



# MyJourney

West Yorkshire Local Transport Plan 2011 • 2026



wyltp

West Yorkshire  
Local Transport Plan  
Partnership

[www.wyltp.com](http://www.wyltp.com)



Connecting  
**people**  
and  
**places**

## Rail Plan 7





# Foreword

---

The growth in passenger numbers on our rail network in recent years has been substantial. More and more customers are using West Yorkshire's rail network and it is reaching patronage levels not seen for half a century.

But with this success comes some challenges:

- Overcrowding on trains in the rush hour is commonplace and sometimes customers get left behind on platforms;
- Reliability and punctuality of trains has improved but is not yet as good as it should be;
- Most local trains are very old and are not what customers expect in a modern economy;
- Train frequency, timetabling and journey times are generally not good enough for our city region economy;
- Some station facilities are poor quality;
- Travel information needs to be better especially at times of disruption;
- Tickets are not always easy to buy and understand.



But putting all this right can be very expensive and getting the decision makers to take notice is also very hard.

The Railplan supports the MyJourney West Yorkshire Local Transport Plan 2011-2026 (LTP3). LTP3 is an ambitious plan to improve the transport system across West Yorkshire that we need to encourage economic growth, reduce carbon emissions and improve quality of life. It is available to download at [www.wyltp.com](http://www.wyltp.com).

Rail has an essential role to play in delivering LTP3, but to address all the challenges we need better value for money from our railway and a step change in the way that it is organised, planned and delivered in West Yorkshire.

Most decisions about how rail is planned are made by Government Ministers. We need a new arrangement for decision making to give local people a say in how decisions are made. We have developed a new governance model for urban railways in the UK and have presented this high level work to the Department for Transport (DfT), Ministers and the McNulty Value for Money Review team. The evidence suggests that where devolution of rail powers has already taken place in Scotland and London, a better, more affordable railway is being delivered for customers and tax payers. We need this for West Yorkshire.

This Railplan 7 sets out West Yorkshire's plans to improve rail travel for customers and what we want to achieve in the new rail franchises in our area. It puts customers at its heart – to connect people and places together by rail in ways that support the economy, the environment and quality of life.

A handwritten signature in black ink that reads "James Lewis".

**Councillor James Lewis, Chair  
West Yorkshire Integrated Transport Authority**



# Table of Contents

---

<b>FOREWORD</b>	<b>3</b>
<b>EXECUTIVE SUMMARY</b>	<b>8</b>
Introduction	8
Context	8
Vision and Objectives	8
Gap Analysis and Strategy	9
<b>1. INTRODUCTION</b>	<b>10</b>
1.1. Local Transport Plan for West Yorkshire	10
1.2. What is Railplan?	10
1.3. Context	11
1.4. Geographic Scope	14
<b>2. VISION AND OBJECTIVES</b>	<b>17</b>
2.1. RailPlan Vision	17
2.2. RailPlan Objectives	17
2.3. Rail Objectives	18
<b>3. EVIDENCE AND ISSUES</b>	<b>25</b>
3.1. Introduction	25
3.2. The Current Rail Network	25
3.3. Gap Analysis	37
<b>4. STRATEGY</b>	<b>45</b>
4.1. Introduction	45
4.2. Rail Proposals	46
<b>5. IMPLEMENTATION PLAN</b>	<b>59</b>
5.1. Introduction	59
5.2. Solution Types	59
5.3. Delivery Opportunities	63
5.4. Line of Route Plans	64
5.5. Network Schemes	66
5.6. Airedale Line (Leeds – Skipton, Carlisle, Morecambe)	68
5.7. Caldervale Line (Leeds – Manchester Victoria)	69
5.8. Hallam Line (Leeds – Barnsley – Sheffield)	70
5.9. Harrogate Line (Leeds – Harrogate – York)	71
5.10. Huddersfield Line (Leeds – Manchester)	72
5.11. Penistone Line (Huddersfield – Sheffield)	73
5.12. Pontefract Line (Leeds – Knottingley – Wakefield)	74
5.13. Wakefield Line (Leeds – Doncaster, Leeds – Sheffield)	75
5.14. Wharfedale Line (Leeds – Ilkley, Bradford – Ilkley)	76
5.15. York & Selby Lines (Leeds – York, Leeds – Selby)	77
<b>6. MONITORING</b>	<b>78</b>
6.1. Introduction	78

6.2. Performance of delivering RailPlan Objectives	78
6.3. Performance of delivering individual schemes	79

## APPENDICES

Evidence Appendix	
-------------------	--

# Contacting Us

---

The West Yorkshire Integrated Transport Authority, Metro, (WYITA) is the statutory body with sole responsibility for the West Yorkshire Local Transport Plan (LTP).

As part of the LTP, this RailPlan has been prepared with the support of partners, stakeholders and members of the public. The Plan will be regularly reviewed and updated to reflect changing priorities and you can continue to contribute to such reviews.

If you have any further comments about RailPlan, or just want to keep involved in the on-going work, please contact the LTP Partnership.



**Metro**  
**Wellington House**  
**40-50 Wellington Street, Leeds LS1 2DE**

**0113 251 7283 / [ltpt@wypta.gov.uk](mailto:ltpt@wypta.gov.uk) / [www.wyltp.com](http://www.wyltp.com)**

Version Changes for RailPlan 7		
Version	Date	Description of change
1.0	03-10-2012	DOCUMENT APPROVED BY ITA 27-7-2012

# Executive Summary

---

## Introduction

RailPlan 7 seeks to build on the Local Transport Plan (LTP3) 2011-26 and the Yorkshire Rail Network Study by setting out Metro's approach to deliver sustainable economic growth by improving the rail network in West Yorkshire. RailPlan will be used to influence the key decision makers in Government and the rail industry to secure improvements to the network and deliver economic growth. The Plan sets out the:

- Context for RailPlan;
- RailPlan's Vision and Objectives;
- Gaps where the current network restricts delivery of the Vision; and
- Strategy and route by route plans to address these gaps.



## Context

Rail has an essential role to play in delivering the West Yorkshire LTP3, and RailPlan 7 sets out how rail will contribute to delivering the LTP3 Objectives - to improve connectivity, to support economic activity and growth, to progress towards a low carbon transport system for West Yorkshire, and to enhance the quality of life of people in West Yorkshire. RailPlan will also be delivered in the context of wider rail industry developments and opportunities including:

- The McNulty Value for Money Review;
- The Command Paper for rail 'Reforming our Railways: Putting the Customer First';
- Governance and decentralisation options;
- High Speed Rail;
- The Yorkshire Rail Network Study; and
- The West Yorkshire Transport Fund.

## Vision and Objectives

The Vision for rail in West Yorkshire is:

**For West Yorkshire to have the best railway in the country by 2026**

A rail network that connects people and places in a way that supports the economy, the environment and quality of life while delivering the best service reliability and customer satisfaction in the country

To deliver this vision and support the LTP3 and wider rail objectives, Metro has developed four Rail Objectives that we want RailPlan to deliver for West Yorkshire. These Rail Objectives will help deliver our Vision for the best suburban railway in the country by 2026.



1. To double annual rail patronage;
2. To improve passenger satisfaction scores;
3. To develop a rail network that secures better value for money for passengers and tax payers; and
4. To exploit the benefits of high speed rail when it arrives in West Yorkshire in the 2030s.

## Gap Analysis and Strategy

Through gap analysis, RailPlan considers where the current and planned capability of the rail network might prevent the RailPlan objectives being achieved. The gaps identify what will need to be addressed to deliver the rail vision and achieve the rail objectives.

The evidence, gap analysis and strategy is set out in seven categories as summarised in the following table.

Evidence Category		Gap Analysis Evidence	Rail Proposal
1.	Connectivity	Some journey opportunities in terms of journey time, service frequency and the need to interchange do not support planned economic growth	Provide improved connectivity through quicker and more frequent services between the key economic centres within West Yorkshire and across the North of England
2.	Demand and Crowding	Peak trains are already at capacity on many routes and demand is forecast to continue to grow	Provide sufficient capacity to meet continuing passenger growth
3.	Reliability	Rail performance varies across West Yorkshire and on-going poor reliability will deter passengers from travelling by rail	Improve rail reliability and punctuality
4.	Integration	The ease of making multimodal journeys, including the availability of parking at stations and integration between bus and rail, deters rail use	Provide high quality integration between rail and other modes
5.	Journey Experience	Facilities found at stations and on trains fall short of that expected by passengers	Provide trains and stations which offer modern facilities and are accessible to more people including meeting relevant DDA requirements
6.	Freight	Infrastructure capacity and capability restricts the networks ability to accommodate future rail freight demand	Ensure sufficient network capacity and capability to enable forecast freight growth in West Yorkshire
7.	Carbon Emissions	Need to support the LTP3 and wider Government commitments to reduce carbon emissions	Minimise the carbon footprint and emissions of rail travel

# 1. Introduction

---

## 1.1. Local Transport Plan for West Yorkshire

The West Yorkshire MyJourney Local Transport Plan 2011 – 26 (LTP3) is the statutory plan for transport in West Yorkshire. It is the sole responsibility of the West Yorkshire Integrated Transport Authority (WYITA). The Plan has, however, been developed in partnership with the five West Yorkshire District Councils of Bradford, Calderdale, Kirklees, Leeds and Wakefield (the West Yorkshire LTP Partnership). The LTP3 was published in April 2011 and is available at [www.wyltp.com](http://www.wyltp.com).

LTP3 is called 'MyJourney' to reflect the focus on customers at the heart of the Plan. It sets out a vision and 3 key objectives for improving West Yorkshire's transport system between 2011 and 2026:

### MyJourney West Yorkshire Vision 2026 - connecting people and places

Working together to ensure that West Yorkshire's transport system connects people and places in ways that support the economy, the environment and quality of life.

The LTP3 Objectives are:

**LTP Objective 1** - to improve connectivity to support economic activity and growth;

**LTP Objective 2** - to progress towards a low carbon transport system for West Yorkshire; and

**LTP Objective 3** - to enhance the quality of life of people in West Yorkshire.

## 1.2. What is Railplan?

RailPlan seeks to build on and support the Local Transport Plan (LTP3) 2011-26 and the Yorkshire Rail Network Study by setting out Metro's approach to deliver sustainable economic growth by improving the rail network in West Yorkshire. RailPlan will be used to influence the key decision makers in Government and the rail industry to improve the rail offer in order to deliver sustainable economic growth.

RailPlan sets out West Yorkshire's plans to improve rail travel for customers. It puts customers at its heart to connect people and places together by rail in ways that also support the economy, the environment and quality of life.

This RailPlan is the seventh RailPlan (RailPlan 7) developed by Metro since 1989. The Plans have provided a framework for rail investment and development and have enabled some major investment in West Yorkshire's rail network that has driven demand and contributed to rail's success.

The previous plan, RailPlan 6, supported rail investment during LTP2 (2006-2011) and achieved:

- 38% patronage growth for Northern Rail since 2004;
- 'Yorkshire 6' – six additional trains paid for local partners;
- CCTV on trains;
- Installation and renewal of customer information screens;
- Train, station and car park refurbishments and
- Development work for new stations at Kirkstall Forge, Apperley Bridge and Low Moor.

This new RailPlan 7 covers the LTP3 period from 2011 - 26.

The rail industry is funded in five year investment cycles, known as Control Periods. This RailPlan seeks to influence funding decisions for schemes in Control Period 5 (2014 - 2019) and Control Period 6 (2019 - 2024) and support the development of schemes to be delivered beyond 2024.

The plan is focused on the rail network in West Yorkshire. However it is acknowledged that the West Yorkshire rail network includes important links to other economic centres across the north of England and beyond.

### 1.3. Context

Rail has an essential role to play in delivering the West Yorkshire LTP3. RailPlan 7 sets out how rail will contribute to delivering the LTP3 Objectives.

RailPlan will also be delivered in the context of wider rail industry developments and opportunities including:

- The McNulty Value for Money Review;
- The Command Paper for rail 'Reforming our Railways: Putting the Customer First';
- Governance and decentralisation options;
- High Speed Rail;
- The Yorkshire Rail Network Study; and
- The West Yorkshire Transport Fund.

#### **Value for Money**

National policy makers recognise the success of Great Britain's rail industry over the past decade in terms of the number of customers now using rail – greater than at any time since the 1950s. However there has also been a noticeable increase in the cost of delivering railway services to accommodate this growth.

The McNulty Value for Money Review of UK Railways (May 2011) was commissioned by the Government following the outcome of an Office of Rail Regulation report stating that the cost of running the UK railway is a third higher than equivalent railways in France and Germany.

The McNulty Review outlines a series of reasons why the UK rail industry is more expensive to run than European equivalents, as well as a series of recommendations to reduce costs by 2019. The recommendations of relevance to this RailPlan are summarised below and are reflected in the

Command Paper for rail 'Reforming our Railways: Putting the Customer First' that was published by the Government in March 2012:

- Greater local decision making by PTEs and Local Authorities, in return for budget responsibility and accountability;
- Less prescriptive franchises to enable more private sector investment;
- Clearer strategic leadership from the DfT;
- More analysis of how rail services are subsidised;
- Devolved Network Rail routes;
- Closer working between Network Rail and Train Operators including possible vertical integration of track and train;
- More effective incentive regimes across the industry;
- Less complex and more equitable fares system, including balancing and spreading peak demand;
- Accelerate the introduction of smart cards;
- More efficient project and asset management;
- More standardised rolling stock; and
- Pilot different approaches for lower cost regional railways.



These recommendations represent a significant shift in approach that has the potential to dramatically improve the operational running of the railway and its affordability. This RailPlan embraces these issues with the objective of ensuring that we get a railway network West Yorkshire needs.

What is clear is that future investment will need to deliver better value for money for the rail industry in the long term, either through reducing costs or increasing revenue. Ensuring that fare payers and tax payers get better value for money from the rail network in West Yorkshire will make it easier to make the case for greater investment in rail in our region.

However what is not yet clear is the Government's response, in terms of fares policy, towards delivering improved value to passengers. Within the current industry structure it is challenging for Metro to secure a fares policy that is fundamentally different to the national framework. This RailPlan therefore does not specifically address the general level of rail fares throughout the region, which at present needs to be considered at a national level. If the proposal for a devolved local franchise is successful then Metro, along with other partners responsible for the proposed franchise, would lead a review of the fares structure for West Yorkshire and the north of England.

## **Governance**

The rail industry has a complicated governance structure, with the major decisions and funding currently being made by DfT and Network Rail rather than by locally accountable politicians. The Coalition Government's 'Programme for Government' includes decentralising power to the appropriate local level and includes some of the decisions and funding for rail.

Currently the major decisions and funding relating to local rail services in West Yorkshire are made by the DfT, rather than by locally accountable politicians. The Government is receptive to change this by enabling the Integrated Transport Authorities (ITAs), such as Metro, and Local Authorities to take responsibility for the specification, management and funding of local services in their areas, should they wish to. The DfT would retain responsibility for national strategic rail franchises and routes, such as East Coast.

Metro, working with other PTEs, has developed a vision for urban railways in the UK and have presented this high level work to the DfT, Ministers and the McNulty Review team. The evidence suggests that where devolution of rail powers has already taken place e.g. Scotland and London, a better, more affordable railway is being delivered for customers and tax payers. The DfT launched its consultation into decentralising rail powers in March 2012.

Metro and the other northern ITAs are developing a set of devolution options that would need to be in place in time for the next rail franchises in the North. This devolved authority would give Metro, and the other ITAs, control of how to develop the rail network in their areas, including decisions on implementing the specific strategy and schemes identified in this RailPlan.

The 'Rail Decentralisation' Consultation Paper, published in March 2012, sets out the Government's options for decentralising rail decisions to the local level. This RailPlan will be used to respond to that Paper.

## High Speed Rail

In January 2012, and following extensive public consultation, the Government announced that it intends to construct a high speed rail (HSR) network in the UK. The policy proposal known as High Speed 2 (HS2) is for a 'Y' shaped network from London to Birmingham, then legs to the north to both Manchester and Leeds using separate alignments. High speed rail is considered by Government to be a way of providing for the country's inter-city mobility needs in the future (as the or existing "classic" network is becoming full), in a more sustainable way than aviation and motoring, that will also help re-balance the national economy by bringing economic centres closer together. It is intended that the leg to Leeds will be in place by the early 2030s.



It is important that the rail network in West Yorkshire is developed to enable the benefits of HSR to be fully exploited when it arrives in the 2030s. HSR has the potential to be truly transformational for West Yorkshire, and it is important that its economic benefits are spread across the whole region by ensuring the local rail network is well connected to a HSR station in Leeds. HSR will also provide increased capacity for important long distance flows to/from London and Birmingham. This RailPlan considers improvements to the rail network that will enable West Yorkshire to get the most from HS2.

## Yorkshire Rail Network Study

In developing RailPlan, Metro commissioned the Yorkshire Rail Network Study – Conditional Output Statement (February 2012) with partners in the Leeds and Sheffield City Regions. The study identified up to £12bn of potential economic benefits that could be realised by enhancing the rail network in the two city regions. More detail can be found on the Metro website<sup>1</sup>. This work follows a similar approach to that used in the Northern Hub study focused around Manchester.

The Yorkshire Rail Network Study has supported the development of RailPlan and informed the specific outputs that need to be delivered to support economic growth.

## The West Yorkshire Transport Fund

The West Yorkshire Leaders have asked that a Transport Fund with a value of up to £1 billion be developed and established in order to bring forward transformational transport schemes across West Yorkshire that will help accelerate economic growth.

The Fund would be targeted at those schemes that could maximise the unlocking of economic growth, while also meeting objectives on carbon reduction and accessibility to employment from deprived communities.

The Fund would be a mix of existing and new sources of finance e.g. an increase in the ITA levy, a top-slice of Local Transport Plan funding, accelerating or new Department for Transport major scheme funding etc. The Fund offers a huge opportunity to obtain a level of funding for investment in transport that would usually take years or decades to accumulate.

Given rail's growing importance in supporting the West Yorkshire economy, it is likely that the Transport Fund could include investment in rail. Any Transport Fund investment will be considered alongside Railplan 7 and the wider Government and Rail Industry plans for the rail network in and around West Yorkshire.

## 1.4. Geographic Scope

This RailPlan covers all passenger rail routes within and to West Yorkshire, as illustrated in the map in Figure 1. However rail services in West Yorkshire, and the delivery of the wider LTP and RailPlan objectives, will also be heavily influenced by enhancements to the network outside the West Yorkshire area. Therefore, RailPlan will also consider key benefits on corridors linking West Yorkshire to adjacent centres, including Manchester and the North West, York, Hull, London, Sheffield and Carlisle.

RailPlan also considers the need to move rail freight, although the focus is limited to ensuring that there is sufficient capacity on shared passenger and freight routes. RailPlan does not consider improvements to freight only routes. Nevertheless for information Figure 2 shows the key rail freight

---

<sup>1</sup> [http://www.wymetro.com/news/projects/projectdetails/YRNS.htm?wbc\\_purpose=Basic.pdf.pdf.rss](http://www.wymetro.com/news/projects/projectdetails/YRNS.htm?wbc_purpose=Basic.pdf.pdf.rss)

corridors in Yorkshire, broadly defined as those where there is provision for a minimum of one freight train per hour, as identified by the Yorkshire Rail Network Study.

