

Hertfordshire County Council

Rail Strategy



June 2016



A note on the status of the Rail Strategy

This Rail Strategy replaces the document of April 2011 which was published as part of the Local Transport Plan suite of documents. There have been considerable changes in the rail environment in the intervening years, and the county council needs an up-to-date position in order to respond to rail industry consultations and to lobby for improvement to rail services.

However, it is recognised that this Rail Strategy will need to be updated when the current revisions to the Local Transport Plan are completed in 2017/18.

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1. Introduction

Transport, including rail, continues to play a key role in maintaining Hertfordshire as a place where people want to live and work. Recent and emerging national and local strategies point to the continuation of growth in Hertfordshire and neighbouring areas, with ever increasing pressures on the county's existing transport system. Central government projections indicate that the strategic road and rail networks will become increasingly congested if nothing, or even a minimum, is done.

The Rail Strategy is therefore required to ensure that the railway in Hertfordshire can support economic growth and development by agreeing investment priorities for the next fifteen years and beyond. It sets the strategic framework against which decisions regarding future franchises and investment in key elements of infrastructure can be identified and prioritised.

Specifically, the strategy will be used to influence the rail industry's strategy development process, such as Network Rail's Long Term Planning Process (LTPP), and ensure that conditional outputs feed through into key documents such as the Government's Initial Industry Plans (2016, 2021, 2026) and High Level Output Specifications (HLOS). It will also inform the specifications for the local rail franchises when they are retendered.

This document replaces the 2011 Rail Strategy, and recognises the considerable advance in national rail proposals over the last five years. The Strategy is evidence-based and has therefore been informed by extensive baseline analysis and engagement with key rail industry and local stakeholders. This supporting evidence makes up a complementary suite of technical reports.

1.1 Approach and Objectives

A high-level strategic approach has been used, identifying conditional outputs and potential interventions that can either be developed directly or can support third parties to develop. This is in line with current rail industry practice.

These outputs and interventions were considered against the following four rail development objectives which have been identified for Hertfordshire:

- **To support competitiveness**, the Strategy includes improvements in links to the rest of the country to maximise benefits from the agglomeration effect that better transport connections between centres can bring;
- **To support economic growth**, the Strategy comprises a number of interventions that improve the rail service for commuting trips from/into Hertfordshire;
- **To address sustainability**, the Strategy proposes improvements to encourage modal shift, including for east-west orbital and long distance movements as more sustainable alternatives to travel by private car and air respectively; and

- **To support population growth**, the Strategy includes recommendations for the development of strategic transport hubs around key stations.

Importantly, the Strategy recognises that, if opportunities are fully exploited, the county could benefit from significant investment in rail enhancements in the next 5-10 years, through major projects such as the Thameslink Programme and Crossrail. It could also benefit from utilising capacity on the existing railway network released by the opening of High Speed 2 (HS2). Proposals for strategic investment in rail have been identified to meet these objectives, which the county council working with partners, can plan and deliver.

1.2 Key Issues and Themes

The key themes identified through the baseline analysis were:

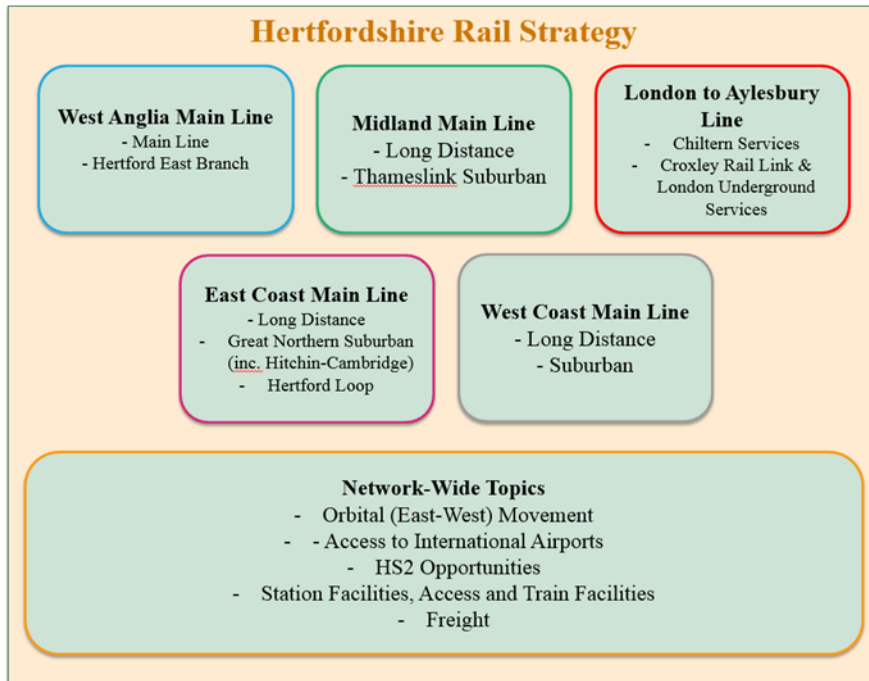
- rail plays a very important role in the Hertfordshire economy;
- a few key rail stations in the county are dominant, particularly for travel to London;
- there is a lack of good orbital (east-west) rail links in Hertfordshire;
- there are issues with station and train facilities that affect the passenger experience of rail in the county;
- rail is an important component of the Hertfordshire transport network in providing mobility and accessibility;
- rail will need to accommodate increased travel demand in future for passenger and freight services;
- a number of Hertfordshire's rail lines are forecast to be over capacity by 2031; and
- a number of rail projects are committed or planned that will transform rail travel in the region in the next 10-15 years.

Overarching themes that occur over a number of lines included:

- capacity constraints and bottlenecks on lines;
- peak time overcrowding on key services;
- highway congestion on major roads;
- strong projected population, employment and housing growth;
- low frequencies and slow journey times from key stations;
- gaps in suburban and long distance provision; and
- poor connectivity between key Hertfordshire towns.

2. Rail Strategy Development

The rail infrastructure within Hertfordshire consists of a number of independent rail corridors, generally running south–north through the county. There are different franchised operators for each of these routes and Network Rail treats each corridor as a discrete route with its own demand pressures and capacity and investment priorities, many of which are driven by considerations outside Hertfordshire. The Rail Strategy therefore deals with each corridor individually, while at the same time developing an overall coordinated strategy that addresses network-wide topics, such as east-west movement or station access, as shown in the diagram below.



Conditional outputs are presented in the Strategy for each corridor/topic together with the development objectives/issues that they address, the relevant supporting evidence, and the recommended interventions.

Conditional outputs are a statement of the long term planning aspirations for the level of rail service provided. They are required to inform future investment decisions and are not constrained by considerations of cost and deliverability. They are designed to articulate a vision or aspiration for the future rather than a final recommended project or scheme, and are conditional on affordability and a value for money business case being determined.

Interventions are potential schemes that, either in isolation or as a package of measures, serve to address the identified conditional outputs. These are divided into ‘committed’, ‘planned’ and ‘other possible’ interventions, to be delivered in the short term (2014-19 or Control Period 5), medium term (2019-2024 or Control Period 6) and longer term (2024- 2029, or Control Period 7, and beyond).

Committed interventions are those schemes that are already firmly committed and funded by DfT as part of the Network Rail Control Period 5 funding for 2014 - 2019 confirmed by the Office of Rail Regulation in 2013. It also includes commitments made by franchised train operating companies (such as new Hertford Loop rolling stock and service enhancements to be provided by Govia Thameslink Rail) and major DfT sponsored rolling stock procurements.

Planned interventions are schemes that may already be well defined and intended to be implemented after CP5, but are not yet firmly committed, and therefore may still be at risk. Where implementation of these interventions has a crucial impact on Hertfordshire their firm adoption will continue to be lobbied hard for. This is particularly relevant as the Control Period 6 funding review process will start in 2016, while franchise policy will continue to evolve over the next few years. Alternatively, there may be new ideas or proposals that need further development work to determine if they are viable.

Other Possible interventions are those that have been developed by the Rail Strategy, are not currently being planned by the rail industry and where issues are not expected to be fully addressed by committed/planned interventions.

At the end of each route/topic section, the strategic priorities are identified. These are the main interventions that comprise the strategy for each route or topic.

Within the strategic priorities, the top priorities are identified. These are recommended interventions that address multiple Conditional Outputs and are expected to deliver a step-change in rail service for Hertfordshire. It should be noted that some topics do not have top priorities as they have a series of interventions, none of which individually meet multiple Conditional Outputs.

2.1 Implementing the Strategy

The top priorities identified in this Strategy will be developed as a priority to feed into the main rail industry processes, such as Network Rail Route Study consultations, DfT's HLOS (Higher Level Output Specification) process, and franchise consultations and renewals. Alongside this process the remainder of the strategic priorities will also be progressed with relevant stakeholders.

There is excellent stakeholder interest and support for this Strategy from both within the county and the rail industry, and this will be harnessed by the county council and its partners to deliver a successful rail strategy that delivers the development objectives for the county.

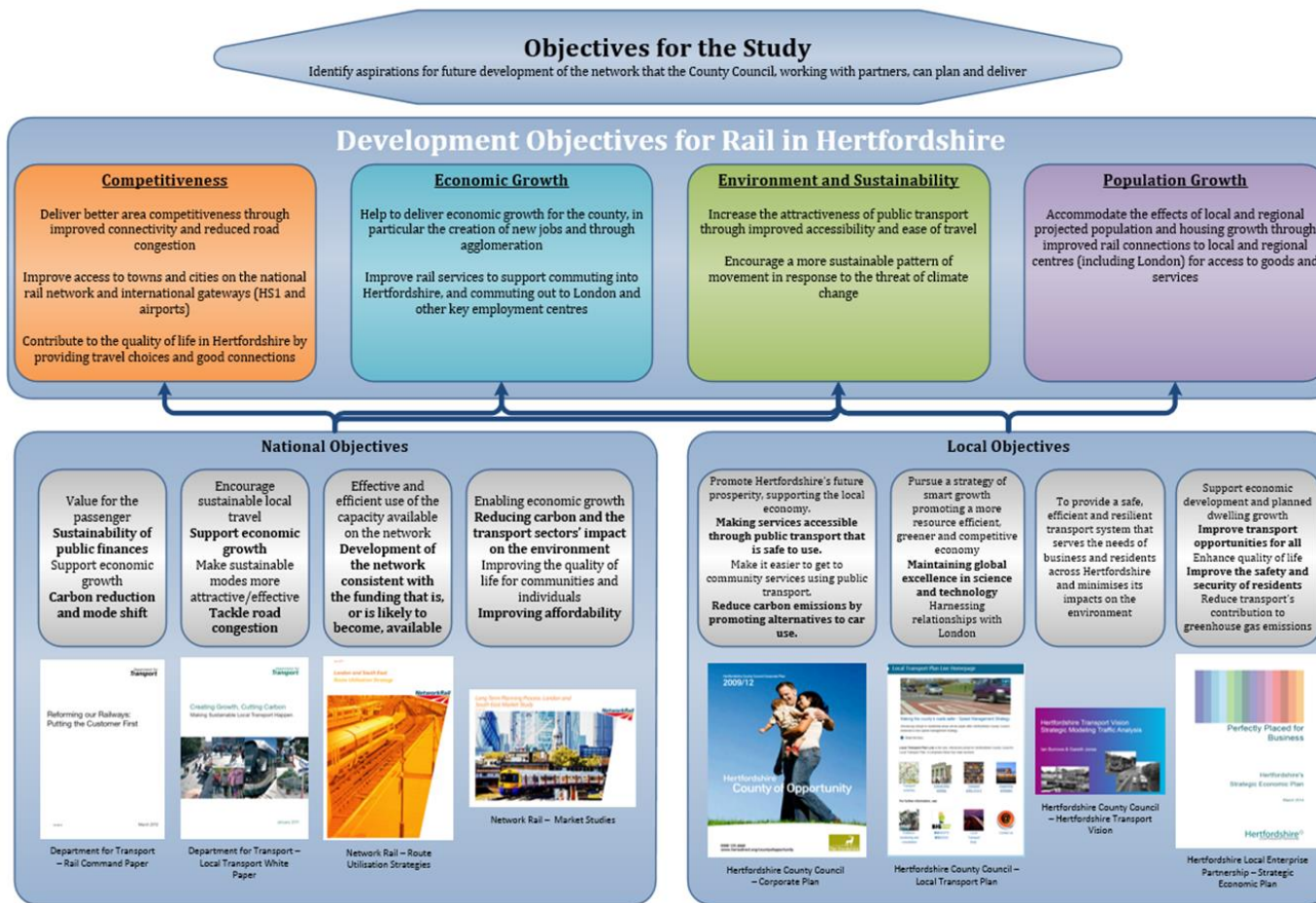
2.1.1. Hertfordshire Transport Vision

The County Council adopted its existing Local Transport Plan (LTP3) in April 2011. However, the national context for transport and planning has changed considerably since then. The delivery of economic growth, in the form of housing and jobs, is much higher on the national Government's agenda, and the national and transport planning context has evolved significantly to reflect this. In transport delivery terms, it is approaching a crossroads. By 2020, the existing Local Transport Plan will be largely delivered and so it was necessary to plan for the next generation of transport improvements to support future prosperity and growth.

This has been done by developing a long-term Transport Vision for LTP4. This work has begun to highlight the issues and main priorities in terms of movement, and rail infrastructure is likely to be key in helping to address these.

