

**The Big Squeeze**  
Rail overcrowding in London

February 2009





# Copyright

**Greater London Authority**

**February 2009**

Published by

Greater London Authority

City Hall

The Queen's Walk

More London

London SE1 2AA

[www.london.gov.uk](http://www.london.gov.uk)

enquiries 020 7983 4100

minicom 020 7983 4458

ISBN

This publication is printed on recycled paper

# Transport Committee Members

Andrew Boff	Conservative
Victoria Borwick	Conservative
James Cleverly	Conservative
Richard Tracey	Conservative
Joanne McCartney	Labour
Murad Qureshi	Labour
Valerie Shawcross (Chair)	Labour
Caroline Pidgeon	Liberal Democrat
Jenny Jones	Green

The Transport Committee agreed the following terms of reference for this review on 9 September 2008:

- Which rail routes in London are the most crowded?
- What is the passenger experience for Londoners using rail services to commute into and around London?
- How can a detailed understanding of the levels of overcrowding inform development of the Mayor's Transport Strategy?
- How effectively is overcrowding being tackled by the government and train operating companies and what more can be done?

The Committee would welcome feedback on this report. Please contact Richard Berry on 020 7983 4199 or [richard.berry@london.gov.uk](mailto:richard.berry@london.gov.uk). For press enquiries please contact Dana Gavin on 0207 983 4603 or [dana.gavin@london.gov.uk](mailto:dana.gavin@london.gov.uk).

The maps contained in Appendix 2 were produced by the Greater London Authority's Data Management and Analysis Group.

# Contents

	<b>Chair’s Foreword</b>	<b>6</b>
	<b>Executive Summary</b>	<b>7</b>
<b>1</b>	<b>Introduction</b>	<b>9</b>
<b>2</b>	<b>The scale of rail overcrowding in London</b>	<b>11</b>
<b>3</b>	<b>Short to medium-term solutions</b>	<b>18</b>
<b>4</b>	<b>Relieving overcrowding in the long-term</b>	<b>24</b>
	<b>Appendix 1 Conclusions and Recommendations</b>	<b>31</b>
	<b>Appendix 2 Crowded trains and stations</b>	<b>34</b>
	<b>Appendix 3 Views and information</b>	<b>36</b>
	<b>Appendix 4 Rail operators and services in London</b>	<b>38</b>
	<b>Appendix 5 Orders and translations</b>	<b>39</b>
	<b>Appendix 6 Principles of scrutiny</b>	<b>40</b>

# Chair's Foreword

Overcrowding is a chronic problem on the railways in London. As passenger numbers have grown considerably in recent years, the infrastructure of the network has struggled to keep up.



This was the message of the London Assembly Transport Committee's 2007 investigation into rail services in London, which highlighted overcrowding as the key issue to be addressed. In this investigation we have heard directly from rail users in London, who describe how dire their experience of rail travel can be. Being left stranded as full trains go by, or squashed up against fellow commuters inside packed carriages are common experiences for many Londoners.

Our previous report was closely followed by announcements from the government that London would be receiving a major upgrade of the Thameslink line as well as 900 new train carriages to increase capacity elsewhere on the network. These plans are substantial, but are not likely to be ambitious enough to fully address overcrowding in the long-term.

The current economic downturn will cause Londoners to worry about keeping their jobs and their homes. It could also mean that demand for rail travel slows down in the next couple of years. We have already seen some train operating companies responding to this with cuts in services. What is important is that our response to the downturn does not impede the effort to relieve overcrowding in the future. In the long-term, passenger demand will continue to grow and solutions are needed to ensure sufficient capacity is available. London's future prosperity depends on it.

London's Mayor has a vital role in making sure these solutions are delivered. He pledged to bring together train operators and the government for an emergency summit last year, and it is important this does take place to help develop a consensus on how to relieve overcrowding. I also look forward to a new transport strategy from the Mayor later this year, which should give Londoners a clear and detailed plan for the next 10-20 years showing exactly what he intends to do to help tackle this problem.

**Valerie Shawcross AM**  
Chair, Transport Committee

# Executive Summary

This report sets out the extent of the overcrowding problem on the overground rail network in London, and then discusses potential solutions that can address the situation in the short, medium and long-term.

Rail travel is a vital part of London's transport system. Today, 43% of all journeys into central London are either wholly or partly by rail, with 7% of Londoners travelling by rail every day of the working week. The rail network is extremely important to commuters in London and the capital's economy.

Overcrowding on trains is a serious concern. For London as a whole and for most individual train operating companies, significantly more passengers are travelling than the network is able to carry. Official figures tell us that, on average, trains in London and the South East are carrying 3.5% more passengers than they should be during the morning and evening peak periods. But on the most overcrowded trains, this figure is around 40%. When trains are that crowded it means that there are probably five passengers squeezed into every square metre of standing space on board.

Overcrowding is most severe at a number of 'pinch points' on the rail network in London, where the busiest routes service extremely busy stations. We have mapped the most severely overcrowded train routes in London (see Appendix 2), and found that the worst crowding on these routes occurs at East Croydon, Surbiton, Tottenham Hale, Forest Hill, Bromley South, Balham, Clapham Junction, Finsbury Park, Sydenham, Streatham Hill and Ealing Broadway stations. Our data analysis and call for evidence has identified that pinch points also exist at Highbury & Islington, Earlsfield, Putney, Brockley, Blackheath and Wandsworth Town.

During the current economic downturn, there is a risk that the long-term investment needed to reduce overcrowding will be threatened. The recent growth in passenger numbers is slowing down; train operating companies are responding with cuts in jobs and in services, for instance by running shorter trains. The downturn has also caused problems in the manufacturing sector, which is jeopardising the provision of the new trains and carriages that have been pledged to London.

These short-term problems, however, need to be tackled alongside the long-term reality that rail travel is set to increase substantially in the long-term. If solutions are not found overcrowding will worsen.

Transport for London (TfL) has projected that demand for rail in the capital will grow by 30-40% over the next two decades. Indeed, TfL is working on models highlighting a large number of areas where severe crowding will persist up until 2026 if the issue is not addressed.

There is a consensus that more rail capacity is needed in London, and plans to introduce this are underway. In the next five to ten years trains in London will be lengthened and stations improved to accommodate them. Major new infrastructure projects, including Crossrail, will also add capacity. But there are other plans on the table which could make a big impact but are yet to be approved, such as the extension of the East London Line from Surrey Quays to Clapham Junction.

The Mayor of London has an opportunity to address these issues in his new transport strategy, which will be published later this year. The strategy must show how overcrowding is to be reduced on the rail network in the 20 years and beyond.

There is no single answer. A mix of solutions may include new infrastructure such as the 'Crossrail 2' line from Chelsea to Hackney, encouraging modal shift from rail to other forms of transport, or reducing passenger demand through the development of new economic hubs outside central London. The key point is that London needs a long-term strategy that points a clear way forward.



# 1 Introduction

- 1.1 In January 2009, senior executives of rail companies were reported to have met the Transport Secretary to discuss how they might respond to the economic downturn.<sup>1</sup> Among the items for discussion was the prospect of falling passenger demand. One possible response is to run fewer trains to save money. Another is to scale back on planned improvements such as the 900 extra carriages for London commuter trains promised by the Government in 2007 as a response to overcrowding. Less than half of these carriages have been ordered to date.
- 1.2 This report examines the long-term prospects for overcrowding on London's train services and in doing so argues that such short-term responses to the economic downturn carry significant long-term risks to these services when we move out of recession. Overcrowding remains a chronic problem on London's railways. Long-term demand projections suggest this situation is unlikely to improve significantly for many commuters despite the improvements promised which now appear to be under threat.
- 1.3 Any London rail commuter would be forgiven for being sceptical about the impact of possible falling passenger demand. Many are left stranded on a platform as train after train crawls past, too full to even attempt getting on. It is not much better for the lucky ones who manage to squeeze themselves into a packed carriage to begin stressful, uncomfortable journeys. This is a regular occurrence for many of the half a million Londoners who travel by rail every day.
- 1.4 During our investigation we set out to analyse the scale of overcrowding on London's overground trains and in doing so to identify specific pinch points. This picture is not captured by existing measurements of overcrowding which we argue underestimate its scale and do not reflect the experience of the London commuter trying to board trains which are often overcrowded before they reach the outskirts of the capital.
- 1.5 It is important to understand the scale and nature of rail overcrowding to inform appropriate policy responses. We make recommendations to improve the way overcrowding in London is measured before setting out a strategy for tackling the problem. Much responsibility for this response obviously lies with central government and the train

---

<sup>1</sup> See, for example, *Rail cuts threat because of recession*, Daily Telegraph, 19 January 2009

operating companies which operate commuter routes. But there is a significant role for the Mayor. His forthcoming transport strategy will set out his expectations for demand in the long-term and how this might be met. The potential policy responses to this are complex but ultimately boil down to measures to increase supply or decrease demand. The Mayor and Transport for London will play an important part in either delivering policies to these ends or influencing others.