**Figure 1: Current West Yorkshire Rail Network**

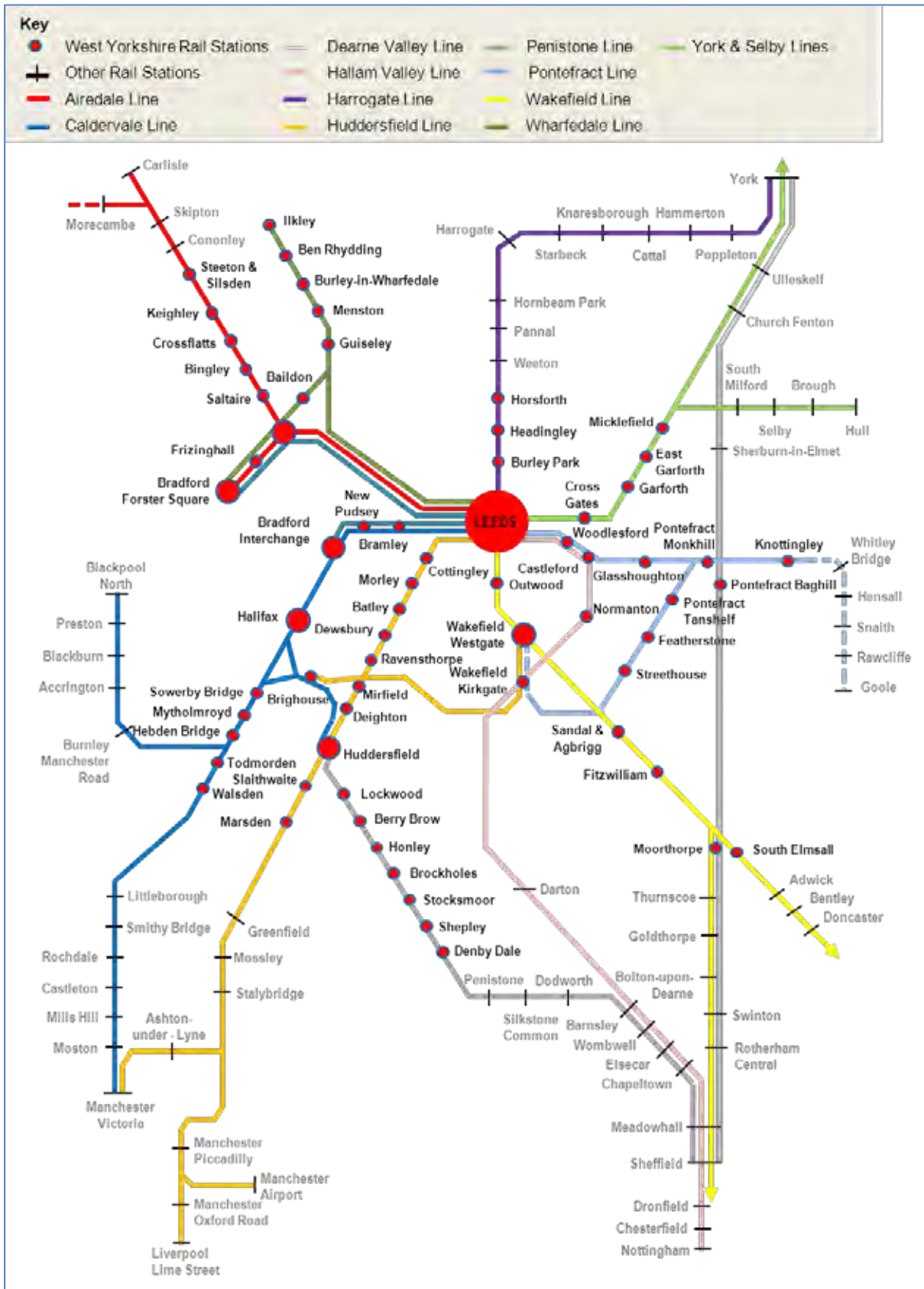
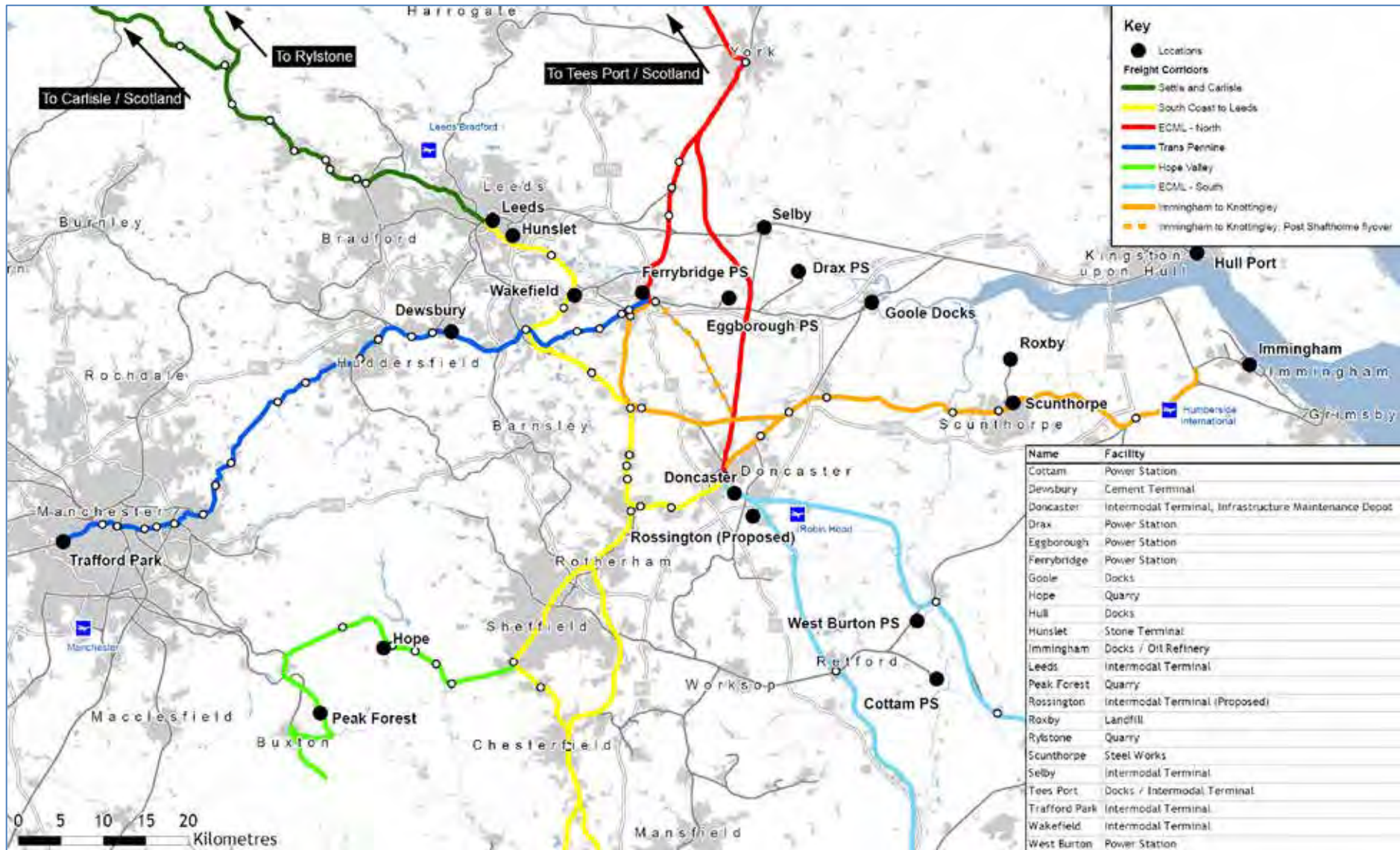


Figure 2: Current West Yorkshire Freight Corridors and Terminals





## 2. Vision and Objectives

---

### 2.1. RailPlan Vision

The vision for rail in West Yorkshire is:

**For West Yorkshire to have the best railway in the country by 2026**

A rail network that connects people and places in a way that supports the economy, the environment and quality of life while delivering the best service reliability and customer satisfaction in the country

### 2.2. RailPlan Objectives

The objectives that this RailPlan seeks to deliver are drawn from and influenced by MyJourney West Yorkshire Local Transport Plan (LTP3) and the broader rail industry context set out in Chapter 1.

#### **LTP3: MyJourney West Yorkshire Local Transport Plan**

RailPlan7 is an essential component of the West Yorkshire LTP3. It focuses specifically on the rail network and the impact and contribution that rail can make to the delivery of the overall MyJourney Vision and Objectives. The LTP3 Objectives are:

<b>1</b>	<b>Economy. To improve connectivity to support economic activity and growth in West Yorkshire and the Leeds City Region.</b>
<b>2</b>	<b>Low Carbon. To make substantial progress towards a low carbon, sustainable transport system for West Yorkshire, while recognising transport's contribution to national carbon reduction plans.</b>
<b>3</b>	<b>Quality of Life. To enhance the quality of life of people living in, working in and visiting West Yorkshire.</b>

**LTP Objective 1: Economy** - Transport problems including congestion and a lack of transport investment are key contributory factors to lower than average economic performance in West Yorkshire. The private car is still the most frequently used form of transport in West Yorkshire, but road congestion, particularly in the peak periods is a major concern for businesses and the public.

Whilst rail has a relatively low mode share for total journeys made in West Yorkshire (circa 4%), it is an essential mode for journey to work trips to city centres, with an 18% mode share for trips to Leeds city centre<sup>2</sup>. Rail plays an important and growing role in supporting the economy by providing people with access to jobs in our towns and city centres, as well as connectivity to other towns and cities across the North, the Midlands and London.

If West Yorkshire is to play its part in helping rebalance the UK economy towards more private sector industry outside the South East, then we need to improve the rail network. West Yorkshire

---

<sup>2</sup> Data in the WYTF Urban Dynamic Model

has a diverse economy, however one that in the past decade has seen strong growth in the financial and professional services and digital industries sectors. These service industries tend to locate in our towns and city centres, making rail a popular choice of transport mode for commuting and business journeys. To help support growth in these industries, we need to enable more and more people to choose and use rail as their preferred mode of transport.

**LTP Objective 2: Low Carbon** - The LTP3, supported by the Leeds City Region Transport Strategy and the Local Development Frameworks, sets out the strategic plan for getting more out of the current transport network, providing customers with appropriate travel choices, developing better connectivity and integration between sustainable transport networks, and enhancing the networks with a programme of targeted interventions necessary to deliver economic growth and to encourage more sustainable journeys.

West Yorkshire's rail network has a major role to play in providing people with more environmentally sustainable journey opportunities. There is strong evidence of the need to improve the rail offer in West Yorkshire and develop it as part of an integrated transport network to provide a viable alternative to single occupancy car use for more and more people.

**LTP Objective 3: Quality of Life** - The region's rail network makes two major contributions to a better quality of life for those living in, working in and visiting West Yorkshire. Firstly, it helps to provide connectivity to work, business and leisure opportunities. People can realise employment opportunities in the city centres, and live a short train journey away in areas with an outstanding natural environment on their doorstep. This is a major draw for people choosing to live and work in the region, which the local rail network facilitates.

Secondly, by encouraging more and more people to use rail, single occupancy car journeys and the associated carbon emissions, congestion, noise and air pollution are avoided.

If we are to facilitate a growth in jobs and economic activity, as well as population and housing, this inevitably results in greater demand for travel. To ensure that people's quality of life is maintained, and ensure West Yorkshire is an attractive place for people to move to, West Yorkshire's rail network needs to facilitate more journeys and a greater proportion of overall journeys made.

## 2.3. Rail Objectives

Against this background and working with industry partners including Network Rail, train operators and the West Yorkshire LTP Partnership, Metro has developed four Rail Objectives that we want RailPlan to deliver for West Yorkshire. These Rail Objectives will help deliver our Vision for the best railway in the country by 2026.

The table in Figure 3 sets out the rail objectives that we need to achieve by 2026. The table also shows how these contribute to the LTP 3 objectives.

**Figure 3: Current West Yorkshire Rail Network**

Rail Objective	Contribution to LTP 3
<b>1. To double annual rail patronage</b>	Rail facilitates a more mobile population which is required to support economic growth (LTP Objective 1) in a sustainable way (LTP Objective 2)
<b>2. To improve passenger satisfaction scores</b>	This reflects the quality of service offered, which is essential to encourage mode shift from car and realise the associated environmental benefits (LTP Objective 2)  Travel by sustainable modes also contributes to quality of life benefits (LTP Objective 3)
<b>3. To develop a rail network that secures better value for money for passengers and tax payers</b>	A railway network delivering better value for passengers and taxpayers is a key objective of the 2012 Rail Command Paper. This will support economic growth by allowing more effective investment (LTP Objective 1) and better value for passengers will enhance their quality of life (LTP Objective 3)
<b>4. To exploit the benefits of high speed rail when it arrives in West Yorkshire in the 2030s.</b>	High speed rail will support national and regional economic growth (LTP Objective 1) and deliver improved journey opportunities (LTP Objective 3) in a more sustainable manner (LTP Objective 2)

### **Rail Objective 1: Double Rail Patronage**

The Northern Route Utilisation Strategy<sup>3</sup> (RUS) produced by Network Rail forecasts rail demand into Leeds to grow by up to 42% between 2011 and 2026<sup>4</sup>. The methodology used for this forecast has assumed a 'business as usual' scenario in terms of other factors i.e. the price of oil, the economy, population and housing growth. The Yorkshire Rail Network Study adopts a similar forecasting methodology, using more recent economic data, and suggests growth of 49% for journeys to Leeds by 2026. Across West Yorkshire this study suggests rail demand could grow by up to 34% by 2026. The methodology used however does not consider the detailed implications of Local Transport Plans and their targets, and what they might mean for rail in the wider West Yorkshire context.

As part of wider work on the LTP3, the LTP Partnership has established targets for transport journey mode splits for 2026. West Yorkshire District Local Development Frameworks set out where development is expected by 2026. Housing and job numbers are planned to increase, with housing planned as much as possible in more sustainable locations close to existing transport (including rail) networks. Jobs growth is planned for the main urban centres, particularly Bradford and Leeds. This will create a great deal more demand for transport across West Yorkshire, particularly into and out of the main urban centres. Growth in population and economic activity will result in a growth in the demand for transport.

<sup>3</sup> The Route Utilisation Strategies are produced by Network Rail on behalf of the rail industry. They are the outputs of the rail industry's statutory strategic planning process.

<sup>4</sup> Derived from Table 3.6, which forecasts growth from 2008 to 2029

To achieve our vision, we need to facilitate this growth to help rebalance the economy. At the same time the LTP 3 sets out that we will need to halt the growth in car journeys to reduce carbon emissions and improve quality of life. To achieve this there is a need to provide viable and attractive alternatives to car using more sustainable modes such as rail. We therefore need to provide rail service connectivity and passenger capacity to facilitate a growth in the number of rail journeys due to a growth in the population and economy and to grow the modal share of rail. For the economic growth to be delivered, while halting the growth in car trips, our analysis suggests there is a need for rail demand to Leeds to double by 2026, with rail demand across West Yorkshire as a whole increasing by around 60%.

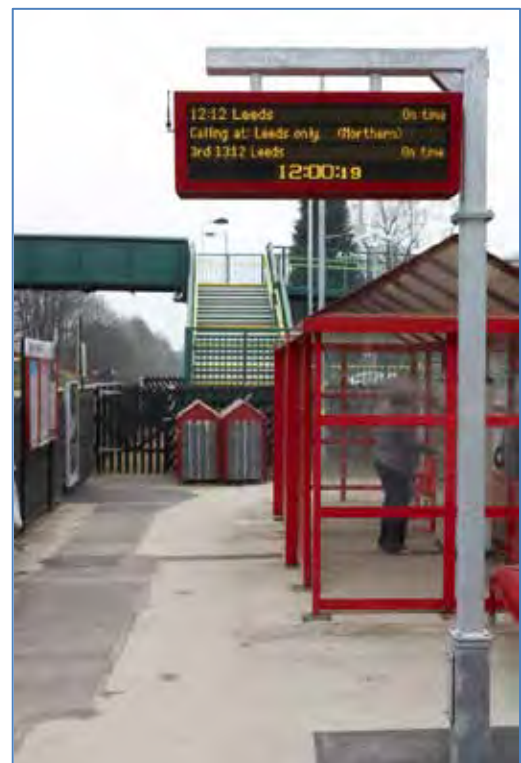
## Rail Objective 2: Improve Passenger Satisfaction Scores

The National Passenger Survey (NPS), carried out by rail watchdog Passenger Focus, monitors rail passenger satisfaction over time. It is a key measure of how the rail industry is performing from a passengers' perspective. The NPS is carried out twice a year, and provides passenger scores for each Train Operating Company. Metro also monitors transport customer satisfaction levels on an annual basis at a West Yorkshire level through its Annual Tracker Survey. This is a useful measure of what customers in West Yorkshire think of the transport network and services they use and pay for, and how their views change over time.

Overall passenger satisfaction levels (the number of people who were either satisfied with the service provided or felt it was good) for the two major train operating companies serving West Yorkshire in autumn 2011 were:

- Northern Rail: 80%
- Trans Pennine Express: 88%
- East Coast – 89%
- Cross Country – 84%
- East Midlands Trains – 87%

This compares to an average score for all operators of 83% and for regional operators of 86%<sup>5</sup>. Overall, the satisfaction levels are positive, however they do mask some areas of particular dissatisfaction e.g. sufficient room for passengers to sit/stand (73%) and how well the train company dealt with delays (37%)<sup>6</sup>. Nationally and in West Yorkshire, some of the key areas of passenger concern are value for money and overcrowding. Historically, provision of information during times of



<sup>5</sup> Passenger Focus – National Passenger Survey – Spring 2012 Main Report (data does not include Grand Central)

<sup>6</sup> Scores for regional operators

disruption and the perception of safety at stations have also been identified as areas of concern for passengers through the NPS.

This also compares favourably to customer satisfaction in other industries, with average bus passenger satisfaction in West Yorkshire at 85%<sup>7</sup>, Waitrose (the highest supermarket satisfaction) at 83%<sup>8</sup> and First Direct (the highest scoring bank) at 77%<sup>9</sup>.

Whilst the overall figures are relatively positive, they fall somewhat short of the best passenger satisfaction score of 96% achieved by Merseyrail. If we are to achieve our vision and objectives we need to reach this level of satisfaction by tackling the areas of most concern to passengers. This will continue to make rail more attractive for customers and potential customers and encourage more people to choose rail as their preferred mode of choice.

### **Rail Objective 3: Develop a rail network that secures better value for money for passengers and tax payers**

It is clear that we need West Yorkshire's rail network to be able to carry many more passengers. However the McNulty Review has highlighted that current cost levels will make that unaffordable to both the taxpayer and fare-payer. Regional rail networks have been highlighted as particularly costly to the taxpayer, due to the subsidy levels that they receive. We need the rail industry to reduce its cost base so enhancements become more affordable and in turn facilitate patronage growth.

There are a number of ways of making the railways more affordable. Many of them involve structural change to make the rail industry more effective and responsive to customer and stakeholder needs. Other ways include making 'invest to save' long term capital investments such as electrification, to reduce the on-going cost of running the railways (electric trains are cheaper to run than diesel trains). Encouraging more people to use the existing network means more passenger revenue for the rail industry, so cutting the amount of subsidy needed from the taxpayer.

In some cases it may be necessary to review fares to ensure they represent value for money for both the passenger and tax payer, although the Government's policy for changing fares in response to the McNulty review is not yet known.

### **Rail Objective 4: Exploit the benefits of HS2**

High Speed Rail connects major cities with trains running at up to 250 miles per hour, drastically reducing journey times and encouraging greater economic interaction between places. High speed



<sup>7</sup> Passenger Focus – Bus Passenger Survey – March 2012

<sup>8</sup> Which – December 2011

<sup>9</sup> <http://www.guardian.co.uk/money/2011/nov/25/first-direct-tops-banking-satisfaction-poll>

rail is well developed in other European countries such as France and Germany, as well as in Japan and China. In the UK, the only high speed line is High Speed 1 (HS1), linking London's St Pancras station with Brussels and Paris via the Channel Tunnel. It has recently been announced that High Speed 2 (HS2) will now be built, linking London's Euston station, HS1 and Heathrow Airport with Birmingham, then on to Manchester and Leeds via a 'Y' shaped route. This is shown in Figure 4 overleaf.

HS2 will be built in phases. The first phase will be complete by 2026, and will involve the construction of a new high speed dedicated line connecting HS1 and London Euston via Old Oak Common Crossrail interchange with Birmingham. It will also include a link to the existing West Coast Main Line to allow compatible trains to run to Manchester. The second phase will be complete by 2033, and will involve the construction of dedicated high speed lines from Birmingham to both Manchester and Leeds (via the East Midlands and Sheffield). Improvements made to the rail network in the years up to the completion of HS2 will benefit current rail travel and complement HS2.

High speed rail will be very important to West Yorkshire. Inter-city rail travel from West Yorkshire, especially to and from London, performs a major role in supporting our economy. It enables business and leisure travel to and from our region, which supports the economy and helps underpin the jobs market. Inter-city travel is forecast to increase over the coming decade or so, which the existing "classic" rail network is unable to cope with. Further, the diversion of inter-city services to High Speed routes has the potential to free up capacity on the existing network for more local and freight services.

**Figure 4: Journey Time Savings to and from London by Train (Source High Speed 2)**



The benefits of a dedicated high speed network are large, up to £44bn for the full ‘Y’ shape network. Not only does it avoid the major disruption to the existing “classic” network during construction, it also provides the additional capacity in a way that could help change the economic geography of the UK. By reducing journey times between West Yorkshire, Sheffield, the East Midlands, the West Midlands and London, more and more economic interaction will take place between the cities. It will make West Yorkshire a more attractive place to live, work and invest. And by linking up with Heathrow and HS1, it will provide improved international connectivity for West Yorkshire in a more sustainable way.

Our research (High Speed Rail - The Case for an Eastern Route<sup>10</sup>) shows that a high speed rail link to the Leeds and Sheffield City Regions could deliver up to £31bn worth of benefits to these two important economies. Given the potential scale of benefits that HS2 could bring to West Yorkshire, it is imperative we ensure that these benefits are not focussed purely on Leeds City Centre, but that they are spread across West Yorkshire. This requires the existing “classic” rail network converging on Leeds to provide excellent connectivity and capacity so that people can then move to/from the

<sup>10</sup> <http://www.wymetro.com/news/releases/archive/09/091022HSR>

high speed rail terminus in the city easily and swiftly. Connectivity by other modes to the high speed rail terminus will also be imperative, and clearly local rail has an important role in spreading the benefits to other sub-regional centres such as Halifax, Bradford, Huddersfield and Wakefield, as well as the wider city region. This re-emphasises the need for powers over local rail to be devolved to PTEs and Local Authorities, as it is these Authorities who have responsibility for other forms of public and highway transport. Being able to plan, develop and run all modes in a coherent joined up manner that allows the benefits of high speed rail to be spread across West Yorkshire is imperative.

## **Summary of Vision and Objectives**

RailPlan's Vision is to have the best railway in the country by 2026, achieved by delivering the Rail Objectives 1 - 4.

Whilst our ambition is bold and challenging there is clear evidence of the economic benefits that improvements to the rail network can bring, and is supported by local and national Government policy. The Objectives ensure our transport networks support the economy and facilitate growth, but at the same time reducing carbon emissions and minimising the impact on the environment and enhancing peoples' quality of life. They also complement Government policy in terms of making the rail industry more affordable and providing more rail capacity through making the most of high speed rail.



## 3. Evidence and Issues

---

### 3.1. Introduction

This chapter presents a summary of the current rail network. Through gap analysis it considers where the current and planned capability of the rail network might prevent the RailPlan objectives being achieved. The gaps identify what will need to be addressed to deliver the rail vision and achieve the rail objectives set out in Chapter 2.

The evidence is set out in seven evidence categories. Evidence categories 1 - 5 represent considerations that potential rail users will make whenever they choose to travel. For ease of presentation these have been presented as discrete categories, whereas in reality there will be overlaps between each category. Evidence categories 6 and 7 are additional considerations not related to passenger experience, but nonetheless important in planning development of the rail network. The seven evidence categories are:



- **Evidence 1 : Connectivity** - journey opportunities that exist between stations in terms of journey time, service frequency and the need to interchange;
- **Evidence 2 : Demand and Crowding** - passengers ability to find a seat, or for shorter journeys at busy times find comfortable standing space;
- **Evidence 3 : Reliability** - services operating to the advertised timetable;
- **Evidence 4 : Integration** - options for getting between the rail station and the ultimate journey origin or destination and the availability of tickets for multi modal journeys;
- **Evidence 5 : Journey Experience** - the facilities found at stations and on trains including meeting the requirements of the Disability Discrimination Act;
- **Evidence 6 : Freight** - rail freight services to and through West Yorkshire deliver important economic and environmental benefits; and
- **Evidence 7 : Carbon Emissions** - to deliver the LTP3 and wider Government commitments to reduce carbon emissions.

Additional evidence around each evidence category can be found in the Evidence Appendix.

### 3.2. The Current Rail Network

West Yorkshire has a comprehensive rail network providing a wide range of passenger services. The rail routes and stations considered in this RailPlan are summarised in Figure 2 in Chapter 2. The rail services in West Yorkshire can be summarised as follows:

- Long Distance High Speed services to London from Wakefield, Leeds, Bradford, and other regional centres;
- Cross Country services between Scotland/North East and Birmingham/South Coast and South West that stop at Leeds and Wakefield;

- Inter-Regional services from the North East, Scarborough, Hull and York to Manchester, Manchester Airport and Liverpool stopping at Garforth, Leeds, Dewsbury and Huddersfield;
- Inter-Regional services from York to Blackpool via Leeds, Bradford and the Calder Valley; and
- Local services that provide important commuting and leisure connections to Leeds and key regional centres including Bradford, Huddersfield and Wakefield.

Passenger services are primarily delivered by franchised operating companies, with those franchises currently being let and managed by the Department for Transport. The franchised operators include East Coast, Arriva Cross Country, First Trans Pennine and Northern Rail. Grand Central is an open access operator, owned by Arriva.

