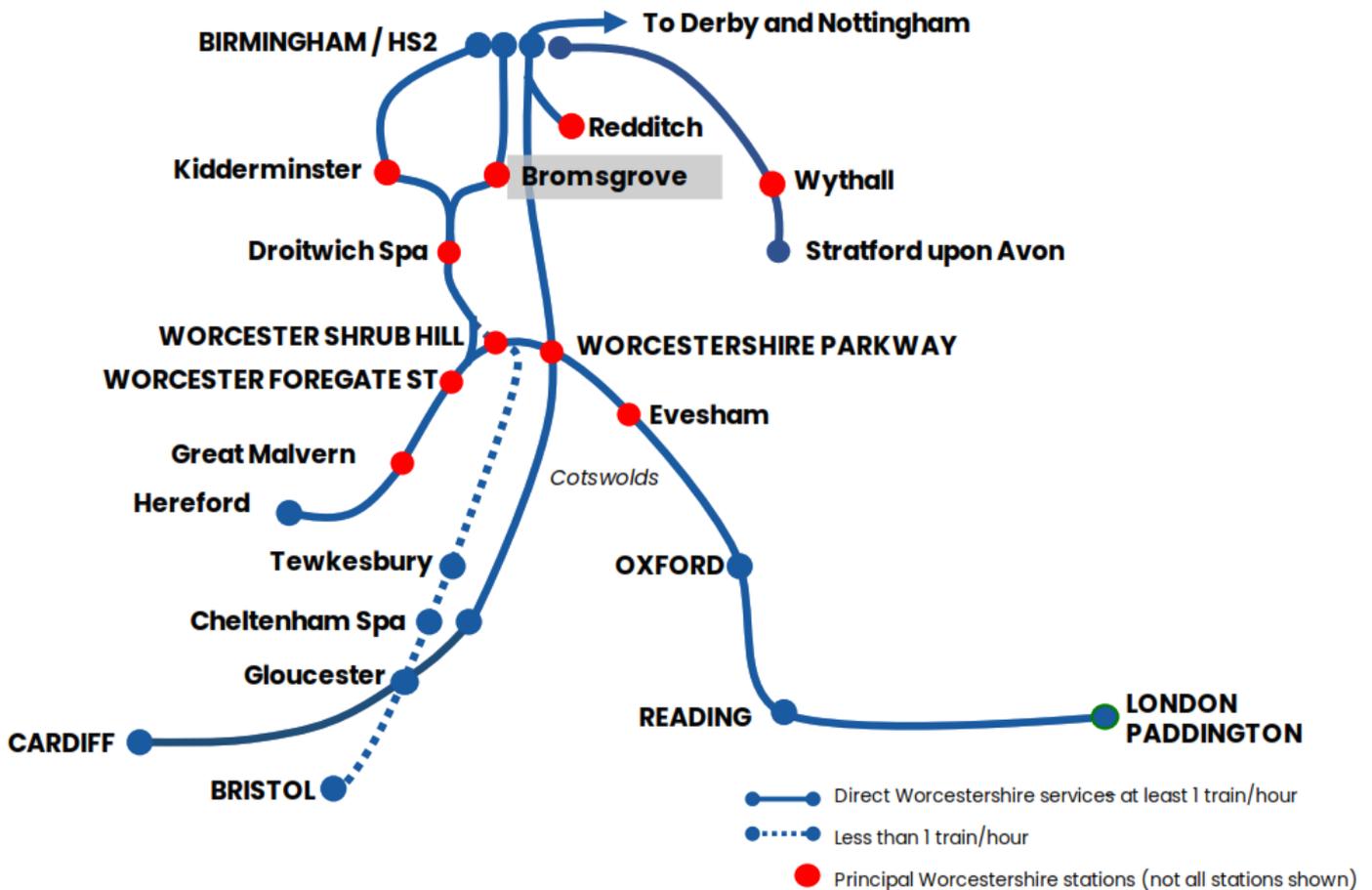


Figure 1 - Worcestershire Rail Connectivity 2022

⁵ https://www.worcestershire.gov.uk/info/20044/research/795/population_statistics_and_projections

Figure 2 – Worcestershire rail connectivity and frequency of service 2022

Worcestershire Rail Connectivity and Frequency Summary

Worcestershire Rail Connectivity	Trains per hour (tph) 2022
Worcester – Oxford – London	1 tph
Nottingham – Worcestershire Parkway – Cardiff	1 tph
Worcester - Gloucester – Bristol	0.5 tph
Worcester – Bromsgrove – Birmingham	1 tph
Redditch – Birmingham*	2 tph
Bromsgrove – Birmingham*	3 tph
Kidderminster – Birmingham*	3 tph
Worcester – Hereford	1 tph
Wythall – Birmingham	1 tph
Worcestershire – North-East/North-West	NIL
Worcestershire – South-West past Bristol	NIL
Worcester Shrub Hill – Birmingham (off peak)*	NIL
Bromsgrove – South-West	NIL