*How we conducted this investigation*

- 1.6 This investigation is about overcrowding on overground heavy rail, also known as national rail, in London. It does not cover light rail systems such as the Croydon Tramlink or the London Underground network.
- 1.7 We built on the findings of 2007's Transport Committee report, *Track to the Future*, which considered rail services as a whole and highlighted the need for a more detailed look at overcrowding. Since the Committee's report, the Department for Transport has published a Rail White Paper with funding for significant capacity increases, while the funding package for Crossrail was also announced. We have reviewed key strategies for tackling overcrowding including from Transport for London, and considered the latest data on crowding, passenger satisfaction, station usage and service reliability.
- 1.8 We have taken evidence from a wide range of organisations and individuals in London's rail services. This includes those responsible for delivering services such as train operating companies and Transport for London, the infrastructure company Network Rail, the Office of Rail Regulation, the Department for Transport, watchdogs Passenger Focus and London Travelwatch, rail user groups, trade unions and the industry's safety experts the Rail Safety and Standards Board.
- 1.9 In addition, we have given London's rail commuters the chance to have their say directly by inviting input from the public about their experiences of using rail services. Their responses help us to tell a powerful story about the strain the rail network is under and the effect this has on passengers.

## 2 The scale of rail overcrowding in London

### Key points

- Overground rail is a vital part of London's transport system. Half a million Londoners use the rail network every day, with demand expected to grow long-term.
- Official figures show rail services in London are carrying 3.5% more passengers than they should be, a sharp increase over the past three years.
- The way overcrowding is measured in London does not give the full picture: many London trains are far more crowded than the official figures suggest.
- Two-thirds of London commuters are dissatisfied with crowding on peak rail services, with the capital performing worse than in other areas of the country and some services are so packed there are health and safety risks.

### Rail travel in London

- 2.1 The contribution of the national rail network to local travel is much greater in London than any other metropolitan area in the UK. There are around 50 overground rail routes into London.<sup>2</sup> 75% of all national rail journeys start or finish in the London area.<sup>3</sup> 85% of Londoners use the rail network, with half a million of us – 7% of the capital's population – travelling by rail every day.<sup>4</sup> In sum, 43% of all journeys into central London are either wholly or partly by rail.<sup>5</sup>
- 2.2 In London, rail travel increased by 32% over the decade to 2005, and is projected to grow further still. The impact of the current economic downturn means short-term projections may have to be revisited. But TfL's business plan to 2017/18 retains previous assumptions of long-term growth in demand.<sup>6</sup> In 2007, TfL made a 'conservative' estimate

---

<sup>2</sup> The train operating companies and services they run are listed in Appendix 3.

<sup>3</sup> *A rail strategy for London's future: Statement of case [Rail 2025]*, Transport for London, 2007. Available at: [www.tfl.gov.uk/corporate/modesoftransport/londonrail/2844.aspx](http://www.tfl.gov.uk/corporate/modesoftransport/londonrail/2844.aspx)

<sup>4</sup> *London Travel Demand Survey supplement: Research Briefing*, Transport for London, 2007. Available at: [www.tfl.gov.uk/assets/downloads/LTDS-research-supplement.pdf](http://www.tfl.gov.uk/assets/downloads/LTDS-research-supplement.pdf)

<sup>5</sup> *A rail strategy for London's future: Statement of case [Rail 2025]*, Transport for London, 2007.

<sup>6</sup> Letter from Transport for London to London Assembly Budget and Performance Committee, 5 January 2009

that rail travel will increase by 30-40% in the next two decades.<sup>7</sup> There is every reason to believe that this will be the case, once London's economy begins to recover.

### **Measuring overcrowding in London**

- 2.3 In this investigation we set out to map key pinch points on the rail network in London, as presented in Appendix 2. These show the twenty most severely overcrowded trains in London, and also the most crowded stations along these busy routes.<sup>8</sup> These maps offer an illustration of the problems that exist throughout the rail network in London, and highlight a number of the areas where effort needs to be focused, including around East Croydon, Tottenham Hale, Forest Hill and Surbiton. Our data analysis and call for evidence has also identified pinch points such as Earlsfield, Wandsworth Town, Highbury & Islington, Putney, Blackheath, and Brockley.
- 2.4 The Department for Transport (DfT) has monitored crowding levels on trains using a complex method called Passengers in Excess of Capacity (PIXC). Under this method, a count is undertaken once a year, measuring how many passengers are travelling in the weekday peak hours. For this purpose, the peak hours are 07:00 to 09:59 in the morning and 16:00 to 18:59 in the evening. To obtain the PIXC figure, the number of passengers travelling is compared to the capacity of the train. The difference between the two tells you how many passengers above the maximum capacity are travelling, and this number is expressed as a percentage of the total passenger load to give the PIXC score.<sup>9</sup> For instance, if a train has a PIXC figure of 10%, this means that 10% of the passengers travelling on it really shouldn't be there.
- 2.5 The overall PIXC figure for London and the South East in 2006 was 3.5%, which shows the sharp increase in crowding in recent years; in 2003, the figure was 2.7%. PIXC levels in the morning peak period are

---

<sup>7</sup> *A rail strategy for London's future: Statement of case [Rail 2025]*, Transport for London, 2007.

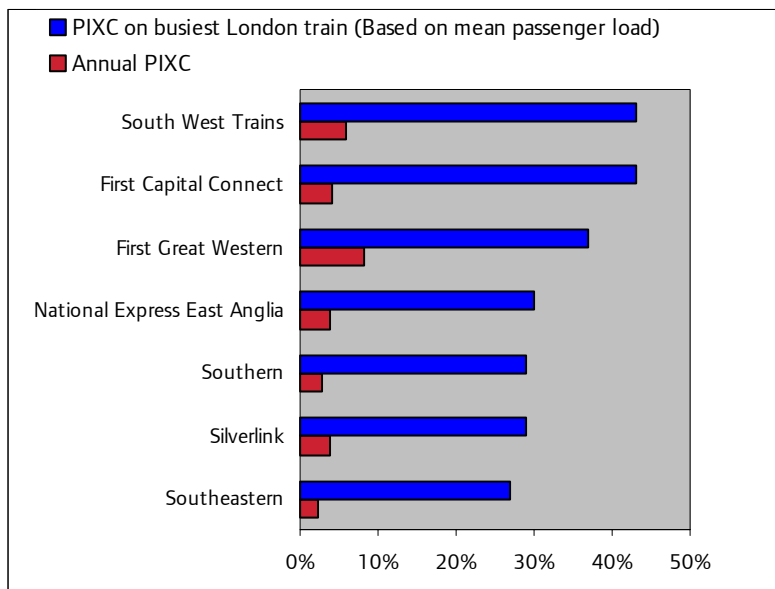
<sup>8</sup> Information is derived from: *The twenty most congested trains for which complete data is available (2007)*, Freedom of Information response, Department for Transport, 2008. Available at: [www.dft.gov.uk/foi/responses/2008/aug/foiresponsesdespatch](http://www.dft.gov.uk/foi/responses/2008/aug/foiresponsesdespatch); *Station usage 2006/07*, Office of Rail Regulation, 2008. Available at: [www.rail-reg.gov.uk/server/show/nav.1529](http://www.rail-reg.gov.uk/server/show/nav.1529)

<sup>9</sup> For journeys of more than 20 minutes, a train's capacity is equal to the number of seats. For journeys of less than 20 minutes, capacity is the number of seats plus around 35% as a standing allowance.

significantly more crowded than the evening peak, at 4.8% in the morning compared to 1.9% in the evening.

- 2.6 Even within these figures there are sharp variations in the levels of overcrowding on individual trains. For instance, the busiest train in London is the 7.15 from Cambridge to King’s Cross: this train has a maximum capacity of 494, but at the latest count (2007) was found to be carrying 870 passengers, 176% of the capacity of the train.<sup>10</sup>
- 2.7 We calculated what the notional PIXC figure would be at their destination for the busiest trains in London and compared these to the average figure for each train operating company. The discrepancy is wide. First Capital Connect trains had an average PIXC figure of 4% in 2006, but seven of its services the following year would have PIXC scores of at least 30%, more than seven times the average. Figure 1 below<sup>11</sup> illustrates the difference between the overall figures and the busiest individual services.