There are also key freight flows to and through West Yorkshire including:

- Coal from Scotland and the East Coast ports to the Aire Valley power stations;
- Intermodal container traffic to and from Leeds Freight Liner Terminal and Wakefield Europort;
- Intermodal container traffic between Teeside and the East Midlands / North West that passes through West Yorkshire; and
- Aggregates from Rylstone (Skipton).

Freight services are operated entirely on an open access basis. The three largest operators are DB Schenker, Freightliner and GB Rail Freight.

## **Evidence 1: Connectivity**

### ***Inter-City Connectivity***

There is currently a half hourly service from Leeds and Wakefield to London operated by East Coast. Journey times are currently around 2 hours 15 minutes from Leeds and 2 hours from Wakefield. East Coast also operates daily direct services linking Harrogate (3 hour 10 minute journey time), Bradford Forster Square (3 hour journey time) and Skipton (3 hour 15 minute journey time) to London.



Grand Central currently provide three trains per day between Bradford Interchange and London serving Halifax, Brighouse, Mirfield, Wakefield Kirkgate and Pontefract. The journey time from Bradford to London is around 3 hours 20 minutes, and around 3 hours from London to Bradford.

Arriva Cross Country provides an hourly service between Scotland/North East/York and Sheffield/Birmingham/South West that stop at Leeds and Wakefield Westgate.

### ***Regional Centre Connectivity***

The regional centres of Bradford and Leeds are the key economic centres within West Yorkshire. The evidence shows that enhancing the connectivity between these cities and other key economic centres across the north of England, including York, Sheffield and Manchester, will accelerate

economic growth. Reflecting this, the Yorkshire Rail Network Study has set targets for journey time and frequency of services between these centres, and other key economic centres in the north of England.

The following table summarises the current journey time and frequency between these key economic centres.

**Figure 5: Current Regional Centre Connectivity**

Route	Current Journey Time	Current Frequency
Bradford – Leeds	20-25 minutes 21 minutes	4 trains per hour from Bradford Interchange 2 trains per hour from Bradford Forster Square
Leeds – Manchester	55 minutes	4 trains per hour to Piccadilly
Leeds – Sheffield	40 minutes 60 minutes	1 train per hour via Wakefield Westgate 2 trains per hour via Barnsley
Leeds – York	21-26 minutes	4 trains per hour
Bradford – Manchester	60-70 minutes	2 trains per hour

#### **Sub-Regional Centre Connectivity**

There are also a number of key sub regional economic centres within West Yorkshire, and Leeds City Region, including Harrogate, Halifax, Huddersfield, Wakefield and Barnsley. Connections from these centres to Leeds and Bradford are also important.

The following table summarises the current connections from these locations to Leeds and Bradford.

**Figure 6: Current Sub-Regional to Regional Centre Connectivity**

Sub Regional Centre	To Leeds		To Bradford	
	Current Journey Time	Current Frequency	Current Journey Time	Current Frequency
Harrogate	33-38 minutes	2 trains per hour	1 hour 15 minutes	2 trains per hour, change at Leeds
Halifax	32-43 minutes	4 trains per hour	11-15 minutes	4 trains per hour
Huddersfield	17-25 minutes	4 trains per hour	42 minutes	1 train per hour
Wakefield	11-22 minutes 20 minutes	5 trains per hour from Westgate 2 trains per hour from Kirkgate	50-60 minutes	4 trains per hour, change at Leeds
Barnsley	35 minutes	2 trains per hour	1 hour 10 minutes	2 trains per hour, change at Leeds

## Other Connectivity

The rail network in Yorkshire also forms a vital role in providing local rail journeys for commuting, business and leisure purposes to the regional and sub-regional centres as well as connectivity to longer distance services.

The following table summarises the off peak local service pattern on the rail corridors within West Yorkshire. This includes only those services that stop at all the stations within the corridor. On some corridors the service frequency is enhanced in the peak periods to provide additional capacity. Faster inter-city and inter-regional journey opportunities are summarised previously.

**Figure 7: Current Local Service Frequency**

Route	Current Frequency
Airedale	4 trains per hour, 2 trains per hour to Leeds and Bradford - 4 trains per peak hour to Leeds Additional services between Leeds and Carlisle/Morecambe in some hours
Caldervale	Stations have 2 or more trains per hour to Bradford and Leeds, with the exception of Mytholmroyd, Sowerby Bridge, Walsden which effectively have an hourly journey to Leeds and Bradford
Dearne Valley	2 trains per day Sheffield and York
Hallam	1 train per hour at Darton and Normanton – 2 trains per peak hour 2 trains per hour at Castleford and Woodlesford - 3 trains per peak hour
Harrogate	1 train per hour at Cattal, Hammerton and Poppleton – 2 trains per peak hour 2 trains per hour at stations between Knaresborough and Leeds – 4 trains per peak hour
Huddersfield	1 train per hour between Huddersfield and Wakefield, 1 train per hour from Brighouse to Leeds, Manchester, Bradford and Huddersfield 1 train per hour at Cottingley and Ravensthorpe – 2 trains per peak hour 2 trains per hour from other stations between Mirfield and Leeds – 3 trains per peak hour 4 trains per hour at Dewsbury – 6 trains per peak hour 1 train per hour between Huddersfield and Manchester Victoria – 2 trains per peak hour
Leeds – Bradford Forster Square	4 trains per hour to Bradford, 2 trains per hour to Leeds and Ilkley
Penistone	1 train per hour between Huddersfield, Barnsley and Sheffield
Pontefract	1 train per hour between Leeds and Knottingley
Wakefield Line	1 train at stations south of Fitzwilliam – 2 trains per peak hour from Doncaster 2 trains per hour at stations between Fitzwilliam and Leeds – 3 trains per peak hour (except Sandal & Agbrigg)

Route	Current Frequency
Wharfedale Line	4 trains per hour, 2 trains per hour to Leeds and Bradford – 4 trains per peak hour to Leeds
York and Selby	Less than hourly at Ulleskelf and Church Fenton 1 train per hour at South Milford – 2 trains per peak hour 2 trains per hour from Selby to Leeds – 3 trains per peak hour 3 trains per hour at Garforth – 6 trains per peak hour

The frequency and journey times of some services in West Yorkshire fall short of what is required to deliver the rail objectives. Journey times on some offer a poor alternative to car, for example the 60 minute journey between Bradford and Manchester. The hourly frequency offered on many local routes is not attractive to car users who can travel when they wish.

## Evidence 2: Demand and Crowding

The following graph shows the total annual trips to (exit) and from (entry) each of the busiest stations in West Yorkshire, (defined as those stations which collectively account for 90% of the total trips to and from stations in West Yorkshire). For clarity, because the Leeds' data is so large it has not been drawn on the following graph.

**Figure 8: Trips to and from Stations in West Yorkshire**

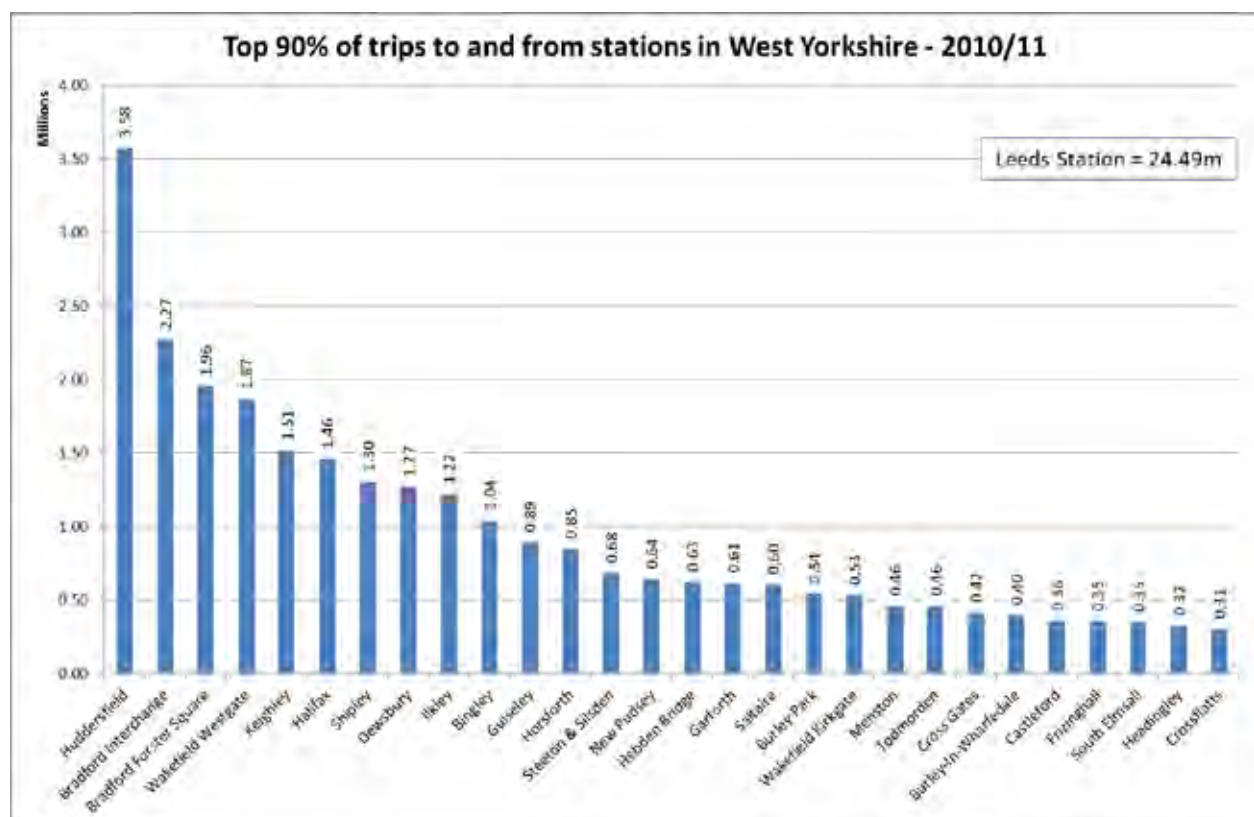
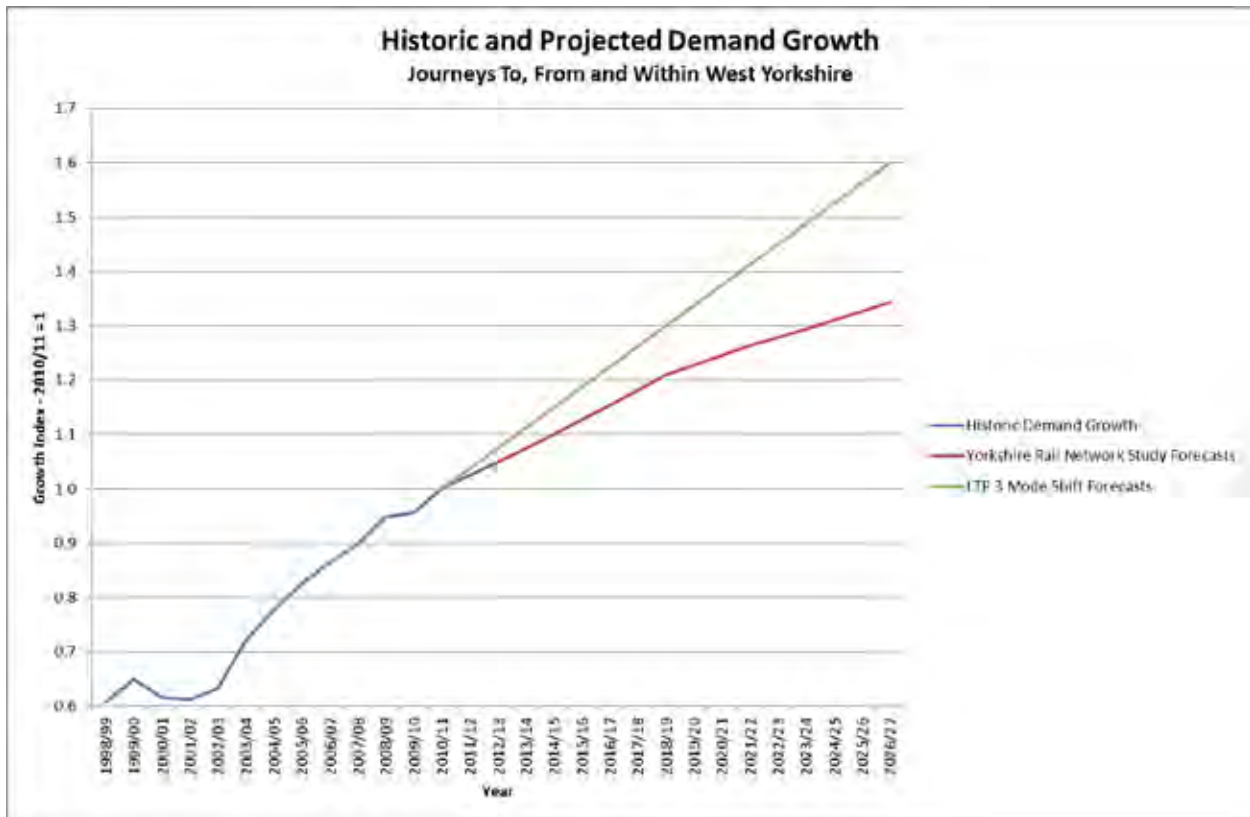


Figure 8 shows that Leeds (24.49m) is the largest rail market in West Yorkshire, followed by Bradford (Interchange and Forster Square combined) at 4.23m, with the sub regional centres of Huddersfield (3.58m) and Wakefield (2.40m) also handling large flows.

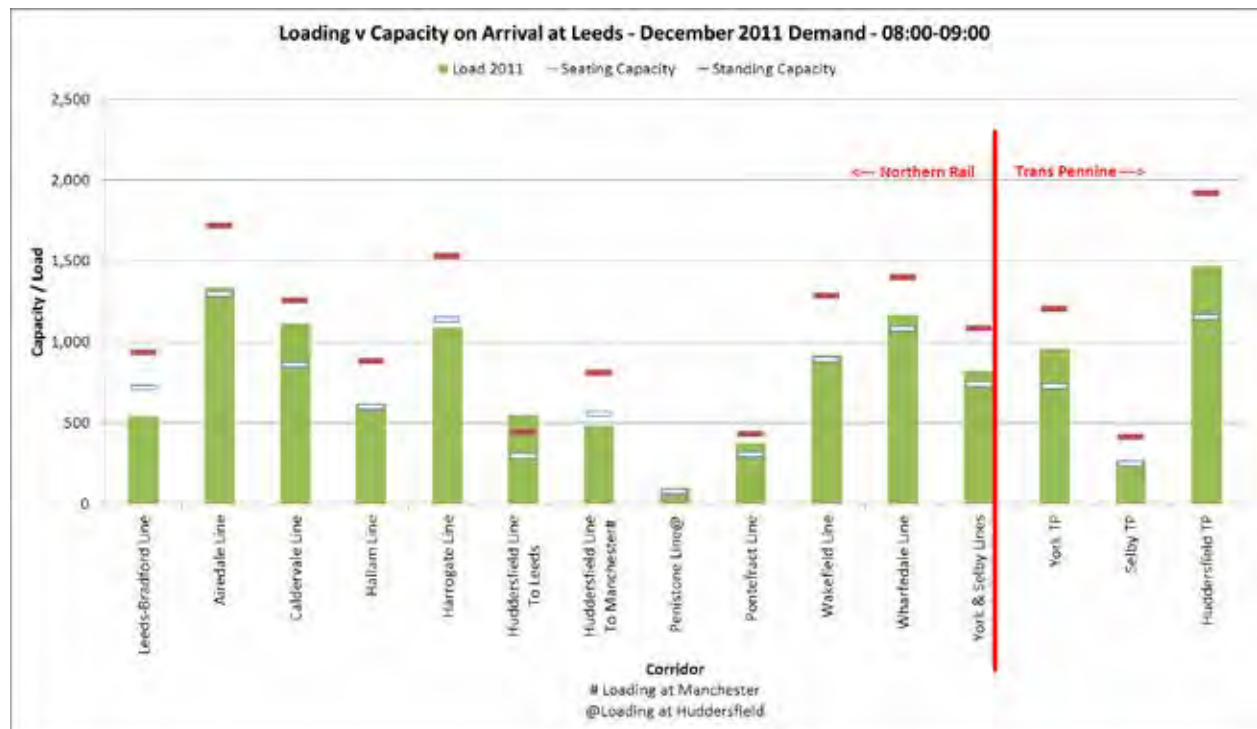
The rail network has seen significant demand growth over the past decade, as shown in Figure 9. This also illustrates that demand is forecast to continue growing, with the Yorkshire Rail Network Study forecasts suggesting demand across West Yorkshire could be in excess of 30% by the end of the RailPlan period in 2026, and analysis considering mode shift from car suggesting growth of 60%.

**Figure 9: Historic and Future Demand Growth**



The following graph shows the current seating and total capacity on each corridor for journeys to Leeds along with the current demand (load) on those services. The capacity and load data is per single AM peak hour. While some corridors will experience crowding at other locations the most significant crowding is found on services to and from Leeds.

**Figure 10: Current Peak Demand and Capacity by Line**



This shows that already demand on most corridors in the morning peak hour exceeds seating capacity on many corridors, most notably on services from the Caldervale Line and on Trans Pennine services in the Huddersfield and York corridors. The graph shows that demand on local services on the Huddersfield Line exceeds the total seating and standing capacity.

It is not yet known what additional capacity may be provided during the rail Control Period 5 (2014 – 2019). However without investment there is limited infrastructure capacity and rolling stock resources to deliver significant increases in passenger capacity.

### Evidence 3: Reliability

For the purpose of RailPlan reliability is taken to be the Public Performance Measure (PPM). This is the rail industry measure of the reliability of rail services (whether they run or not) and service punctuality (whether they run on time). PPM is the percentage of trains arriving at their destination, having stopped at all planned stations, and within a specified lateness margin. The lateness margin is 5 minutes for shorter distance services and 10 minutes for longer distance services.

Northern Rail operates the majority of services in West Yorkshire. Details of Northern Rail's Moving Annual Average (MAA) to December 2011 PPM by service are provided in the graph in Figure 11.

Figure 11: Northern Rail's MAA PPM

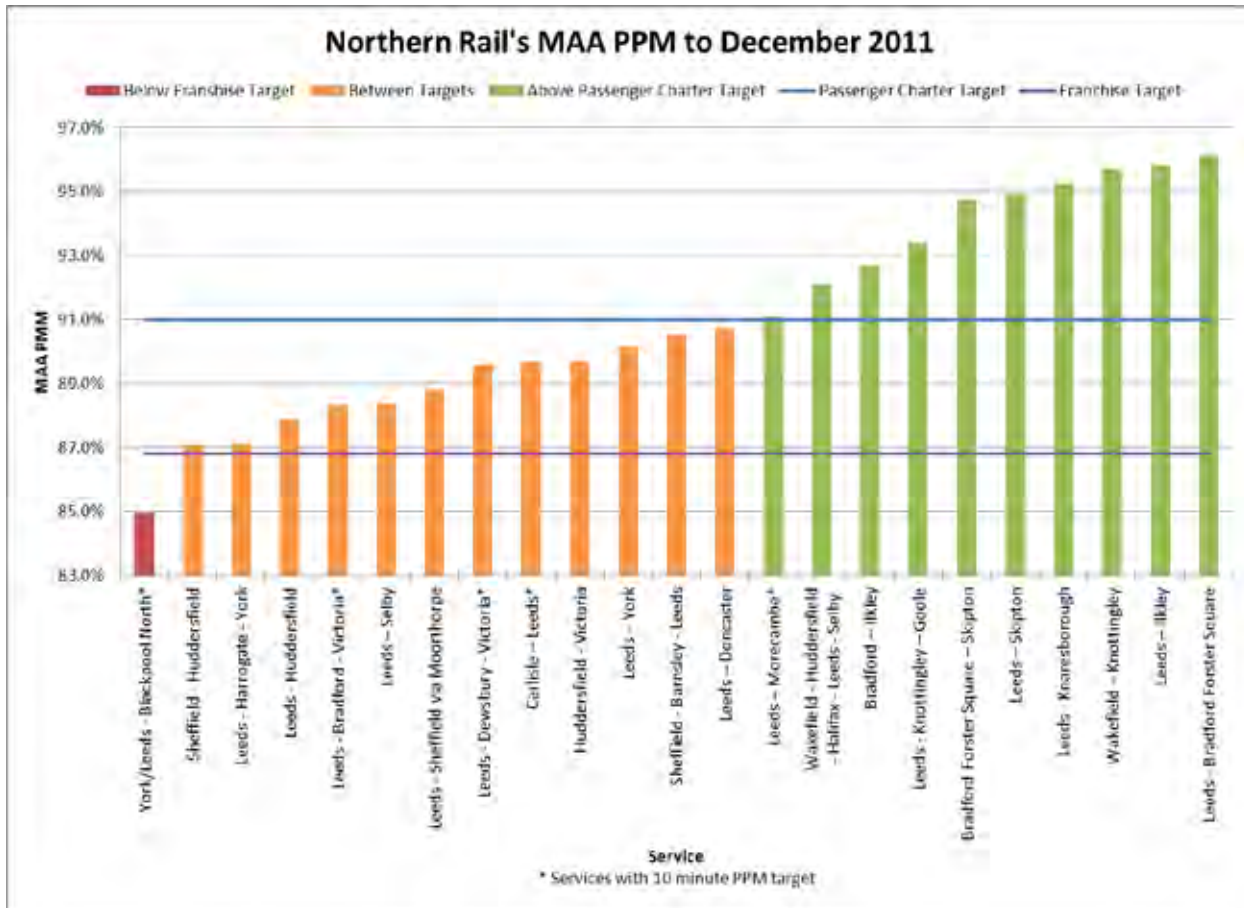


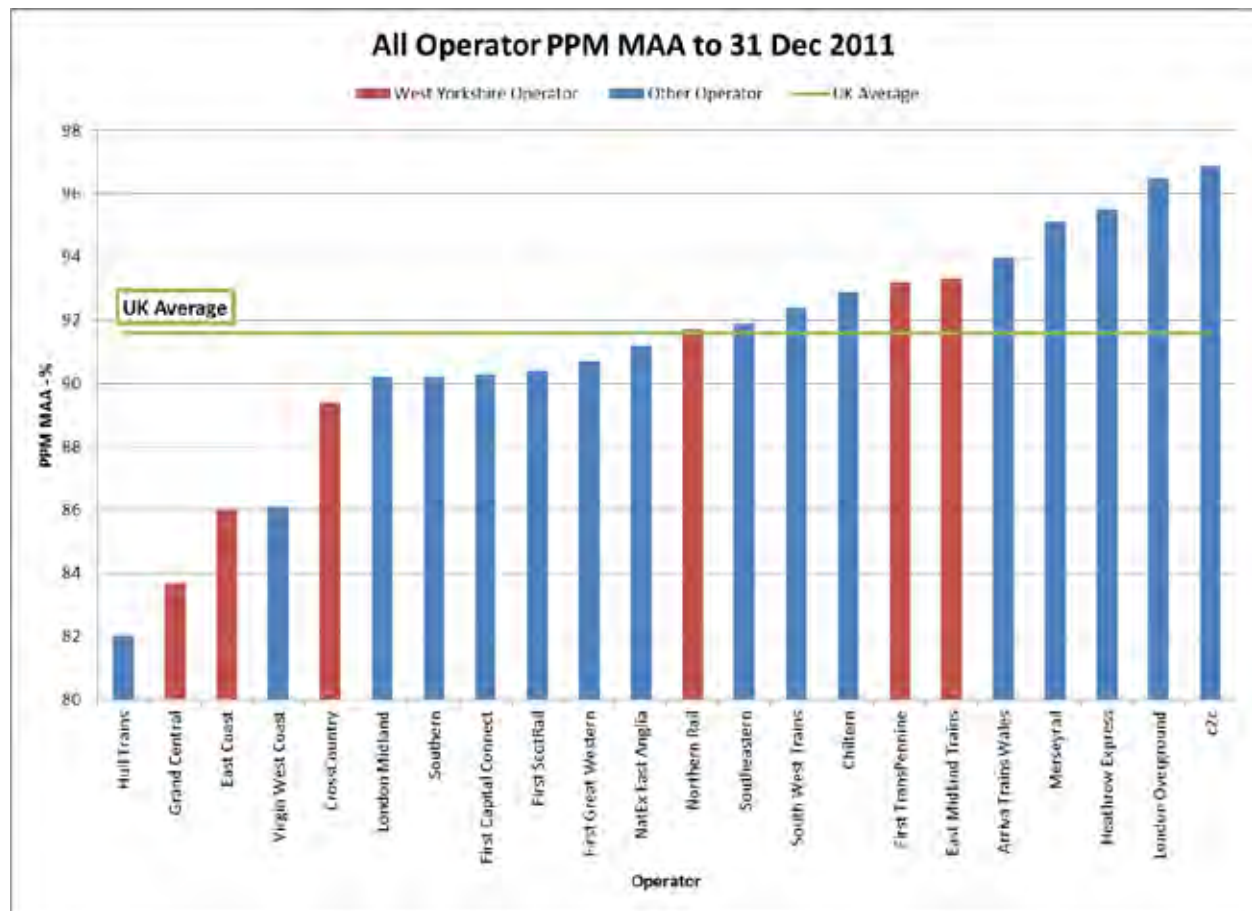
Figure 11 shows the PPM position for each route operating in West Yorkshire compared to Northern Rail's passenger charter PPM target for services in West and North Yorkshire (91.0%) and Northern Rail's agreed franchise target (86.8%). There is notable variation in PPM between different services, ranging from 85% for services between York and Blackpool to 96% for services between Leeds and Bradford Forster Square. The average PPM measure across all services in West Yorkshire is 91.7%, as illustrated in Figure 12.