*Frequencies reduced during COVID

Addressing these connectivity limitations is a core component of WCC’s continuing work with the rail industry, in particular:

- Worcestershire – Oxford – London** – WCC is the lead authority of the 5-authority ‘North Cotswold Line Task Force’ which, having completed a Strategic Outline Business Case (SOBC)⁶ in 2020 for a doubling of Worcester - London service frequencies and hourly extensions to Great Malvern and Droitwich Spa/Kidderminster, is now progressing the primary elements of the Outline Business Case (OBC) and financing innovation options for the c. £213m North Cotswold Line re-doubling scheme which facilitates these service enhancements.
- Worcestershire – South-West/North-West/North-East** – Supporting (i) a prospective DfT-led increased frequency GWR 1 train per hour Worcester – Cheltenham Spa – Gloucester – Bristol service, which came into effect from 14 May 2023, (ii) Network Rail’s 2021 Bristol-Birmingham ‘Continuous Modular Planning Study’ with its significant connectivity enhancement options for Worcestershire, and (iii) Midlands Connect’s ‘Midlands Rail Hub’ proposals for 2 Birmingham – Worcester – Hereford trains per hour, and additional express Birmingham – Bristol/Cardiff services which could call at Worcestershire Parkway.
- Restoration of frequencies reduced during COVID-19** - Redditch and Bromsgrove-Birmingham frequencies have been reduced and limited for the immediate future via infrastructure capacity between King’s Norton and Birmingham being transferred during the lockdown to the Camp Hill new service scheme led by West Midlands Combined Authority; similarly all off-peak Shrub Hill-Birmingham services were removed in 2021 with only the services to Birmingham Snow Hill being recently restored.

⁶ <https://commonslibrary.parliament.uk/research-briefings/cdp-2020-0004/>

FOUR – Stations as places and the continuing challenge of access

Transformed, sustainable connectivity within Worcestershire and with the wider South-West Midlands and the major economic areas of Great Britain is the core output of railway services in supporting economic growth, the major growth in housing and population within the County's several Local Plans, and the County's attraction as a place to live, work and visit. The railway's purpose is to take people where they want to go, when they do, and with a frequency, speed and cost that works for them. As such WRIS-2's first priority is the range of train services that provide this connectivity.

In parallel the nature, location, quality and accessibility of railway stations is essential to their usefulness to passengers and how they can play a significant part in the vitality and success of town and city centres, whilst new stations can widen regional access to the National Rail Network and support the creation of new communities (e.g., the Worcestershire Parkway Strategic Growth Area).

Prior to the 2017 WRIS WCC played a key partnership role with the rail industry in delivery of the new Bromsgrove Station. Since 2017 Worcestershire Parkway and the new Kidderminster Station buildings projects have been delivered by WCC and funded by WCC and local partners.

However, many journeys continue to be made by road or are via stations outside of Worcestershire (e.g., Birmingham International or Warwick Parkway) given a combination of poor train service connectivity, limited car park capacity and absence of modern standards of access for all. In 2017 the County's 17 stations had only 1,377 car park spaces, only marginally more than Warwick Parkway alone on the Chiltern Railways route; with Worcestershire Parkway opened in 2020 this increased to 1,877 but continues to offer a low ratio of spaces to passengers by comparison with neighbouring counties such as Warwickshire.

WCC established 3 key station development projects to support implementation of the 2017 WRIS. These remain continuing strong priorities under WRIS 2:

- **Worcester Shrub Hill Quarter Masterplan** – which will deliver positive regeneration opportunities

within the area around the station and whilst the LUF bid for the station was unsuccessful, investment opportunities are still being developed to compliment the access improvements Network Rail are delivering through the provision of passenger lifts and a new footbridge.

- **Redditch Station Masterplan** – station, forecourt and public realm improvements to create a modern, high quality gateway to and from Redditch Town Centre.
- **Project Access** – Prior to the Covid pandemic, station car parking capacity within the County area represented a significant risk to passenger growth passenger numbers are still recovering post Pandemic, extensive feasibility work has been undertaken to understand how capacity could be provided at all of the County's stations. Ensuring new capacity for access to stations, meeting both Local Plan growth and spatial change continues to be a priority and the following workstreams are continuing to be developed:
 - » **Car park expansion feasibility assessment** – Alvechurch; Blakedown, Droitwich Spa; Kidderminster; Pershore; Worcestershire Parkway.

A business case for Rushwick/West Worcester New Station has been established and is awaiting the implementation of the Area Resignalling before it can be progress further.

FIVE - A growing and changing County

The context within which the 2017 WRIS was formulated was one of extensive Local Plan growth, with over 47,000 new homes and more than 108,000 more people living in the County by 2030 (c. 19% growth), together with a c. 30%+ increase in annual Gross Value Added to its economy.