**Figure 1: Passengers in excess of capacity - London TOCs**



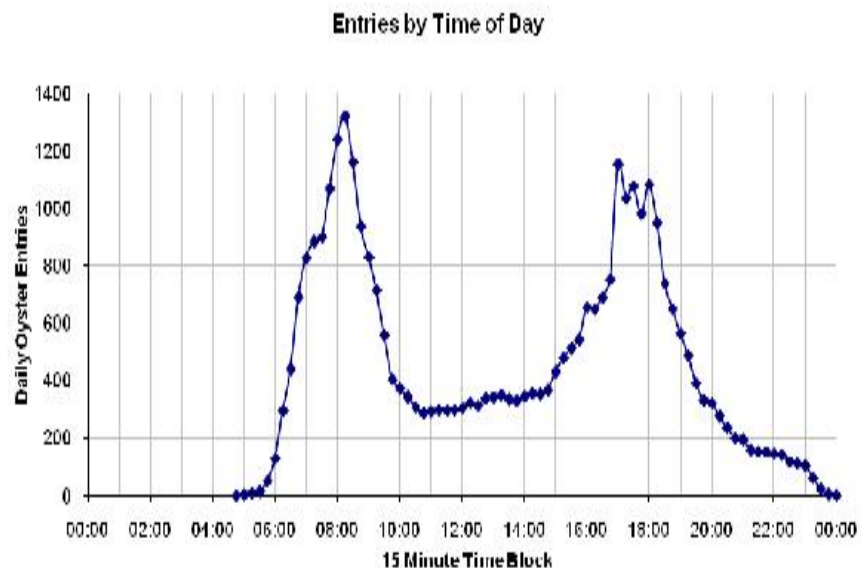
Source: Office of Rail Regulation, 2007; Department for Transport, 2008

<sup>10</sup> The twenty most congested trains for which complete data is available (2007), Freedom of Information response, Department for Transport, 2008. The figure of 176% is the ‘load factor’ for this train, which is a different way of measuring crowding.

<sup>11</sup> We have compared 2006 PIXC figures, the latest published, with 2007 figures on the most crowded trains.

2.8 The published averages of PIXC levels are skewed in part because crowding is currently being measured over a three-hour peak. The highest levels of crowding actually occur in a relatively narrower time period, both in the morning and afternoon. This is illustrated by figures from TfL on the London Overground services which they run. These show that crowding is significantly higher during a period of around one hour (see Figure 4 below).

**Figure 2: Crowding on London Overground**



Source: Transport for London, 2009

2.9 Another problem with the PIXC regime of measuring overcrowding is that it is only used on rail services in London and the South East, and not elsewhere in the country. There is no overall measure of overcrowding published for commuter services in any other major city in Britain, meaning that comparisons between areas cannot be made. Nor can comparisons be made between overground rail and other transport modes in London such as the London Underground.

2.10 TfL monitors crowding on its services, including the tube and the London Overground service, by measuring the number of passengers per square metre of available standing space. To illustrate how this measure compares to the PIXC regime, a PIXC score of 40% (which is normal for London's busiest trains) equates to around five passengers

per square metre of available standing space.<sup>12</sup> This measure more accurately reflects the experience of commuters.

2.11 The Department for Transport is revising the way it measures overcrowding on trains. This is expected to make more use of automated counting technology which allows more sophisticated analysis of crowding at different times and stations.

**2.12 It is important that in developing a new methodology for measuring crowding the DfT takes into account the specific circumstances of London’s commuter services, and designs a measurement regime that provides clear, accessible data that allows for comparisons and can more accurately inform policy responses.**

#### **Recommendation 1**

**In developing its new methodology for measuring rail overcrowding in 2009 we recommend that the Department for Transport:**

- a) Applies the same measure nationally and considers including figures on passengers per square metre on trains**
- b) Includes data on crowding during the one-hour high peak**
- c) Disaggregates data on trains to show levels of overcrowding on services within the GLA boundary to help inform the Mayor’s transport policies.**

#### **The passenger experience**

2.13 If the official data on overcrowding does not paint the complete picture on London’s commuter trains, the direct experience of those commuters does. The National Passenger Survey reveals London commuters unsurprisingly are far from content with the level of crowding on the rail network. In London and the South East only 33% of passengers reported they were satisfied that there was ‘sufficient room for all passengers to sit or stand’ at peak times. Detailed results are shown in Table 1 below.

---

<sup>12</sup> *Written evidence from Transport for London*

**Table 1: Passenger Satisfaction**

<b>Sector</b>	<b>Overall satisfaction</b>	<b>Satisfaction with train capacity</b>	<b>Satisfaction with train capacity (peak)</b>
London and South East	79%	60%	33%
Regional	84%	70%	-
Long-distance	83%	66%	-

Source: Passenger Focus, 2008. Peak-time data is only produced for London and the South East.

- 2.14 It is likely these survey results significantly underestimate Londoners' dissatisfaction with rail overcrowding. The survey is for all commuters in the South East. Submissions to this Committee from Londoners highlight the problems of London commuters in getting a seat or even boarding trains which started outside the capital.
- 2.15 Another recurring theme of responses was that, if they are able to board a train, London rail commuters often find their journeys extremely uncomfortable and perhaps even dangerous. Passengers reported that they regularly saw people fainting on crowded trains, especially during the summer, with one passenger saying she had fainted twice herself. Others reported being hurt by closing train doors because trains were too crowded, and seeing people fall into the gap between the train and the platform. Also mentioned was the phenomenon of 'train rage', when arguments break out between passengers over space on board. The Office of Rail Regulation, the national safety regulator, expressed concerns to the Committee about how crowding could present a risk to passenger safety.<sup>13</sup>

---

<sup>13</sup> *Transport Committee, 13 November 2008*



2.16 This passenger experience is important because of the impact of the potential responses to it. Some told us they had changed their travel plans: travelling at different times, from less convenient stations or on less direct routes. These findings correlate with survey research by Transport for London, the Department for Transport and Network Rail, which showed that 66% of London rail passengers caught trains earlier and later than their preferred time of travel: when asked to explain why, ‘to avoid overcrowding’ was the second most frequent reason given by passengers.<sup>14</sup> Other passengers told the Committee that overcrowding had caused them to leave their jobs or think about doing so, including those who said they would leave London.

---

<sup>14</sup> *Demand Management Techniques – Peak Spreading*, Department for Transport, Transport for London and Network Rail, 2007

## 3 Short to medium-term solutions

### Key points

- The effect of the recession on demand for rail is currently unclear
- Short-term responses to the economic downturn need to be carefully evaluated to identify the potential risks to rail services long-term
- There are a number of options train operating companies could consider in the short-medium term to alleviate overcrowding including carriage design, timetabling and passenger information
- The Mayor of London has a key role to play in representing Londoners' priorities to the industry.

### An appropriate response to the economic situation?

- 3.1 Downturns in the economy can have an impact on demand for public transport and consequently the income of providers. For example, previous recessions have led to a reduction in income to TfL of around £100 million as a result of reduced ridership on the London Underground. Passenger growth has slowed over the past year as the effects of the economic downturn have been felt. Nationally, passenger numbers grew by just under 5% in 2008, compared to an average of over 7% in the previous two years. However, at this relatively early stage in the economic downturn the likely impact on demand for London rail commuter services is difficult to predict.
- 3.2 Nevertheless the economic downturn remains a risk to train operating companies. Much recent media coverage of the rail network has focused on the prospect of services being cut back as they seek to reduce their expenditure. South West Trains, for instance, has plans to reduce the number of carriages on around 100 of their services, although not on rush hour trains.<sup>15</sup> Other options reportedly under consideration include scaling back on planned improvements such as introducing additional carriages.
- 3.3 The risks are that in seeking to respond to the deteriorating economic conditions, short-term measures actually make existing overcrowding worse and the long-term investment required to alleviate

---

<sup>15</sup> *Rail crowding set to get worse as SWT shortens its trains*, Dick Murray, Evening Standard, 16 January 2009

overcrowding as the economy picks up is compromised. For example, as a short-term response timetable changes would seem appropriate. However, evidence to this Committee suggests existing timetabling can be erratic and contribute to overcrowding.