First TransPennine Express services from the North East, Scarborough and Hull to Manchester and Liverpool recorded MAA PPM of 95% to January 2012 compared to the PPM target for these routes of 88%.

Figure 12 shows how Northern and First TransPennine Express service performance compares to other operators. This shows that Northern are currently performing at the national average while First TransPennine Express are currently performing better than the national average. Operators in West Yorkshire have their bars highlighted red.



Figure 12: All Operators' MAA PPM



## Evidence 4: Integration

In the context of this RailPlan, integration covers three aspects.

- **Interchange Between Modes** – the physical act of interchanging between modes, which is an essential element of travelling by rail as all journeys have an ultimate origin and destination that is away from the station itself;
- **Multi Modal Ticketing** – integration of ticketing between modes, for example through multi modal tickets, which allow passenger to seamlessly interchange between modes without delay in purchasing additional tickets; and
- **Information** – the provision of integrated information to simplify planning multi modal journeys.

### Interchange Between Modes

**Walk Access** is the most common mode for users accessing the rail network – 46% across West Yorkshire. The accessibility of stations for pedestrians and the quality of the walking routes between stations and the areas they serve varies considerably across West Yorkshire.

**Car access** is also an important access mode at many stations. Around 26% access the rail network by car across West Yorkshire. Most stations across West Yorkshire have car parks. A summary of the stations and the car parking capacity is provided in the Evidence Appendix However the car parks across the network vary and serve a variety of purposes.

Large car parks are provided at Wakefield Westgate (£7.00 per day) and Leeds (£14.00 per day for rail users). The cost of parking will make use of these car parks prohibitively expensive for those making local rail journeys. The car parks at these stations are aimed at those making longer distance inter-city and inter-regional trips. Notably Bradford Interchange does not have a dedicated rail car park.

There are also a range of stations across West Yorkshire that have large car parks providing park and ride opportunities for journeys predominantly to Leeds, including for example, New Pudsey and Garforth. These car parks are free to use.



Most other stations also have some car parking facilities, varying in size from a few spaces up to 100 spaces. These car parks are also free to use and provide important local access to the rail network.

Much of the car parking capacity in West Yorkshire is fully used for commuter journeys, with the park and ride and local station car parks being full before 08:30.

**Bus Access** - most regional and sub-regional centre stations have good connections to the local bus services, for example:

- Bradford Interchange, is an integral part of the bus station, there is also a Free City Bus linking the station to other city centre locations;
- Leeds has a range of bus services at the station and many other services are a short walk away, although the bus station is some a 10 minute walk (900 m) from the station. The City Bus links the rail station with the bus station and other local bus stops;
- Wakefield Westgate – the bus station is a 10 minute walk (900 m), The Free City Bus links the rail station with the bus station and other local bus stops;
- Huddersfield – the bus station is a 5 minute walk (400 m), The Free City Bus links the rail station with the bus station and other local bus stops; and
- Halifax – the bus station is a 7 minute walk (600 m).

At other locations there are less opportunities for interchange between bus and rail.



## ***Multi Modal Ticketing***

There is a perception by current and potential rail users that rail fares are too expensive. In reality, rail fares within West Yorkshire offer good value and, in most cases, are competitive with bus. Metro also offers a comprehensive range of multi-modal daily, weekly, monthly and annual tickets.

However there are some limitations on the ticket range at present. For infrequent passengers there is no peak period multi modal day ticket for combined bus and rail travel, which means passengers wishing to make a multi modal journey before 09:30 must purchase separate bus and rail tickets.

PlusBus is available at the regional and sub regional centres throughout West Yorkshire but the cost, at £3.00, is probably not competitive unless the onward journey is outside the city centre. PlusBus is not available outside these areas.

Neither the bus and rail Metro day tickets nor PlusBus are available to purchase on buses. Therefore those wishing to use such tickets must plan their journey, and purchase the ticket, in advance of travelling.

## ***Information***

Metro, working with local transport providers, works to provide integrated transport information. This includes providing free bus and rail timetables leaflets and posters at bus stops and rail stations. Metro also provide journey enquiry tools via the Metro website and operates travel centres at six major centres in West Yorkshire.

## **Evidence 5: Journey Experience**

A combination of factors contributes towards passengers' perception of overall journey quality including:

- **Rolling stock** – ranges from former British Rail rolling stock that is now over 25 years old on some routes, including Calderdale, Harrogate and Hallam, to more modern electric and diesel rolling stock on the Airedale/Wharfedale Lines and the Trans-Pennine services. Some of the older rolling stock offers poor access and space for those with disabilities, buggies, bikes and luggage;
- **On train facilities** – facilities on some services do not suit the mix of short and longer distance travel being made, for example the Leeds – Nottingham and York – Blackpool services serve longer distance business travel markets but do not offer the level of on train facilities that might be expected, for example refreshments and WiFi;
- **Station facilities** – a range of station facilities are on offer at stations throughout West Yorkshire. In general the major regional and sub-regional centre stations offer a good level of facilities including ticket and information offices, customer information screens, refreshments, covered platforms and toilet facilities. However the facilities at local stations vary, with some not having step free access, information screens, ticket machines and other facilities;



- **Journey Opportunities** – passengers will also consider journey frequency, fares, the ability to find a seat and reliability as part of the overall journey experience. These factors have been considered separately.

The Northern Rail franchise monitoring regime focuses on assets and not the overall journey experience.

## Evidence 6: Freight

There a number of freight flows across West Yorkshire that deliver important benefits to West Yorkshire, the north of England and the UK as a whole. The key freight corridors and freight terminals in West Yorkshire are illustrated in Figure 2 in Chapter 2. The important freight flows to and through West Yorkshire are summarised in Section 3.2.

Significant growth is forecast in rail freight traffic, specifically the movement of intermodal containers. The following table shows the forecast growth in rail freight for the period 2006 to 2030. While the recession has constrained growth in rail freight over the past few years the long term trend for growth is expected to continue.

**Figure 13: Forecast Freight Growth (Source: Northern Route Utilisation Strategy)**

	Billion Tonne Km		
	2006	2030	Absolute Growth
Solid fuels	8	5	-38%
Construction	4	5	25%
Metals and ore	3	3	0%
Ports non-bulk	4	17	325%
Domestic non-bulk	1	12	1100%*
Other	3	3	0%
<b>Total</b>	<b>23</b>	<b>45</b>	<b>96%</b>

\* This is an emerging market for rail freight.

Figure 13 shows the volume of freight movement nationally on the rail network is forecast double between 2006 and 2030, from 23 to 45 billion tonne Kms. This increase is driven by the growth in



non-bulk (intermodal container) traffic to and from ports and within the UK. At a national level the demand for solid fuel traffic (primarily coal for electricity generation) is forecast to decline. However the lifetime of the Aire Valley power stations, and the possible move to burning less dense bio mass, means the movement of solid fuels through West Yorkshire is likely to remain constant, and may grow.

It is important for the economy and the environment that sufficient capacity is provided on the rail network to allow the forecast growth in rail freight to be achieved, alongside accommodating the planned growth in passenger demand.

Some of the additional freight volume will be delivered by operating longer trains and carrying larger intermodal containers. However to achieve this there is a need to invest in infrastructure, both on the rail network and at terminals, to handle longer freight trains with larger loading gauges. However it is inevitable that additional freight services will be needed and this will place pressure on key parts of the network where passenger and freight services share infrastructure. In West Yorkshire the key capacity constraints are:

- The western approaches to Leeds station, where freight movements from the Airedale Line cross the station approaches;
- Access to the key intermodal container terminals at Leeds Freight Liner Terminal and Wakefield Europort which interact with passenger services on the Hallam and Pontefract Lines; and
- The aspiration for more trans Pennine intermodal freight movements, which will interact with Leeds - Manchester passenger services.

## Evidence 7: Carbon Emissions

The West Yorkshire Local Transport Plan and Central Government have overarching objectives to reduce the carbon emissions of the transport industry. Emissions from the rail network are generally lower than those from the private car and accommodating a higher rail mode share will support achieving the carbon objectives.

Emissions from rail services vary significantly based on the type of rolling stock used and particularly whether services are diesel or electric. A typical local rail service operated by a diesel unit emits around 90 grams of carbon dioxide per passenger Km whereas an electric equivalent emits around 60 grams. This compares to over 150 grams per private car passenger Km.



### 3.3. Gap Analysis

This section identifies the key issues emerging from a gap analysis of where the current rail network (including committed schemes) is likely to restrict achievement of the Vision and Rail Objectives set out in Chapter 2. These gaps will help inform the development of the Strategy and Implementation Plan that follow in later Chapters.

Identifying the gaps will allow us to work with rail industry partners and stakeholders to identify and develop those interventions that will have the greatest impact on supporting the delivery of the Vision.

The table in Figure 14 summarises the gaps that have been identified, arranged around the seven evidence categories set out earlier in this Chapter. The table highlights how each gap is preventing the achievement of the Vision and Rail Objectives, described in Chapter 2. It also highlights potential actions to address the gap, which are presented subsequently in Chapter 4.

**Figure 14: Gap Analysis**

<b>Rail Objectives</b> <b>Where we want to be</b>  (Ref Chapter 2)	<b>Evidence</b> <b>How the current network prevents achieving objectives</b>  (Ref Chapter 3)	<b>Action</b> <b>Proposals to address the gap</b>  (Ref Chapter 4)
<b>Evidence 1: Connectivity</b>		
<b>Gap 1 : Train Service Frequency</b> <b>A number of West Yorkshire stations still have poor train service frequencies which will not support proposed housing and jobs ‘growth points’.</b>		
<b>Rail Objective 1:</b> To double rail patronage	<b>Evidence 1:</b> Frequency of services and journey times on some routes is not attractive compared to other modes which will limit sustainable economic growth	<b>Proposal 1:</b> Deliver more frequent journeys to and between the key regional centres
<b>Gap 2 : Journey Times</b> <b>Rail journeys to other key cities such as Manchester and Sheffield are slow. In some cases, the train journeys are longer than the car journey.</b>		
<b>Rail Objective 2:</b> To improve passenger satisfaction scores	<b>Evidence 1:</b> Journey times on some routes are not as attractive as other modes, particularly car	<b>Proposal 1:</b> Deliver quicker journeys to and between the key regional centres
<b>Gap 3 : Leeds Station Track Capacity</b> <b>The track and signalling around Leeds station cannot deliver more frequent and longer trains needed to accommodate future demand growth.</b>		
<b>Rail Objective 3:</b> To develop a rail network that is more affordable to use, invest in and run	<b>Evidence 1:</b> The frequency of services on some routes is not attractive and capacity at Leeds restricts more frequent services  <b>Evidence 2:</b> Track capacity currently restricts operating more frequent trains to deliver additional passenger capacity  <b>Evidence 3:</b> The current track layout at Leeds station can contribute to delay	<b>Proposal 1:</b> Consideration of new infrastructure at and around Leeds station to facilitate more frequent and longer trains and improvements to reliability

<b>Rail Objectives</b> <b>Where we want to be</b>  (Ref Chapter 2)	<b>Evidence</b> <b>How the current network prevents achieving objectives</b>  (Ref Chapter 3)	<b>Action</b> <b>Proposals to address the gap</b>  (Ref Chapter 4)
<b>Gap 4 : Corridor Track Capacity</b> <b>Inadequate track capacity means it is difficult to accommodate local passenger services, faster long distance passenger services and freight.</b>		
<b>Rail Objective 1:</b> To double rail patronage	<b>Evidence 1:</b> Network capability on some routes prevents more frequent and quicker services <b>Evidence 2:</b> Track capacity prevents more frequent trains to accommodate peak demand <b>Evidence 3:</b> Infrastructure can contribute to poor reliability on some corridors	<b>Proposal 1:</b> Enhanced infrastructure to facilitate quicker and more frequent services and improvements to reliability
<b>Gap 5 : Train Depot Capacity</b> <b>The train depots cannot accommodate any more trains for repairs and maintenance. Additional capacity is required to accommodate future growth.</b>		
<b>Rail Objective 1:</b> To double rail patronage	<b>Evidence 1:</b> Insufficient depot capacity to accommodate the rolling stock required to deliver improved connectivity <b>Evidence 2:</b> Depot capacity required to accommodate longer trains <b>Evidence 3:</b> Depot capacity & maintenance practices can contribute to poor reliability	<b>Proposal 3:</b> Additional depot capacity and best maintenance practices to reliably deliver an expanded train fleet
<b>Gap 6 : Cost of Running Trains</b> <b>Northern Rail franchise receives about £1m a day in subsidy from the taxpayer - one of the highest in the country.</b>		
<b>Rail Objective 3:</b> To develop a rail network that is more affordable to use, invest in and run	<b>A key overarching theme for this RailPlan is to improve the value for money of the rail network to the fare payer and the tax payer</b> <b>Evidence 1:</b> Connectivity, particularly during the off peak periods, can limit the attractiveness of rail	<b>Proposals 1 - 7:</b> Enhancements to the rail network must deliver value for money targets and utilise off peak capacity

<b>Rail Objectives</b> <b>Where we want to be</b>  (Ref Chapter 2)	<b>Evidence</b> <b>How the current network prevents achieving objectives</b>  (Ref Chapter 3)	<b>Action</b> <b>Proposals to address the gap</b>  (Ref Chapter 4)
<b>Evidence 2: Crowding</b>		
<b>Gap 7 : Train Capacity</b> <b>Peak trains are already at capacity on many routes into Leeds and demand is forecast to continue to grow. Without additional capacity demand growth will be restricted which will in turn restrict economic growth.</b>		
<b>Rail Objective 1:</b> To double rail patronage  <b>Rail Objective 4:</b> To exploit the benefits of high speed rail when it arrives in West Yorkshire in the 2030s	<b>Evidence 2:</b> Crowding levels are currently restricting demand growth	<b>Proposal 2:</b> Deliver additional capacity through longer or more frequent services and spreading demand
<b>Gap 8 : Train Strengthening</b> <b>The quality and quantity of rolling stock available to the Northern franchise makes it difficult to deliver planned train capacity for local services.</b>		
<b>Rail Objective 1:</b> To double rail patronage	<b>Evidence 2:</b> Failure to deliver planned capacity during the peak period causes significant overcrowding  <b>Evidence 3:</b> Short formed trains in the peak period are often delayed as passengers queue to board trains	<b>Proposal 2:</b> Additional new or refurbished rolling stock to consistently delivery required train formations and standardise rolling stock, improve poorest performing routes
<b>Evidence 3: Reliability</b>		
<b>Gap 9 : Train Performance</b> <b>Rail performance varies across West Yorkshire and on-going poor reliability will deter passengers from travelling by rail.</b>		
<b>Rail Objective 2:</b> To improve passenger satisfaction scores	<b>Evidence 3:</b> Many routes do not meet Northern Rail's internal performance targets At a national level Northern Rail's performance is average	<b>Proposal 3:</b> Additional new or refurbished, standardised rolling stock to deliver improved reliability, improve track infrastructure reliability and reduce cable thefts



<b>Rail Objectives</b> <b>Where we want to be</b>  <b>(Ref Chapter 2)</b>	<b>Evidence</b> <b>How the current network prevents achieving objectives</b>  <b>(Ref Chapter 3)</b>	<b>Action</b> <b>Proposals to address the gap</b>  <b>(Ref Chapter 4)</b>
<b>Evidence 4: Integration</b>		
<b>Gap 10 : Stations as Gateways</b> <b>The facilities and passenger capacity at Leeds station are not considered sufficient given the anticipated demand growth.</b> <b>Other West Yorkshire stations are not seen as welcoming gateways to cities and towns, which limits the attractiveness of rail.</b>		
<b>Rail Objective 2:</b> To improve passenger satisfaction scores	<b>Evidence 4:</b> Stations do not provide access to the rail network and journey experience that passengers expect There are perceived concerns over personal safety and security at some stations <b>Evidence 5:</b> The Northern Rail franchise monitoring regime focuses on assets and not the overall journey experience	<b>Proposal 5:</b> Provide high quality station facilities, that encourage rail use Improved quality monitoring system
<b>Gap 11 : Car Parking Capacity</b> <b>The majority of rail station car parks are already full before the end of the morning peak period, which prevents potential passengers accessing the rail network, particularly in the inter peak periods.</b>		
<b>Rail Objective 1:</b> To double rail patronage <b>Rail Objective 2:</b> To improve passenger satisfaction scores	<b>Evidence 4:</b> Most car parks are full by 08:30. Car park capacity is restricting demand rail demand growth, particularly during off peak periods	<b>Proposal 4:</b> Provision of sufficient car parking capacity to facilitate a doubling of rail demand
<b>Gap 12 : Integration with Sustainable Modes</b> <b>Passengers find it difficult to connect with other transport modes at some stations.</b> <b>Signage in the locality of some stations does not encourage walking and cycling journeys to and from the station.</b>		
<b>Rail Objective 1:</b> To double rail patronage <b>Rail Objective 2:</b> To improve passenger satisfaction scores	<b>Evidence 4:</b> To double rail demand while mitigating against the negative environmental impacts of car access there is a need to improved sustainable access to the rail network.	<b>Proposal 4:</b> Improvements to sustainable access including improved walking and cycling routes and facilities and improved integration between bus and rail networks

<b>Rail Objectives</b> <b>Where we want to be</b>  <b>(Ref Chapter 2)</b>	<b>Evidence</b> <b>How the current network prevents achieving objectives</b>  <b>(Ref Chapter 3)</b>	<b>Action</b> <b>Proposals to address the gap</b>  <b>(Ref Chapter 4)</b>
<b>Gap 13 : Fares and Ticketing</b> <b>Concern about lack of passenger value for money is discouraging more rail use.</b>		
<b>Rail Objective 1:</b> To double rail patronage <b>Rail Objective 2:</b> To improve passenger satisfaction scores	<b>Evidence 4:</b> There is a perception that fares do not provide value for money Single day multi modal tickets are restrictive	<b>Proposal 4:</b> Provide walk on multi modal tickets that are available all day. Implement smart cards / other ticket solutions and products that reflect modern day working and travel practices
<b>Gap 14 : Buying a ticket</b> <b>It is not possible to buy a ticket at all West Yorkshire stations as many do not have a ticket office or ticket vending machine. On train ticket conductors are not always able to sell customers a ticket due to overcrowded trains or faulty ticket machines. There is evidence of significant numbers of customers travelling without a valid ticket in West Yorkshire.</b>		
<b>Rail Objective 3:</b> To develop a rail network that is more affordable to use, invest in and run	<b>Evidence 4:</b> Single day multi modal tickets are not available in the peak period as walk on fares <b>Evidence 5:</b> Passengers are not able to buy tickets at all stations	<b>Proposal 4:</b> Provide walk on multi modal tickets that are available all day. Implement smart cards and products that reflect modern day working and travel practices <b>Proposal 5:</b> Provide facilities at stations to enable passengers to purchase tickets and install barriers at principal stations
<b>Gap 15 : Quality of Information</b> <b>Quality of real-time information is not accurate enough at times of service disruption. Visual real-time information is not available at every station. Customers tell us that disruption is one of the key factors discouraging rail travel.</b>		
<b>Rail Objective 2:</b> To improve passenger satisfaction scores	<b>Evidence 5:</b> The available information is not always suitable for those planning a multi modal journey. Information at times of disruption does not meet passengers expectations	<b>Proposal 4:</b> Provision of information to make planning a multi modal journey more simplistic. Better use of real time information through modern communication channels, as well as provision of visual and audible information at all stations