Once the outcomes of the Vision work are complete it is probable that the Rail Strategy will require revisiting to ensure that it aligns with the long term Vision and includes any new rail-related priorities.

Figure 2.1: Development Objectives for Rail in Hertfordshire



2.2 Rail Industry Timescales

A key element in developing the Rail Strategy is understanding the rail industry timescales for development of initiatives. A summary of the timescales in the industry is shown in Figure 2.2.

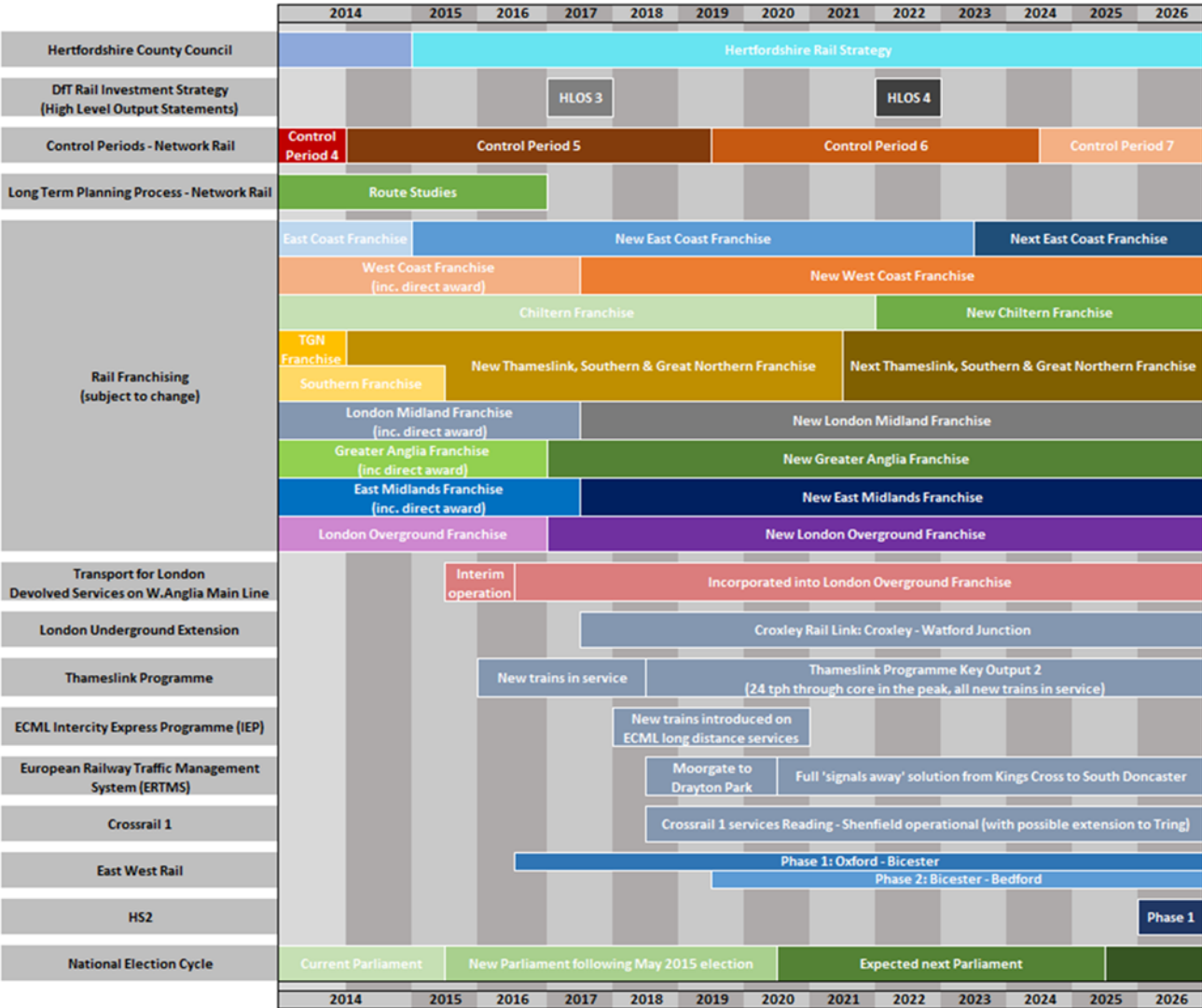
It is important to understand that rail industry planning timescales are long. Each Control Period (the period over which the Office of Rail Regulation sets regulatory targets, income and costs for Network Rail) lasts five years. Whilst this is good for the industry, in that it can plan with some certainty of funding for that period, it means that new infrastructure schemes often have to be planned with more than five year lead times.

For example, the plans for Control Period 5 (2014-2019) are now fixed, so any new infrastructure schemes will likely have to be implemented in Control Period 6 (2019-2024). Planning for this period starts with the Planning Oversight Group's Initial Industry Plan to be delivered in 2016 and the Department for Transport's High Level Output Specification (HLOS), which is expected to be published in 2017. Consultation and negotiations to inform the HLOS have already started, for example with the publication of Network Rail's Route Studies.

There are opportunities to progress smaller schemes and service improvements through the franchise renewal processes, of which a number will occur in Hertfordshire before the end of the current Control Period, for example East Anglia and West Midland.

Major projects will also have a significant impact on the county, particularly over the next 10-20 years, with schemes such as Crossrail 1 and HS2, and potentially Crossrail 2, all scheduled to be implemented in this timescale.

Figure 2.2: Rail Industry Timescales



3. Key Issues and Themes

This section highlights the key issues and themes raised during the baselining element of the study. These were identified through a combination of desk-based analysis and stakeholder consultation. The key elements of the evidence are included in **Chapter 4 (The Rail Strategy for Hertfordshire)** of this report.

The themes are:

- rail plays a very important role in the Hertfordshire economy - rail mode share in Hertfordshire is 16% for work trips, over 60,000 people commute out of the county by rail each day, with the majority (96%) commuting to London (for which rail mode share is 51%). Rail also brings over 12,000 workers into the county, with about 75% of these coming from Greater London;
- a few key rail stations in the county are dominant, particularly for travel to London - the top 10% of stations (St Albans City, Watford Junction, Stevenage, Elstree & Borehamwood, and Harpenden) account for 39% of all rail demand in Hertfordshire;
- there is a lack of good orbital (east-west) rail links in Hertfordshire - orbital road links (e.g. M25, A414) are congested and forecast to get worse. The rail network is largely radial (to and from London) meaning there are connectivity gaps;
- there are issues with station and train facilities that affect the passenger experience of rail in the county - satisfaction is below the south east average for many train facilities, particularly on Greater Anglia and Thameslink / Great Northern services (e.g. staff availability and helpfulness, on-train information, and upkeep and repair of trains). There are also gaps in provision of accessible facilities at some of the most used stations;
- rail is an important component of the Hertfordshire transport network in enabling movement and access - congestion on the Hertfordshire road network is a significant issue, particularly on key corridors such as the A1(M), and many strategic roads are expected to be over capacity by 2031, causing longer and more unreliable journey times;
- rail will need to accommodate increased travel demand in future - Hertfordshire's population is projected to grow by 18% to 2031 (an additional 203,000 people). Employment is expected to grow by 15% (over 80,000 new jobs). In addition, growth in neighbouring areas, particularly London, Bedfordshire and Cambridgeshire, will increase demand for rail travel through Hertfordshire;
- a number of Hertfordshire's rail lines are forecast to be over capacity by 2031 - Midland Main Line long distance services to St Pancras are forecast to be at 133% of capacity by 2031, with West Coast Main Line suburban services at 107%, Great Northern services to Moorgate at 104%, and Chiltern services to Marylebone at 100%; and

- a number of rail projects are committed or planned that will transform rail travel in the region in the next 10-15 years - major projects, such as the Thameslink Programme, Crossrail, HS2 and potentially Crossrail 2, will provide significant changes to the capacity available and journey opportunities on key services to and from Hertfordshire.

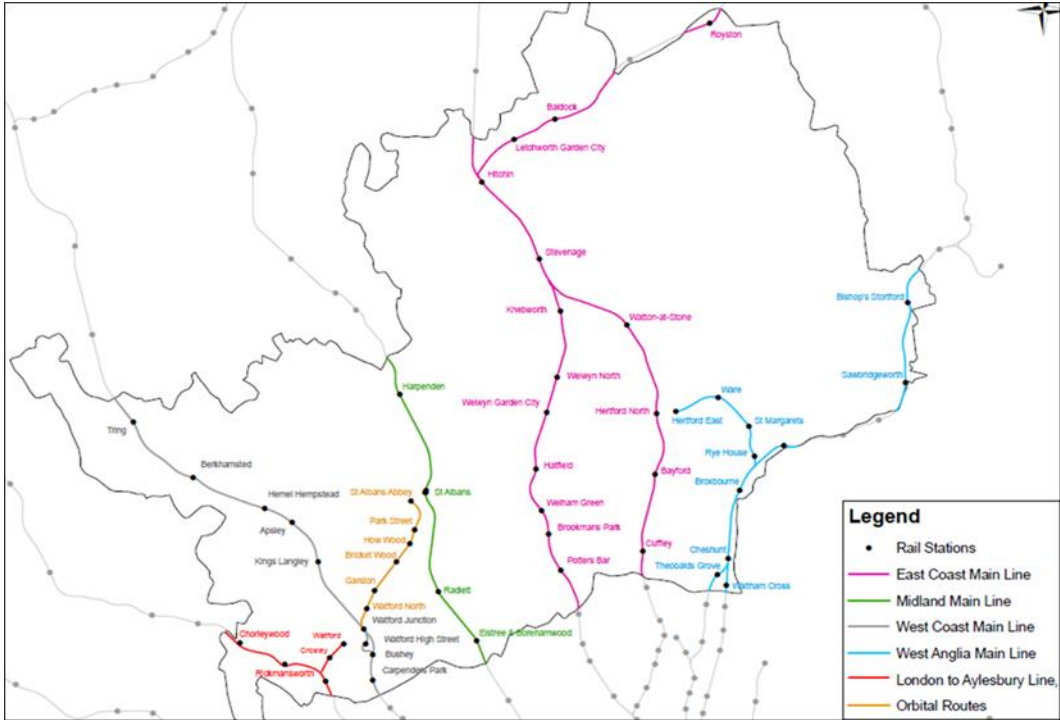
Overarching themes that occur over a number of lines include:

- capacity constraints and bottlenecks on lines (for example short platform lengths on the WAML and joint running on the London to Aylesbury Line);
- peak time overcrowding on key services (for example on Great Northern services from Welwyn Garden City and Thameslink services from St Albans);
- strong projected population, employment and housing growth (for example a 20% increase in population in Watford to 2031 and a 23% increase in jobs in St Albans);
- low frequencies and slow journey times from key stations (for example 6tph from Hatfield to London and 43 minutes from Hertford North to London);
- gaps in suburban and long distance provision (for example poor connectivity from Watford to local destinations and concern about the long distance level of service at Stevenage); and
- poor connectivity between key Hertfordshire towns (for example east to west links such as between St Albans and Bishops Stortford).

A number of committed projects, for example the Thameslink Programme, the Inter City Express Programme, the West Anglia Main Line short-term capacity improvements, and GTR's Hertford Loop improvements, will contribute to overcome some of these issues, and the rail strategy is intended to provide a basis for Hertfordshire to influence these and other schemes.

It should be noted that forecasts for housing and employment growth were correct at the time of going to press and will be subject to review and Local Plan adoption to ensure that the most up to date evidence is used in relevant lobbying.

Figure 3.1: Rail corridors passing through Hertfordshire



4 The Rail Strategy for Hertfordshire

This chapter presents the rail strategy for Hertfordshire. It provides details of the recommended strategies for each route and topic, which comprise a series of committed, planned and other interventions that address the relevant conditional outputs identified through the baseline analysis.

Importantly, the Strategy recognises that the county will benefit from significant investment in rail enhancements in the next 5-10 years, through major projects such as the Thameslink programme, IEP and Crossrail. It will also benefit from utilising capacity on the existing railway network released by the opening of HS2.