3.4 Londoners told the Committee of several instances of irregular timetabling which lead to overcrowding because of the greater build up of passengers on the station. These include:

- On the Belvedere to London Bridge service, several trains arriving around the 8-9am peak depart six minutes after the preceding train, while others depart after a 14 minute gap.
- On the Kensington Olympia to Clapham Junction Service, there are gaps of seven or eight minutes between some peak trains and gaps of 15 or 18 minutes between others.
- On the Peckham Rye to London Bridge service, during the peak period there are some gaps of three or five minutes and other gaps lasting 12 or 13 minutes.

**3.5 It is imperative that if train operating companies are modifying timetables to cut expenditure, they do not exacerbate existing overcrowding. Such changes need to be carefully targeted and well advertised.**

3.6 Moves to reduce or cancel long-term investment in rail infrastructure as a response to the downturn should be strongly resisted. For example, the 2007 White Paper and accompanying High Level Output Specification included proposals for 900 extra carriages on routes serving London and a programme of platform lengthening to allow longer trains to be accommodated. To date only 423 of the additional carriages have been ordered and the first set of new rolling stock is expected to be in use on the network by the end of 2010.<sup>16</sup> There is no evidence to suggest that the current economic situation justifies the cancelling or delay of this long-term investment.

**3.7 Cost-cutting by train operating companies may leave the rail network lacking in the necessary infrastructure to increase capacity. While rail usage continues to grow, the government and operators must not make sweeping cuts that put future improvements at risk.**

---

<sup>16</sup> Written evidence from Department for Transport

### **Improving the passenger experience**

3.8 There are a number of other steps that could be taken by the train operating companies in the near future, which could have a positive impact on overcrowding and the passenger experience. These options should not be easily discounted because of the current economic situation.

3.9 For example, some operators have responded to overcrowding by removing seats from train carriages, providing extra space for standing passengers.<sup>17</sup> A number of passengers who have contacted the Committee suggested that some trains had too many seats. Others also referred to the provision of first class carriages on London commuter trains, which is still the practice on a large number of services. For instance, First Great Western provides first class accommodation on most of its local services in London.<sup>18</sup>

3.10 Related to this, many passengers complained to the Committee that when they were travelling standing up, they often had nothing to hold on to. People reported being stuck in the middle of the vestibule area with no accessible handholds, falling into other passengers as the train moved. The situation is worse for shorter people, with some respondents saying they could not reach the handholds that were available. This may also make crowding worse on the train, because people who have managed to find a handhold are reluctant to move down the train to create space for others.

**3.11 Trains in London need to be appropriate for use on busy commuter services. Operators should review the balance of seats and standing space on their trains, and the provision of first class accommodation. It is also evident that more handholds are needed on London trains to allow passengers to stand safely.**

3.12 There is also a lack of information available to passengers about train crowding. The operator Southeastern has been highlighted as an example of good practice: they publish information on crowding levels for each of their trains. This allows passengers to make informed decisions about which services to use based on the level of crowding they are likely to encounter. The Rail Safety and Standards Board also suggested to the Committee that operators could make

---

<sup>17</sup> Transport Committee, 13 November 2008

<sup>18</sup> Written evidence from London TravelWatch

announcements to passengers waiting at stations about crowding on upcoming services.<sup>19</sup>

- 3.13 Passengers need up-to-date information about crowding on rail services, both in advance and at stations, in order to help them plan safe and comfortable journeys. Train operators should follow industry best practice on the provision of this information to passengers.
- 3.14 The Mayor of London, Boris Johnson, pledged to hold an emergency summit with TOCs in London shortly after his election to discuss, among other issues, the chronic overcrowding of rail services.<sup>20</sup> This has not taken place to date.
- 3.15 A summit between the Mayor and train operators would be an opportunity to express how Londoners' priorities on issues under the control of train operating companies can be delivered, including in relation to timetabling, information and carriage design.**

#### **Recommendation 2**

**We recommend that the Mayor of London fulfils his commitment to hold a summit with train operating companies in London by June 2009. The summit should address the conclusions of chapter 2 of this report on timetabling, carriage design and information. A report of any agreements reached reported to the Transport Committee.**

#### **Service reliability**

- 3.16 Overcrowding problems could also be relieved if the reliability of rail services is improved. The contribution of lateness and cancellations to overcrowding was a recurring theme of the messages from the public the Committee received during this investigation, with a large number of passengers reporting that late trains or trains following a cancelled service are usually the most severely overcrowded.
- 3.17 It is encouraging that rail services have become more reliable in London in recent years but unreliability is still too high. 8.2% of trains

---

<sup>19</sup> Transport Committee, 16 October 2008

<sup>20</sup> Getting London Moving, Boris Johnson, 2008

– almost 300,000 services per year – in London and the South East are late by at least five minutes<sup>21</sup>. The proportion of trains cancelled in the region in 2007-08 was 1.0% meaning that around 35,000 services were cancelled.<sup>22</sup> These two measures are combined to give the ‘Public Performance Measure’ (PPM), which indicates what proportion of trains arrive on time: in London and the South East this currently stands at 90.8%.

3.18 There is an issue, however, about whether the current targets on service reliability provide the necessary incentive to make improvements. In the Rail White Paper, the government set a new target for improving reliability in London to 93% by 2013/14.<sup>23</sup>

**3.19 Over the past two years, train reliability in London and the South East has improved by 2.7%, as measured by the Public Performance Measure. According to the government’s target reliability must improve by only 2.2% in the next five years. This is too modest an ambition.**

3.20 Furthermore, the Public Performance Measure may be an inappropriate basis for reliability targets. The recent improvement in the PPM for London and the South East is mainly down to a reduction in lateness. Cancellations are a more disruptive occurrence and liable to cause worse overcrowding. However, the Department for Transport’s reliability target refers only to the PPM.

**3.21 Using the Public Performance Measure as the sole basis for reliability targets means that the target could be met without any reduction in cancellations, or indeed with a substantial increase. This should be modified to ensure a strong focus on reducing cancellations.**

---

<sup>21</sup> With the exception of National Express East Anglia: this company’s services are deemed to be longer distance, and regarded as late if arriving ten or more minutes behind schedule.

<sup>22</sup> *Performance Monitoring Report: National Rail Passenger Services in the London Area* [Q1 2005-06 to Q4 2007/08], London TravelWatch. Available at: [www.londontravelwatch.org.uk/document/list/84](http://www.londontravelwatch.org.uk/document/list/84)

<sup>23</sup> *Delivering a sustainable railway* [Rail White Paper], Department for Transport, 2007

### **Recommendation 3**

**We recommend that the Mayor seeks to influence the Department for Transport to increase its reliability targets for London commuter trains. The target should also be modified to include a specific target on reducing the number of cancelled trains.**

## 4 Relieving overcrowding in the long-term

### Key points

- Major infrastructure projects are already planned in London, such as Crossrail and the upgrade of Thameslink.
- Phase 2 of the East London Line would relieve overcrowding and offers significant opportunities for economies of scale if rolled on from the construction of Phase 1.
- Predictions of long-term demand for rail travel in London suggest there is a need for further measures to decrease overcrowding beyond those already agreed to.
- The Mayor should set out in his transport strategy TfL's latest assessment for long-term demand and outline the mix of policy measures over the long-term to alleviate overcrowding.

4.1 This section summarises the major rail schemes over the next ten years designed to increase capacity on the rail network serving London and thus reduce overcrowding. It also examines the likely long-term demand for rail services and the extent to which supply measures already announced will meet this projected demand. Finally, it proposes a framework to the Mayor for addressing rail overcrowding in his forthcoming Transport Strategy.

### Infrastructure projects

4.2 In the Committee's 2007 report on the rail network in London, we made the call for longer trains and platforms to increase capacity. The government has since announced in its High Level Output Specification (HLOS) that 900 new carriages would be provided in London with accompanying station development. The Committee also called for the former Eurostar platforms at Waterloo stations to be made available for domestic use. Network Rail anticipates this will be implemented, although neither this nor the extra 900 carriages will be fully delivered until 2014. Other major infrastructure projects going forward in London are described below.

### *Crossrail*

4.3 In terms of major new infrastructure, the largest project underway is Crossrail, the planned new east-west rail link from Maidenhead in the west to Shenfield in the east, including a new 14-mile tunnel underneath central London. At a cost of around £16 billion, Crossrail



will add around 10% to London's rail capacity,<sup>24</sup> and is due to commence services in 2017.