<b>Rail Objectives</b> <b>Where we want to be</b>  <b>(Ref Chapter 2)</b>	<b>Evidence</b> <b>How the current network prevents achieving objectives</b>  <b>(Ref Chapter 3)</b>	<b>Action</b> <b>Proposals to address the gap</b>  <b>(Ref Chapter 4)</b>
<b>Evidence 5: Journey Experience</b>		
<b>Gap 16 : Train Quality</b> <b>The poor quality facilities offered by some rolling stock do not meet with passenger’s expectation of a modern transport system, which deters rail use.</b>		
<b>Rail Objective 2:</b> To improve passenger satisfaction scores	<b>Evidence 5:</b> Existing stock does not provide the modern facilities and quality passengers expect  The Northern Rail franchise monitoring regime focuses on assets and not the overall journey experience	<b>Proposal 5:</b> Additional new or refurbished rolling stock to deliver enhanced passenger quality and facilities  Improved quality monitoring system
<b>Gap 17 : Train Accessibility</b> <b>Not all of the trains serving West Yorkshire are fully accessible for people with disabilities, and those with buggies, luggage and bicycles.</b>		
<b>Rail Objective 2:</b> To improve passenger satisfaction scores	<b>Evidence 5:</b> Older rolling stock does not offer easy access for those with disabilities, pushchairs, bikes and luggage	<b>Proposal 5:</b> Additional new or refurbished rolling stock to meet accessibility standards
<b>Gap 18 : Station Accessibility</b> <b>Passengers with mobility problems or with shopping, luggage or pushchairs find it difficult accessing platforms at stations which do not have ramps or lifts.</b>		
<b>Rail Objective 2:</b> To improve passenger satisfaction scores	<b>Evidence 5:</b> Not all stations meet accessibility standards	<b>Proposal 5:</b> Enhance stations to meet accessibility standards and improve access for those with buggies, luggage and bikes
<b>Gap 19 : Safety and Security</b> <b>Personal safety and security is a concern for passengers, which will deter potential rail users.</b>		
<b>Rail Objective 2:</b> To improve passenger satisfaction scores	<b>Evidence 5:</b> Passengers have a poor perception of personal safety and security at some stations	<b>Proposal 5:</b> Ensure stations and rolling stock provide modern personal safety and security facilities

<b>Rail Objectives</b> Where we want to be (Ref Chapter 2)	<b>Evidence</b> How the current network prevents achieving objectives (Ref Chapter 3)	<b>Action</b> Proposals to address the gap (Ref Chapter 4)
<b>Evidence 6: Freight</b>		
<b>Gap 20 : Freight Network Capability</b> <b>There are limited freight paths on core routes and at key points of the network to cater for growth in rail freight. The network capability in terms of length of freight passing loop and sidings prevents longer trains operating. The loading gauge prevents larger containers being moved on conventional wagons.</b>		
<b>Rail Objective 1:</b> To double rail patronage	<b>Evidence 1:</b> The mix of freight and passenger services in some corridors prevents more frequent passenger services  <b>Evidence 6:</b> Current capacity and the capability of the rail network to deliver more frequent, longer and larger services will constrain expected growth in rail freight	<b>Proposal 6:</b> Enhancements to the rail network must ensure that all rail freight growth can be delivered
<b>Evidence 7: Carbon Emissions</b>		
<b>Gap 21 : Carbon Emissions</b> <b>Only 30% of the rail network in West Yorkshire is electric. Diesel trains emit much more carbon.</b>		
<b>Rail Objective 3:</b> To develop a rail network that is more affordable to use, invest in and run	<b>Evidence 7:</b> Carbon Emissions	<b>Proposal 7:</b> Improvements to rail services should reduce carbon emissions in the area

## 4. Strategy

---

### 4.1. Introduction

This Chapter sets out RailPlan's Strategy for achieving the Vision and Rail Objectives set out in Chapter 2. It summarises the aspirational service specification, and station and service quality that Metro believe, and evidence suggests will, facilitate delivery of the Vision and Objectives. Chapter 3 sets out the Evidence and Issues and the gap analysis that identified where the current rail network (and what is programmed for the current rail network) is unlikely to deliver the Vision and Objectives.

This Strategy has been developed to address the gaps that are preventing the Vision and Rail Objectives from being achieved. This approach ensures that the strategy is focused on delivering interventions that will facilitate achieving the Vision and Rail Objectives.



This Chapter sets out Metro's broad aspiration for developing the rail network across West Yorkshire. However, it is essential that any investment in the rail network meets the overarching strategy and objectives set for the rail industry. Of specific importance is McNulty's challenge to the industry to increase the value delivered by the rail network by reducing the cost to the tax payer and passenger. While the strategy will enable Metro to achieve the Vision and Rail Objectives, it is important that doing so represents good value for money.

This RailPlan, specifically Chapter 5 (Implementation Plan), seeks to record known opportunities that will deliver the strategy, as set out in this Chapter. Metro will work with local stakeholders to develop these schemes and others that will deliver the strategy. However these schemes must represent value for money. In developing the schemes, the economic case for investment must be considered to determine whether the scheme is worthwhile and identify priorities for investment. If no suitably affordable and value for money scheme can be identified then it may not be possible to deliver the strategy in full.

The Implementation Plan in Chapter 5 sets out a number of solution types that Metro will consider for development to deliver the rail strategy. These are types of interventions that will allow the identified gaps to be closed and the rail objectives to be delivered. The individual route plans include specific proposals that correspond to the solution types identified.

The Strategy is set out as a series of Rail Proposals shown below. Each proposal includes reference to the gaps (reference to Chapter 3) that would be addressed by achieving the proposal and the solution types (reference to Chapter 5) required to deliver that proposal.

## 4.2. Rail Proposals

These Rail Proposals set out what the evidence suggests the rail network needs to do to achieve the Vision and Objectives and support sustainable economic growth across West Yorkshire.

The Proposals have been informed by evidence presented as part of the Yorkshire Rail Network Study drawing on established evidence and analysis of the economic benefits of improving rail services across the Leeds and Sheffield City Regions. There is a clear link between these Proposals and sustainable economic growth in our area.

The seven Rail Proposals have been identified as follows:

- **Proposal 1: Connectivity** – Provide improved all day connectivity through quicker, and more frequent and more direct services to, from and between the key economic centres on weekdays, Saturdays and Sundays, not just within West Yorkshire, but across the North of England;
- **Proposal 2: Crowding** – Provide sufficient capacity to meet continuing passenger growth;
- **Proposal 3: Reliability** – Improve rail reliability and punctuality;
- **Proposal 4: Integration** – Provide high quality integration between rail and other modes;
- **Proposal 5: Journey Experience** – Provide trains and stations which offer more modern and environmentally sustainable facilities and are accessible to more people including meeting the relevant DDA requirements;
- **Proposal 6: Freight** – Ensure sufficient network capacity and capability to enable forecast freight growth in West Yorkshire; and
- **Proposal 7: Carbon Emissions** – Minimise the carbon footprint and emissions of rail travel

Proposal 1: Connectivity									
<p><b>Strategy: Provide improved all day connectivity through quicker, more frequent and more direct services to, from and between the key economic centres on weekdays, Saturdays and Sundays, not just within West Yorkshire, but across the North of England</b></p>									
<p><b>Gaps Addressed (Chapter 3):</b> Gap 1 – Train Service Frequency Gap 2 – Journey Times Gap 7 – Train Capacity Gap 9 – Train Performance</p>	<p><b>Solution Types (Chapter 5):</b></p>								
	<table border="1"> <tr> <td><b>Trains &amp; Services</b></td> <td>New or refurbished rolling stock to deliver more frequent and faster journeys</td> </tr> <tr> <td><b>Infrastructure</b></td> <td>Additional and improved track capacity, including further electrification, to deliver increased frequency without detrimental impact on performance, and reduced journey times</td> </tr> <tr> <td><b>Stations</b></td> <td>Improved access, including car parks, to accommodate increased demand</td> </tr> <tr> <td><b>Tickets &amp; Information</b></td> <td>None</td> </tr> </table>	<b>Trains &amp; Services</b>	New or refurbished rolling stock to deliver more frequent and faster journeys	<b>Infrastructure</b>	Additional and improved track capacity, including further electrification, to deliver increased frequency without detrimental impact on performance, and reduced journey times	<b>Stations</b>	Improved access, including car parks, to accommodate increased demand	<b>Tickets &amp; Information</b>	None
	<b>Trains &amp; Services</b>	New or refurbished rolling stock to deliver more frequent and faster journeys							
	<b>Infrastructure</b>	Additional and improved track capacity, including further electrification, to deliver increased frequency without detrimental impact on performance, and reduced journey times							
<b>Stations</b>	Improved access, including car parks, to accommodate increased demand								
<b>Tickets &amp; Information</b>	None								

Evidence suggests that for the economies of the North of England to function effectively there is a need to provide quicker connectivity between the key economic centres not just within West Yorkshire, but across the North of England. In the context of this RailPlan, this means connections between Leeds and Bradford to and from other key regional centres such as Manchester, York and Sheffield.



The evidence also identifies that there are important economic benefits to be gained by enhancing rail connectivity between Leeds and Bradford and other sub-regional centres such as Halifax, Huddersfield and Wakefield.

As well as links between the regional and sub-regional centres, the rail network also provides connectivity for journey to work trips and opportunities to interchange to long distance services. The analysis shows that enhancements to such routes could also generate worthwhile economic benefit.

The evidence also highlights that any strategy focussed on enhancing connectivity for just one of these groups of movement would contribute to an unbalanced growth across Yorkshire. It is important that a targeted strategy that supports enhanced connectivity for each of these groups of movements is adopted.

This Proposal reflects these three different types of journeys: connectivity between regional centres; between regional and sub-regional centres; and from other stations to regional and sub-regional centres. It is important for all journey types that journey frequency targets apply to early morning, evening and weekend services.

### ***Inter-City Connectivity***

Long distance high speed services, including those to London, Birmingham and the South, the North East and Scotland, provide important gateways to and from Leeds, Wakefield, Bradford and other West Yorkshire towns. These services interact with many routes across the country and deliver important national as well as local economic benefits. Reflecting this, the planning and development of these services is undertaken at a national level.

It is not appropriate for this RailPlan, which focuses on improvements to the local rail network, to specify targets for the longer distance high speed services. This is because realising these benefits will be based on many factors that are outwith the control of the Local Transport Plan Partnership.

However the strategic context against which this RailPlan is set is fully supportive of improvements to longer distance high speed services including HS2. This RailPlan can be used to support the case for future improvements to longer distance high speed services.

### ***Regional Centre Connectivity***

The regional centres of Bradford and Leeds are the key economic centres within West Yorkshire. The evidence shows that enhancing the connectivity between these cities and other key economic

centres across the north of England, including York, Sheffield and Manchester, will accelerate economic growth.

The attractiveness of rail will be maximised by offering an even interval service with journey times recognisably faster than off-peak journeys by car. Station to station journey times should generally be equivalent to around 75% of the off-peak car drive time between the regional centres. The frequency target represents an improvement to current frequency. The target journey times and frequencies between the regional centres have been drawn from the Yorkshire Rail Network Study, and are summarised in the following table. These targets are conditional upon an affordable and value for money scheme being identified to deliver journey time savings.

**Figure 15: Regional Centre Connectivity Targets**

Route	Target Journey Time	Target No. of train per hour
Leeds – Manchester	40 minutes	6 trains per hour;
Leeds – Sheffield	35 minutes	2 trains per hour (and 2 semi-fast trains which provide a viable alternative to the fast trains);
Bradford – Manchester	50 minutes	2 trains per hour;
Bradford – Leeds	15 minutes	6 trains per hour, from either Forster Square or Interchange;
Leeds – York	20 minutes	6 trains per hour.

### **Sub-Regional Centre Connectivity**

There are important connections between Leeds and Bradford to sub-regional centres such as Halifax, Huddersfield, Wakefield, Barnsley and Harrogate.

The attractiveness of rail will be maximised by offering an even interval service with journey times recognisably faster than off-peak journeys by car. As identified by the Yorkshire Rail Network Study, even interval journey opportunities should be provided from Leeds and Bradford to these centres with an in train station to station journey time equivalent to 75% of off-peak car travel times. This represents a time where rail will be perceived as attractive compared to a car journey. It is recognised that it will be very challenging for rail to achieved some of the resulting targets as illustrated in Figure 16. Frequency should be at least two trains per hour all-day operating on an even interval pattern with additional services in the peak periods as the demand for increased capacity requires.

There is currently a two train per hour or better frequency between these destinations, with the exception of Huddersfield to Bradford, where there is currently an hourly service. Full delivery of the strategy would provide a half hourly service between Bradford and Huddersfield. The following table summarises the target journey time for journeys from each sub-regional centre to Leeds and Bradford, based on the 75% of the off peak car drive time. It also shows the journey time saving that would be achieved should this target be met. Achieving these journey time savings will be subject to economically viable and affordable solutions being identified.



**Figure 16: Sub-Regional Centre Connectivity Targets**

Sub Regional Centre	Journeys to Leeds		Journeys to Bradford	
	Target Journey Time	Saving Compared to Current Journey Time	Target Journey Time	Saving Compared to Current Journey Time
Harrogate	27	6	33	42
Halifax	19	13	21	Current time below target
Huddersfield	20	Current time below target	23	19
Wakefield	14	Current time below target	24	26
Barnsley	19	16	30	40

### Local Connectivity

The rail network in Yorkshire also forms a vital role in providing local rail journeys for commuting, business and leisure purposes to the regional and sub-regional centres as well as connectivity to longer distance services.

Local services are those typically stopping at all stations on the route in which they operate, for example Ilkley to Leeds. Local services to the regional centres of Leeds and Bradford and the other sub regional centres should have a minimum all-day service frequency of two trains per hour operating on an even interval timetable with additional services in the peak periods as the demand for increased capacity requires. The figure below shows those corridors where an increased frequency will be needed to deliver this strategy.



**Figure 17: Local Services Connectivity Targets**

Route	Target
Caldervale	Increase in frequency between Sowerby Bridge / Mytholmroyd and Leeds / Bradford Increased frequency between Huddersfield and Bradford
Dearne Valley	Given planned housing growth consider the case for a regular service to provide improved connectivity from Wakefield District to York and Sheffield
Hallam	Increased frequency at Darton and Normanton
Harrogate	Increase frequency between Harrogate and York

Route	Target
Huddersfield	Increased frequency between Huddersfield and Wakefield, Increased frequency from Brighouse, Cottingley and Ravensthorpe Increased frequency between Huddersfield and Manchester
Penistone	Increased frequency
Pontefract	Increased frequency, particularly important in this corridor given planned housing growth
Wakefield Line	Increased frequency south of Fitzwilliam
York and Selby	Increased services to York and Selby

Proposal 2: Crowding		
Strategy: Provide sufficient capacity to meet continuing passenger growth		
<b>Gaps Addressed (Chapter 3):</b> Gap 3 – Leeds Station Capacity Gap 5 – Train Depot Capacity Gap 6 – Cost of Running Trains Gap 7 – Train Capacity Gap 8 – Train Strengthening Gap 9 – Train Performance Gap 11 – Car Parking Capacity Gap 16 – Train Quality	<b>Solution Types (Chapter 5):</b>	
	<b>Trains &amp; Services</b>	Additional new or refurbished, standardised rolling stock to deliver more frequent services and/or longer trains
	<b>Infrastructure</b>	Additional track capacity to deliver increased frequency without detrimental impact on performance Longer platforms to accommodate longer trains or selective door opening Additional depot capacity to support a larger train fleet
	<b>Stations</b>	Improved access, including increased car park capacity to accommodate increased demand
	<b>Tickets &amp; Information</b>	Improved information provision and ticketing framework to encourage travel at off peak and shoulder peak periods and counter flow

Rail demand has grown rapidly over the past 15 years and this growth is forecast to continue. But sufficient capacity needs to be made available.

Evidence shows that there is limited available capacity to accommodate further growth. Passenger demand growth is the central factor determining the need for additional capacity. Even without further enhancements and the impact of strategies to encourage mode shift from car, the Yorkshire Rail Network Study forecasts rail demand to grow by up to 49% by 2026. Forecasting using the Urban Dynamic Model (a jobs/transport/land use model) identifies an aspiration for the rail network to cater for a doubling of rail demand to Leeds by 2026 in order to deliver the Local Transport Plans objectives.

Already peak period trains across West Yorkshire, and at other times, experience crowding. It is therefore essential that additional capacity is provided such that additional demand can be accommodated and the economic benefits this supports realised.

The Yorkshire Rail Network Study does not specify crowding levels other than the additional demand growth should be accommodated. It is clear that, with crowding on some services already significant, that additional growth should be accommodated without increasing the level of overcrowding. The targets, presented in Figure 18 below, are derived from existing benchmarks for acceptable levels of crowding in the West Yorkshire area. The measure is the current standard included in Northern Rail’s Passenger Charter and is consistent with other suburban railways across the country.

**Figure 18: Crowding Targets**

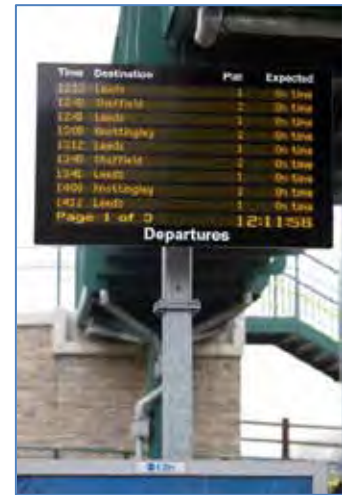
Factor	Crowding Target
Length of Stranding Journey	Passengers should not be expected to stand for more than 20 minutes. Passengers standing should be able to do so in relative comfort.
Overall Crowding	Services should not regularly exceed the total capacity of the rolling stock.

Proposal 3: Reliability	
Strategy: Improve rail reliability and punctuality	
<b>Gaps Addressed (Chapter 3):</b> Gap 1 - Train Service Frequency Gap 5 – Train Depot Capacity Gap 7 – Train Capacity Gap 8 – Train Strengthening Gap 9 – Train Performance Gap 20 – Freight Network Capacity	<b>Solution Types (Chapter 5):</b>
	<b>Trains &amp; Services</b>
	<b>Infrastructure</b>
	<b>Stations</b>
	<b>Tickets &amp; Information</b>

For the purpose of RailPlan reliability is defined as the rail industry Public Performance Measure, as defined in Chapter 3.

Poor performance, in terms of reliability, punctuality and delivering planned train capacity, can have a direct impact on passengers' perception of rail. Over time, passengers may choose to travel by alternative modes, or to not travel at all, which in turn can have negative economic impacts.

The Evidence shows there is currently significant variation between train performances on specific services within West Yorkshire. The reliability target has been set to address this variance and is presented in Figure 19 below.



**Figure 19: Reliability Target**

Reliability Target
95% of services should arrive within 5 minutes of planned time (10 minutes for longer distance services) to match the best performing corridors.

Proposal 4: Integration									
Strategy: Provide high quality integration between rail and other modes									
<b>Gaps Addressed (Chapter 3):</b> Gap 10 –Stations as Gateways Gap 11 – Car Parking Capacity Gap 12 – Integration with Sustainable Modes Gap 13 – Fare and Ticketing Gap 14 – Buying a Ticket Gap 15 – Quality of Information	<b>Solution Types (Chapter 5):</b>								
	<table border="1"> <tr> <td style="background-color: #D9E1F2;"><b>Trains &amp; Services</b></td> <td>Improve on train information provision Provide improved cycle storage on trains</td> </tr> <tr> <td style="background-color: #D9E1F2;"><b>Infrastructure</b></td> <td>None</td> </tr> <tr> <td style="background-color: #D9E1F2;"><b>Stations</b></td> <td>Increased car park capacity balanced with improvements to other more sustainable access modes including: Cycle, Walk, Bus, and Taxi.</td> </tr> <tr> <td style="background-color: #D9E1F2;"><b>Tickets &amp; Information</b></td> <td>           Improved provision of multi modal tickets that can be purchased on the day of travel from a range of outlets including local shops, ticket machines and conductors             Implement smart card technology / other ticket solutions e.g. bar codes and products that reflect modern day working and travel practices, taking into account cross boundary travel             Provision of information to support multi modal journeys         </td> </tr> </table>	<b>Trains &amp; Services</b>	Improve on train information provision Provide improved cycle storage on trains	<b>Infrastructure</b>	None	<b>Stations</b>	Increased car park capacity balanced with improvements to other more sustainable access modes including: Cycle, Walk, Bus, and Taxi.	<b>Tickets &amp; Information</b>	Improved provision of multi modal tickets that can be purchased on the day of travel from a range of outlets including local shops, ticket machines and conductors  Implement smart card technology / other ticket solutions e.g. bar codes and products that reflect modern day working and travel practices, taking into account cross boundary travel  Provision of information to support multi modal journeys
	<b>Trains &amp; Services</b>	Improve on train information provision Provide improved cycle storage on trains							
	<b>Infrastructure</b>	None							
<b>Stations</b>	Increased car park capacity balanced with improvements to other more sustainable access modes including: Cycle, Walk, Bus, and Taxi.								
<b>Tickets &amp; Information</b>	Improved provision of multi modal tickets that can be purchased on the day of travel from a range of outlets including local shops, ticket machines and conductors  Implement smart card technology / other ticket solutions e.g. bar codes and products that reflect modern day working and travel practices, taking into account cross boundary travel  Provision of information to support multi modal journeys								

All rail journeys form part of a multi modal journey, with passengers using a variety of modes to arrive at the station and to make the onward journey to their final destination. To maximise the attractiveness of rail as an alternative mode, particularly to the car, we need to ensure high quality integration between rail and other modes. Chapter 3 sets out three key considerations when making a multi modal journey, the physical interchange, the availability of multi modal tickets and information. The target is set out in Figure 20 below.



**Figure 20: Integration Target**

Consideration	Target
Interchange	<p>Balanced improvements to stations access including provision of</p> <ul style="list-style-type: none"> <li>- Sufficient car parking capacity to facilitate growth in rail demand</li> <li>- More attractive walking and cycling routes to stations including improved lighting, CCTV coverage, and cycle locker facilities</li> <li>- Better integration between bus and rail networks</li> </ul> <p>Consideration given to car park charges to encourage more sustainable access to the rail network and more optimal use of car parking capacity</p>
Multi Modal Tickets	<p>Through tickets and travel cards, so that passengers only need to buy a single ticket for a multi modal journey, and can buy this on the day of travel, and the use of smart card and other emerging ticket technology e.g. bar codes</p>
Information	<p>Provision of information, so that passengers can easily plan a multi modal journey</p>

Proposal 5: Journey Experience		
<p><b>Strategy: Provide trains and stations which offer more modern facilities and are accessible to more people including meeting the relevant DDA requirements</b></p>		
<p><b>Gaps Addressed (Chapter 3):</b>            Gap 7 – Train Capacity            Gap 10 – Stations as Gateways            Gap 16 – Train Quality            Gap 17 – Train Accessibility            Gap 18 – Station Accessibility            Gap 19 – Safety and Security</p>	<p><b>Solution Types (Chapter 5):</b></p>	
	<p><b>Trains &amp; Services</b></p>	<p>Additional new or refurbished, standardised DDA compliant rolling stock to provide improved access and more modern facilities including sufficient luggage and cycle storage            Improved quality monitoring system</p>
	<p><b>Infrastructure</b></p>	<p>None</p>
	<p><b>Stations</b></p>	<p>Improved station facilities to provide easy access to the rail network            Improved quality monitoring system</p>
	<p><b>Tickets &amp; Information</b></p>	<p>Improved accessible information for those with disabilities            Provide ticket machines at all stations and improved fare collection</p>

The quality of the journey experience is a critical element in passengers' decision to use rail. In particular, where there is a choice between rail and private car it is essential that a high quality rail offer is available to compete with the ability to enjoy your own space within a car. Passengers' perception of the quality of the journey encompasses many different factors, some of which have been captured elsewhere in this strategy including frequency and journey time, crowding and reliability. For the purposes of this strategy journey experience is taken to include:



- **Accessibility** – the quality of physical access to the rail network, including meeting the requirements of the Disability Discrimination Act;
- **Stations Facilities** – in order to attract people to the rail network it is important that stations, as the gateway to the network, offer consistent high quality facilities;
- **Rolling Stock** – it is essential that the rolling stock provides more modern facilities that are suitable for the market for which the rolling stock is used;

The next rail franchise should include monitoring of the whole journey experience which will encourage the operator to improve all aspects of a journey and not just focus on condition of assets.