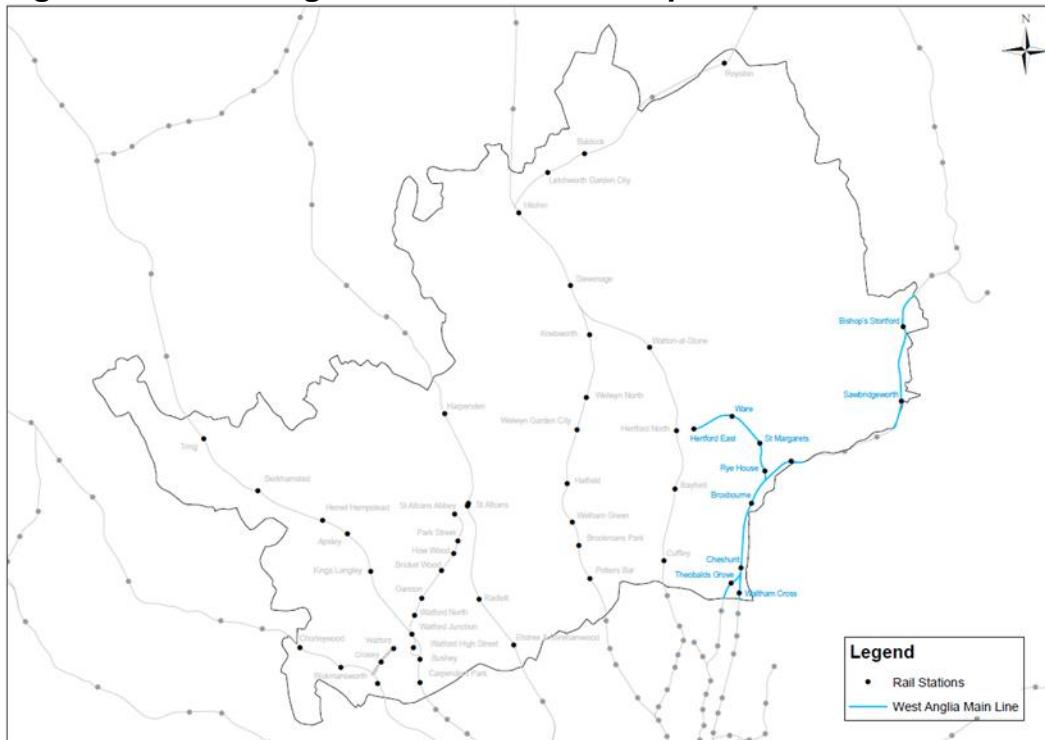
The Strategy is set out in the following sections:

- 4.1 West Anglia Main Line
- 4.2 East Coast Main Line
- 4.3 Midland Main Line
- 4.4 West Coast Main Line
- 4.5 London to Aylesbury Corridor
- 4.6 Orbital Movements
- 4.7 Access to International Airports
- 4.8 HS2 Opportunities
- 4.9 Station Facilities
- 4.10 Freight

4.1 West Anglia Main Line

The rail lines covered under the West Anglia Main Line strategy area are shown in Figure 4.1. The West Anglia Main Line links London Liverpool Street with Cambridge and East Anglia, and also includes the Hertford East Branch to Broxbourne.

Figure 4.1: West Anglia Main Line Route Map



4.1.1 The Main Line

The **development objectives** targeted for the West Anglia Main Line are:

- supporting competitiveness;
- enabling economic growth;
- supporting the environment and sustainability; and
- supporting population growth.

The **key issues and evidence** identified in the baseline analysis and in stakeholder engagement for the West Anglia Main Line are:

- existing capacity constraints on the line, particularly platforms that cannot accommodate 12-car trains and two-track infrastructure that does not allow fast trains to overtake stopping services;
- long journey times to London relative to other corridors, for example 38 minutes from Bishop's Stortford (compared to 24 minutes from Stevenage);
- capacity issues at Liverpool Street and the importance of Stratford as an alternative and as a destination for employment and leisure in its own right,

with the scope to interchange onto Crossrail for Canary Wharf and Central London and connections to City Airport via the DLR;

- rail growth will be driven by significant housing in Hertfordshire, Essex and Cambridgeshire by 2031 (+15% in Broxbourne, +26% in East Cambridgeshire) and employment growth of 7000 jobs by 2030 in Broxbourne
- West Anglia services into London Liverpool Street are close to capacity and as a result of this growth are forecast to reach capacity (97%) by 2031; and
- planned growth at Stansted Airport (from 18m now to 45m passengers per year by 2030) will place additional demands on the rail corridor from outside the county.

Given the above issues, the **conditional outputs** identified for the West Anglia Main Line are to:

- address constraints to enable capacity increases to accommodate forecast demand;
- provide sufficient capacity for forecast demand to and from neighbouring growth areas;
- provide sufficient capacity for forecast demand to London; and
- improve journey times to London (including Stratford) from all stations including Bishop’s Stortford.

The interventions recommended to address these conditional outputs are shown in Figure 4.2.

Figure 4.2: West Anglia Main Line Interventions

| Conditional Output | Interventions | | | |
|---|--------------------------------|---|----------------------|--|
| | Committed | Planned | Other | |
| Address constraints to enable capacity increases to accommodate forecast demand | <i>CP5 enhancements scheme</i> | <i>Train / platform lengthening and extra platforms at Liverpool Street</i> | <i>Four-tracking</i> | |
| Provide sufficient capacity for forecast demand to neighbouring growth areas | | | | |
| Provide sufficient capacity for forecast demand to London | | | <i>Crossrail 2</i> | |
| Improve journey times to London from Bishops Stortford | | | | |

These interventions are described in more detail below:

CP5 enhancements scheme – Committed – CP5 (2014-2019)

This committed scheme adds capacity by improving timetabling, rolling stock utilisation and performance, primarily by delivering 4tph in the peak on the Lea Valley Line to Stratford in place of the current 2tph. This is partly achieved by three-tracking certain sections of the line south of Hertfordshire. It provides additional connections to significant employment growth areas in East London such as Stratford and (via DLR) Docklands and South East London. The county council will support these improvements, noting that even with this scheme, core capacity problems on the WAML are expected to remain.

Timetable studies would help inform further options that would build on the benefits brought about by these enhancements, see further details below.

Train / platform lengthening and extra platforms at Liverpool Street – Planned – CP6 (2019-2024)

Following the enhancements scheme in CP5 Network Rail has plans to increase capacity by lengthening platforms to allow for 12-car operation at Cheshunt and Waltham Cross. This scheme should see all WAML high peak services being lengthened to 12-car by the end of 2024 (providing sufficient rolling stock is made available).

The implementation of Crossrail 1 in 2019 will divert Shenfield services away from Liverpool Street station, and with some reorganisation of key junctions would allow more WAML services to run into the central London by 2024.

These improvements would benefit Hertfordshire stations on the WAML, and should be supported for implementation in CP6.

Four-tracking of the West Anglia Main Line – Other (under discussion) – CP7+ (2024 onwards)

A long standing aspiration for the WAML is to expand key sections to four tracks (from two / three) to improve journey times by allowing services from Bishops Stortford and Hertford East to run fast from Cheshunt or Broxbourne. This would be achieved by overtaking slower stopping services. Some sections of the route have space for the additional tracks, though this remains a major enhancement project. This would provide additional timetabled services to increase capacity and substantially reduce journey times from key Hertfordshire stations to London.

Crossrail 2 - Other (under discussion) – CP7+ (2024 onwards)

Crossrail 2 is a proposed new rail route running from Surrey through the centre of London to Hertfordshire in the north. The project is being promoted by TfL, which sees it both as a crucial follow on to Crossrail 1 to relieve capacity pressures in South West London and Surrey, and also as an extension of the Overground network.

The county council supports the proposals for Crossrail 2 services to terminate at Broxbourne.



Elsewhere in London conversion of services to Overground operation has delivered very substantial patronage increases, and Crossrail is expected to do the same.

In terms of benefits, significant capacity would be released on the WAML by passengers diverting to Crossrail 2 and this is likely to provide the largest benefits for the county in terms of additional capacity into London. Connections will also be enhanced through a host of new destinations in Central London and Surrey.

The committed and planned WAML capacity enhancements would be easier to justify as part of a major infrastructure investment project such as Crossrail 2, rather than as individual standalone schemes, and would bring the best potential for a programme of long term capacity enhancements.

4.1.2 Hertford East Branch

The Hertford East branch runs from Broxbourne to Hertford East. It does not connect with the Hertford Loop at Hertford North station. There is no direct connection to Stansted going north.

The **development objectives** targeted for the Hertford East are:

- supporting competitiveness;
- enabling economic growth;
- supporting the environment and sustainability; and
- supporting population growth.

The **key issues and evidence** identified in the baseline analysis and in stakeholder engagement for the Hertford East Branch are:

- existing capacity constraints caused by platforms that cannot accommodate 12-car trains and a single track section through the station at Ware which limits timetabling flexibility;
- lower levels of passenger comfort and amenity due to aging trains;
- poor service frequency relative to other corridors, with services generally only every 30 minutes due to the single track section through Ware Station;
- very poor journey times to London, for example 51 minutes from Hertford East, compared to other comparably distanced stations; and
- poorly timetabled connections to Stansted Airport via Broxbourne, and no direct rail access.

Given the above issues, the **conditional outputs** identified for the Hertford East Branch are to:

- address constraints to enable capacity increases to accommodate forecast demand;
- enhance journey times from the Hertford East Branch to London; and
- improve connections and frequencies to Stansted Airport.

The interventions developed to address these conditional outputs are shown in Figure 4.3.

Figure 4.3: Hertford East Branch Interventions

| Conditional Output | Interventions | | | |
|---|--------------------------------|---|-------------------------------------|-------------------------------------|
| | Committed | Planned | Other | |
| Address constraints to enable capacity increases to accommodate forecast demand | <i>CP5 enhancements scheme</i> | <i>Train / platform lengthening and extra platforms at Liverpool Street</i> | <i>Double track at Ware Station</i> | <i>Crossrail 2 to Hertford East</i> |
| Enhance journey times from the Hertford East Branch to London | | | | |
| Improve connectivity and frequencies to Stansted Airport | | | | |

These interventions are described in more detail below:

CP5 enhancements scheme – Committed – CP5 (2014-2019)

This committed scheme will relieve capacity issues by improving timetabling, rolling stock utilisation and performance. The timetable study referred to above (under the Main Line) should be used to identify ways to increase service frequency to 4tph, and to reduce journey times by running at least two of these services semi fast throughout the day. The county council will continue to support these improvements.

Train / platform lengthening and extra platforms at Liverpool Street – Planned – CP6 (2019-2024)

Following the enhancements scheme in CP5, Network Rail has plans to further increase capacity by lengthening platforms to allow for 12-car operation at Hertford East, Ware, St Margaret’s and Rye House, which the county council will continue to support and press for a firm commitment for implementation in CP6.

Double track at Ware Station – Other (possible) - CP7+ (2024 onwards)

This additional intervention proposes the installation of a second platform at Ware to increase capacity and reduce performance risks by removing the bottleneck and timetable constraint that the current layout imposes on the branch.

Station Interventions

Improvements to railway stations will be included in detail in a facilities audit to be completed in 2017. However, the strategy is also supportive in principle of the following proposals:

- New stations at Turnford and Park Plaza, as promoted by Broxbourne Borough Council.

4.1.3 West Anglia Main Line Strategic Priorities

The strategic priorities identified for the West Anglia Main Line are presented below:

- **Short term:** Continue to press for service improvements from the committed CP5 enhancements to reduce journey times and increase frequencies.
- **Short to medium term:** Develop options to further improve services through a timetable study to capitalise on planned investment. Increase line capacity by continuing to press for planned train and platform lengthening, and provision of extra platforms released by Crossrail 1 at London Liverpool Street before the end of CP6.
- **TOP PRIORITY - Long term:** Secure long term capacity and adequacy improvements, including four-tracking of the WAML, through support for the Crossrail 2 project and its extension to Broxbourne.

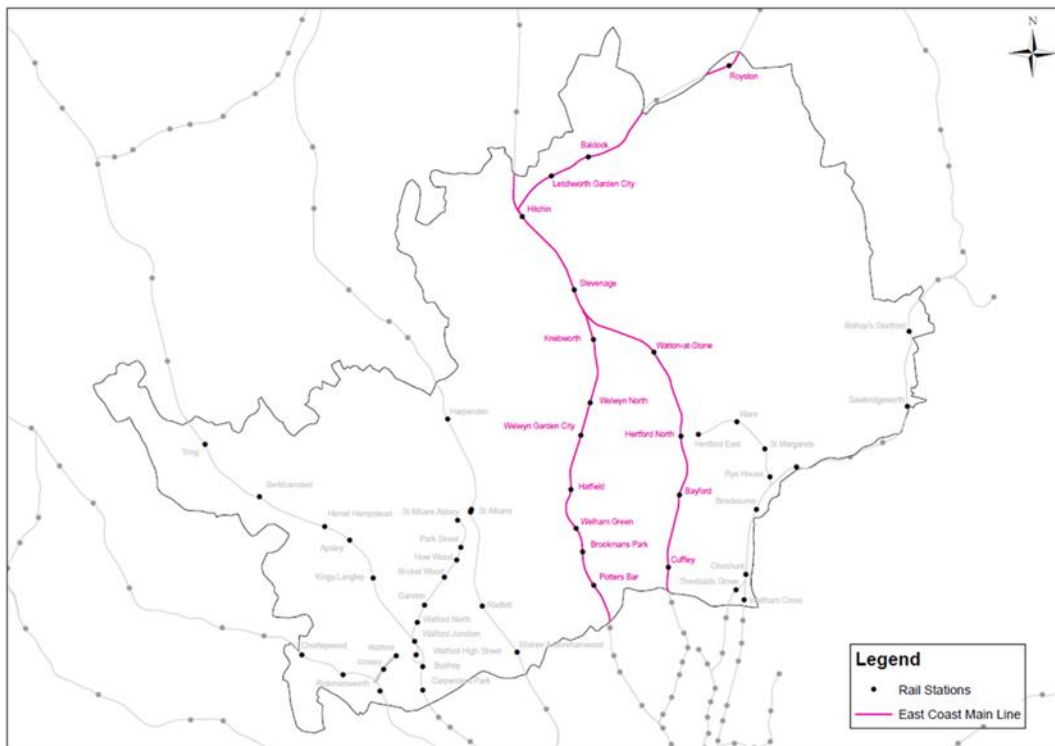
Whilst Crossrail 2 is supported as a top priority scheme, the county council will work to ensure that any negative impacts of the scheme (e.g. level crossing closures and impacts on natural habitat) are minimised.