### *Thameslink*

- 4.4 Thameslink is an existing north-south rail route from Bedford to Brighton and Sutton, which is being upgraded with new rolling stock and developments at stations to accommodate longer, more frequent trains. By 2015 there will be 24 trains per hour through central London on the line, with most peak trains being twelve carriages long.
- 4.5 Substantial development work is underway at London Bridge station as part of the Thameslink programme. There will be more through platforms rather than terminating platforms, and platforms will be both lengthened and widened. Network Rail has expressed an aspiration to lengthen all of the station's platforms to 12 cars long: however, the Department of Transport has planned for two platforms to remain shorter than this.<sup>25</sup>
- 4.6 The argument for not lengthening all the platforms at London Bridge is unconvincing. It is difficult to see how the economies of scale offered by increasing platform length in one project might be offset by anything other than short-term considerations. We believe that The Department for Transport should develop plans to lengthen all platforms at London Bridge to 12 cars long and implement these alongside current work.**

### *East London Line*

- 4.7 Another infrastructure project in London is the extension of the East London Line, which will be part of the London Overground service. This is a relatively small scheme, certainly compared to Crossrail, but the final approval for the whole project has not yet been confirmed.
- 4.8 The line is currently being extended, with planned work set to be completed by 2011. In Phase 1 of the project, the line is being extended northward to Dalston and Highbury & Islington. In Phase 2, a southern extension to West Croydon is being added. There is another proposed extension westward, Phase 2b, from Surrey Quays to Clapham Junction, as shown on the map overleaf.

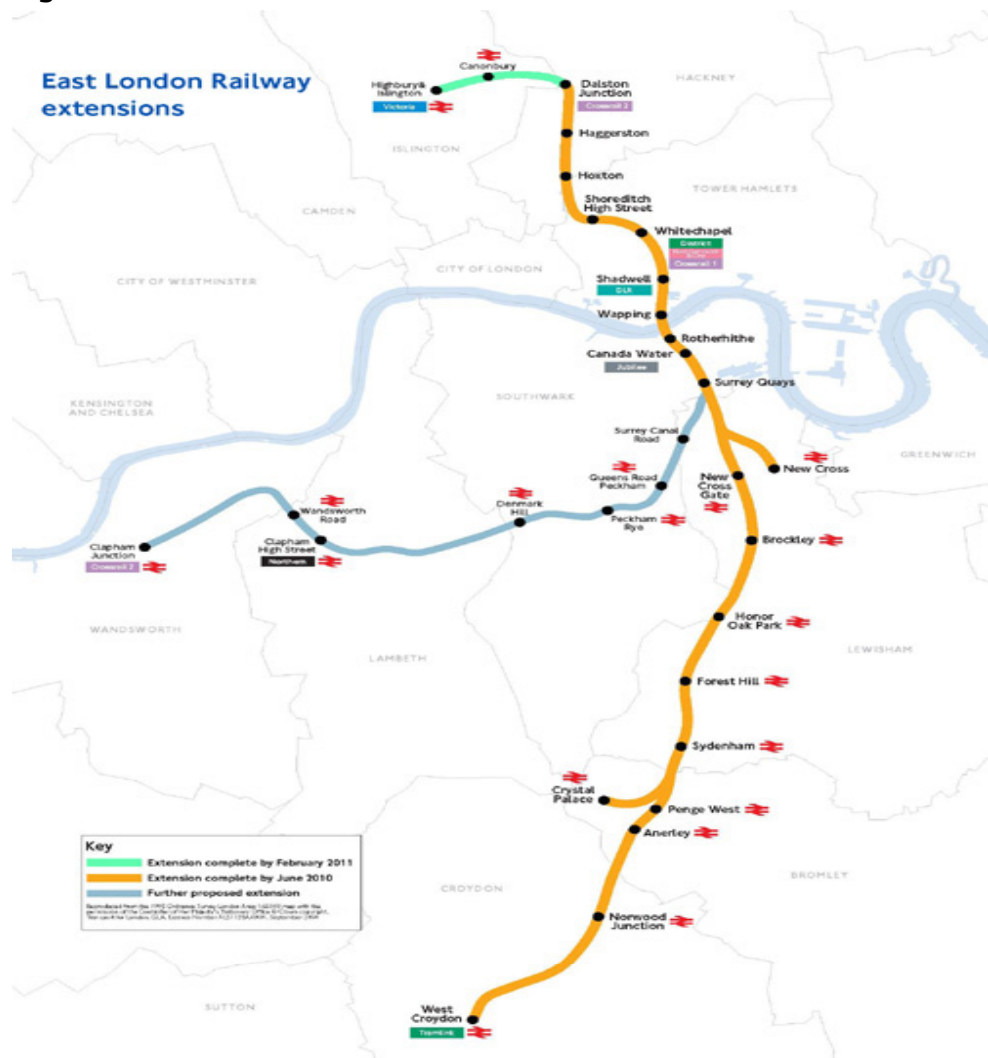
---

<sup>24</sup> *Transport 2025 – Transport visions for a growing world city*, Transport for London, 2007. Available at: [www.tfl.gov.uk/assets/downloads/corporate/T2025-new.pdf](http://www.tfl.gov.uk/assets/downloads/corporate/T2025-new.pdf)

<sup>25</sup> *Written evidence from Network Rail*

4.9 Funding for Phase 2b of the East London Line extension has not yet been agreed between Transport for London and the Department for Transport. The capital cost of the scheme will be £75 million, with existing funding falling short of this figure by £31 million. The Mayor of London has offered to fund half of this shortfall and called on the government to match this; the government has accepted this proposal in principle but agreement is still to be reached.<sup>26</sup>

**Figure 3: East London Line**



Source: Transport for London, 2009

<sup>26</sup> Transport Committee, 20 January 2009

**4.10 The business case for phase 2 of the East London line extension appears to be accepted by both the Mayor and the Department for Transport. We welcome the Mayor's commitment to trying to secure a funding agreement with Government to roll this work on from the completion of phase 1. This will undoubtedly offer economies of scale and cost savings compared with returning to the site after a period of inactivity and would meet the Mayor's aspiration to bring forward infrastructure projects to stimulate London's economy. We remain concerned though that time is running out and would urge both sides to continue negotiating with a view to reaching a speedy resolution.**