### **Accessibility**

It is important that stations and the rolling stock are accessible for those with disabilities, young children, luggage and bikes. Meeting the requirements of the Disability Discrimination Act will enable this.

**Figure 21: Accessibility Target**

Accessibility Target
All stations and rolling stock must meet the requirements of the Disability Discrimination Act.

### **Stations Facilities**

To attract people to the rail network it is important that stations, as the gateway to the network, are easily accessible and offer a consistent high quality facility. Station quality should be improved by ensuring that there is consistent information provision, staffing arrangements, retail, cycling and toilet facilities and step free access (important for the disabled and those travelling with young children, buggies, luggage etc.) for stations in the same category. Where station buildings have no likelihood of returning to rail use these should be made available for other uses to ensure the quality of the station environment is enhanced. The following stations categories have been adopted:



- Station 1: Regional / Sub Regional Centre Stations – Leeds, Bradford Interchange, Halifax, Huddersfield, Wakefield Westgate
- Station 2: Principal Town / Park and Ride – for example, Keighley, Bingley, Dewsbury, New Pudsey, Garforth, Bradford Forster Square, Wakefield Kirkgate
- Station 3: Local Stations – for example Morley, Bramley, Woodlesford

The following table provides details of a minimum set of station standards for the three station categories. The target is that all stations should meet these minimum standards:

**Figure 22: Stations Facility Targets**

	Station 1 - Sub Regional Centre	Station 2 - Principal Regional Town	Station 3 - Local
<b>Access</b>			
Car parking, including electric car charging points	P	P	P
Disabled parking	P	P	P
Cycle parking	P	P	P
Step free access to all platforms	P	P	P
Passenger lifts	P	Desirable	0
Accessible walking route to station	P	P	P
Bus interchange	P	At station or bus stops close by	Bus stops close by
Taxi rank / drop off	P	Desirable	Drop off
Drop off/pick up point	P	P	P
High quality automatic ticket gates	P	Based on each station	0
<b>Information</b>			
Customer information screens	P	P	P
Public address system	P	P	P
Printed timetable information	P	P	P
Help point	0	P	P
Local bus information poster	P	P	P
<b>Facilities</b>			
Ticket machine	P	P	P
Passenger waiting shelters	P	P	P
Heated waiting rooms	P	Based on each station	0

	Station 1 - Sub Regional Centre	Station 2 - Principal Regional Town	Station 3 - Local
<b>Facilities Continued</b>			
Platform canopies	P	Based on each station	0
Seating (to DDA standard)	P	P	P
Retail/accessible ticket office	P	Based on each station	0
Toilets	P	Based on each station	0
<b>Environment</b>			
Full CCTV coverage	P	P	P
Adequate lighting	P	P	P
Sustainable station (see proposal 7)	P	P	P

### ***Rolling Stock***

To attract people to the rail network it is also important that rolling stock offers a level of comfort and facilities that meets the expectations of passengers for the specific service that is being operated. Figure 23 below summarises the facilities that should be provided on rolling stock operating the following services:

- Long distance high speed – East Coast services to London and Cross Country services between Scotland / the north east and the south;
- Inter regional services – First TransPennine services between Leeds and Manchester and Northern Rail’s York to Blackpool services; and
- Local services – providing journeys from local stations to the regional and sub-regional centres.

**Figure 23: Rolling Stock Target**

	Long Distance Services	Inter Regional Services	Local Services
Toilets	P	P	P
On train refreshments	P	Part of route	
WiFi	P	P	
Cycle storage	P	P	P
Mobile device charging points	P	P	



## Proposal 6: Freight

**Strategy: Ensure sufficient network capacity and capability to enable forecast freight growth in West Yorkshire**

<b>Gaps Addressed (Chapter 3):</b> Gap 7 – Train Capacity Gap 9 – Train Performance Gap 20 – Freight Network Capacity	<b>Solution Types (Chapter 5):</b>	
	<b>Trains &amp; Services</b>	Freight services are currently delivered by the private sector with no intervention from PTEs / local authorities
	<b>Infrastructure</b>	Additional track capacity to facilitate growth in passenger demand and all forecast rail freight growth Improvements to infrastructure to facilitate longer freight trains and larger loading gauge
	<b>Stations</b>	None
	<b>Tickets &amp; Information</b>	None

While the Local Transport Plan and RailPlan have a significant focus on the passengers, the rail network in West Yorkshire also carries important rail freight traffic. Of specific importance are flows to and through West Yorkshire including:

- Coal from Scotland and the East Coast ports to the Aire Valley power stations;
- Intermodal container traffic to and from Leeds Freight Liner Terminal and Wakefield Europort;
- Intermodal container traffic between Teeside and the East Midlands / north West that passes through West Yorkshire; and
- Aggregates from Rylstone (Skipton).

Given the long life of the principal coal-fired power stations in the Aire Valley, and the move towards burning bio mass, which has a greater volume, providing ESI (Electricity Supply Industry) freight capacity needs to be maintained and possibly increased, to maintain the generating capacity of power stations in Yorkshire.

In addition, provision needs to be made to accommodate future intermodal freight growth as identified in the Northern Route Utilisation Strategy (based on the Strategic Freight Network analysis and Freight Route Utilisation Strategy). This will include additional paths between the South Coast ports and existing and proposed intermodal rail freight interchanges in Yorkshire (and the North East and Scotland). It is also important to enhance loading gauges and the number of available paths to open up new routes between the East Coast ports and the East and West Midlands, and the East Coast ports and the North West via trans-Pennine routes.

**Figure 24: Freight Target**

Freight Target
Ensure the generating capacity of power stations across the north of England is maintained and to allow forecast growth in intermodal freight to be delivered.

Proposal 7: Carbon Emissions									
Strategy: Minimise the carbon footprint and emissions of rail travel									
<b>Gaps Addressed (Chapter 3):</b> Gap 21 – Carbon Emissions	<b>Solution Types (Chapter 5):</b>								
	<table border="1"> <tr> <td style="background-color: #D9E1F2;"><b>Trains &amp; Services</b></td> <td>           Electric rolling stock delivers reduced carbon emissions compared to diesel stock and can deliver power back to the National Grid via regenerative braking             Improved connectivity will encourage mode shift from car and could reduce carbon emissions             Sustainable production and consumption policies can reduce resource use         </td> </tr> <tr> <td style="background-color: #D9E1F2;"><b>Infrastructure</b></td> <td>           Extension of the electrified network to allow more electric services to be operated             Use of “green technologies” e.g. fuel cells to reduce power consumption             Sustainable production and consumption policies can reduce resource use         </td> </tr> <tr> <td style="background-color: #D9E1F2;"><b>Stations</b></td> <td>           Implement sustainable stations to reduce the carbon footprint of operating and maintaining             Use of “green technologies” e.g. fuel cells to reduce power consumption             Sustainable production and consumption policies can reduce resource use/waste         </td> </tr> <tr> <td style="background-color: #D9E1F2;"><b>Tickets &amp; Information</b></td> <td>           Facilitate greater use of self-service and smart/E-ticketing to minimise resource consumption         </td> </tr> </table>	<b>Trains &amp; Services</b>	Electric rolling stock delivers reduced carbon emissions compared to diesel stock and can deliver power back to the National Grid via regenerative braking  Improved connectivity will encourage mode shift from car and could reduce carbon emissions  Sustainable production and consumption policies can reduce resource use	<b>Infrastructure</b>	Extension of the electrified network to allow more electric services to be operated  Use of “green technologies” e.g. fuel cells to reduce power consumption  Sustainable production and consumption policies can reduce resource use	<b>Stations</b>	Implement sustainable stations to reduce the carbon footprint of operating and maintaining  Use of “green technologies” e.g. fuel cells to reduce power consumption  Sustainable production and consumption policies can reduce resource use/waste	<b>Tickets &amp; Information</b>	Facilitate greater use of self-service and smart/E-ticketing to minimise resource consumption
	<b>Trains &amp; Services</b>	Electric rolling stock delivers reduced carbon emissions compared to diesel stock and can deliver power back to the National Grid via regenerative braking  Improved connectivity will encourage mode shift from car and could reduce carbon emissions  Sustainable production and consumption policies can reduce resource use							
	<b>Infrastructure</b>	Extension of the electrified network to allow more electric services to be operated  Use of “green technologies” e.g. fuel cells to reduce power consumption  Sustainable production and consumption policies can reduce resource use							
<b>Stations</b>	Implement sustainable stations to reduce the carbon footprint of operating and maintaining  Use of “green technologies” e.g. fuel cells to reduce power consumption  Sustainable production and consumption policies can reduce resource use/waste								
<b>Tickets &amp; Information</b>	Facilitate greater use of self-service and smart/E-ticketing to minimise resource consumption								

The Government has overall targets to reduce the UK’s carbon emissions generally and specifically for the transport sector. It is important that any enhancements to the rail network should make a positive contribution to reducing the carbon emissions from transport.

**Figure 25: Carbon Emissions Target**

Carbon Emissions Reduction Target
The net effect of improvements to rail services should support the achievement of the overall reduced carbon trajectory for transport sector adopted by Government. Any additional rolling stock should serve to reduce carbon emissions in the area. Station enhancement and maintenance programmes should be planned and carried out in the most sustainable way possible to reduce carbon emissions and minimise resource consumption.

## 5. Implementation Plan

---

### 5.1. Introduction

This Chapter builds on the proposals identified in the Strategy to identify a set of generic ‘solution types’ that could deliver the strategy, address the identified gaps and ultimately support achieving the rail objectives and vision.

These solution types have been used to confirm a number of specific schemes and aspirations in each corridor. These are illustrated in the line of route diagrams included in this Chapter, with detail of each scheme presented in the Supporting Evidence Appendix. There are also some proposed interventions that apply to all routes, which have been included in the Network Summary diagram. While the line of route interventions are geographically specific, they can be summarised by the four Solution types as shown below:

- **Trains and Services** – there is a need to improve the connectivity, capacity and reliability of rail services to, from and within West Yorkshire, as well as the quality of rolling stock;
- **Infrastructure** – The network will need to develop to accommodate passenger and freight demand growth, maximise the connectivity between new centres of housing, employment and leisure opportunities and improve reliability;
- **Stations** – investment in stations will be needed to ensure they meet passengers expectations;
- **Ticketing and Information** – In order to attract passengers to rail it is essential to provide an integrated journey offer including the provision of information and ticketing.

The route plans seek to identify a set of aspirations for which there is a realistic likelihood of funding being secured. It may not be possible to identify a suitable case for investment of some of the identified aspirations, in which case these will not be pursued. As the rail network, and wider economic activity, develops over the period of this RailPlan there may other schemes may be identified. It is anticipated that this RailPlan will be reviewed and updated on an on-going basis to ensure that newly emerging schemes can be incorporated.

Central to the delivery of these interventions is the aspiration of Metro, along with other Integrated Transport Authorities in the north, to take responsibility for specification, funding and management of the Northern and Trans Pennine franchises when these are let between 2013 and 2015. This will give the ITA’s much greater control in securing improvements to the rail network in the north of England.

### 5.2. Solution Types

This section sets out the solution types and more specific interventions that have been identified that would enable delivery of the seven proposals set out in Chapter 4 – Strategy. There is a direct link between delivering these interventions, achieving the strategy proposal and delivering sustainable economic growth in West Yorkshire.

### Solution Type 1: Trains and Services

#### Provision of additional rolling stock, more on train capacity, more frequent and quicker services

Achieving strategy proposals (Chapter 4): Proposal 1: Connectivity Proposal 2: Crowding Proposal 3: Reliability Proposal 5: Journey Experience Proposal 7: Carbon Emissions	Interventions:	
	1.	Additional new or refurbished, standardised rolling stock
	2.	More frequent services
	3.	Quicker journey times
	4.	Electric rolling stock to deliver reliability and environmental benefits, as well as cost reduction
	5.	Improvements to rolling stock quality, passenger facilities and storage for bikes

### Solution Type 2: Infrastructure

#### Enhanced infrastructure capability to facilitate more frequent passenger and freight services while improving reliability

Achieving strategy proposals (Chapter 4): Proposal 1: Connectivity Proposal 2: Crowding Proposal 3: Reliability Proposal 6: Freight Proposal 7: Carbon Emissions	Interventions:	
	6.	New infrastructure to facilitate more frequent services while enhancing reliability
	7.	Line speed improvements to facilitate quicker journeys
	8.	Electrification to secure reliability and environmental benefits and cost reduction
	9.	Platform lengthening to run longer passenger services
	10.	Depot capacity to accommodate additional rolling stock
	11.	Capability to run longer freight trains
	12.	Increased loading gauge for freight trains

Solution Type 3: Stations	
<b>Improved station facilities to provide easy access to the rail network including increases to car parking capacity alongside improvements to sustainable access</b>	
<b>Achieving strategy proposals (Chapter 4):</b> Proposal 4: Integration Proposal 5: Journey Experience Proposal 6: Freight	<b>Interventions:</b>
	13. Increased car parking capacity at existing stations to accommodate demand growth, including possible electric car charging points
	14. New stations to improve access to the network and increase car park capacity
	15. Improvements to sustainable access to stations including by walking, cycling bus and taxi
	16. Improved station facilities to encourage rail use including provision of ticket machines
17. Improvements to make all stations DDA compliant and improved accessibility to those with disabilities, luggage, buggies and bikes	

Solution Type 4: Tickets and Information	
<b>Provide information and tickets that make travelling by rail straight forward, particularly as part of a multi modal journey</b>	
<b>Achieving strategy proposals (Chapter 4):</b> Proposal 2: Crowding Proposal 4: Integration	<b>Interventions:</b>
	18. Revised ticketing arrangements to incentivise travel in the off peak periods
	19. Smart card and other ticketing technologies to allow more flexible and low cost ticketing
	20. Improved information to encourage travel by rail including by modern communication channels
21. Improved signage and way finding to better integrate stations within the areas they serve	

The tables above set out generic solutions that could be adopted in specific situations to support achieving the overall RailPlan vision and objectives. Identifying a suitable value for money solution and securing funding for some of these solutions will be challenging as set out as follows.

### ***New Stations***

In previous RailPlans, a number of new stations have been successfully delivered in West Yorkshire, including Glasshoughton and Brighouse. These new stations have contributed to the growing number of passengers using the West Yorkshire rail network.

This RailPlan includes commitments to deliver 3 more new stations early in the life of the Plan - at Kirkstall Forge, Apperley Bridge and Low Moor. A further new station is also proposed at East Leeds Parkway in the Micklefield area to provide a high frequency park and ride service to Leeds to complement Network Rail's proposals for a planned turn back facility at this location.

However, delivering further new rail stations is challenging.

New stations need to demonstrate a robust business case, with the economic benefits and additional revenue from new users outweighing the infrastructure cost, impact of longer journey time disbenefits for existing through passengers and, where necessary, the cost of additional rolling stock. The current cost of a basic new station, at around £8m, makes it difficult to identify many locations in West Yorkshire where there would be sufficient new passenger demand and benefits to justify the significant investment.

Making the case for other new stations will mean seizing opportunities - for instance where there is the possibility of private financial contribution, substantial housing / employment development that could generate significant passenger demands or where rail industry partners are providing complementary infrastructure improvements. Alternatively, the availability of other new funding or any reduction in the cost of new stations will present further opportunity to consider new stations.

A New Station Review will be carried out in the first 12 months of this RailPlan. The Review will examine the potential for further new rail stations in West Yorkshire using current rail industry criteria and demand forecasting guidance and where there is a realistic likelihood of identifying an acceptable case for investment. It is anticipated that the Review will identify a short list of possible new rail station locations that can be developed further during the life of the Plan.

### ***New Services***

Identifying an acceptable business case for new services linking locations without current direct connectivity can also be challenging. Many services in West Yorkshire already receive subsidy. There is a clear challenge from Government to increase the value of the rail industry to the tax payer, which ideally means reducing the financial support for rail services while maintaining service levels. While new rail services can bring important economic benefits it is important this is delivered within the context of improving value for money and therefore it is important that, wherever possible, the revenue generated by new services should exceed the operating cost of providing that service.

The Yorkshire Rail Network Study has identified the possible economic and revenue benefits of improved connectivity across Leeds and Sheffield City Regions. Metro will now work with Network Rail and the rail industry to identify cost effective ways to deliver improved connectivity. This will include consideration of the possible benefits of new service patterns, In advance of this work it is not appropriate to include specific proposal for new service patterns in this RailPlan.

### ***New and Reopened Routes***

The case for High Speed 2 is being developed nationally and is supported by Metro. In addition consideration is being given to possible rail links to Leeds Bradford International Airport through the West Yorkshire Transport Fund currently under development. As with new stations any proposal to reopen a former line, or open a new line, would need to demonstrate a robust business case and the capital investment would need to be affordable. Many of the former routes have been sold off and are now in use for alternative non rail purposes. Many have been built on by housing or business developments and new roads which will make reopening complex and prohibitively expensive.

Therefore reopening former rail routes in West Yorkshire has not been identified within the context of this RailPlan.

Should further opportunities for new or reopened routes arise, where there is the possibility of funding particularly from central government and private organisations or substantial developments that could generate significant passenger demands then the case for new or reopened rail routes could be reconsidered. As with new stations any case for a new rail route will need to be consistent with rail industry requirements, including WebTAG and the DfT's demand forecasting guidance for third party schemes.

### **Fares**

This RailPlan has identified gaps in the integration of multimodal tickets and passenger perception of the value for money of rail fares. Solutions to these gaps are centred on the development of smart technology. Smart ticketing will present an opportunity to provide improved access to multi modal fares and help ensure that passengers are always able to make use of the most appropriate peak or off peak tickets.

Together with smart technology the proposal for a devolved rail franchise for the north of England will present an opportunity to review and change fare structures to, from and within West Yorkshire, including addressing some existing cross boundary fares anomalies.

In some cases it may be necessary to review fares to ensure they represent value for money for both the passenger and tax payer, reflecting the outcomes of the McNulty Review.

## **5.3. Delivery Opportunities**

The rail industry's principal funding comes from the fare-payer and the taxpayer:

- Rail franchises are funded by a mixture of fare-payer revenue and taxpayer subsidy via the DfT and PTEs; and
- Network Rail is funded principally by the taxpayer via the DfT, though they also receive revenue from the train and freight operating companies for using the network, as well as other commercial activities.

PTEs and Local Authorities are currently not funded to invest in rail infrastructure although there is a long history of them doing so. PTEs in the north of England are currently "co-signatories" to the Northern Rail franchise, which provides a limited say for PTEs in the franchise. The principle specification and funding role though lies with the DfT. To fully deliver our vision for rail, we need more devolved local decision making.

Many of the schemes and interventions set out in the Implementation Plan will be delivered by the rail industry itself, with Metro and the LTP Partnership seeking to influence their investment plans. There will also be some schemes that the LTP Partnership is able to fund itself using local funds such as from the LTP capital programme. The table below shows the most likely mechanism and funding through which each intervention is likely to happen, as well as what action Metro will need to take to make it happen.

**Figure 26: Delivery Opportunities**

Solution Type	Funding	Metro's Role: Influence - Action
Trains/ Services	Franchise subsidy (DfT and/or ITA) and fare-payer revenue	Influence DfT under current co-signatory status or;  Work with other northern ITAs and LAs on re-franchising and franchise specification under a decentralised scenario
	DfT High Level Output Statement (HLOS) and Statement of Funds Available	Influence via the Long term planning process using evidence
Infrastructure	Franchise subsidy (DfT and/or ITA) and fare-payer revenue	Work with other northern ITAs and LAs on a northern HLOS under a decentralised scenario
	Franchise subsidy (DfT and/or ITA) and fare-payer revenue	Influence station standards and plans in franchise spec
Stations	LTP	Specify standards and investment plans under a decentralised scenario
	Franchise subsidy (DfT and/or ITA) and fare-payer revenue	Influence ticketing and information provision plans in franchise spec
Ticketing and Information	Franchise subsidy (DfT and/or ITA) and fare-payer revenue	Encourage rail usage through joint marketing and promotions to utilise capacity and increase patronage
	LTP	Specify standards and investment plans under a decentralised scenario

While there are opportunities for delivering enhancements to the rail network, making the case for such improvements is challenging and will require a robust case for investment to be made.

## 5.4. Line of Route Plans

The Line of Route Plans set out the aspiration for improvements in each corridor with interventions that will contribute to the rail objectives. Detailed business cases will need to be developed as opportunities for funding become available. The plans do not identify any priority for delivery and only those interventions that can establish robust value for money case and are affordable will be taken forward.

The line of route plans set out the following:

**Line Summary:** A high level summary of the route as it currently stands.

**Key Challenge:** The main challenge facing the route that needs to be overcome if it is to help achieve the RailPlan objectives.