4.2 East Coast Main Line

The rail lines covered under the East Coast Main Line strategy area are shown in Figure 4.4. The corridor includes Great Northern Suburban services from Kings Cross to Welwyn Garden City, Hitchin, Letchworth Garden City, Baldock and Royston (en route to Peterborough, Cambridge and Kings Lynn), ECML Long Distance services to Leeds, Newcastle and Edinburgh, and the Hertford Loop services from Moorgate to Hertford North, Stevenage and Letchworth Garden City.

Great Northern Suburban services will be converted to operate via the Thameslink route to destinations in Kent, Sussex and Surrey from 2018.

Figure 4.4: East Coast Main Line Route Map



4.2.1 East Coast Main Line Long Distance

The **development objectives** targeted for the East Coast Main Line Long Distance are:

- supporting competitiveness;
- enabling economic growth; and
- supporting the environment and sustainability.

The **key issues and evidence** identified in the baseline analysis and in stakeholder engagement for the East Coast Main Line Long Distance are:

- concern about possible reduction of long distance service calls at Stevenage because of timetable pressures – Stevenage is an economic hub with

significant employment growth planned and requires long distance rail connections that reflect this;

- concern about the condition of Stevenage Station, in particular the impression it gives to visitors as the gateway to the county from long distance services.

Given the above issues, the **conditional outputs** identified for the East Coast Main Line Long Distance are to:

- maintain or improve the level of service for long distance services and improve the range of directly-served destinations including but not limited to Newcastle, Edinburgh, Durham, York and Leeds.

The interventions developed to address these conditional outputs are shown in Figure 4.5.

Figure 4.5: East Coast Mainline Long Distance Interventions

| Conditional Output | Interventions | | | |
|---|---------------------------------|--|--|--|
| | Committed | Planned | Other | |
| Maintain or improve level of service for long distance services and improve the range of directly served destinations such as Newcastle, Edinburgh and Durham | <i>New East Coast Franchise</i> | <i>InterCity Express Programme (IEP)</i> | <i>Signalling enhancements (European Rail Traffic Management System - ERTMS)</i> | <i>HS2 Phase 2 (to Manchester and Leeds) released capacity</i> |

These interventions are described in more detail below:

New East Coast Franchise –Delivered – CP5 (2014-2019)

The new East Coast franchise was awarded to Stagecoach-Virgin (InterCity Railways) on 1st March 2015. More services have been promised, but not from Stevenage. A timetable review will take place in 2019/20 and the current position is to maintain the existing 2tph to the north, with 1tph to Newcastle and the other in alternate hours running to Leeds or Lincoln. However, this is not a committed proposal and there remains the risk that calls at Stevenage will be reduced in favour of running more fast trains.

The county council will continue to lobby to maintain or improve the level of long distance stops at Stevenage and to develop Stevenage as a hub station for both local and long distance services, supporting the town’s stature in the county and increasing the justification for station calls. It will also lobby to improve connectivity to Peterborough for long distance services.

InterCity Express Programme (IEP) – Committed – CP5 (2014-2019)

IEP replaces the existing intercity rolling stock with new electric and hybrid trains. It delivers increased capacity with an additional 94 seats per train which represents a 16% increase on long distance services. It does not deliver increased route capacity. It should also provide higher quality trains with greater

user satisfaction, which will lead to fewer delays due to more reliable trains. While IEP delivers some benefits in terms of additional seat capacity, this project does not deliver more connections from Stevenage to the north, although there may be an opportunity to influence the timetable.

Signalling enhancements (European Rail Traffic Management System – ERTMS) – Committed – CP5 (2014-2019)–CP6 (2019-2024)

Network Rail is installing cab signalling (ERTMS) on the ECML as a committed renewal project (with full implementation between Kings Cross and Doncaster by 2020). This should provide some increased capacity by allowing more trains to run on the tracks. It is expected to relieve key capacity constraints such as the Welwyn Viaduct and lead to improved reliability and reduced maintenance costs.

The county council will press Network Rail to ensure that the ERTMS project maximises the ability of long distance services to call at Stevenage. This is a key opportunity to address the concerns over long distance calls.

HS2 Phase 2 (to Manchester and Leeds) released capacity – Planned (under discussion) – CP7+ (2024 onwards)

HS2 Phase 2 (due for implementation in 2033) will deliver a new high speed route to Leeds with services running on to the classic network to York, Newcastle and stations in Scotland.



Following this, ECML services would be reorganised and it is anticipated that long distance trains would then be able to call more frequently at Stevenage. For this reason the county council will continue to make the case for better long distance connections from Stevenage on the ECML. The potential exists to

maintain direct connections to Leeds and York and provide new direct connections to Lincoln, Newcastle and Edinburgh.

Stevenage Station

The county council supports the proposals by Stevenage First to develop a new station building at Stevenage which will be integrated into a wider town centre redevelopment. This will enable and encourage economic development by improving the passenger experience and connectivity, and enhancing the perception of the town given to visitors.

4.2.2 Great Northern Suburban (including Hitchin to Cambridge)

The **development objectives** targeted for the East Coast Main Line Great Northern Suburban are:

- supporting competitiveness;
- enabling economic growth;
- supporting the environment and sustainability; and
- supporting population growth.

The **key issues and evidence** identified in the baseline analysis and in stakeholder engagement for the East Coast Main Line Great Northern Suburban are:

- there are a number of capacity constraints on the line;
- overcrowding on services from Welwyn Garden City;
- relatively low service frequencies at some stations compared to similar size stations in Hertfordshire, for example 6tph from Hatfield to London (compared to 10+ at St Albans, Harpenden, Stevenage);
- low service frequencies to Cambridge from across the county;
- access to the ECML from the Hitchin to Cambridge Line is seen as a key issue for Cambridgeshire;
- expected strong growth in rail driven by heavy congestion on the A1(M), a large and growing population centre at Stevenage, +27% employment growth in Welwyn Hatfield by 2031 and +13% in Stevenage; and
- as a result of this growth demand to Moorgate is forecast to be 104% of capacity by 2031.

Given the above issues, the **conditional outputs** identified for the East Coast Main Line Great Northern Suburban are to:

- address constraints to enable capacity increases to accommodate forecast demand;
- provide sufficient capacity for forecast demand at Welwyn Garden City;
- provide sufficient capacity for forecast demand at local employment growth areas;

- provide sufficient capacity for forecast demand to London;
- increase frequencies to London from Hatfield and Potters Bar;
- provide sufficient capacity for forecast demand on the Hitchin to Cambridge Line; and
- ensure that there is an adequate level of service on the Hitchin to Cambridge Line.

The interventions developed to address these conditional outputs are shown in Figure 4.6.

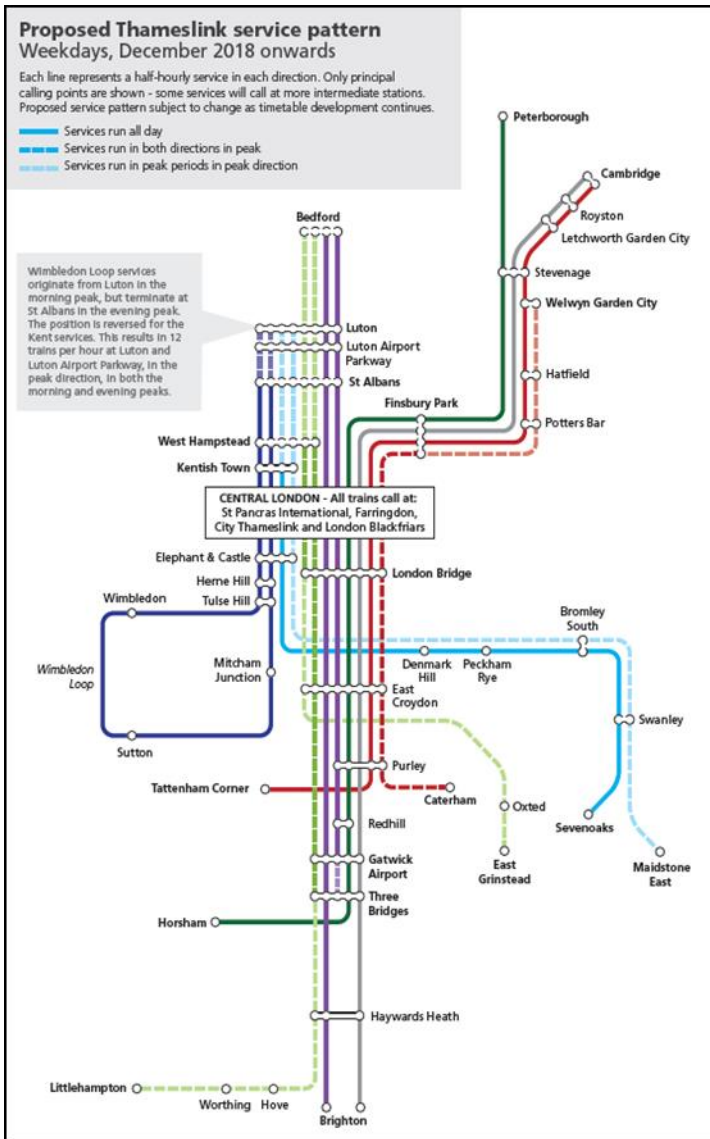
Figure 4.6: East Coast Mainline Great Northern Suburban Interventions

| Conditional Output | Interventions | | | |
|--|----------------------|---|---------------------------------------|---|
| | Committed | Planned | Other | |
| Address constraints to enable capacity increases to accommodate forecast demand | Thameslink Programme | Signalling enhancements (European Rail Traffic Management System - ERTMS) | Improve Semi-fast Thameslink Services | HS2 Phase 2 (to Manchester and Leeds) released capacity |
| Provide sufficient capacity at for forecast demand at Welwyn Garden City | | | | |
| Provide sufficient capacity for forecast demand at local employment growth areas | | | | |
| Provide sufficient capacity for forecast demand to London | | | | |
| Increase frequencies to London from Hatfield and Potters Bar | | | | |
| Provide sufficient capacity for forecast demand on the Hitchin to Cambridge Line | | | | |
| Ensure there is an adequate level of service on the Hitchin to Cambridge Line | | | | |

These interventions are described in more detail below:

Thameslink Programme (2018) – Committed – CP5 (2014-2019)

The Thameslink Programme is committed and has had a phased delivery with the final phase, Key Output 2, due to be fully delivered in December 2018. This will lead to significantly increased capacity through longer and higher capacity rolling stock with 8 or 12 coaches. It will also provide increased frequencies (20 services from Stevenage to London 0700-0959, currently 14) and improved connections (extended to City Thameslink, London Bridge, Kent, Sussex and Surrey).



The Thameslink project will also support development of the Stevenage Hub by increasing services / connections at the station.

The county council will continue to strongly support implementation of this project.

Signalling enhancements (European Rail Traffic Management System - ERTMS) – Committed – CP5 (2014-2019) – CP6 (2019-2024)

Network Rail is installing cab signalling (ERTMS) on the ECML as a committed renewal project. This may provide some increased capacity by allowing more trains to run on the tracks. This could help to relieve key capacity constraints such as the Welwyn Viaduct and will lead to improved reliability and reduced maintenance costs. This increase in capacity will benefit Great Northern as well as long distance services.

Improve Semi-fast Thameslink Services – Other – CP6 (2019 -2024) – CP7+ (2024 onwards)

This additional proposed intervention would deliver further increased frequencies at key stations such as Hatfield and Welwyn Garden City, based on anticipated passenger volume growth after introduction of the main service upgrade in 2018.

The county council will press for this and the inclusion of an improved service specification on the tender documents for the new Thameslink franchise, which will start in 2021, as long as any new services would not be to the detriment of slower services..

While some linespeed increases (through the removal of speed restrictions) and level crossing closures are planned between **Hitchin and Cambridge** the main improvement on this line (the Hitchin flyover) has already been delivered, and there are only modest further gains to be delivered. No further interventions for Hitchin-Cambridge are therefore being recommended in this Strategy.

HS2 Phase 2 (to Manchester and Leeds) released capacity – Planned (under discussion) – CP7+ (2024 onwards)

HS2 Phase 2 (due for implementation in 2033) will deliver a new high speed route to Leeds with services running on to the classic network to York, Newcastle and stations in Scotland. Following this, ECML long distance services would be reorganised and it is anticipated that as well as additional calls being potentially offered at Stevenage, Great Northern Services could also benefit from released capacity on services to London.

4.2.3. Hertford Loop

The **development objectives** targeted for the Hertford Loop are:

- supporting competitiveness;
- enabling economic growth;
- supporting the environment and sustainability; and
- supporting population growth.

The **key issues and evidence** identified in the baseline analysis and in stakeholder engagement for the East Coast Main Line Hertford Loop are:

- capacity constraints because of the two track railway on this route, and further disruptions caused by freight, all of which uses the Hertford Loop as an alternative to the ECML, and main line passenger train diversions when the ECML is blocked between Stevenage and Bounds Green;
- slower journey times to London, for example 43 minutes from Hertford North, than from comparable stations such as Welwyn Garden City and St Albans (21 and 17 minutes respectively);
- significant population growth of +18% in East Herts and +15% in Broxbourne by 2031; and
- as a result of this growth there is forecast overcrowding of up to 104% into London by 2031.

Given the above issues, the **conditional outputs** identified for the East Coast Main Line Great Hertford Loop are to:

- address constraints to enable capacity increases to accommodate forecast demand;
- provide sufficient capacity for forecast demand to London;
- provide sufficient capacity for forecast demand to Moorgate on the Hertford Loop; and
- reduce journey times to London from stations such as Hertford North and Cuffley.