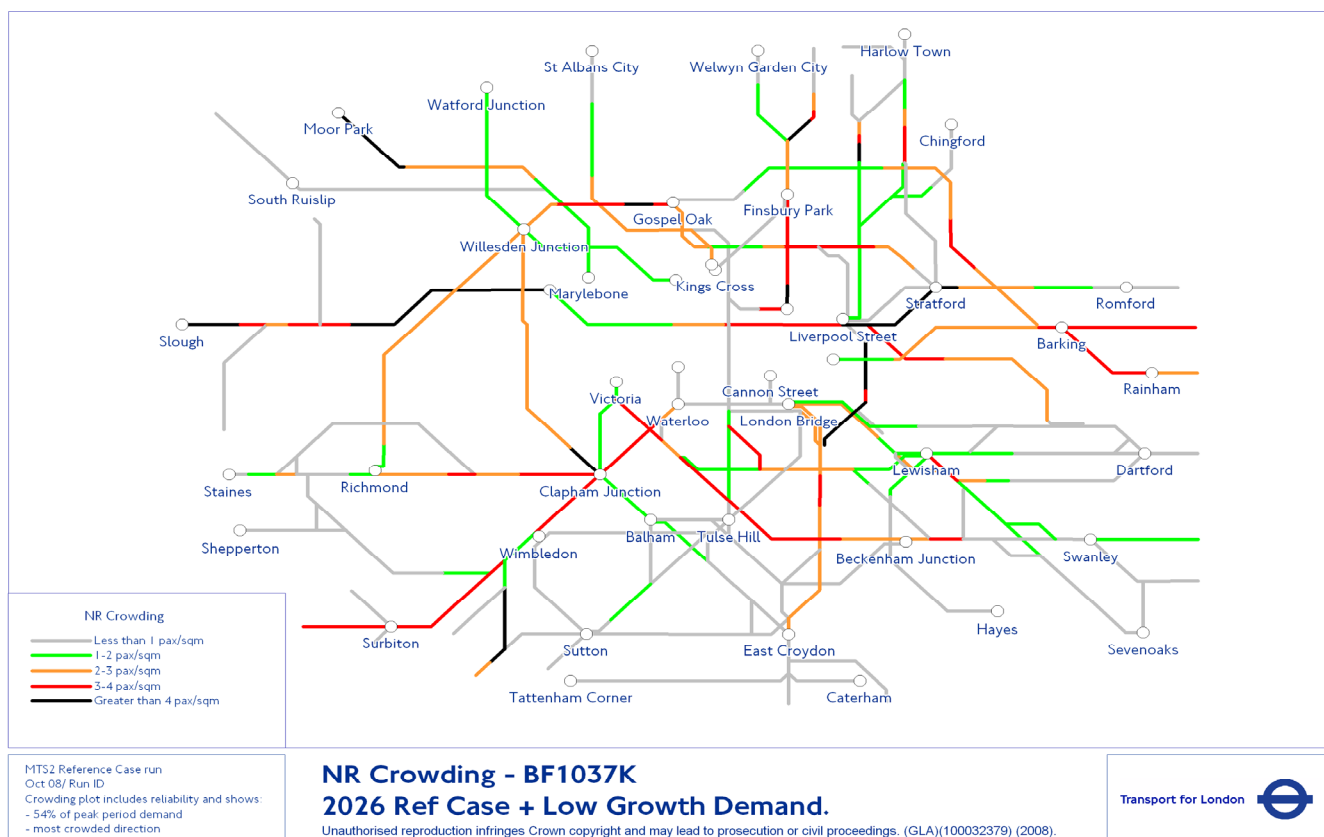
#### **Future demand**

- 4.11 The major infrastructure projects already planned or underway and summarised above remain, in transport terms, relatively short-term. The extent to which they will meet anticipated future demand beyond the next 20 years remains in doubt.
- 4.12 In 2007, Transport for London projected growth in demand for overground rail of around 30-40% over the next two decades.<sup>27</sup> Current economic problems are likely to temporarily slow down this increase in the near future, but we have received no evidence that these projections need to be revisited over the long-term. Indeed the assumptions remain in Transport for London's Business Plan published at the end of 2008.

---

<sup>27</sup> *A rail strategy for London's future: Statement of case [Rail 2025]*, Transport for London, 2007.

**Figure 4: Projected rail crowding, 2026<sup>28</sup>**



4.13 Transport for London has begun modelling the implications for rail overcrowding. Even taking into account the currently planned projects such as Crossrail, Thameslink and the East London Line, TfL are predicting that there will be areas on the rail network where overcrowding will persist to 2026 and beyond – as shown in the map above – if further measures to relieve the problem are not taken.<sup>29</sup>

4.14 In the Committee’s 2007 report on rail services in London we noted that the Department for Transport’s HLOS programme for enhancing the infrastructure of the rail network has only a relatively short timescale at five years long. The other major rail infrastructure projects in London the government is committed to are Thameslink (to be completed in 2015) and Crossrail (2017). There are no firm plans for

<sup>28</sup> See note in Appendix 3

<sup>29</sup> Written evidence from Transport for London

large enhancements, whether upgrading the existing network or building new infrastructure, beyond this.

- 4.15 The House of Commons' transport select committee criticised the 2007 Rail White Paper arguing that it proposed very few strategic initiatives beyond the immediate plans for the 2009-2014 period, and that it was a mistake not to consider the electrification of rail lines, high-speed rail and the re-opening of disused lines as part of a long-term strategy.<sup>30</sup>
- 4.16 There has been discussion of a 'HLOS 2' programme, to follow on from the train and platform lengthening currently being taken forward. This would need to be the first element of new strategic planning by the Department for Transport, and would set out a similar programme to address the overcrowding pinch points that will persist beyond 2014.
- 4.17 Transport for London (TfL) has developed initial proposals for inclusion in HLOS 2, which include longer and more frequent trains on most lines in London, with associated platform enhancements and, crucially, plans to improve station capacity to allow for increased passenger numbers.<sup>31</sup> It is clear that such proposals need to form part of the Mayor's wider strategy for transport.

### **The Mayor's Transport Strategy**

- 4.18 The Mayor of London is expected to publish a new Transport Strategy in April 2009. This is the opportunity for London to set out what capacity is needed on the rail network and other modes and how it will be provided. The Mayor's Director of Transport Policy Kulveer Ranger has told the Committee that the capacity needs of the transport system will be considered in the strategy.<sup>32</sup>
- 4.19 It is vital that the transport strategy is closely linked to other London strategies. For instance, there are concerns that new residential developments in London have not been accompanied by the necessary enhancements in transport infrastructure, worsening the overcrowding problem in some areas.

---

<sup>30</sup> *Delivering a sustainable railway: a 30-year strategy for the railways?*, House of Commons Transport Committee, 2008. Available at: [www.publications.parliament.uk/pa/cm200708/cmselect/cmtran/219/219.pdf](http://www.publications.parliament.uk/pa/cm200708/cmselect/cmtran/219/219.pdf)

<sup>31</sup> *Written evidence from Transport for London*

<sup>32</sup> Transport Committee, 20 January 2009

4.20 Assuming that TfL's current projections are not significantly revised, the strategy will need to address how the Mayor and TfL will respond to the excess demand on the rail network. There are broadly three ways of dealing with a problem of excess demand not all of which are fully in the control of the Mayor:

- The building of new infrastructure, for example, new lines, longer trains and more trains on existing lines.
- Measures to encourage a shift away from rail travel to other modes of transport, for example, by building alternative transport schemes or encouraging cycling and walking.
- Measures to reduce demand for public transport on the commuter routes from outer to central London, for example, a planning strategy which aims to create new and enhance existing hubs of economic activity. Other ways of reducing demand are measures to encourage walking and cycling such as TfL's smarter travel initiative.

4.21 In his evidence to the Committee in January 2009, the Mayor's transport adviser indicated that all of these options remained part of the Mayor's developing transport strategy. It is the mix of measures adopted, and the extent to which they are supported by central government, that will ultimately determine whether the excess demand projected is to be met. Only then will it be possible to say with any optimism that cramped, overcrowded London commuter trains will be a thing of the past.

#### **Recommendation 4**

**We recommend that the Mayor sets out in his forthcoming Transport Strategy its underlying assumptions on demand for rail travel over the next twenty years. We believe the Strategy should set out the framework for meeting future demand based around three strategic options: new rail projects, such as Crossrail 2; modal shift from rail to other forms of transport; and measures to decrease demand. The Strategy should be clear about the priority given to each option, the extent to which pursuit of each should meet any projections of excess demand, and how the proposals correspond to other Mayoral strategies.**

# Appendix 1 Conclusions and Recommendations

## *Measurement*

It is important that in developing a new methodology for measuring crowding the Department for Transport take into account the specific circumstances of London's commuter services, and designs a measurement regime that provides clear, accessible data that allows for comparisons and can more accurately inform policy responses.

## *The economic downturn*

It is imperative that if train operating companies modify timetables to cut expenditure, they do not exacerbate existing overcrowding. Such changes need to be carefully targeted and well advertised.

Cost-cutting by train operating companies may leave the rail network lacking in the necessary infrastructure to increase capacity. While rail usage continues to grow, the government and operators must not make sweeping cuts that put future improvements at risk.

## *Train design*

Trains in London need to be appropriate for use on busy commuter services. Operators should review the balance of seats and standing space on their trains, and the provision of first class accommodation. It is also evident that more handholds are needed on London trains to allow passengers to stand safely.

## *Summit with operators*

A summit between the Mayor and train operators would be an opportunity to express how Londoners' priorities on issues under the control of train operating companies can be delivered, including in relation to timetabling, information and carriage design.

## *Reliability*

Over the past two years, train reliability in London and the South East has improved by 2.7%, as measured by the Public Performance Measure. According to the government's target reliability must improve by only 2.2% in the next five years. This is too modest an ambition.

Using the Public Performance Measure as the sole basis for reliability targets means that the target could be met without any reduction in cancellations, or indeed with a substantial increase. This should be modified to ensure a strong focus on reducing cancellations.

### *Thameslink*

The argument for not lengthening all the platforms at London Bridge is unconvincing. It is difficult to see how the economies of scale offered by increasing platform length in one project might be offset by anything other than short-term considerations. We believe that The Department for Transport should develop plans to lengthen all platforms at London Bridge to 12 cars long and implement these alongside current work.

### *East London Line*

The business case for phase 2 of the East London line extension appears to be accepted by both the Mayor and the Department for Transport. We welcome the Mayor's commitment to trying to secure a funding agreement with Government to roll this work on from the completion of phase 1. This will undoubtedly offer economies of scale and cost savings compared with returning to the site after a period of inactivity and would meet the Mayor's aspiration to bring forward infrastructure projects to stimulate London's economy. We remain concerned though that time is running out and would urge both sides to continue negotiating with a view to reaching a speedy resolution.