**Interventions:** The key improvements needed to the rail offer on the route to help achieve the RailPlan objectives in the following three status categories. The colour key is included in each route plan:

**Committed** – Existing schemes that have committed funding and are currently being developed for delivery

**Planned** – Improvements set out in the relevant rail industry Route Utilisation Strategy and Initial Industry Plan which do not have committed funding, and frequency and capacity improvements needed to deliver the Conditional Outputs in the Yorkshire Rail Network Study






**Future Development** – Other improvements that could address the gaps, but are in need of further development and evaluation

**Route Diagram:** This sets out the station specific improvements along the line of route.

**Evidence Appendix** – The appendix includes additional detail (where available) of each scheme identified in the line of route diagrams along with possible delivery timescales using the five year budgetary railway control periods (CP) where possible. Those periods relevant to this Plan are:

- CP4: 2009 – 2014
- CP5: 2014 – 2019
- CP6: 2019 – 2024
- CP7: 2024 – 2029

## 5.5. Network Schemes

Key		Summary:	Key Challenge:
	West Yorkshire Stations	Leeds is the busiest rail hub in West Yorkshire and one of busiest stations outside London.	Increased capacity to cater for demand growth.  Improved connectivity to stimulate economic growth.
	Other Stations		
	Committed		
	Planned		
	Future Development		

### Interventions

#### Committed:

Leeds Station Southern Entrance. (16)

#### Planned:

Improve service quality monitoring regime. (16)

Additional platform capacity at Leeds station and depot capacity at Neville Hill. (1, 2, 6, 10)

Implementation of smart card ticketing across the West Yorkshire rail network (19)

More frequent early morning, evening and weekend services (2)

#### Future Development:

Improve connectivity (including providing new services) to stimulate economic growth and provide capacity for long term demand growth. (1, 2, 6, 10)

Specifically investigate feasibility of more direct connectivity to/from Bradford. (2,3)

Investigate feasibility of improving connectivity from Leeds/ Bradford/York to airport. (2,3)

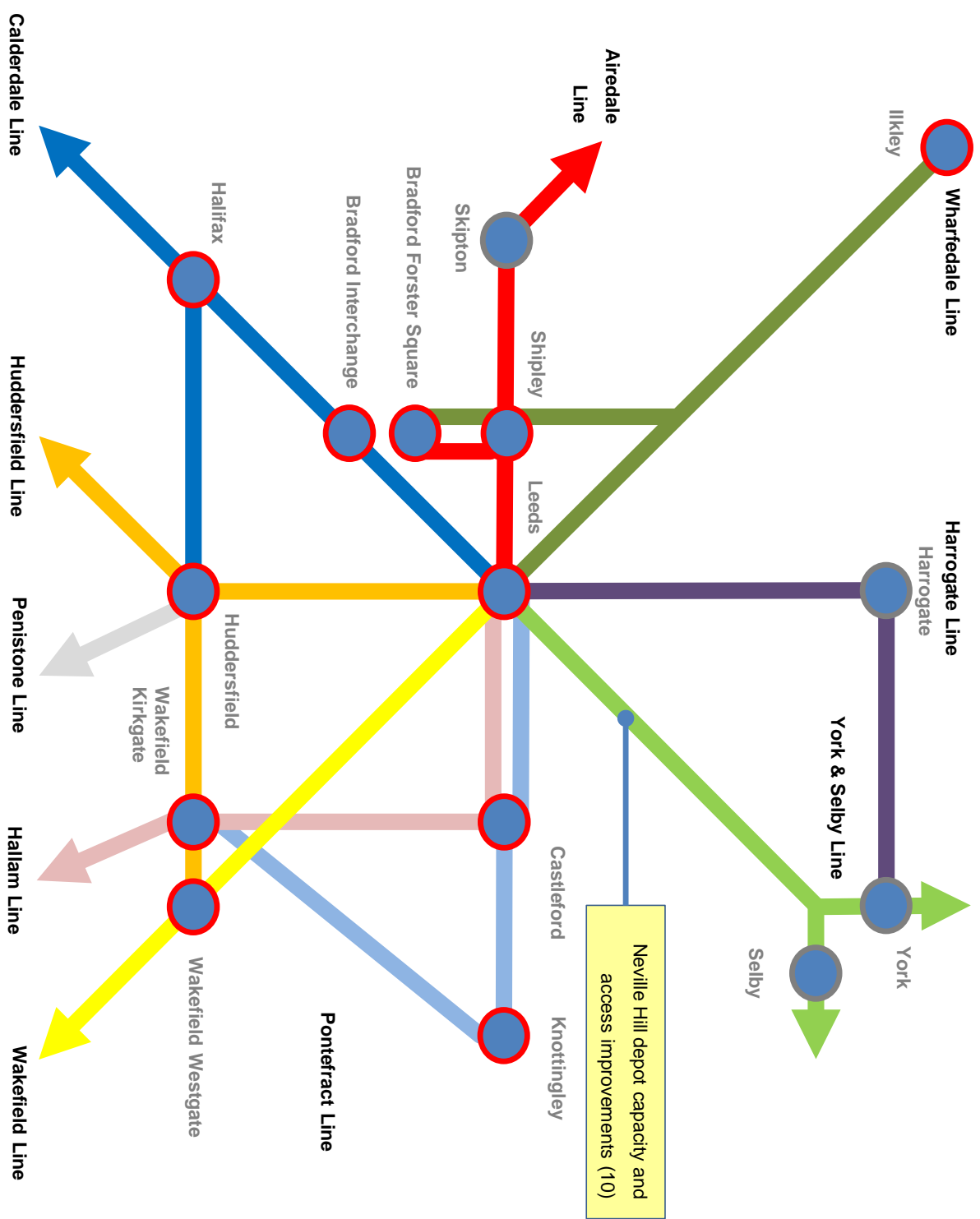
Provide ticket machines at all stations (16)

Encourage cycle access to and from stations by providing secure cycle storage at stations, more space for cycles on trains and through consideration of bike hire schemes (5, 15)

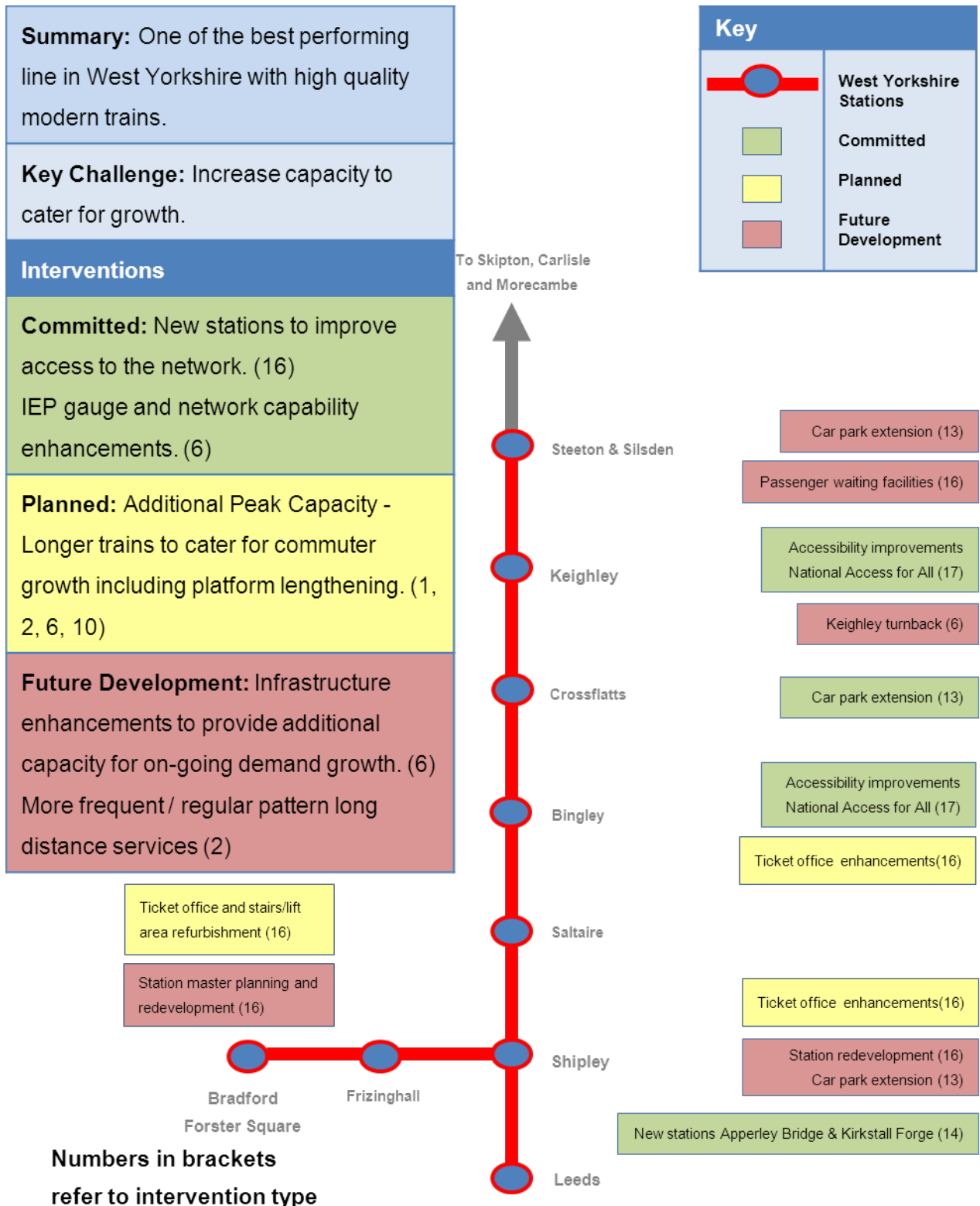
Review to identify a short list of possible new station proposals that can be developed further during the period covered by RailPlan 7 (14)

Redevelopment of Leeds station concourse, northern entrances and environs to cater for on-going demand growth (16)

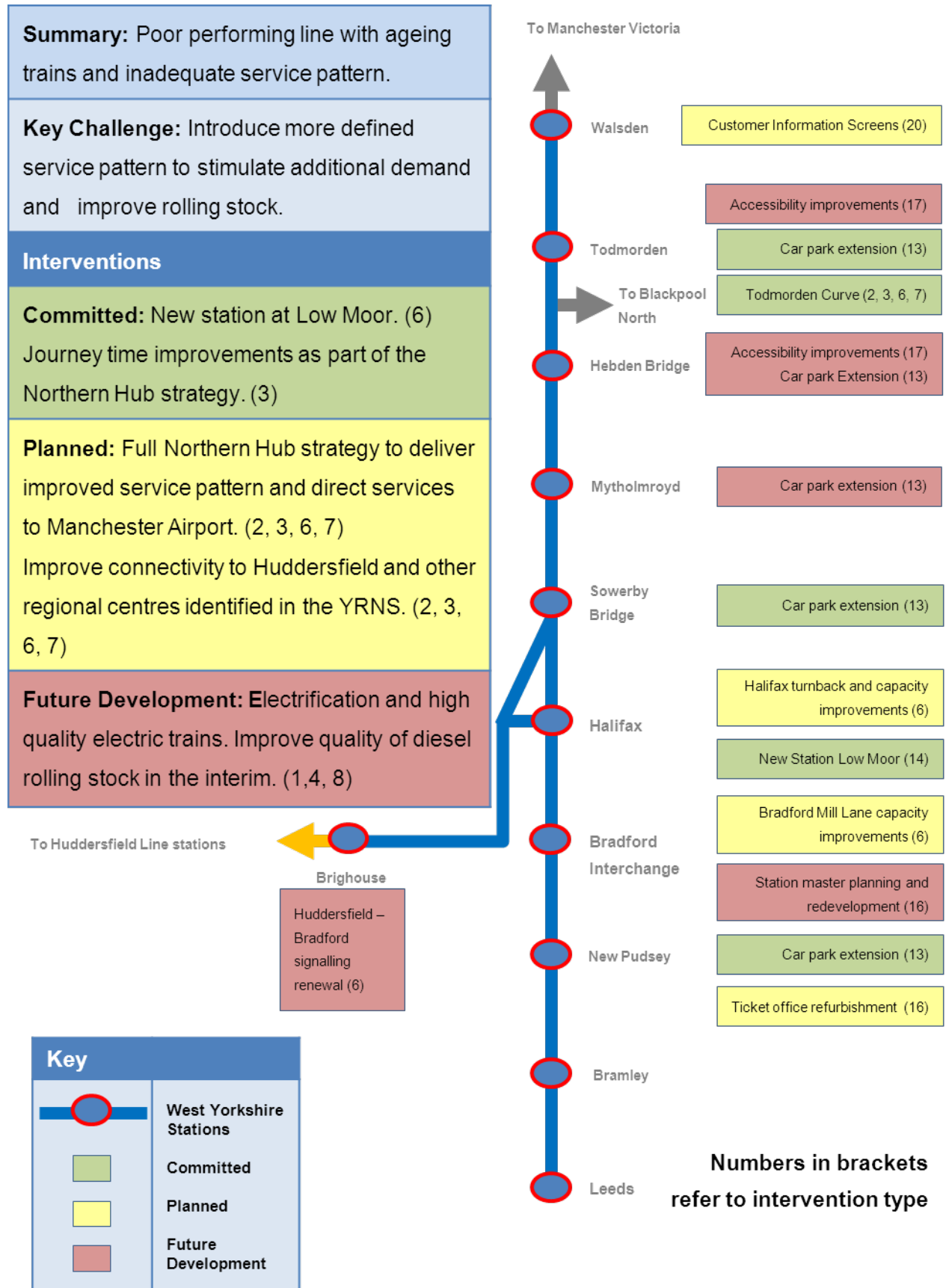
Modern rolling stock, future demand growth (1)



## 5.6. Airedale Line (Leeds – Skipton, Carlisle, Morecambe)



## 5.7. Caldervale Line (Leeds – Manchester Victoria)

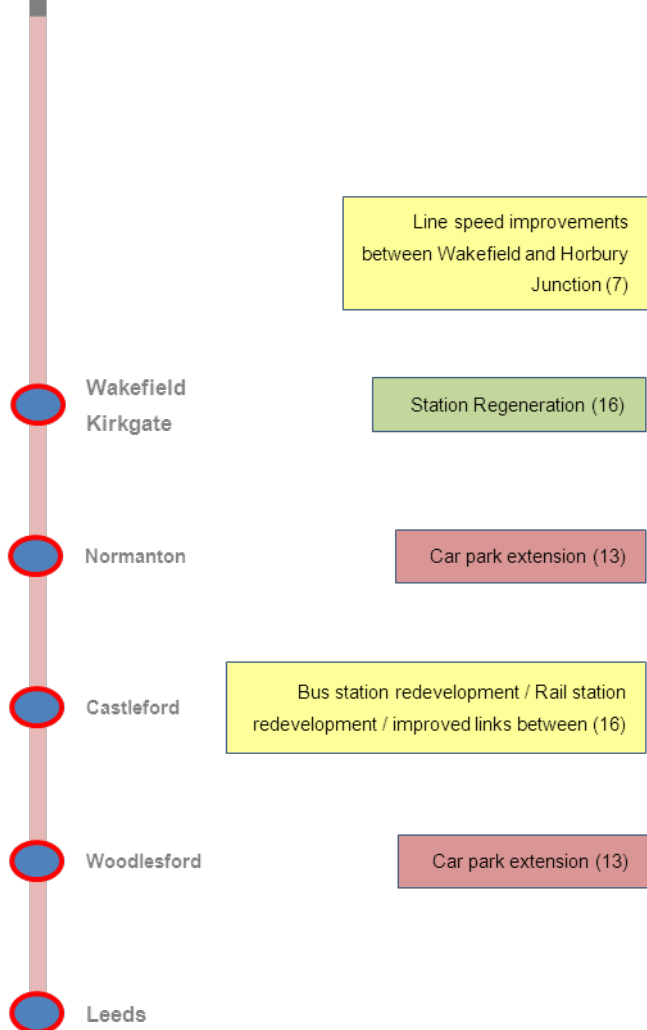


## 5.8. Hallam Line (Leeds – Barnsley – Sheffield)

<b>Summary:</b> Underutilised route providing poor frequency and journey times.
<b>Key Challenge:</b> To stimulate additional demand.
<b>Interventions</b>
<b>Committed:</b> Wakefield Kirkgate station regeneration. (13, 16)
<b>Planned:</b> Wakefield to Horbury journey time improvements. (3) Increase service frequency to every 30 minutes at all stations. (3)
<b>Future Development:</b> Electrification of the line and electric trains. (4, 8) Improve capacity and connectivity by opening platform 2 at Castleford. (6)

Key	
	West Yorkshire Stations
	Committed
	Planned
	Future Development

To Sheffield



Numbers in brackets refer to intervention type

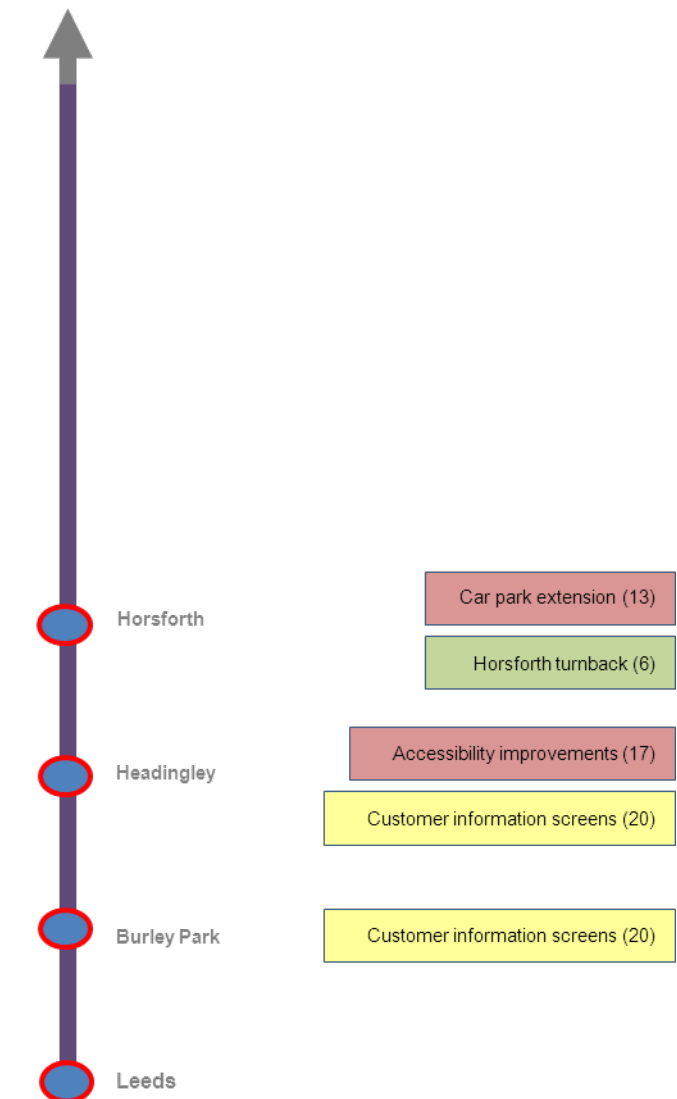
## 5.9. Harrogate Line (Leeds – Harrogate – York)

<p><b>Summary:</b> Well used commuter route but old rolling stock and mixed operational performance.</p>
<p><b>Key Challenge:</b> Delivering additional capacity and improving service offer by providing modern rolling stock and enhanced timetable.</p>
<p><b>Interventions</b></p>
<p><b>Committed:</b> Horsforth turnback siding to allow peak Leeds – Horsforth shuttles to provide additional capacity. (1, 2, 6, 10) IEP gauge and network capability enhancements. (6)</p>
<p><b>Planned:</b> Harrogate area re-signalling. (6, 7) Horsforth peak shuttle services. (2)</p>
<p><b>Future Development:</b> Electrification and modern electric trains. (4, 8) Timetable development for both local and intercity services. (2) Tram-train / rail link from Leeds to Leeds Bradford International Airport. (4, 8)</p>

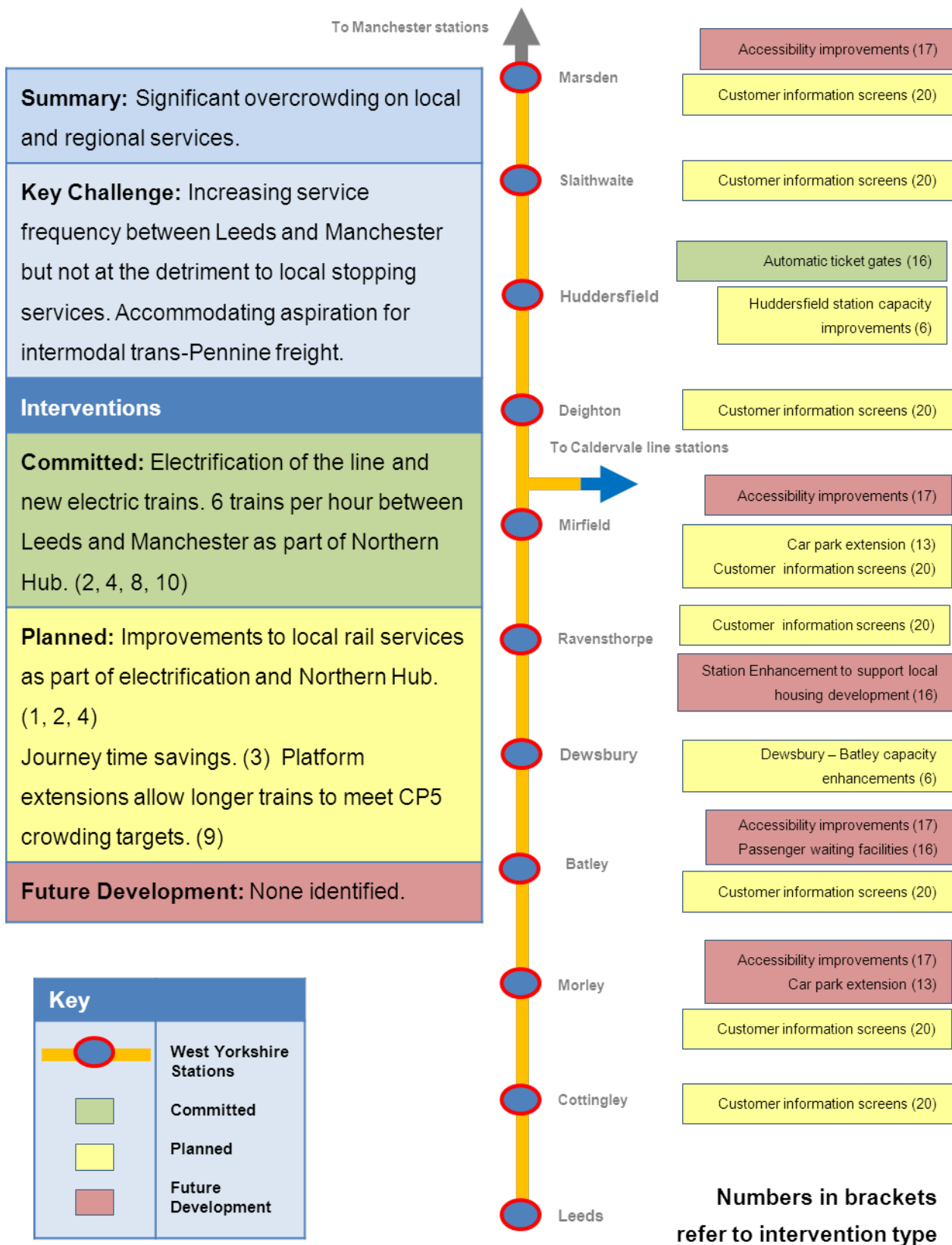
Numbers in brackets refer to intervention type