At that time the 2017 WRIS noted “The County’s rail services will not match these ambitions without significant earlier development and investment beyond that committed by the rail industry.”

The quantum and magnitude of housing and population growth in Local Plans has developed further and significantly since 2017, in particular with the South Worcestershire Development Plan (covering Malvern Hills, Worcester City and Wychavon districts) increasing from 28,400 new homes to 43,200, taking overall County growth to 62,120 homes – or c. 140,000 more people – by 2041, a c. 23% growth in Worcestershire’s population from 588,400 (2017) to 728,400 people.

Figure 3 – Worcestershire housing changes 2017 - 2021

Housing Change (District)	2017 - 2021		
Wyre Forest	5,400	5,520 (→2036)	
Redditch	6,400	6,400 (→2030)	
Bromsgrove	7,000	7,000 (→2030)	
SWDP	28,400	43,200 (→2041)	
TOTAL	47,200	62,120	+31% SINCE 2017



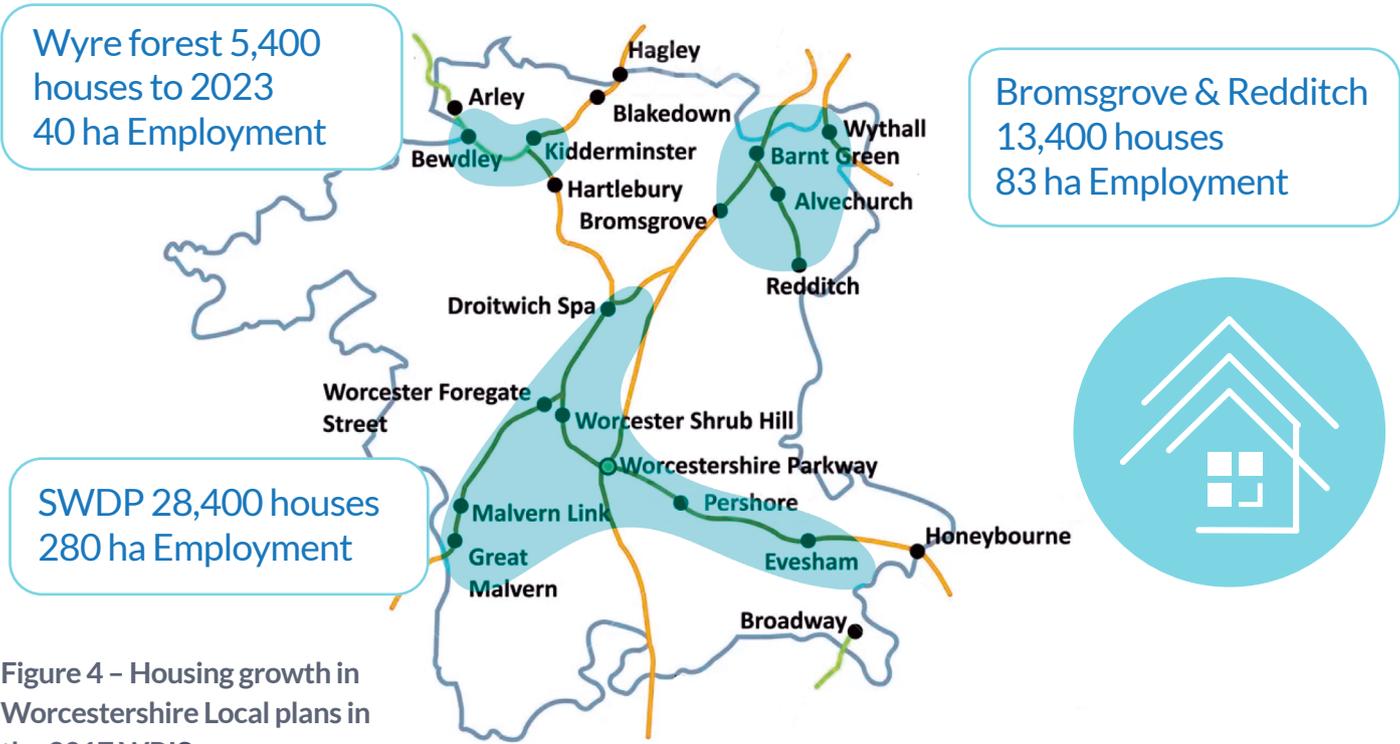


Figure 4 – Housing growth in Worcestershire Local plans in the 2017 WRIS

Notwithstanding the generic and specific limitations to rail connectivity that the WRIS seek to address it is positive that planned growth is closely aligned geographically to the County’s rail corridors:

- **Wyre Forest** – alongside the Worcester - Kidderminster - Stourbridge - Birmingham route, which will benefit from c. 2031 with access at Birmingham Moor Street to the immediately adjacent HS2 Curzon Street station.
- **Bromsgrove** – adjacent both to the Bristol-Worcestershire-Birmingham Main Line and the Stratford - Wythall - Birmingham local/ regional route.
- **Redditch** – served by the Redditch-Birmingham-Lichfield ‘Cross City’ Line.
- **South Worcestershire Development Plan** – crossed by the Great Malvern-Worcester-Oxford-Paddington ‘North Cotswold Line’ and the national, regional and local services on the Bristol-Worcestershire-Birmingham Corridor, with direct GB-wide strategic interchange at Worcestershire Parkway and local interchange at Worcester Foregate Street, Worcester Shrub Hill and Droitwich Spa.



SIX - Worcestershire's ambitions

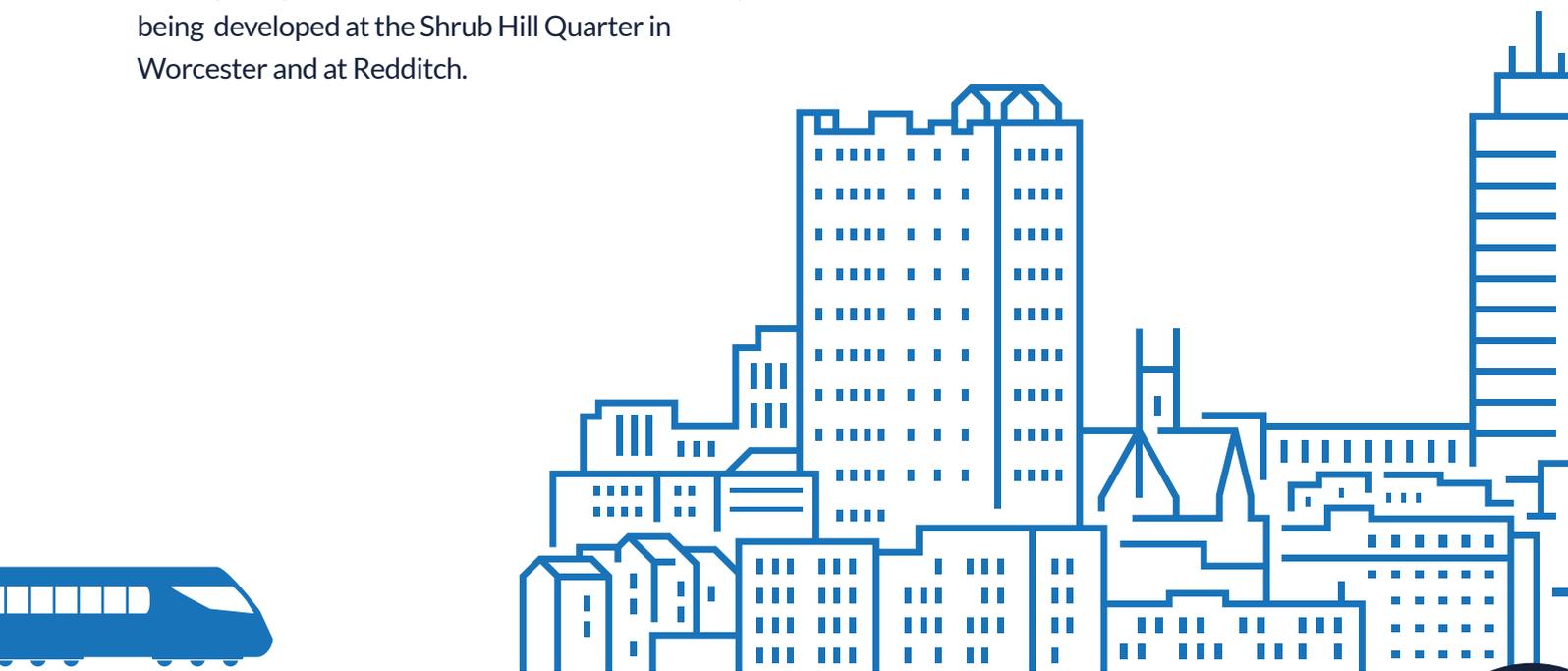
The central theme of WRIS-2 is continuing and expeditious progress towards transformed national, regional and local rail connectivity for Worcestershire, supported by expanded capability, capacity, accessibility and quality of the railway's infrastructure and stations.