### *Recommendations*

#### **Recommendation 1**

In developing its new methodology for measuring rail overcrowding in 2009 we recommend that the Department for Transport:

- a) Applies the same measure nationally and considers including figures on passengers per square metre on trains
- b) Includes data on crowding during the one-hour high peak
- c) Disaggregates data on trains to show levels of overcrowding on services within the GLA boundary to help inform the Mayor's transport policies.

#### **Recommendation 2**

We recommend that the Mayor of London fulfils his commitment to hold a summit with train operating companies in London by June 2009. The summit should address the conclusions of chapter 2 of this report on timetabling, carriage design and information. A report of any agreements reached reported to the Transport Committee.



**Recommendation 3**

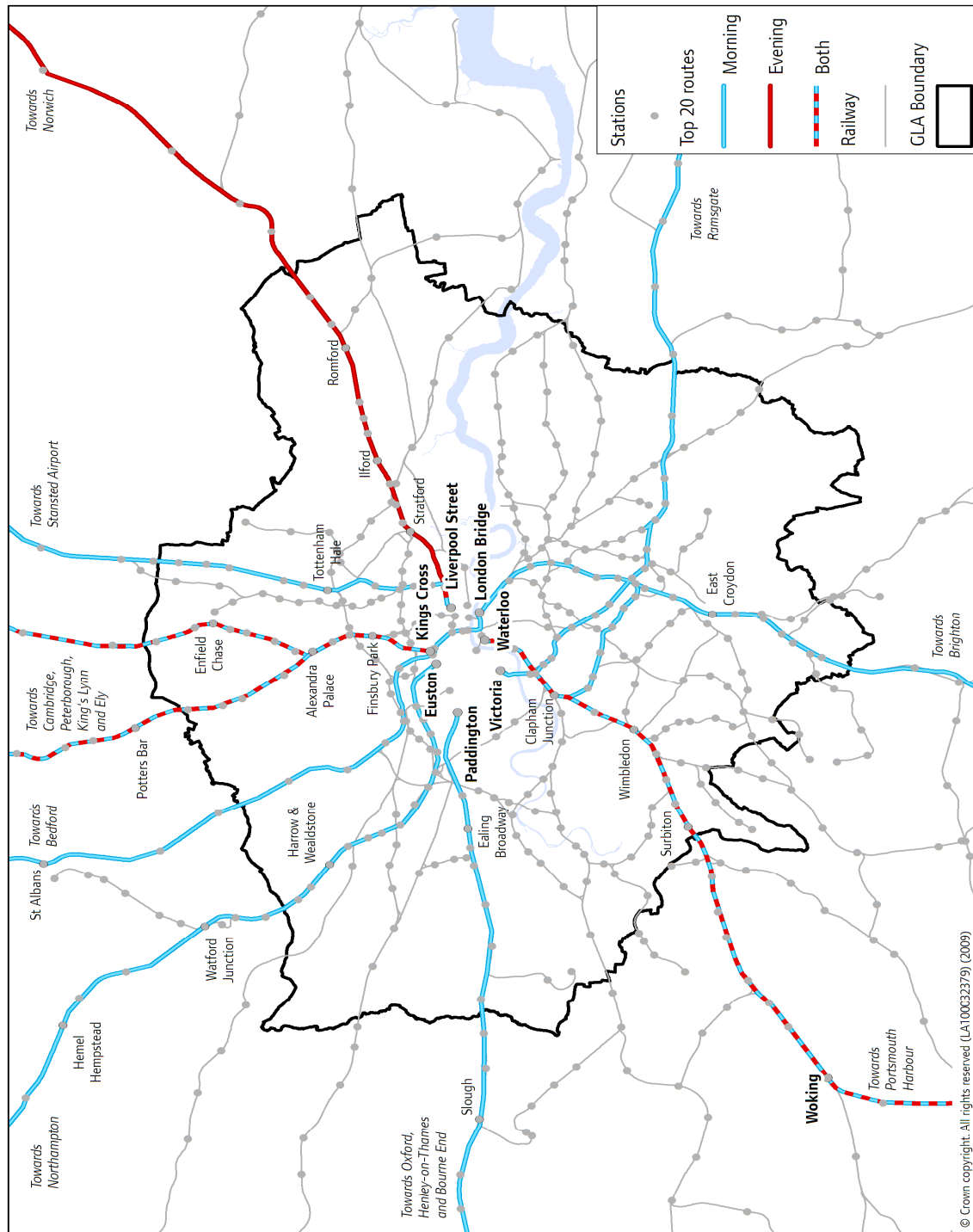
We recommend that the Mayor seeks to influence the Department for Transport to increase its reliability targets for London commuter trains. The target should also be modified to include a specific target on reducing the number of cancelled trains.

**Recommendation 4**

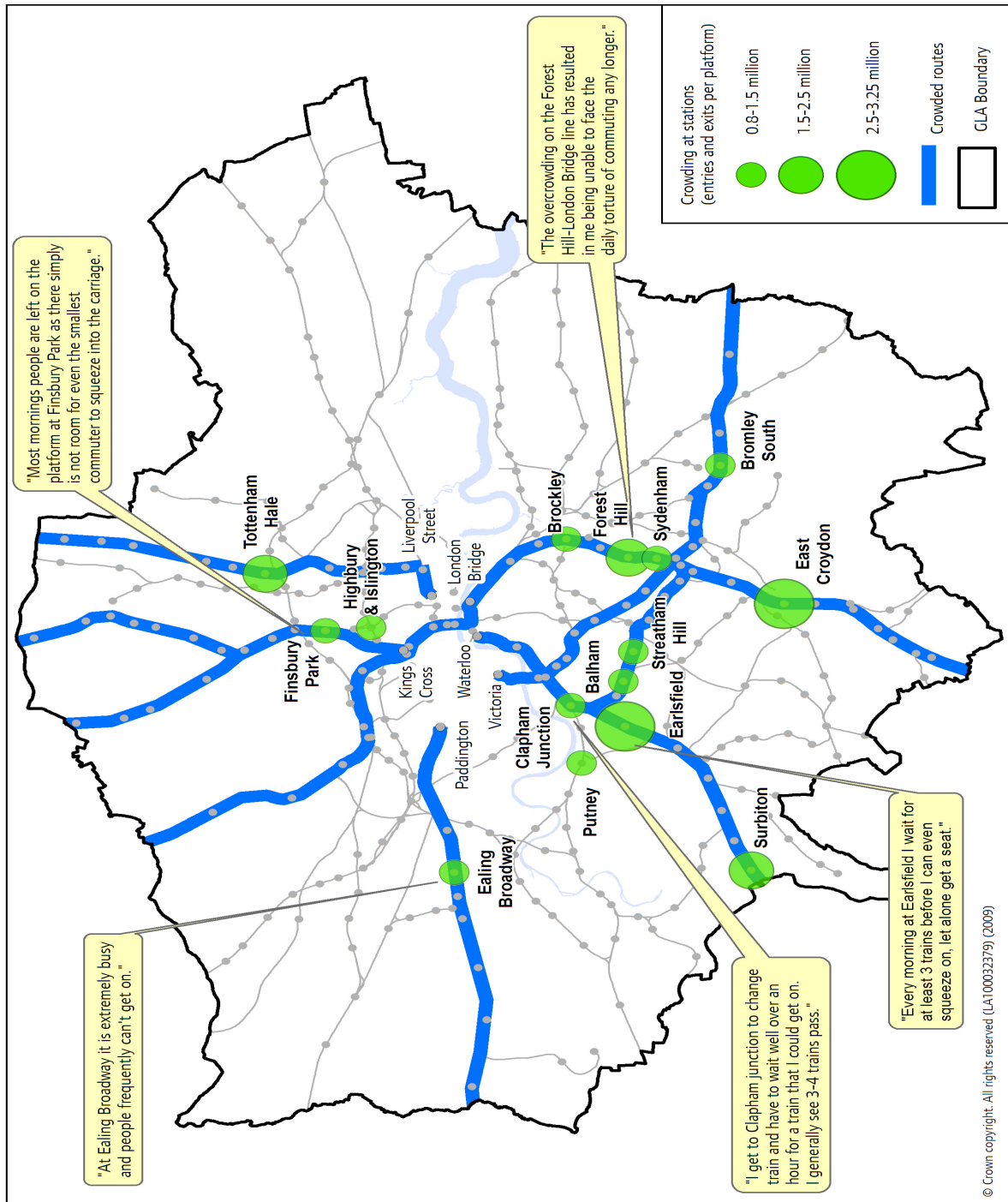
We recommend that the Mayor sets out in his forthcoming Transport Strategy its underlying assumptions on demand for rail travel over the next twenty years. We believe the Strategy should set out the framework for meeting future demand based around three strategic options: new rail projects, such as Crossrail 2; modal shift from rail to other forms of transport; and measures to decrease demand. The Strategy should be clear about the priority given to each option, the extent to which pursuit of each should meet any projections of excess demand, and how the proposals correspond to other Mayoral strategies.