Key	
	West Yorkshire Stations
	Committed
	Planned
	Future Development

To York via Harrogate



## 5.10. Huddersfield Line (Leeds – Manchester)

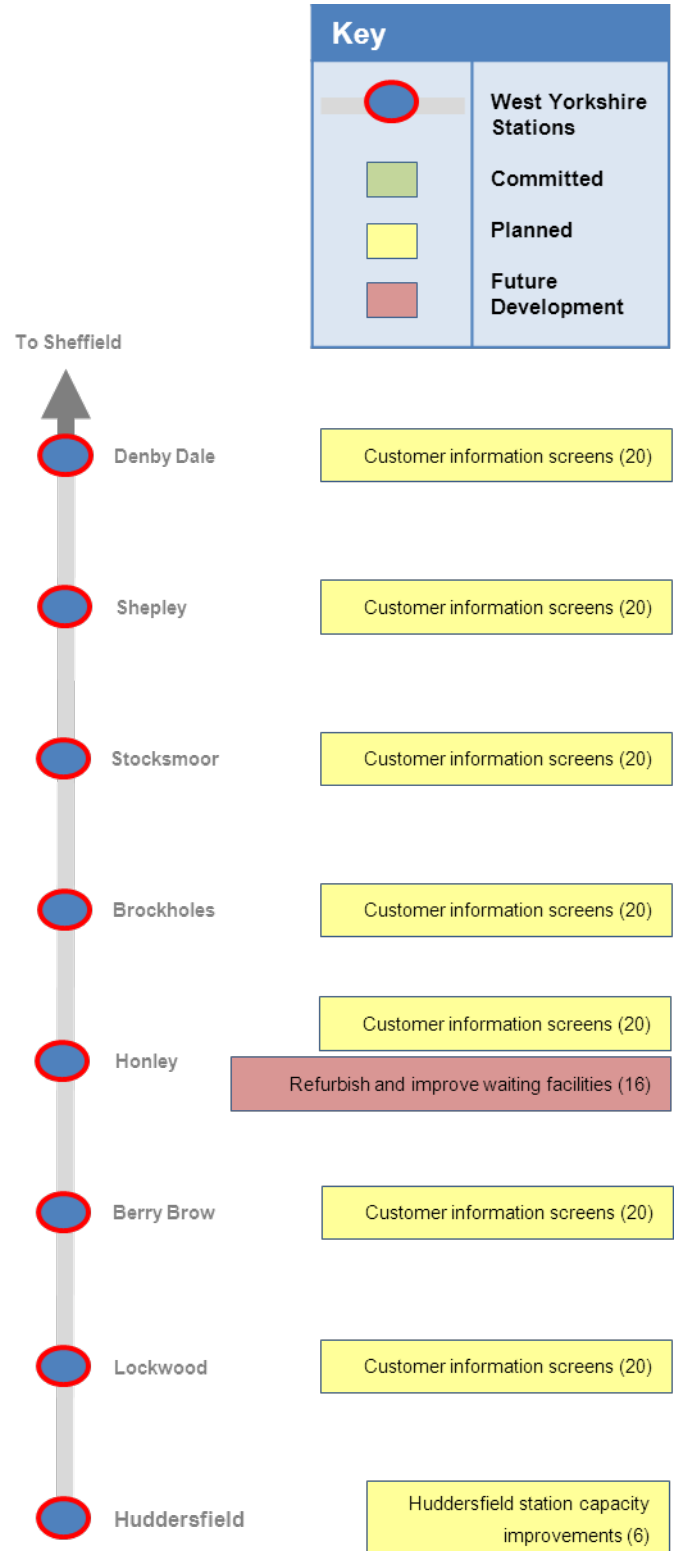




## 5.11. Penistone Line (Huddersfield – Sheffield)

<p><b>Summary:</b> Hourly service well used in the peaks. Average operational performance and poor rolling stock quality.</p>
<p><b>Key Challenge:</b> Catering for peak growth through additional capacity and more frequent services. Encourage off peak and weekend growth.</p>
<p><b>Interventions</b></p>
<p><b>Committed:</b> None identified.</p>
<p><b>Planned:</b> Infrastructure or selective door opening to allow longer trains. (6)</p>
<p><b>Future Development:</b> More frequent services. (2) Consideration of possible future light rail solution. (5, 6) Additional parking at stations on the route/formalise on-street parking. (13)</p>

Numbers in brackets refer to intervention type



## 5.12. Pontefract Line (Leeds – Knottingley – Wakefield)

**Summary:** Well used commuter route but old rolling stock and hourly service frequency deters off peak use.





**Key Challenge:** Improving frequency and journey times to stimulate additional demand.

**Interventions**

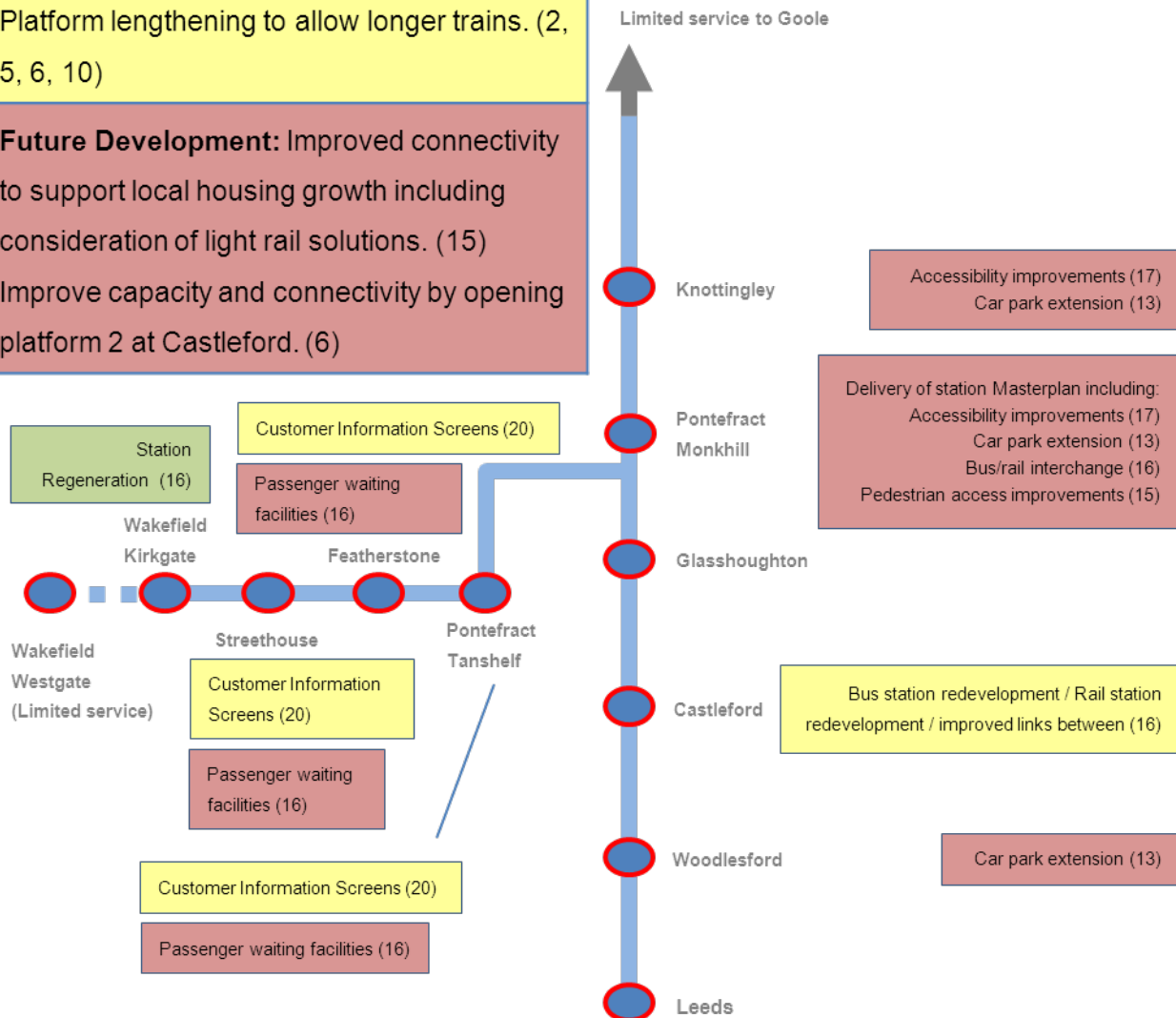
**Committed:** Wakefield Kirkgate station regeneration. (13, 16)

**Planned:** Increase service frequency to every 30 minutes at all stations. (3)  
Platform lengthening to allow longer trains. (2, 5, 6, 10)

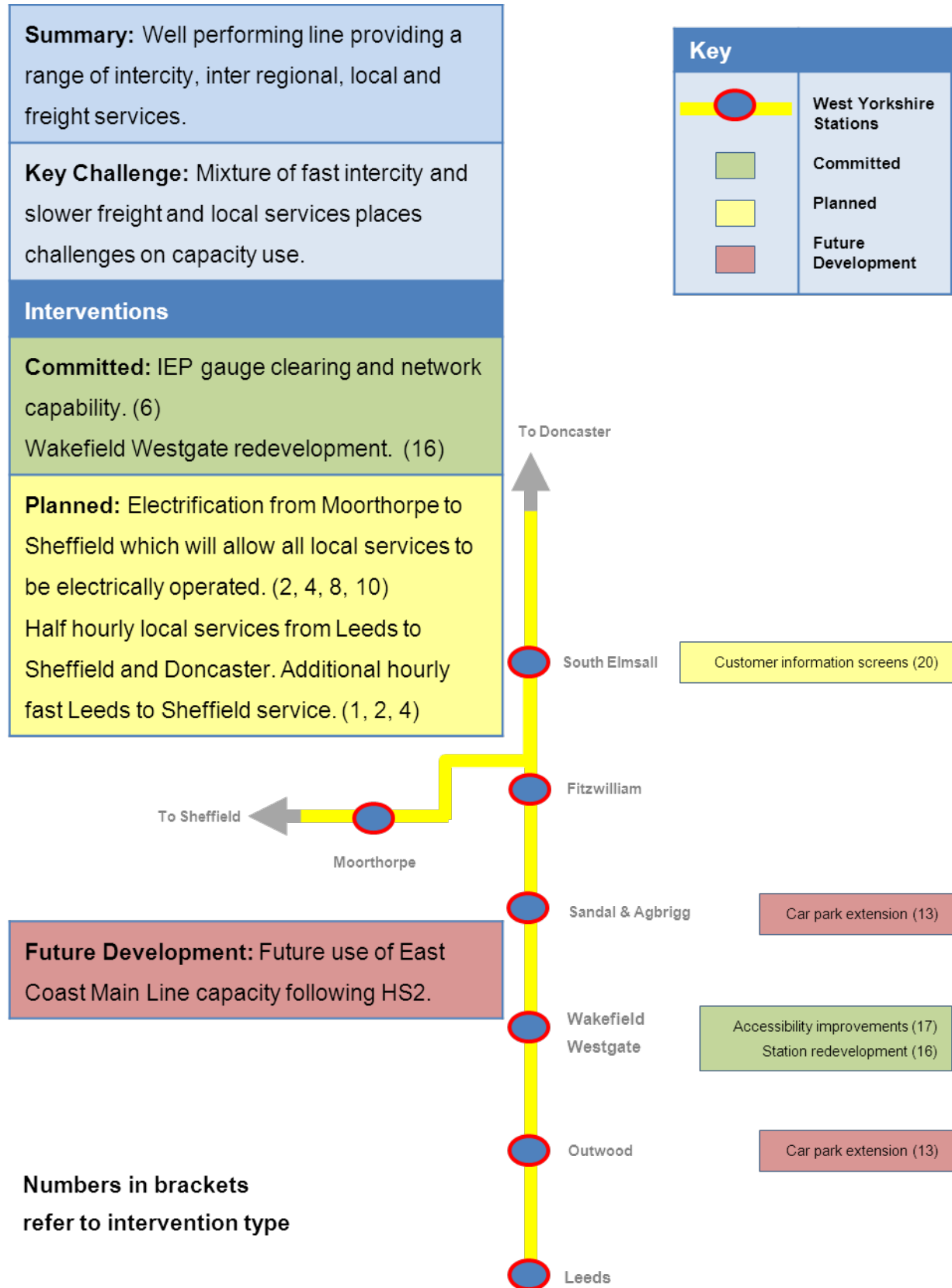
**Future Development:** Improved connectivity to support local housing growth including consideration of light rail solutions. (15)  
Improve capacity and connectivity by opening platform 2 at Castleford. (6)

Key	
	West Yorkshire Stations
	Committed
	Planned
	Future Development

Numbers in brackets refer to intervention type



## 5.13. Wakefield Line (Leeds – Doncaster, Leeds – Sheffield)



## 5.14. Wharfedale Line (Leeds – Ilkley, Bradford – Ilkley)

**Summary:** One of the best performing lines in West Yorkshire with high quality electric trains.





**Key Challenge:** Accommodating on-going commuter demand growth

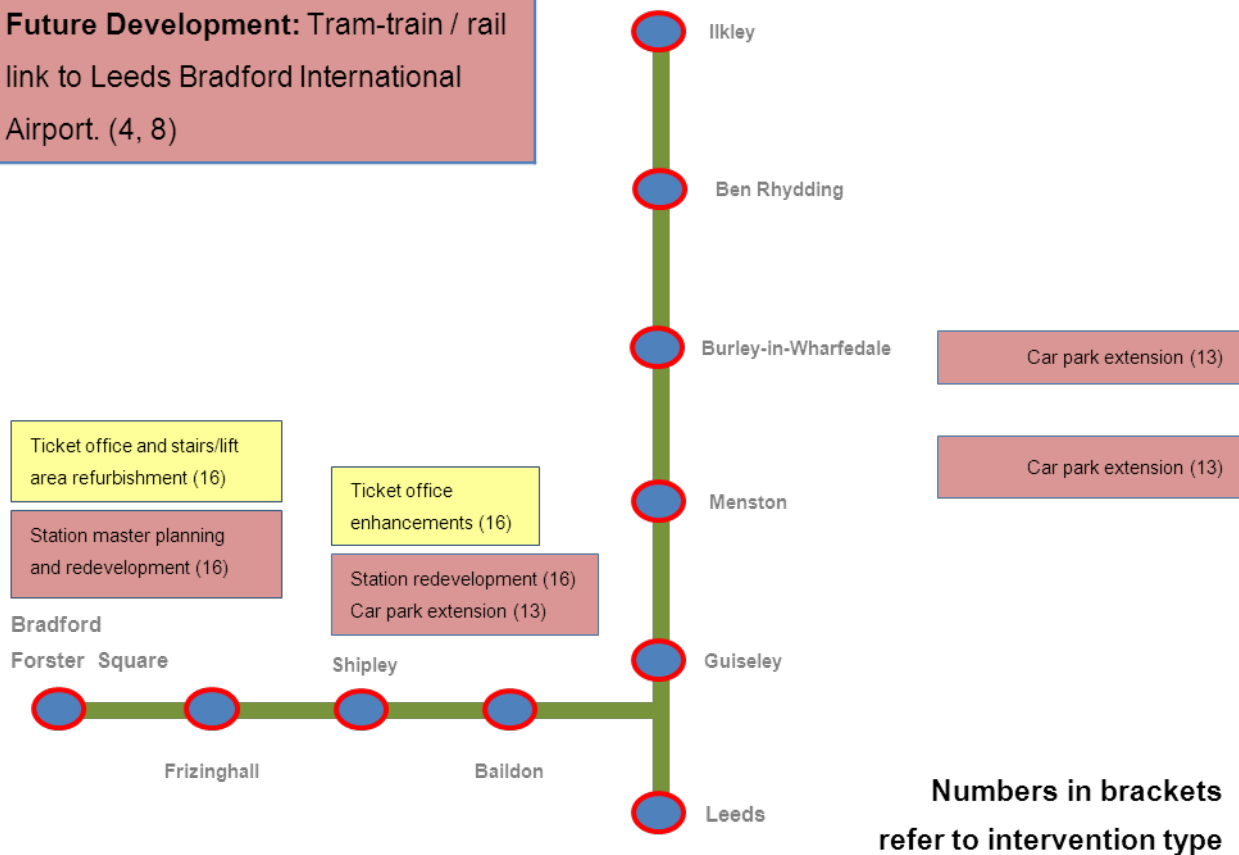
**Interventions**

**Committed:** Remove permanent speed restriction at Ben Rhydding. (3)

**Planned:** Additional capacity for long term commuter growth including platform lengthening. (1, 6, 9, 10)

**Future Development:** Tram-train / rail link to Leeds Bradford International Airport. (4, 8)





Key	
	West Yorkshire Stations
	Committed
	Planned
	Future Development

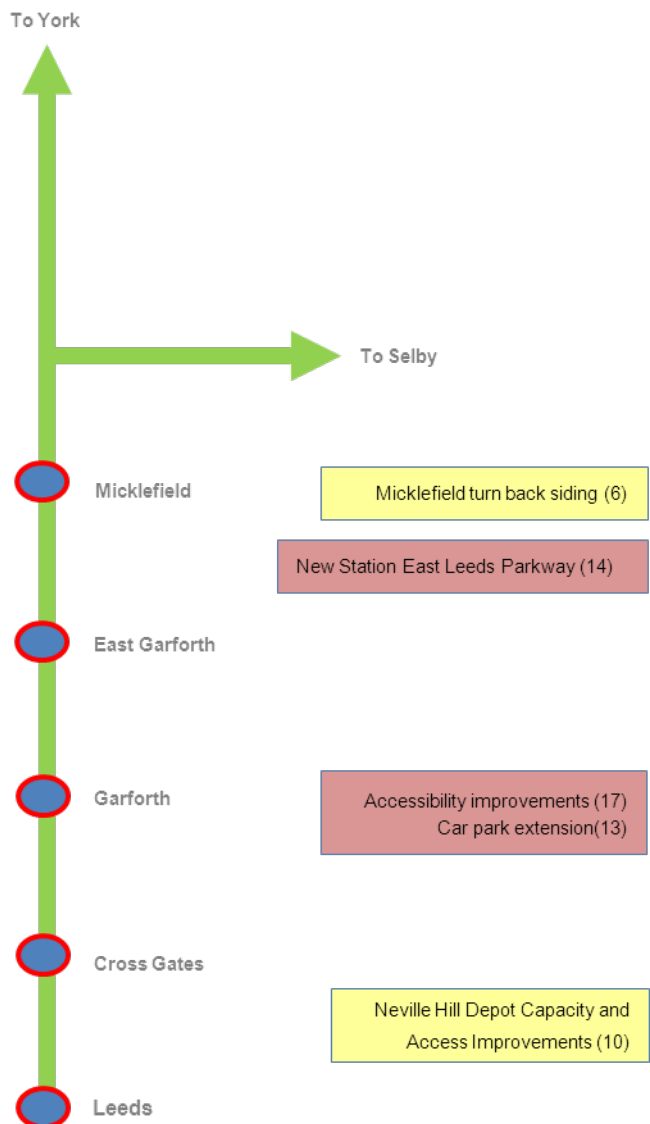


## 5.15. York & Selby Lines (Leeds – York, Leeds – Selby)

<p><b>Summary:</b> Crowding on fast services between Hull, York and Leeds but less well used and infrequent local services.</p>
<p><b>Key Challenge:</b> Accommodating mix of local and faster inter regional services and capacity to east of Leeds station.</p>
<p><b>Interventions</b></p>
<p><b>Committed:</b> Electrification of the line and new electric trains including potential electrification to Hull. Recast of local and regional services following electrification. (4, 8) IEP gauge and network capability enhancements. (6)</p>
<p><b>Planned:</b> East Leeds Parkway to provide park and ride opportunities. (14) Journey time improvements Leeds-Hull. (3) Further electrification to Selby and Hull (4, 8)</p>
<p><b>Future Development:</b> Improving connectivity from potential local housing development and economic growth centres. (15)</p>

Numbers in brackets refer to intervention type

Key	
	West Yorkshire Stations
	Committed
	Planned
	Future Development



## 6. Monitoring

### 6.1. Introduction

The delivery of the Strategy set out in Chapter Four and the Implementation Plan detailed in Chapter Five will be monitored to determine whether or not RailPlan is achieving what it set out to do. This chapter outlines the approach to monitoring progress. There are two specific themes to monitoring performance that need to be considered:

1. Performance against the four rail objectives set out in Chapter 2; and
2. Performance of specific schemes against the problems they seek to address.

The approach to monitoring each of these is presented below.

### 6.2. Performance of delivering RailPlan Objectives

The following table summarises how we will monitor performance of delivering RailPlan objectives.

**Figure 27: Monitoring Approach**

Rail objective – By 2026 we need to:	Approach to monitoring
<b>To double annual rail patronage</b>	Rail patronage will be monitored on a continuous basis using rail industry ticket sales data.
<b>To improve passenger satisfaction scores</b>	<p>Passenger Focus undertakes the National Passenger Survey twice yearly and Metro's own Tracker Survey is undertaken on an annual basis. The satisfaction scores reported by these surveys will be monitored.</p> <p>RailPlan should contribute to the overall LTP 3 target to increase the overall Tracker Survey score from 6.6 (2011) to 7.0 by 2017.</p>
<b>To develop a rail network that secures better value for money for passengers and tax payers</b>	<p>The value for money delivered by the rail industry will be monitored through the changing levels of funding for the industry, namely by monitoring changes in passenger fares, changes in total passenger revenue and the changes franchise subsidy levels.</p> <p>Specific financial targets for Network Rail will be set through national rail industry funding processes while targets for operators will be set through the franchise process by the DfT and/or devolved franchising authorities.</p>
<b>To exploit the benefits of high speed rail when it arrives in West Yorkshire in the 2030s.</b>	The approach to monitoring the benefits from HS2 will be developed during the course of the RailPlan period.

### **6.3. Performance of delivering individual schemes**

The performance of individual schemes will need to be monitored. The scope and method of this monitoring will need to be determined on a scheme by scheme basis reflecting the specific nature of the intervention being proposed.

## Further information

If you have any queries about this document, or If you would like this information in other formats such as Braille, large print or in audio format (CD / MP3) or in other languages, please contact us:

- Email [ltp@wypte.gov.uk](mailto:ltp@wypte.gov.uk)
- Web [www.wyltp.com](http://www.wyltp.com)
- Twitter [@MyJourneyWY](https://twitter.com/MyJourneyWY)
- Telephone **0113 2517 335**

Published by Metro.  
40 - 50 Wellington Street, Leeds LS1 2DE.