This will be essential to:

- **Homes** - Sustainable delivery of the County's expansive quantum of housing and population growth, maximising low-carbon travel choices for all.
- **Business** - Worcestershire as an attractive location for business and commerce, well-connected across Great Britain, with substantial, high quality employment growth.
- **West Midlands/HS2** - County access to neighbouring Birmingham, the wider West Midlands, and the opportunities that will come via HS2's delivery in the 2030s/2040s.
- **Tourism** - Encouraging continued growth of the County's vital tourist and visitor economy, again with maximum low-carbon travel choices for all.
- **Environment** - Protecting the County's precious Severn, Malverns, Vale and AONB natural environments, its historic cathedral city and market townscapes, and its rural villages.
- **Place** - Contributing to the development of the County's city and towns, such as schemes currently being developed at the Shrub Hill Quarter in Worcester and at Redditch.

Worcestershire will be a well-connected place in the West Midlands and across Great Britain with direct, frequent connectivity, as shown at Figures 4 and 5 (below/over), in particular with:

- Oxford, the Oxford-Cambridge Arc, the Thames Valley, Heathrow Airport and London.
- North-West England, Manchester and the East Midlands, together with enhanced connectivity at Birmingham to North-East England.
- South-West facing to Cheltenham Spa, Gloucester, Bristol, Cardiff and Exeter.
- To Birmingham and HS2.
- Within Worcestershire itself.



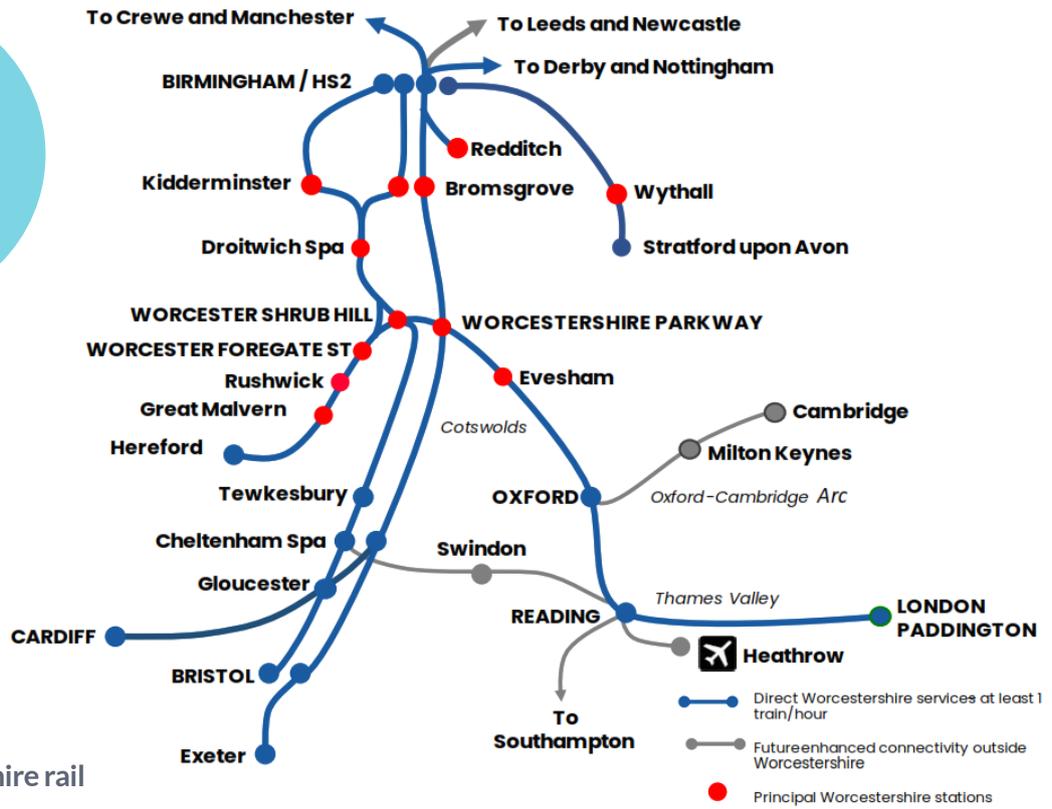


Figure 5 - Worcestershire rail connectivity 2040

Worcestershire Rail Connectivity	Frequency (tph)
Worcester - Oxford - London	2 tph
Great Malvern/Kidderminster/Droitwich Spa - London	1 tph
Nottingham - Worcestershire Parkway - Cardiff	1 tph
Exeter - Bristol - Worcestershire Parkway - Manchester	1 tph
B'ham Moor Street/HS2 - Worcestershire Parkway - Bristol/ Cardiff	2 tph
Worcester - Gloucester - Bristol	2 tph
Bromsgrove - Bristol	1 tph
Hereford - Worcester - Bromsgrove - Birmingham/HS2	2 tph
Worcester Shrub Hill - Bromsgrove - Birmingham/HS2	2 tph
Redditch - Birmingham/HS2	4 tph
Bromsgrove - Birmingham/HS2	4 tph
Kidderminster - Birmingham/HS2	4 tph
Wythall - Birmingham/HS2	2 tph
Worcester - Kidderminster	3 tph