# Appendix 2 Crowded trains and stations

Figure 5: The twenty most crowded train routes in London:



**Figure 6: Pinch points on the rail network in London:**



The map highlights where stations with significant crowding levels (above 800,000 passenger entries and exits per platform, 2006/07) occur on the twenty busiest train routes in London (2007). Additionally, other stations with comparable crowding which featured prominently in messages received from passengers are also highlighted. Stations in Travelcard Zone One are omitted.

# Appendix 3 Views and information

## *Oral information*

The Transport Committee has heard from guests about rail overcrowding in London at the three meetings listed below. Minutes of these meetings are available at:

<http://www.london.gov.uk/assembly/transport/index.jsp>

### **Thursday 16 October**

Tim Bellenger, London TravelWatch  
David Leibling, London TravelWatch  
Michael Woods, Rail Safety and Standards Board  
Guy Dangerfield, Passenger Focus  
Tunde Olatunji, Passenger Focus

### **Thursday 13 November**

David Mapp, Association of Train Operating Companies  
Andrew Chivers, Association of Train Operating Companies; National Express East Anglia  
Richard Rowland, First Great Western  
Andrew Munden, Network Rail  
David Morris, Office of Rail Regulation  
Peter Field, Transport for London

### **Tuesday 20 January**

Kulveer Ranger, Greater London Authority  
Peter Anderson, Transport for London

## *Written information*

The Committee received written information from the following organisations.

Association of Train Operating Companies  
Associated Society of Locomotive Engineers and Firemen (ASLEF)  
BAA  
Barking-Gospel Oak Line User Group  
Campaign for Better Transport  
Department for Transport  
First Capital Connect  
First Great Western  
London Borough of Bexley  
London TravelWatch  
Invensys Rail Group  
Network Rail

Office of Rail Regulation  
Passenger Focus  
Rail Safety and Standards Board  
Transport for London  
West London Line Group

*Note on Figure 4*

Transport for London have informed the Committee that this map is indicative only. It represents the average crowding on the dominant direction of travel in the morning peak across the various different services on a route, including long-distance, outer suburban, inner suburban and in places certain Underground services. This averaging process means lines change colour along routes into and out of London. The colour of the line is only representative. It should not be interpreted as meaning that every train has that level of crowding as it is an average across different services that originate from different places. The map is based on a variety of assumptions including London Plan employment and population growth, future timetables, rolling stock availability and train design and any small changes in any of these assumptions can lead to significant changes to crowding shown on the map.

## Appendix 4 Rail operators and services in London

The train operating companies running services in London and the South East and the services they run are as follows:

**c2c** runs trains on the lines between London Fenchurch Street and London Liverpool Street to East London and Essex.

**Chiltern Railways** operates services between the West Midlands and London Marylebone station.

**First Capital Connect** runs services from Luton and Bedford to Brighton, via London St Pancras, London Bridge and Gatwick Airport.

**First Great Western** runs services between London Paddington, the West Country and Wales.

**Gatwick Express** runs trains between Gatwick Airport and London Victoria.

**London Midland** operates the service between Northampton and London Euston.

**London Overground** (Transport for London) runs the orbital service connecting North Woolwich and Barking to Clapham Junction and Richmond.

**National Express East Anglia** runs trains from London Liverpool Street to Essex, Suffolk and Norfolk, and also the Stansted Express service.

**Southeastern** operates services from South East London, Kent and East Sussex to London Victoria, London Bridge, Charing Cross and Cannon Street.

**Southern** runs trains from South London, Surrey, Sussex to London Bridge and London Victoria.

**South West Trains** runs services between London Waterloo to Berkshire Hampshire and the South West of England.

**Heathrow Express** runs trains between London Paddington and Heathrow Airport.

# Appendix 5 Orders and translations

## How to order

For further information on this report or to order a copy, please contact Richard Berry, Assistant Scrutiny Manager, on 020 7983 4199 or email: richard.berry@london.gov.uk

## See it for free on our website

You can also view a copy of the report on the GLA website:  
<http://www.london.gov.uk/assembly/reports>

## Large print, braille or translations

If you, or someone you know, needs a copy of this report in large print or braille, or a copy of the summary and main findings in another language, then please call us on: 020 7983 4100 or email: [assembly.translations@london.gov.uk](mailto:assembly.translations@london.gov.uk).

### Chinese

如您需要这份文件的简介的翻译本，请电话联系我们或按上面所提供的邮寄地址或 Email 与我们联系。

### Vietnamese

Nếu ông (bà) muốn nội dung văn bản này được dịch sang tiếng Việt, xin vui lòng liên hệ với chúng tôi bằng điện thoại, thư hoặc thư điện tử theo địa chỉ ở trên.

### Greek

*Εάν επιθυμείτε περίληψη αυτού του κειμένου στην γλώσσα σας, παρακαλώ καλέστε τον αριθμό ή επικοινωνήστε μαζί μας στην ανωτέρω ταχυδρομική ή την ηλεκτρονική διεύθυνση.*

### Turkish

Bu belgenin kendi dilinize çevrilmiş bir özetini okumak isterseniz, lütfen yukarıdaki telefon numarasını arayın, veya posta ya da e-posta adresi aracılığıyla bizimle temasa geçin.

### Punjabi

ਜੇ ਤੁਸੀਂ ਇਸ ਦਸਤਾਵੇਜ਼ ਦਾ ਸੰਖੇਪ ਆਪਣੀ ਭਾਸ਼ਾ ਵਿਚ ਲੈਣਾ ਚਾਹੋ, ਤਾਂ ਕਿਰਪਾ ਕਰਕੇ ਇਸ ਨੰਬਰ 'ਤੇ ਫੋਨ ਕਰੋ ਜਾਂ ਉਪਰ ਦਿੱਤੇ ਡਾਕ ਜਾਂ ਈਮੇਲ ਪਤੇ 'ਤੇ ਸਾਨੂੰ ਸੰਪਰਕ ਕਰੋ।

### Hindi

यदि आपको इस दस्तावेज़ का सारांश अपनी भाषा में चाहिए तो उपर दिये हुए नंबर पर फोन करें या उपर दिये गये डाक पते या ई मेल पते पर हम से संपर्क करें।

### Bengali

আপনি যদি এই দলিলের একটা সারাংশ নিজের ভাষায় পেতে চান, তাহলে দয়া করে ফো করবেন অথবা উল্লেখিত ডাক ঠিকানায় বা ই-মেইল ঠিকানায় আমাদের সাথে যোগাযোগ করবেন।

### Urdu

اگر آپ کو اس دستاویز کا خلاصہ اپنی زبان میں درکار ہو تو، براہ کرم نمبر پر فون کریں یا مذکورہ بالا ڈاک کے پتے یا ای میل پتے پر ہم سے رابطہ کریں۔

### Arabic

الحرص على ملخص هذا المستند بلغة تفضل، فراجع الاتصال برقم الهاتف أو الاتصال على العنوان البريدي أو عادي أو عنوان البريد الإلكتروني أعلاه.

### Gujarati

જો તમારે આ દસ્તાવેજનો સાર તમારી ભાષામાં જોડતો હોય તો ઉપર આપેલ નંબર પર ફોન કરો અથવા ઉપર આપેલ ટપાલ અથવા ઇ-મેઇલ સરનામા પર અમારો સંપર્ક કરો.

# Appendix 6 Principles of scrutiny

## **An aim for action**

An Assembly scrutiny is not an end in itself. It aims for action to achieve improvement.

## **Independence**

An Assembly scrutiny is conducted with objectivity; nothing should be done that could impair the independence of the process.

## **Holding the Mayor to account**

The Assembly rigorously examines all aspects of the Mayor's strategies.

## **Inclusiveness**

An Assembly scrutiny consults widely, having regard to issues of timeliness and cost.

## **Constructiveness**

The Assembly conducts its scrutinies and investigations in a positive manner, recognising the need to work with stakeholders and the Mayor to achieve improvement.

## **Value for money**

When conducting a scrutiny the Assembly is conscious of the need to spend public money effectively.





**Greater London Authority**

City Hall

The Queen's Walk

More London

London SE1 2AA

**[www.london.gov.uk](http://www.london.gov.uk)**