The interventions developed to address these conditional outputs are shown in Figure 4.7.

Figure 4.7: East Coast Mainline Hertford Loop Interventions

| Conditional Output | Interventions | | | |
|--|-----------------------|-----------------------------|---------------------------------------|--------------------------------------|
| | Committed | Planned | Other | |
| Address constraints to enable capacity increases to accommodate forecast demand | | | | |
| Provide sufficient capacity for forecast demand to London | Updated rolling stock | Stevenage turnback platform | Diversion planning and freight review | Journey time / capacity improvements |
| Provide sufficient capacity for forecast demand to Moorgate on the Hertford Loop | | | | |
| Reduce journey times to London from stations such as Hertford North and Cuffley | | | | |

These interventions are described in more detail below:

Updated rolling stock and timetable alterations (2018) – Committed – CP5 (2014-2019)

Govia Thameslink Railway (GTR - the new Thameslink franchisee) has committed to provide new rolling stock for the Hertford Loop to replace the current life expired fleet. This will provide increased capacity and be of a higher quality. The proposal is for 25 new 6-carriage trains to be introduced by 2019.

GTR will also deliver increased peak frequencies to Moorgate benefiting from the 6-tracking between Alexandra Palace and Finsbury Park as well as 2tph all day extended from Hertford North to Stevenage – currently only 1 train per hour off peak makes this journey (2tph in the peak). This delivers better main line connections to the north from Hertford.

The county council support these improvements.

Stevenage turnback platform – Committed – CP6 (2019-2024)

Related to the previous scheme, the committed Stevenage turnback platform will deliver improved performance and reliability of Hertford Loop services by making them independent of the ECML, and allow two Hertford loop trains per hour to be extended to Stevenage for the whole day. As a result no Hertford Loop services will operate north of Stevenage (currently some run on to Letchworth Garden City). The county council will lobby to ensure connections at Stevenage will be improved to minimise interchange time for passengers from the Hertford Loop with onward journeys to Letchworth Garden City and beyond.

Benefits include the provision of additional peak capacity into Kings Cross and Moorgate and the creation of better links between Hertford and ECML destinations such as Peterborough, Leeds and Newcastle. The turnback platform will also help to develop the role of Stevenage as a hub station through the provision of new connecting services.

The county council therefore supports this scheme as a key improvement to the ECML in the county.

Diversion planning and freight review – Other – CP5 (2014-2019)

Currently, all ECML freight services run via the Hertford Loop to avoid the capacity constraints on the ECML over the Welwyn viaduct. In times of operational disruption on the main line passenger services are diverted via Hertford North as well. This proposed intervention is for a more robust plan to review freight services and how they operate on the Hertford Loop, to encourage Freight Operating Companies (FOCs) to keep these services out of the peak period to maximise capacity for passenger services. The county council is committed to encouraging freight to move by rail, and will look at ways in which both policy objectives can be achieved.

The county council will also institute a review of how passenger services are diverted from the ECML on to the Hertford Loop and engage with Network Rail and TOCs to examine ways in which the consequent disruption of the normal passenger service can be minimised.

Journey time and capacity improvements (service frequencies and infrastructure) The Hertford Loop Metro - – Other)

To build on the Stevenage turnback platform, this intervention is additional to committed or planned industry schemes. It aims to provide centre turnback platforms at Hertford North and Gordon Hill to reduce timetabling conflicts created by terminating services at Hertford North. Currently southbound services from the existing bay platform have to cross over both northbound and southbound lines, limiting other train movements. Centre turnbacks would deliver a higher frequency service with more timetable flexibility reducing journey times and increasing capacity by introducing semi-fast limited stop services on the Hertford Loop. However it should be noted that some stakeholders have indicated that this should not be achieved at the cost of reduced service frequency at stations in the London area.

The improvement would provide a substantially better service from Hertfordshire stations. This improved service could be marketed as the Hertford Loop Metro, and would build on the provision of new rolling stock in 2018. It would aim to deliver TfL Overground standard service (e.g. 4tph with station quality improvements).

An early part of this intervention will be to work closely with GTR to conduct an independent timetable study to examine what services could be delivered if the enhanced infrastructure was provided.

Station Interventions

Improvements to railway stations will be included in detail in a facilities audit to be completed in 2017. However, the strategy is also supportive in principle of the following proposals:

- A new station in south Stevenage, as promoted by Stevenage Borough Council.

4.2.4 East Coast Main Line Strategic Priorities

Significant investment in committed schemes, including Thameslink and GTR's rolling stock replacement programme, already provides the potential for a step-change in capacity and frequencies on GN suburban and Hertford Loop, with particular benefit for areas with high forecast population and employment growth such as Welwyn Garden City. Continuing engagement with GTR and Network Rail is essential to ensure that the benefits to Hertfordshire are delivered.

The strategic priorities identified for the East Coast Main Line are presented below:

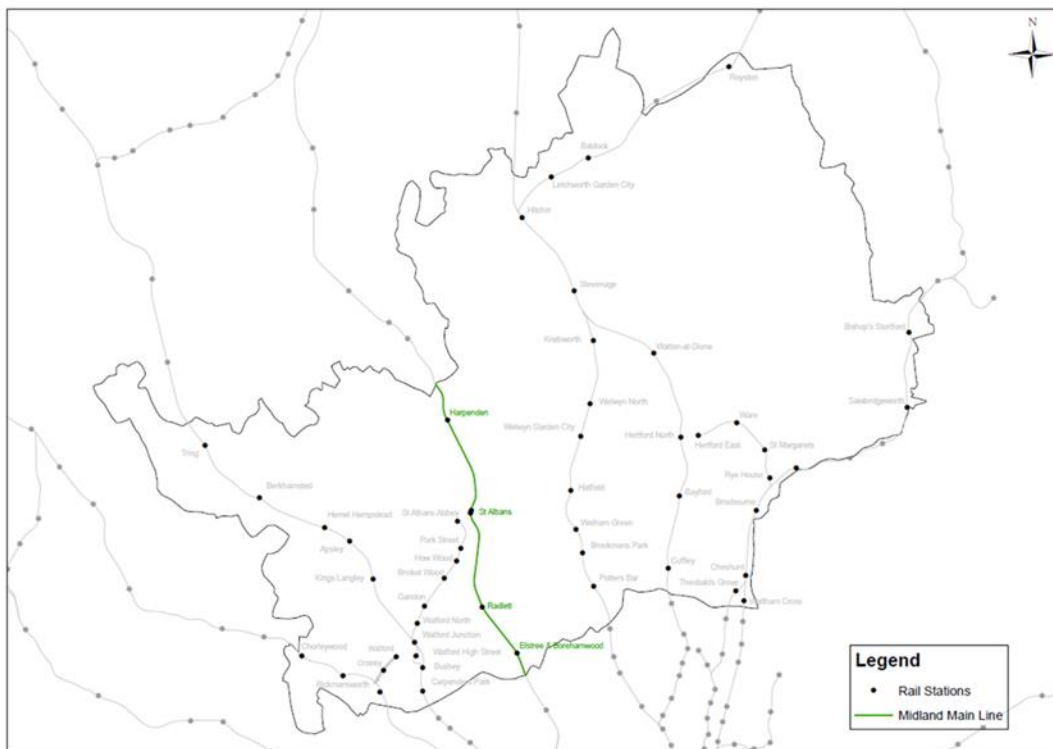
- **TOP PRIORITY - Medium term:** secure better long distance connections from Stevenage to the north from the new InterCity franchise and progress comprehensive development of Stevenage Transport Hub to support Stevenage's increasing importance as a growing population and employment centre, and its enhanced role as an interchange hub.
- **TOP PRIORITY - Long term:** further build on the GTR plans by promoting service improvements (capacity, frequency, speed) through development of 'Hertford Loop Metro' to take advantage of the new Stevenage turnback platforms and new rolling stock, and develop Stevenage as a transport hub.
- **Long term:** HS2 Phase 2 will relieve capacity pressure on the ECML from 2033 onwards. The county council will develop plans and lobby for increased long distance stops at Stevenage and increased local service frequency and capacity at other key stations.

4.3 Midland Main Line

The route covered under the Midland Main Line strategy area is shown in Figure 4.8. The Midland Main Line includes:

- Thameslink Suburban services from Bedford, Luton and St Albans to Gatwick Airport, Brighton, Sevenoaks and other Kent, Sussex and Surrey destinations, which are due to be significantly upgraded in 2018; and
- East Midlands Trains Long Distance services from St Pancras to Corby, Nottingham, Derby and Sheffield.

Figure 4.8: Midland Main Line Route Map



4.3.1 Midland Main Line East Midlands Long Distance

The **development objectives** targeted for the Midland Main Line East Midlands Long Distance are:

- supporting competitiveness;
- enabling economic growth; and
- supporting the environment and sustainability.

The **key issues and evidence** identified in the baseline analysis and in stakeholder engagement for the Midland Main Line East Midlands Long Distance are:

- the lack of connections to the Midlands and North from Hertfordshire in this corridor, for example no East Midlands Trains services currently stop at

Hertfordshire stations (instead Luton and Luton Airport Parkway are served); and

- forecast overcrowding of up to 133% on GTR services to London St Pancras by 2031.

Given the above issues, the **conditional outputs** identified for the Midland Main Line East Midlands Long Distance are to:

- improve long distance connectivity to/from Luton to provide connections to the Midlands (such as to Nottingham, Leicester and Sheffield) / North; and
- provide sufficient capacity for forecast long distance demand to London.

The interventions developed to address these conditional outputs are shown in Figure 4.9.

Figure 4.9: Midland Main Line East Midlands Long Distance Interventions

| Conditional Output | Interventions | | |
|--|-------------------------|---|--|
| | Committed | Planned | Other |
| Provide sufficient capacity for forecast long distance demand to London | <i>MML improvements</i> | <i>Long distance stops at St Albans</i> | <i>HS2 Phase 2 (to Manchester and Leeds) released capacity</i> |
| Introduce long distance stops in Hertfordshire to provide connectivity to Midlands / North | | | |

These interventions are described in more detail below:

MML improvements (2017-2019) – Committed – CP5 (2014-2019)

The Midland Main Line is set to undergo investment that could indirectly impact on Hertfordshire by releasing potential capacity on suburban services due to passengers transferring to long distance services including via:

- Electrification north of Bedford leading to faster long distance services for the East Midlands trains with the introduction of 11 x 23m trains (currently 5/7 x 23m).
- Linespeed enhancements on sections of the route delivering further reductions in main line journey times, north of Bedford. Capacity enhancements (including restoration of some of the former four track sections north of Bedford) potentially allowing more through running of new electric services.

As discussed above the combined impact of these improvements on Hertfordshire could be a release of some capacity on suburban services through passengers transferring to long distance services.

Long distance stops at St Albans

Due to strong competition from existing stops at Luton, Luton Airport Parkway and Bedford, the addition of InterCity stops at St Albans would require a reduction in stops elsewhere which would be fiercely resisted. Therefore the county council is not proposing to add St Albans to the InterCity network, but instead to seek infrastructure improvements necessary to ensure that InterCity trains could stop at St Albans during times of disruption .

HS2 Phase 2 (to Manchester and Leeds) released capacity – Planned (under discussion) – CP7+ (2024 onwards)

If HS2 Phase 2 is delivered as planned by 2033, some high speed long distance services to Nottingham and Sheffield might divert to HS2 (either as direct services or by better connections at Toton), potentially allowing more services to stop at St Albans. Hertfordshire should lobby for this as a local dividend of HS2. This would potentially deliver better direct connections to destinations to the north such as Sheffield, Nottingham and Leicester.

While an interim solution might be to call the service to Corby at St Albans, this would be of only limited value as travel to the East Midlands would still require a further change. For this reason the Corby option has not been progressed within this strategy.

4.3.2 Midland Main Line Thameslink Suburban

The **development objectives** targeted for the Midland Main Line Thameslink Suburban are:

- supporting competitiveness;
- enabling economic growth;
- supporting the environment and sustainability; and
- supporting population growth.

The **key issues and evidence** identified in the baseline analysis and in stakeholder engagement for the Midland Main Line Thameslink Suburban are:

- crowding impacts on suburban services as a result of overspill from overcrowding on longer distance Thameslink services to Gatwick Airport and Brighton;
- lower frequencies at some stations, for example 6tph from Elstree & Borehamwood to London compared to >10 at Harpenden and St Albans;
- road congestion on the M1 motorway;
- forecast employment growth of +23% in St Albans and +9% in Hertsmere by 2031; and
- forecast population growth of +18% in St Albans and +20% in Hertsmere by 2031.

Given the above issues, the **conditional outputs** identified for the Midland Main Line Thameslink Suburban are to:

- address constraints to enable capacity increases to accommodate forecast demand;
- provide sufficient capacity for forecast demand at local employment growth areas; and
- increase frequencies to London from Elstree and Radlett.

The interventions developed to address these conditional outputs are shown in **Figure 4.10**.