Figure 6a - Worcestershire rail connectivity and frequency of service 2040

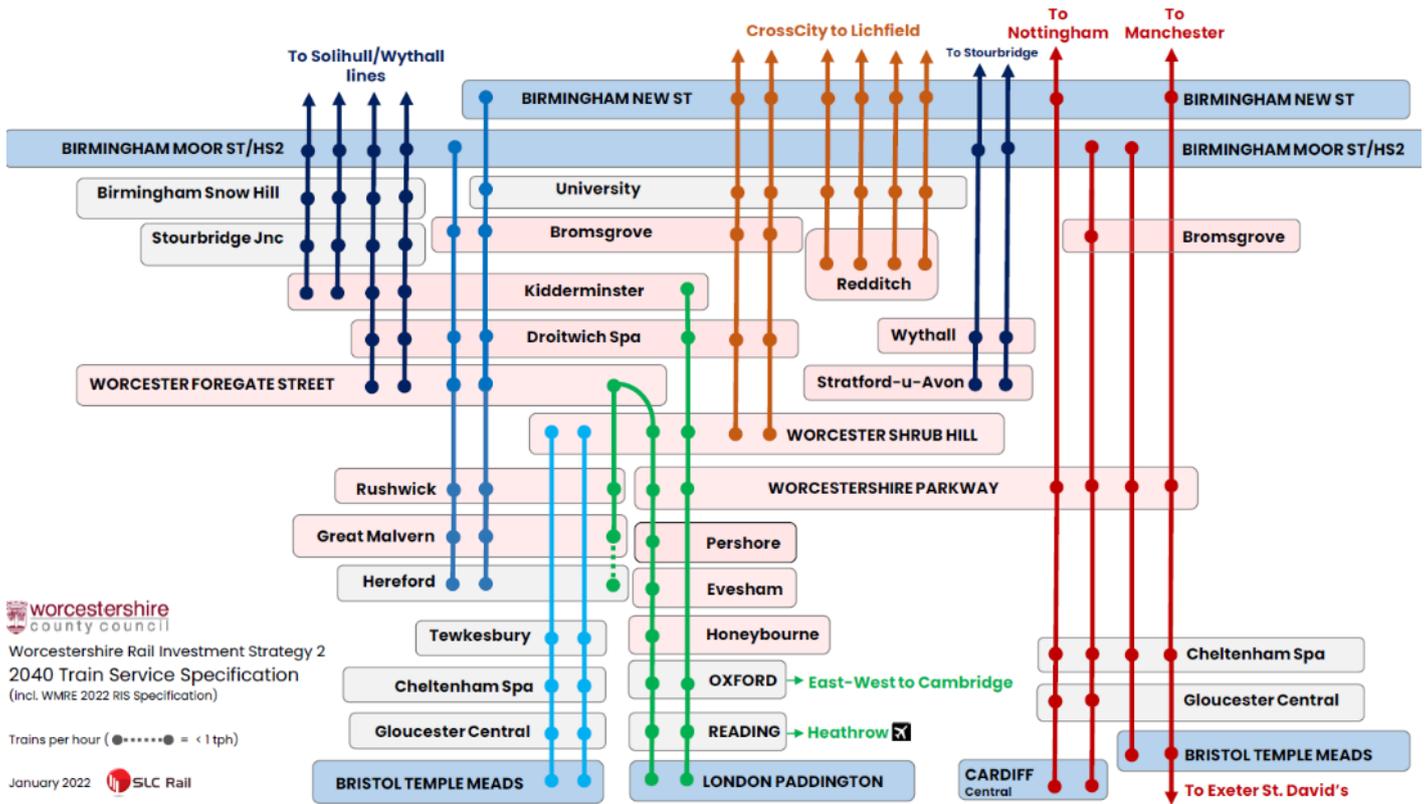


Figure 6b - Worcestershire rail connectivity 2040



SEVEN - Evidence for change

WRIS-2 brings together the 2017 WRIS's economic evidence with 2021/2022 WMRE West Midlands Rail Investment Strategy (WMRIS) post-COVID demand analysis⁷.

⁷ SYSTRA using DfT WebTag compliant demand forecasting. Used with permission of West Midlands Rail Executive

The WMRIS assesses percentage and demand volume growth of incrementally enhanced train service specifications, including HS2 and Midlands Rail Hub, from the 2019 pre-COVID base to:

- 2026 with a return to pre-COVID passenger numbers.
- 2031 with the delivery of HS2 Phase 1 and Midlands Rail Hub.
- 2050 as a broad 30-year end-date.

These are tested on 7 West Midlands corridors with 2 covering principal Worcestershire services:

- **'Stourbridge'** – including Worcester and Kidderminster to Birmingham Snow Hill/Moor St; Hagley-Kidderminster and Worcester.
- **'Cross City South'** – including Redditch and Bromsgrove to Birmingham New St; Bromsgrove-Worcester Hereford; Worcestershire (Bromsgrove-Worcestershire Parkway-Worcester Shrub Hill/Foregate St) - Bristol/Cardiff.