Figure 4.10: Midland Main Line Thameslink Suburban Interventions

| Conditional Output | Interventions | | |
|--|-----------------------------|---|--|
| | Committed | Planned | Other |
| Address constraints to enable capacity increases to accommodate forecast demand | <i>Thameslink Programme</i> | | |
| Provide sufficient capacity for forecast demand at local employment growth areas | | <i>Extension of Thameslink services</i> | <i>HS2 Phase 2 (to Manchester and Leeds) released capacity</i> |
| Increase frequencies to London from Elstree and Radlett | | | |

These interventions are described in more detail below:

Thameslink Programme (2018) – Committed – CP5 (2014-2019)

When fully delivered in 2018 the Thameslink Programme will significantly increase capacity through longer trains (many more at 12 car) and higher capacity rolling stock. It will also deliver increased frequencies (13tph from St Albans to London, currently 10) and improved connections (through extension of existing services to a further 100 stations in Kent, Surrey and Sussex). However, the East Midlands Route Study has acknowledged that there will be standing passengers above the 20 minute journey time threshold from some stations due to the updated rolling stock being designed to carry a higher proportion of standing passengers. This will need to be kept under review to ensure that adequate capacity is provided.

The county council will continue to strongly support implementation of this project.

Extension of Thameslink services – Other (possible) – CP7+ (2024 onwards)

Electrification would allow extension of some Thameslink direct services from Bedford to Wellingborough, Kettering, Corby and potentially beyond. This would help to relieve capacity pressure on long distance services north of Hertfordshire

and provide some improvement to connections to the East Midlands and destinations to the North such as Nottingham, Leicester and Sheffield. It would also open up a wider employment catchment for Hertfordshire by providing better transport options for workers from this area. However there is a risk that trains could arrive full at Hertfordshire stations. The county council is supportive of any such proposal subject to detailed capacity analysis being undertaken.

HS2 Phase 2 (to Manchester and Leeds) released capacity – Planned (under discussion) – CP7+ (2024 onwards)

If HS2 Phase 2 is delivered as planned by 2033, some high speed long distance services to Nottingham and Sheffield might divert to HS2 (either as direct services or by better connections at Toton), potentially allowing more services to stop at St Albans. The county council will support this, as it could deliver increased capacity for suburban services through reducing main line high speed train paths.

Radlett Rail Freight Terminal

The proposed new rail freight terminal at Radlett is supported in principle due to its economic development impacts and the promotion of sustainable transport. However, the county council will work to ensure that the increase in freight trains on the Midland Main Line does not have any negative impacts on passenger services.

Station Interventions

Improvements to railway stations will be included in detail in a facilities audit to be completed in 2017.

4.3.3 Midland Main Line Strategic Priorities

Committed schemes will already provide significant additional capacity, frequencies and connections through full Thameslink service introduction and MML electrification, with new rolling stock and provision for train lengthening.

The strategic priorities identified for the Midland Main Line are presented below:

- **TOP PRIORITY - Short term:** improve connections to key destinations such as Sheffield and Nottingham following completion of electrification.
- **Medium term:** further improve connections to key destinations in the East Midlands and the north following the extension of electrification beyond Sheffield and Nottingham, and support the extension of Thameslink services.
- **Long term:** HS2 Phase 2 may relieve capacity pressure from 2033 onwards and new stops at St Albans and increased capacity at other key stations as part of the post HS2 timetable development process will be lobbied for.

4.4 West Coast Main Line

The route covered under the West Coast Main Line strategy area is shown in Figure 4.11. This includes Long Distance services from Euston to the West Midlands, Manchester, Liverpool, Preston and Scotland, and suburban services between Euston and Milton Keynes, Northampton, Rugby and the West Midlands.

Figure 4.11: West Coast Main Line Route Map



4.4.1 West Coast Main Line Long Distance

The **development objectives** targeted for the West Coast Main Line Long Distance are:

- supporting competitiveness;
- enabling economic growth; and
- supporting the environment and sustainability.

The **key issues and evidence** identified in the baseline analysis and in stakeholder engagement for the West Coast Main Line Long Distance are:

- the lack of long distance connections to destinations in the north; and
- the lack of long distance services stopping at Watford Junction in the peak periods and the limited services from Watford Junction to Birmingham in the off peak (only 1tph).

The **conditional output** identified for the West Coast Main Line Long Distance is to:

- improve connections between Watford Junction and important long distance destinations to the north including Manchester and Liverpool.

The interventions developed to address these conditional outputs are shown in Figure 4.12.

Figure 4.12: West Coast Main Line Long Distance Interventions

| | | Committed | Planned | Other |
|--|--|-----------|--|-------|
| Conditional Output | Interventions | | | |
| Improve connectivity between Watford Junction and important long distance destinations to the north including Manchester and Liverpool | <i>Watford Junction as interchange hub</i> | | <i>HS2 Phase 1 (to Birmingham) Released Capacity</i> | |

These interventions are described in more detail below:

Watford Junction as interchange hub – Other (possible) – CP7+ (2024 onwards)

Due to its strategic position on the network and the current and possible interchange opportunities (including Metropolitan Line Extension, the possible extension of Bakerloo line services, the Abbey Line and London Overground) this proposed intervention is to turn Watford Junction into a major interchange hub. This builds on the station’s current interchange possibilities and provides a much better range of passenger facilities. In turn this will provide a greater incentive for TOCs to stop services at the station, and will encourage passenger demand. This focus on the station as a transport hub could also be a catalyst for development around the station to support a sustainable level of housing and jobs growth.

Following the HS2 service changes this would make Watford Junction a key interchange between regional and long distance services and deliver increased capacity to cater for the range of destinations that will be served.

HS2 Phase 1 (to Birmingham) Released Capacity – Planned (under discussion) - CP7+ (2024 onwards)

If HS2 Phase 1 is delivered as planned, long distance services to Birmingham, Manchester, Liverpool, Preston and Glasgow would all be diverted to the new route. Following this WCML services would be reorganised and it is anticipated that trains would then be dedicated to serve more regional stations. This provides the ability for services to respond to demand and stop at Watford Junction to interchange passengers and feed the local area.

For this reason the county council will continue to make the case for Watford Junction as a calling point on most of the revised main line services.

4.4.2 West Coast Main Line Suburban

The **development objectives** targeted for the West Coast Main Line Suburban are:

- supporting competitiveness;
- enabling economic growth;
- supporting the environment and sustainability; and
- supporting population growth.

The **key issues and evidence** identified in the baseline analysis and in stakeholder engagement for the West Coast Main Line Suburban are:

- capacity constraints caused by the mix of high speed, stopping and freight services, for example most London Midland services have had to run on the slow lines following route modernisation;
- road congestion on the M1 and M25 motorways;
- significant growth in the Watford area to 2031, for example +20% population growth in Watford and Three Rivers, and jobs growth of +16% in Watford and +11% in Three Rivers; and
- as a result of this growth there is forecast overcrowding of up to 107% of capacity into London by 2031.

Given the above issues, the **conditional outputs** identified for the West Coast Main Line Suburban are to:

- address constraints to enable capacity increases to accommodate forecast demand;
- provide sufficient capacity for forecast demand for suburban and London Overground services at Watford; and
- provide sufficient capacity for forecast demand to London.

The interventions developed to address these conditional outputs are shown in **Figure 4.13**.

Figure 4.13: West Coast Main Line Suburban Interventions

| Conditional Output | Interventions | | |
|---|---------------------------------|--|--|
| | Committed | Planned | Other |
| Address constraints to enable capacity increases to accommodate forecast demand | <i>Crossrail 1 to WCML link</i> | <i>Watford Junction as interchange hub</i> | |
| Provide sufficient capacity for forecast demand for suburban and overground services at Watford | | | <i>HS2 Phase 1 (to Birmingham) Released Capacity</i> |
| Provide sufficient capacity for forecast demand to London | | | |

These interventions are described in more detail below:

Crossrail 1 to WCML link

The Crossrail 1 project is under construction, linking Brentwood and Woolwich to Reading via central London. A number of services are currently intended to turn back at Old Oak Common in West London, to avoid overloading the Great Western Main Line.

A recent DfT proposal is to extend Crossrail 1 services to the WCML, with stops in Hertfordshire including Watford Junction and Hemel Hempstead. This would reduce capacity issues at Euston while the station is partially closed for HS2 rebuilding works, and also reduce the current underground transfer congestion at Euston station.

Other benefits include providing increased connections to a range of destinations in Central London, Kent and Essex, and providing a more productive use for those trains currently turning back at Old Oak Common.

This presents a major opportunity to significantly enhance the range of destinations served by Watford Junction, and to build on its current status as a key interchange point between rail corridors. Provision of better links to central London via Crossrail 1 would establish the case for development of the Watford Transport Hub.

For these reasons and because, as a scheme of national importance, funding would largely be secured from DfT budgets, the county council strongly support the proposed extension, and provide encouragement to it by developing the plans to create a Watford Transport Hub at Watford Junction station (see below).

Watford Junction as interchange hub – Other (possible) – CP6+ (2019 onwards)

Due to its strategic position on the network and significant population and jobs growth in the area, this proposed intervention is to develop Watford Junction station into a major interchange hub by substantially improving the current passenger environment, and potentially relocating the station buildings to provide better modal interchange facilities. It is vital that the station is improved to accommodate increased passenger activity, as the current station cannot continue to cater for continued growth and additional lines into Watford without some form of station intervention, as highlighted in an ongoing capacity study being conducted by Network Rail.

These improvements would make Watford Junction a key interchange between local, regional and long distance rail services and bus and coach services, and deliver increased capacity to cater for the range of destinations that will be served. The objective would be to make Watford Junction a destination of choice for passengers wishing to change (in much the same way as Network Rail and Reading Borough Council have transformed Reading station).

HS2 Phase 1 (to Birmingham) Released Capacity – Planned (under discussion) – CP7+ (2024 onwards)

If HS2 Phase 1 is delivered as planned there will be increased capacity through service enhancements from Hertfordshire stations to Euston (e.g. 8tph from Berkhamsted (currently 4tph) and 6tph from Hemel Hempstead (currently 4tph) using capacity released by the transfer of long distance services to HS2. However, this is dependent on capacity enhancements within Watford Junction station as highlighted in an ongoing capacity study being carried out by Network Rail. For this reason the county council will lobby to ensure the best use is made of the released capacity to serve Hertfordshire stations.

Station Interventions

Improvements to railway stations will be included in detail in a facilities audit to be completed in 2017. However, the strategy is also supportive in principle of the following proposals:

- A major upgrade to Watford Junction station, as promoted by Watford Council in conjunction with wider regeneration;
- Options for Hemel Hempstead station, as promoted by Dacorum Borough Council in conjunction with wider regeneration.

4.4.3 West Coast Main Line Strategic Priorities

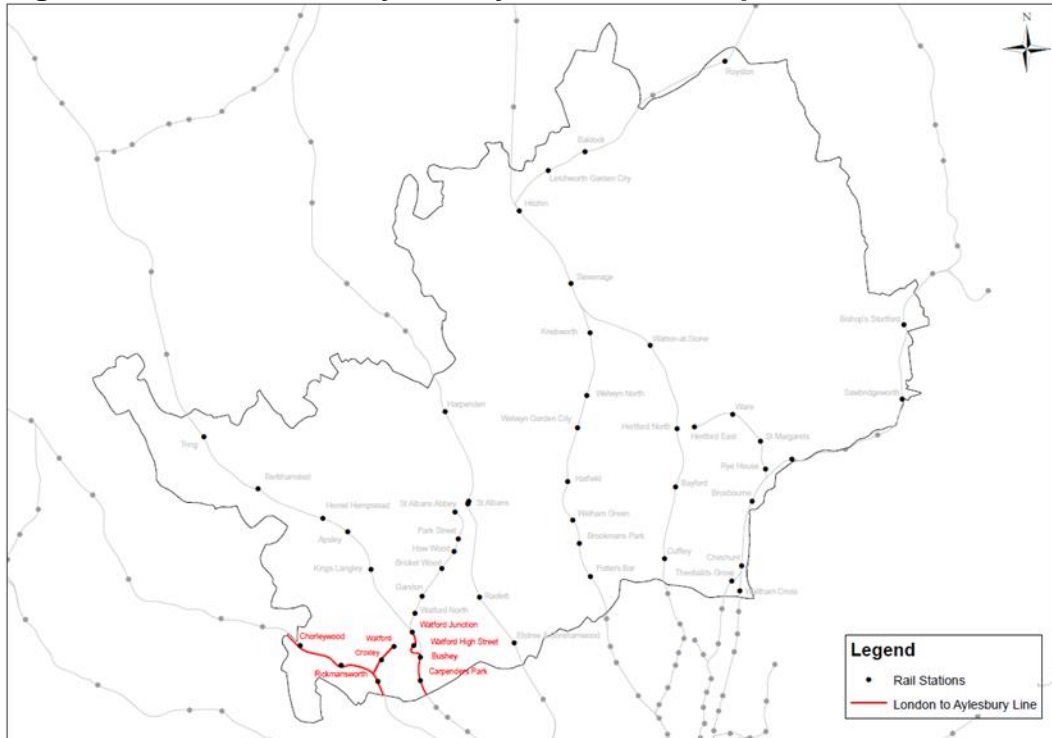
The strategic priorities identified for the West Coast Main Line are presented below:

- **TOP PRIORITY - Short term:** promote and endorse the case for extension of Crossrail 1 services to the West Coast Main Line, to build the status of Watford Junction as an Interchange Hub, and delivering better through journey access to central London.
- **Medium term:** Develop plans with Network Rail for the longer term redevelopment of Watford Junction into a major interchange hub. Lobby for most regional long distance services to stop at Watford after the introduction of HS2 Phase 1, by offering better interchange facilities for local, Crossrail and LUL services to central London.