The North Cotswold Line proposition for 2 trains per hour towards London is NOT included in WMRIS given it falls outside of the WMRE area but is within WRIS-2 based upon its existing 2020 Strategic Outline Business Case (footnote #5 above).

The key conclusions of the WRIS 2 integrated economic GVA/jobs and demand analysis which form the basis of its Conditional Outputs (page 3 above) are:

- **WRIS 2017 priorities** – North Cotswold Line/ London and Birmingham-Worcestershire-Bristol/ Cardiff Corridor (2017 value £42.9m GVA p.a./947 new jobs) are retained, supported in turn by the North Cotswold Line 2020 business case (post-COVID 'high value for money' Benefit Cost Ratio of 3.5) and combined 'Cross City South' WMRIS results noted below.
- **WMRE WMRIS 2040 train service specifications:**
 - » The Cross City South Corridor offers the 2nd highest post-COVID percentage and demand growth to 2050 in the West Midlands, only behind the Coventry-Birmingham Corridor – 31% to 2031 and 60% to 2050 – significantly ahead of the West Midlands at 22% to 2031 and 47% to 2050.
 - » This reflects both the new Camp Hill Line in Birmingham and the scale of housing and population growth in Worcestershire.
 - » Worcestershire-Bristol/Cardiff Corridor grows by 38% to 2031 and 66% to 2050; whilst from a low base this is a high-fare yield corridor.
 - » Birmingham-Bromsgrove-Worcester-Hereford grows by 31% to 2031 and 61% to 2050.
 - » Snow Hill Lines are a more mature market given high level of pre-existing services; Worcestershire growth forms an increasing proportion of route growth to 2050.
 - » Worcestershire's 2019 daily return passengers of more than 9,500 will grow by c. 3,100 per day by 2031 and 4,150 by 2050.

Corridor percentage and demand volume growth across the West Midlands are shown at Figures 7 and 8 below:

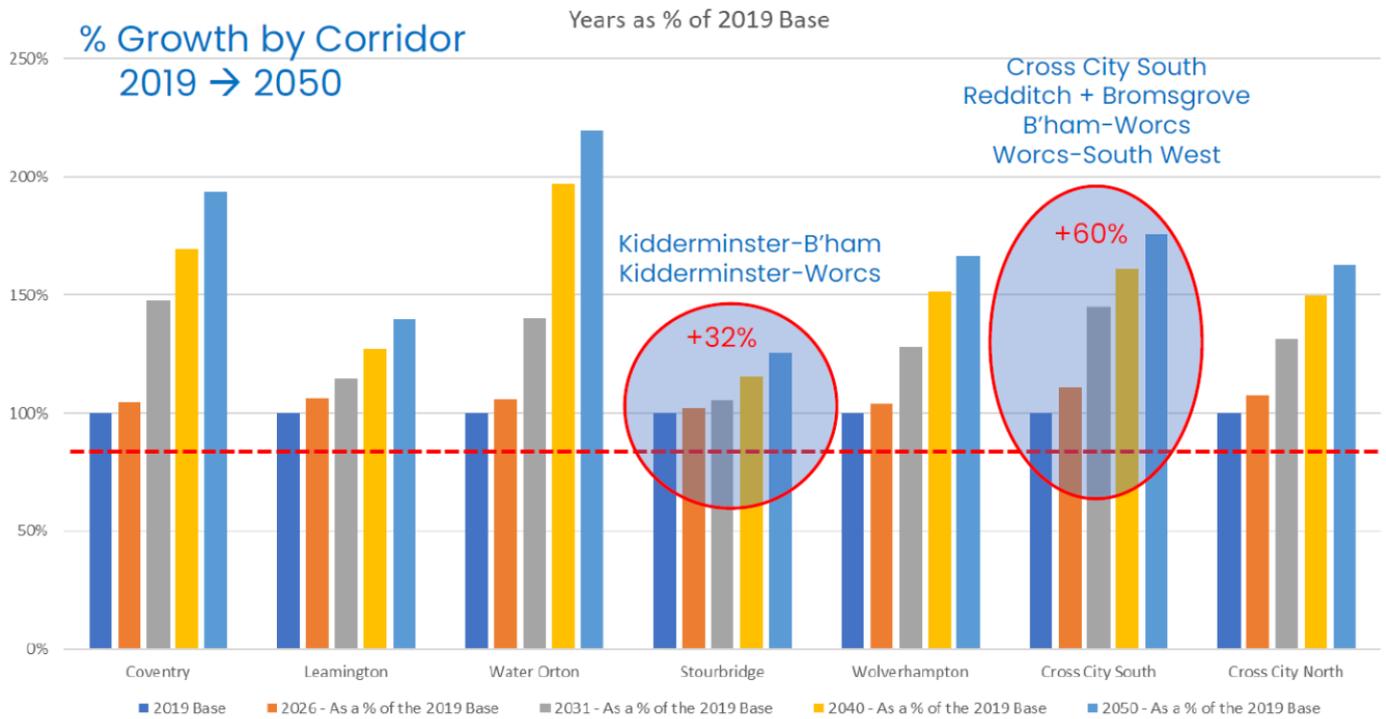


Figure 7 – Percentage growth in passenger demand – West Midlands Rail Corridors – 2019-2050 (WMRE)