4.5 London to Aylesbury Corridor

The rail lines covered under the London to Aylesbury Line strategy area are shown in Figure 4.14. This includes the Chiltern line from Marylebone to Aylesbury, Oxford (from 2016), Banbury and Birmingham, and London Underground Services from Aldgate and Baker Street to Amersham, and from 2018 the Metropolitan Line Extension to Watford Junction. Overground services run from Euston to Watford Junction (via the ‘DC Lines’), and this line is currently also served, as far as Harrow, by LUL Bakerloo line services.

Figure 4.14: London to Aylesbury Line Route Map



4.5.1 Chiltern Services

Chiltern services only call at two stations in Hertfordshire: Chorleywood and Rickmansworth.

The **development objectives** targeted for the London to Aylesbury Line Chiltern Services are:

- supporting competitiveness;
- enabling economic growth;
- supporting the environment and sustainability; and
- supporting population growth

The **key issues and evidence** identified in the baseline analysis and in stakeholder engagement for the London to Aylesbury Line Chiltern Service are:

- capacity constraints caused by joint running on a double track section with London Underground services and short platforms that cannot accommodate 9-car trains;
- poor local connections between Watford and Chorleywood and stations to the north;
- forecast population growth in Aylesbury of +19% by 2031; and
- as a result of this growth there is forecast overcrowding into London Marylebone of up to 100% by 2031, with a capacity gap of 1200 seats.

Given the above issues, the **conditional outputs** identified for the London to Aylesbury Line Chiltern Services are to:

- address constraints to enable capacity increases to accommodate forecast demand; and
- provide sufficient capacity for forecast demand to London.

The interventions developed to address these conditional outputs are shown in Figure 4.15.

Figure 4.15: London to Aylesbury Line Chiltern Interventions

| Conditional Output | Interventions | |
|---|--|--|
| | Committed | Planned |
| Address constraints to enable capacity increases to accommodate forecast demand | | |
| Provide sufficient capacity for forecast demand to London | <i>Longer trains and higher capacity rolling stock</i> | <i>Chiltern Aylesbury to Watford service</i> |

These interventions are described in more detail below:

Longer trains and higher capacity rolling stock – Other (possible) – CP6 (2019 -2024)

This proposed intervention for longer trains and higher capacity rolling stock could be specified as part of the new Chiltern franchise requirement in 2021. This would deliver increased capacity on the line with no additional services required. The county council will start discussions with DfT (and the incumbent TOC) to identify what should be included in the new tender as a firm contractual requirement.

Chiltern Aylesbury to Watford service – Other (possible) – CP6 (2019 -2024)

A new Chiltern heavy rail diesel service could be run between Aylesbury and Watford with the delivery of the Croxley Rail Link. The additional infrastructure for this service already exists in the form of the Amersham Chord, and could be upgraded at minimal cost.

This would deliver new direct destinations from Watford including Amersham, Wendover, Stoke Mandeville and Aylesbury, and enhance the status of Watford Junction as an interchange hub.

A timetable review to identify available capacity north of Moor Park would be required to outline the sort of service that could be offered within the existing route capacity and the LUL Metropolitan Line Extension service specification.

4.5.2 Metropolitan Line Extension and Underground/Overground Services

London Underground Metropolitan Line services currently run into their own station in Watford. By 2020 the Metropolitan Line Extension should divert some or all of these services to Watford Junction via Watford High Street station. This will provide much better connections, and enhance the status of Watford Junction station as an interchange hub.

The **development objectives** targeted for the London to Aylesbury Line Croxley Rail Link & London Underground Service are:

- supporting competitiveness;
- enabling economic growth;
- supporting the environment and sustainability; and
- supporting population growth.

The **key issues and evidence** identified in the baseline analysis and in stakeholder engagement for the London to Aylesbury Line are:

- poor local connections from Watford, for example to Amersham.

The **conditional output** identified for the London to Aylesbury Line Croxley Rail Link & London Underground Service is to:

- improve connections between Watford and local destinations such as Amersham or Chesham.

The interventions developed to address these conditional outputs are shown in Figure 4.16.

Figure 4.16: London to Aylesbury Corridor Interventions

| Conditional Output | Interventions | | | |
|---|--------------------------|-----------------------|-----------------------------------|--|
| | Committed | Planned | Other | |
| Improve connectivity between Watford and local destinations such as Amersham or Chesham | <i>Croxley Rail Link</i> | <i>Amersham Chord</i> | <i>Bakerloo Line enhancements</i> | <i>Watford Junction as interchange hub</i> |

These interventions are described in more detail below:

Metropolitan Line Extension (2020) – Committed – CP5 (2014-2019)

When fully delivered in 2020 the Metropolitan Line Extension will deliver increased regional connections to the North and an alternative route to North West and Central London with up to 6tph. It also provides improved east-west public transport connections for Watford and Croxley Green, capacity alleviation at Euston through the diversion of some passengers to Baker Street and it will enhance Watford Junction’s status as a key interchange hub. It is likely to be very heavily used for passengers travelling to and from major events at Wembley Stadium.

The county council continue to support the delivery of this important scheme.

Amersham Chord – Other (possible) – CP6 (2019 -2024)

This proposed intervention is for the use of an existing chord to run a new direct electric service to Amersham via Rickmansworth. The electrified infrastructure for this service already exists, and could be upgraded at minimal cost. As outlined above this would deliver new direct destinations from Watford including to Amersham, Wendover, Stoke Mandeville and Aylesbury, and enhance the status of Watford Junction as an interchange hub.

Bakerloo Line/Overground enhancements – Planned – CP7+ (2024 onwards)

The re-introduction of Bakerloo line services from Harrow to Watford Junction by 2026 (they were withdrawn in 1982) is currently being considered by TfL, and would, if delivered, ease capacity constraints on WCML suburban services by providing more services and give better access to regional centres. It would also provide increased connections from Watford Junction to destinations in Central London as well as a considerable frequency uplift and additional through services from Bushey and Carpenders Park. Six services per hour could be offered in place of the current 3tph, with no infrastructure work needed other than reinstatement of the fourth rail equipment.

However, TfL have stated that the extension of the Bakerloo line north of Harrow to Watford is an upgrade that is unlikely to have a good business case because

demand levels are relatively low on the route section served. A more economical solution, in their view, would be to increase the frequency of the Overground service on this route to 4 tph, which TfL is currently investigating.

Watford Junction as interchange hub – Other – CP7+ (2024 onwards)

Due to its strategic position on the network and significant local growth forecast, this proposed intervention is to turn Watford Junction into a major interchange hub post-HS2 to exploit released capacity and main line service stops. This would make Watford Junction a key interchange between regional and long distance services and deliver increased capacity to cater for the range of destinations that will be served.

Station Interventions

Improvements to railway stations will be included in detail in a facilities audit to be completed in 2017.

4.5.3 London to Aylesbury Corridor Strategic Priorities

The strategic priorities identified for the London to Aylesbury Line are presented below:

- **TOP PRIORITY - Short term:** Continue to promote the implementation of the Metropolitan Line Extension project to deliver additional capacity and enhanced access to Watford town centre and the Watford Interchange Hub.
- **Medium term:** To secure capacity improvements, the county council will work with DfT to secure commitments for the inclusion of longer trains and higher capacity rolling stock in the next Chiltern franchise (2021).
- **Medium term:** To improve local connections and exploit Watford growth hub, develop plans for a future Aylesbury-Watford Chiltern diesel service via a reinstated Amersham Chord, which would maximise journey opportunities to the north of Watford.
- **Medium term:** To improve local connections and exploit the potential for the Watford Interchange hub, the county council will also press TfL to use the Amersham chord to deliver direct services from Watford to Amersham via London Underground on the Croxley Rail Link. and also improve service frequency either via the extension of the Bakerloo Line or increasing the frequency of Overground services.

4.6 Orbital Movement

The route covered under the Orbital (East-West) Movement strategy area is shown in Figure 4.17. This includes the Abbey Line from Watford Junction to St Albans Abbey, and Other Orbital Movements which are currently not catered for. While there were other heavy rail routes in the past which ran broadly east-west, many have closed and a lot have been converted to longer distance cycle routes. Some redevelopment has occurred on the alignments. A map showing these disused rail lines can be found in Appendix B.

Figure 4.17: Orbital (East-West) Movement Route Map



4.6.1 Abbey Line

The Abbey line is a single track branch line, electrified in 1988, and operated with a captive train set independent of main line operations. An option to convert the line to light rail operation was investigated in co-operation with DfT in 2013. This concluded that due to various constraints it was not possible to further pursue this option at that time

The **development objectives** targeted for the Orbital (East-West Movement) Abbey Line are:

- supporting competitiveness;
- enabling economic growth;
- supporting the environment and sustainability; and
- supporting population growth.

The **key issues and evidence** identified in the baseline analysis and in stakeholder engagement for the Orbital (East-West Movement) Abbey Line are:

- physical constraints on the line e.g. single line with no passing loop;
- the poor service frequency, which does not connect with main line services (because of route constraints the train service runs at asymmetric times of every 45 minutes until 10pm);
- the lack of through services, forcing passengers to change at Watford Junction and St Albans; and
- significant underutilisation (the six branch stations are in the eight least used stations in the county).

Given the above issues, the **conditional outputs** identified for the Orbital (East-West Movement) Abbey Line are to:

- address physical constraints on the line;
- improve connectivity to London Euston via Watford Junction and London St Pancras via St Albans City and
- encourage increased use of the Abbey Line to help accommodate population growth.

The interventions developed to address these conditional outputs are shown in Figure 4.18.

A longer term vision for the Abbey Line, including possible options to address wider east-west movements in the county, will be considered in the LTP4 Vision.

Figure 4.18: Orbital (East-West Movement) Abbey Line Interventions

| | | Committed | Planned | Other |
|---|--|-----------|---------|-------|
| Conditional Output | | | | |
| Improve connectivity and frequency from all stations on the Abbey Line to main line services at Watford Junction and St Albans City | <i>Later running and revised stopping patterns</i> | | | |
| Encourage increased use of the Abbey Line to help accommodate population growth | | | | |

These interventions are described in more detail below:

Later running and revised stopping patterns – Other (possible) – CP5 (2014-2019)

Services cannot currently run through to London due to a lack of available paths. This means the short term focus needs to be on other possible enhancements such as the provision of later running services (beyond 10pm) to enhance usefulness and the introduction of ‘skip-stop’ services to enable enhanced frequencies and connectivity from key stations (closing three stations would allow the introduction of a 30 minute interval service).

Passing loop at Bricket Wood to increase services – Other (possible) – CP7+ (2019 -2024)

Most long term rail-based solutions for the line would require the addition of a passing loop to increase capacity by allowing a 30 minute interval service (currently 1 every 45 minutes) on clockface timings. This would significantly improve connections and produce a memorable timetable. However, it is unlikely to be considered by funders as a priority, as it would require provision of two train sets and train crew in place of the current one, making it difficult to achieve a favourable business case.

4.6.2 Other Orbital Movements

A number of additional east-west links currently exist in the county in the form of rail alignments that have been converted to long distance cycle routes, with some development having taken place on these routes. The potential for the reintroduction of these links, or the establishment of new links, and the technology which should be used, is at present unclear. Much work needs to be done, including through the LTP4 Vision work, to establish whether sufficient demand exists or can be generated by new routes. However the creation of orbital routes remains a strong priority for the county to overcome current weaknesses in transport infrastructure, including congestion on orbital routes and key growth expected along these corridors.

The **development objectives** targeted for the Orbital (East-West Movement): Other Movements are:

- supporting competitiveness;
- enabling economic growth;
- supporting the environment and sustainability; and
- supporting population growth.

The **key issues and evidence** identified in the baseline analysis and in stakeholder engagement for the Orbital (East-West Movement): Other Movements are:

- the lack of wider east-west rail travel opportunities, for example Stevenage to Watford takes a minimum of 64 minutes by rail travelling via London Kings Cross and Euston, as opposed to 38 minutes by car – assuming limited congestion; and
- road congestion (including but not limited to the M25, A1(M), A414), particularly through towns.
- There are east-west accessibility gaps (no direct rail services) around London and the South East including:
 - Great Western Line to Reading, Oxford and other locations;
 - c2c services from Fenchurch Street to Southend; and
 - Greater Anglia services to Norwich, Ipswich and Colchester.

Given the above issues, the **conditional outputs** identified for the Orbital (East-West Movement): Other Movements are to:

- develop options for east-west movement within Hertfordshire; and
- develop options to provide for east-west rail movement beyond Hertfordshire.

The interventions developed to address these conditional outputs are shown in Figure 4.20.

Figure 4.20: Orbital (East-West Movement) Other Movements Interventions

| Conditional Output | Interventions | |
|---|---|---------------------------------------|
| | Committed | Planned |
| Develop options for east-west movement within Hertfordshire | <i>East-West bus/coach service between key stations</i> | <i>East-West Rail Central Section</i> |
| Develop options to provide for east-west rail movement beyond Hertfordshire | | |

The interventions in the table above are described in more detail below:

East-West bus/coach service between key stations – Other (possible) – CP5 (2014-2019)

A short term intervention for the issue of east-west connectivity is for the provision of a dedicated coach service between key Hertfordshire stations. This could ‘infill’ east-west gaps on the rail network such as between St Albans and Hatfield and between Stevenage and Bishops Stortford. It also has the potential to build up traffic flows towards the level where a business case for a longer term rapid transit solution could be demonstrated.

This is, however, a short term intervention and not without risks. Some services already exist and are well used despite being unreliable at peak times. Further passenger increases will be difficult to achieve without new dedicated bus infrastructure to ensure reliability and shorter journey times.

Working with TOCs, stronger promotion of these services and inclusion of them in through-ticketing schemes (building on PlusBus) could also assist in building up the core business on these routes. The county council will work with GTR to include services within the National Rail GB Timetable and demonstrate whether there is potential that could justify development of more ambitious schemes.

East-West Rail Central Section – Other (under consideration) - CP7+ (2019 - 2024)

East West Rail (EWR) is a project originally promoted by a consortium of local authorities and now adopted by DfT. The western section (Oxford – Bedford) is being implemented as an electrified 100 mph railway.

The Central Section corridor has been identified as a direct Bedford – Sandy – Cambridge line, but the detailed route has still to be determined. Hertfordshire will therefore not be directly served by East West Rail, although it will improve connections from e.g. St Albans to Cambridge, and will allow connections to Hertfordshire stations on the East Coast Main Line via interchange at Sandy. The county council will press for all East West Rail services to stop at Sandy in order to maximise this connectivity.

The county council will also investigate local rail-based solutions to link towns in the north Hertfordshire / Luton area.

Station Interventions

Improvements to railway stations will be included in detail in a facilities audit to be completed in 2017.

Orbital (East – West) Movement Strategic Priorities

The strategic priorities identified for Orbital (East – West) Movement are presented below:

- **Short term:** Facilitate orbital movement between main radial rail lines with a good quality east-west bus coach service between key stations offering through ticketing and timetabled connections.
- **Long term:** Provide for east-west movement in the south of the county by working with the industry towards a long term rapid transit solution.
- **TOP PRIORITY -Long term:** Develop local east-west rail connectivity in the north of the county through new infrastructure and by ensuring connectivity to the proposed East West Rail Central Section.

4.7 Access to International Airports

4.7.1 Background

Access by rail from key centres in the county to the two airports closest to Hertfordshire (Stansted and Luton) is poor and uncompetitive when compared with car. This is because the airports are only accessible from one corridor (WAML for Stansted and Midland Main Line for Luton). In addition, Luton is only served from the station by a bus link and there are no direct services to Stansted from the WAML, other than from Bishops Stortford. Stansted also suffers from there being only one access tunnel to the station imposing a single track section on the layout. This is a significant capacity constraint.

By contrast access to Gatwick is particularly good (and will be significantly enhanced once the Thameslink project is fully implemented with direct access from St Albans and Stevenage and other stations on the ECML). However, access via the WCML and West London Line has been lost. Heathrow is well connected via central London by heavy rail and underground services.

There are currently uncertainties over where the potential provision of additional runway capacity in the South East will be (either Heathrow or Gatwick) and this could result in a need for improved access to Heathrow and Gatwick should either or both of these be chosen for additional runways, significantly increasing their capacity.

4.7.2 Access to International Airport Strategic Priorities

The strategic priorities identified for Access to International Airports are presented below:

- **Short term:**
 - Committed investment will lead to a step change for some corridors in connections to Heathrow (especially if Crossrail 1 is extended to Watford Junction) and Gatwick (Thameslink Programme – providing additional capacity on MML and new direct connection from Great Northern), as well as improvements to Luton (Thameslink Programme) and Stansted (WAML plans).
 - Additionally there is a need to increase service frequencies and connectivity on the WAML to Stansted Airport with direct services only from Bishop's Stortford and trains not coinciding with early and late flights (see WAML section above).
 - **TOP PRIORITY** - Provision of the Crossrail 1 WCML Link would offer better connections to Heathrow via Old Oak Common.

- **Long term:**
 - Reinstatement of WCML to Brighton Main Line services via the West London Line to Gatwick would provide direct connections from Watford

and Hemel Hempstead (this would be a top priority for Hertfordshire if Gatwick gets a second runway).

- Investigate local rail-based solutions for improved connections to Luton Airport from north Hertfordshire towns.
- Provide a chord for direct access from the Hertford East Branch to Stansted Airport (though would be difficult and costly to achieve). Support the enhancement of services to Stansted Airport through the potential extension of some Crossrail 2 services there. Provision of a second tunnel into Stansted Airport station to enhance capacity. Provide stops at Broxbourne and/or Cheshunt on Stansted fast services. If no new direct services to Stansted can be provided then the County Council will press for improved connectivity between trains at interchanges with reduced waiting times.

4.8. HS2 Opportunities

4.8.1 Background

HS2 is a planned high speed railway between London Euston and Birmingham with connections to North West England and Scotland (Phase 1), and then on to Leeds and Manchester with connections to North East England and Scotland (Phase 2).

Construction on Phase 1 is due to commence in 2017 with a planned completion date of 2026. Phase 2 has been given a planned completion date of 2033. The Hybrid Bill supporting Phase 1 is currently being considered by a Parliamentary Select Committee.

4.8.2 HS2 Opportunities Strategic Priorities

The strategic priorities identified for HS2 Opportunities are presented below:

- **Long term:** The introduction of Phase 1 in 2026 will provide an opportunity to take advantage of the capacity released on the WCML. Following the start of HS2 services, the county council will lobby for all long distance services on the classic WCML to stop at Watford Junction and for increased frequencies of commuter trains at key stations including but not limited to Berkhamsted and Hemel Hempstead.
- **Long term:** HS2 Phase 2 to Leeds could relieve capacity pressure on the ECML from 2033 onwards. The county council will lobby for increased long distance stops at Stevenage and increased frequency and capacity at other key stations such as Welwyn Garden City and Hatfield after the introduction of HS2 Phase 2.
- **Long term:** HS2 Phase 2 could relieve capacity pressure on the MML from 2033 onwards. The county council will lobby for increased long distance stops at St Albans and increased capacity at other key stations such as Radlett and Elstree & Borehamwood after the introduction of HS2 Phase 2.

4.9 Station Facilities, Station Access and Train Facilities

The **development objectives** targeted for Station Facilities, Station Access and Train Facilities are:

- supporting competitiveness;
- enabling economic growth;
- supporting the environment and sustainability; and
- supporting population growth.

The **key issues and evidence** identified in the baseline analysis and in stakeholder engagement for Station Facilities, Station Access and Train Facilities are:

- station accessibility gaps, for example 40% of the top 20 of stations do not have full accessibility;
- station facility gaps, for example 2 of the top 20 stations do not have toilets;
- access to stations, for example only 52% of users are satisfied with car parks; and
- train facility gaps, for example passenger satisfaction in Hertfordshire is below the South East average for 9 of 17 metrics.

Given the above issues, the **conditional outputs** identified for Station Facilities, Station Access and Train Facilities are to:

- prioritise rail station improvements to address gaps in disabled access;
- prioritise rail station improvements to address gaps in provision of facilities;
- prioritise station access improvements to address gaps in provision; and
- ensure that all rolling stock that uses the network in Hertfordshire meets the needs of all customers.

The interventions developed to address these conditional outputs are shown in Figure 4.21.

Figure 4.21: Station Facilities, Station Access and Train Facilities Interventions

| Conditional Output | Interventions | | | |
|---|---------------|--|------------------------------------|--|
| | Committed | Planned | Other | |
| Prioritised rail station improvements to address gaps in disabled access | | | <i>Station access improvements</i> | |
| Prioritised station access improvements to address gaps in provision | | | | |
| Prioritised rail station improvements to address gaps in provision of facilities | | <i>Car park and cycle parking upgrades</i> | | <i>Station and train facility upgrades</i> |
| Ensure that all rolling stock that uses the network in Hertfordshire meets the needs of all customers | | | | |

These interventions are described in more detail below:

Car park and cycle parking upgrades – Other (possible) – CP5 (2014-2019)

In the short term it is proposed that prioritised car park and cycle parking improvements are carried out. This will improve station access for a large number of users and help to secure rail mode share across the county. It should be noted that car park upgrades should be assessed with due consideration to impacts on the local road network and, where possible, the use of sustainable modes to access stations should be prioritised.

Station access improvements - Other (possible) – CP5 (2014-2019)

This proposed intervention is for prioritised station access improvements (such as to walking and cycling routes, bus access, forecourt interchanges) thereby minimising user conflict, reducing congestion, emphasising access for all. This will make rail a more attractive choice by addressing the whole ‘door to door’ journey.

Station and train facility upgrades –Other (possible) – CP6 (2019 -2024)

With regards to rolling stock, the county council will lobby for upgrades where possible on all routes. This will lead to greater passenger satisfaction, increased reliability and potentially more capacity through higher capacity trains and potentially more train paths due to faster trains with improved braking.

Prioritised station facility upgrades should also be carried out, above and beyond those currently planned for Bishop’s Stortford, Broxbourne and St Albans.

4.9.1 Station Facilities, Station Access and Train Facilities Strategic Priorities

The strategic priorities identified for Station Facilities, Station Access and Train Facilities are presented below:

- **Short term:** Address station facility gaps through targeted upgrade cycle parking facilities at key stations and car park facilities where appropriate.
- **Short term:** Address access to station (including DDA compliance) issues through local improvement schemes, particularly for sustainable modes such as buses (integrated services and through ticketing), walking and cycling.
- **Medium term:** Address train facility gaps by working in partnership with rail industry (DfT, Network Rail, TOCs) to secure higher quality of rolling stock on all lines that pass through the county.

4.10 Freight

The **development objectives** targeted for Freight are:

- supporting competitiveness;
- enabling economic growth;
- supporting the environment and sustainability; and
- supporting population growth.

The county council is committed to encouraging the modal shift of freight traffic to rail, both by encouraging Network Rail to continue to provide sufficient freight access on key corridors, and by supporting the provision of suitable freight terminals. The county council also supports the improvement to freight corridors outside the county if this would mean that freight movements would transfer from the county rail network, releasing capacity for passenger services.

The **key issues and evidence** identified in the baseline analysis and in stakeholder engagement for freight are:

- that peak hour passenger paths are at risk of being impacted by freight traffic.

The **conditional output** identified for Freight is to:

- work with FOCs to ensure that rail freight growth does not impact on the required level of peak and off-peak passenger services.

4.10.1 Freight Strategic Priorities

The strategic priorities identified for Freight are presented below:

- **Short/long term:** Manage potential impacts to passenger services from freight path requirements, working with rail industry to develop short term plan and a longer term strategy to encourage rail freight and ensure that peak hour passenger paths are not threatened, especially after the implementation of HS2.
- **Short / long term:** Safeguard existing, disused, planned and potential rail heads, links and wharves, where they have the potential for the import and export of minerals and secondary / recycled aggregates, as per national guidance and the locally adopted Minerals Plan. Support the development of new terminals where they can be built to be compatible with the needs of the local communities.

5.2 Top Priorities

The top priorities that have been identified are summarised below.

| | |
|--------------------|---|
| SHORT TERM | Additional capacity and enhanced access to Watford town centre through the Metropolitan Line Extension project, and a Watford Interchange Hub. |
| | Improved connections to key destinations such as Sheffield and Nottingham following completion of electrification of the Midland Main Line. |
| | Increased capacity and service frequency on the West Coast Main Line, and enhanced journey opportunities to London, HS2 and Heathrow through a Crossrail 1 WCML link. |
| MEDIUM TERM | ‘Hertford Loop Metro’ via service improvements (capacity, frequency, speed) to take advantage of the new Stevenage turnback platform and new rolling stock, and develop a Stevenage Interchange Hub with improved long distance connectivity. |
| LONG TERM | Transformative east-west rail connectivity in the north of the county, connecting Stevenage hub to key employment centres and enhancing orbital connections. |
| | Capacity and adequacy improvements on the West Anglia Main Line via four-tracking and the Crossrail 2 project in Hertfordshire. |

It should be reiterated that some topics or areas (such as HS2, access to airports etc.) do not have identified top priorities as they have a series of interventions, none of which individually meet multiple Conditional Outputs.

5.4 Implementing the Strategy

The Rail Strategy has been developed with extensive engagement with a wide range of stakeholders including but not limited to district councils, the rail industry, the business community and other transport providers. This process has developed general support for the recommended interventions and the strategic priorities, although inevitably stakeholders may have differing priorities.

The Strategy will be implemented quickly. In particular the top priorities will be developed as a priority to feed into the main rail industry processes, such as Network Rail Route Study consultations, DfT's HLOS process, and franchise consultations and renewals.

The county council is currently developing a long-term Transport Vision as part of its development work for its new Local Transport Plan. Once the outcomes of the Vision work are complete the Rail Strategy will require revisiting to ensure that it aligns with the long term vision and includes any rail related priorities.

There is excellent stakeholder interest and support for this strategy both within and outside the rail industry, which the county council with partners will harness to deliver a successful rail strategy that delivers the development objectives for the county.

Abbreviations

| | |
|-------|---|
| CP | Control Period |
| DfT | Department for Transport |
| DLR | Docklands Light Railway |
| ECML | East Coast Main Line |
| ERTMS | European Rail Traffic Management System |
| EWR | East West Rail |
| GTR | Govia Thameslink Railway |
| HLOS | High Level Output Specification |
| HS2 | High Speed 2 |
| IEP | InterCity Express Programme |
| LUL | London Underground Limited |
| MML | Midland Main Line |
| TOC | Train Operating Company |
| tph | Trains per hour |
| WAML | West Anglia Main Line |
| WCML | West Coast Main Line |