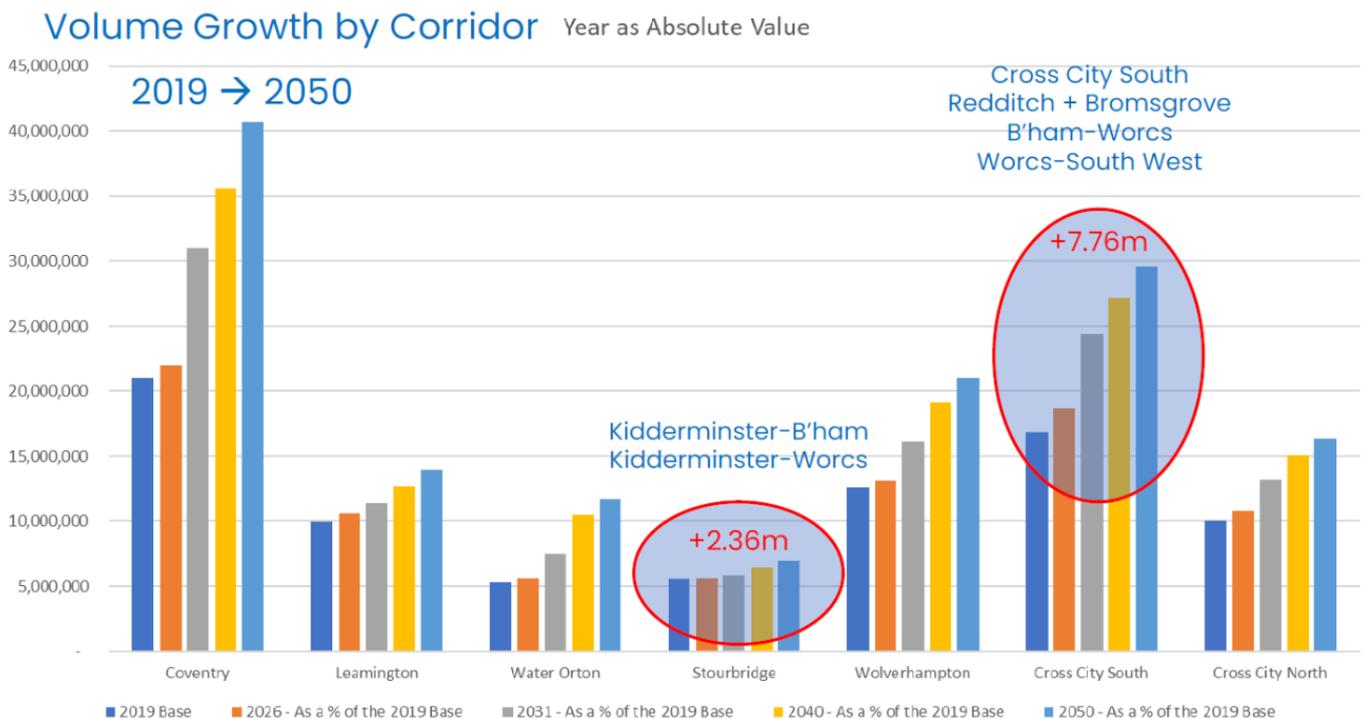


Figure 8 – Demand volume growth in passenger demand – West Midlands Rail Corridors – 2019-2050 (WMRE)

Figure 9 - Percentage growth in passenger demand – Worcestershire Rail Corridors – 2019-2050

(Adapted from WMRE data)

Line of Route	2019 Base		2019 - 2031 Growth			2019 - 2050 Growth		
	Total Trips (m)	RTN PAX/DAY	Total Trips (m)	Growth %	RTN PAX/DAY	Total Trips (m)	Growth %	RTN PAX/DAY
West Midlands	67.4	104,963	82.4	22%	23,377	98.8	47%	48,927
All Worcestershire Snow Hill Lines	3.1	4,882	3.6	15%	1,857	4.4	40%	1,928
Worcs. % of Snow Hill Lines	43%			45%			45%	
All Worcestershire Cross City South	3.0	4,702	3.8	27%	1,252	4.4	47%	2,220
Worcs. % of Cross City South	23%			23%		21%		



