

Transport for London

# Business Plan

2009/10 – 2017/18



# > Contents

> Message from the Mayor	04
> Commissioner's foreword	06
> Efficient and effective business operations	08
> Key priorities to 2017/18	11
> Crossrail	25
> London Underground	31
> London Rail	45
> Surface Transport	51
> Safety and security	75
> Fares, ticketing and customer information	81
> Working with London boroughs and other partners	85
> Financing TfL's plans	89
> Appendices	98

Note that totals in tables may appear to be incorrect due to rounding

## > Message from the Mayor

London is blessed with a pioneering Tube system, which is almost 150-years-old and is still the envy of cities around the world. Our bus fleet is carrying more than two billion passengers a year – the most since the 1960s.

And yet our system is now unquestionably in need of repair, and with a population set to grow by 1.3 million between now and 2031, we cannot just creak along as we are. We cannot repeat the mistakes of the past that saw the network decline and decay for it is clear that London's future competitiveness – its position at the summit of world cities – rests upon our

ability and commitment to modernise our transport infrastructure.

It is for this reason, along with our effort to improve quality of life for Londoners, that Transport for London (TfL) is engaged in the biggest programme of investment since the Second World War.

We are upgrading eight Tube lines and introducing air conditioning on 40 per cent of the network. We are expanding the Docklands Light Railway (DLR) by 50 per cent, transforming overland rail services, and are pushing ahead with Crossrail, which will create thousands of jobs and increase London's rail capacity by 10 per cent.

We are making travel safer, smoothing traffic flow, and are improving our streets to make walking more attractive. We are stimulating a cycling revolution, making



It is clear that London's future competitiveness – its position at the summit of world cities – rests upon our ability and commitment to modernise our transport infrastructure

better use of the Thames and are introducing low-carbon technology to our bus fleet.

While we are forging ahead with this programme we can't ignore the fact that these are tough economic times. As the recession has taken hold, Tube ridership has fallen, creating a £700m gap in our finances and compounding the pressures caused by the collapse of Metronet. My first answer has been to find savings at TfL, and these now amount to more than £5bn over the next nine years. I have also had to take tough decisions on fares in order to protect our essential investments.

Despite this it is clear there is much to look forward to. The rebuilding of London's transport system is under way and this Business Plan safeguards investment in the city's future – providing the foundations upon which we will build London a transport network that Londoners deserve – a network fit for the 21st century.

A handwritten signature in black ink, appearing to read 'Boris Johnson'.

**Boris Johnson**  
Mayor of London and  
Chairman of Transport for London

## > Commissioner's foreword

The top priorities for the Mayor are to maintain and improve services and safeguard the huge investment programme in London's transport system under the most challenging financial conditions for more than 30 years. The job of everyone at TfL is to deliver.

In order to do that, I am committed to reducing TfL's costs wherever possible to deliver a world-class transport system that Londoners can afford. We have made good progress, but I know that there is more that we can do to provide even better value for the Capital's fare and tax payers.

As this Plan explains, the scope and ambition of our savings programme has more than doubled, with £1.3bn in savings now assumed to 2011/12 and more than £5bn in the period to 2017/18. This includes a 27 per cent reduction in TfL's non-operational overheads by 2012, when compared with today's levels.

Around 1,000 back-office and support roles have gone at London Underground (LU) and several hundred further roles are being cut elsewhere across TfL. We have significantly reduced the number of consultants and temporary staff and have delayed management structures.

Work to revise commercial contracts has also led to major savings. IT systems are being made more efficient and thousands of staff have been relocated from central London to cheaper premises.



This Business Plan explains how, in the toughest economic climate for decades, vital investment to improve London's public transport is being preserved and frontline services protected

The pay of senior staff has been frozen and bonuses cut, and the pay offer for our wider workforce reflects the reality of the pressures we are under.

TfL staff at all levels have become acutely aware of the need to examine costs and look for more efficient ways in which to deliver.

Taking this tough action has also earned TfL a maximum '4' rating for 'managing finances' from KPMG on behalf of the Audit Commission, which I believe is a clear indication of how committed we are to delivering greater value for money in every part of our operations.

And, of course, this is not a one-off exercise, but a continuous drive to ensure maximum value for fare and tax payers.

This Business Plan explains how, in the toughest economic climate for decades, vital investment to improve London's public transport is being preserved and frontline services protected.

There is a lot of work to be done, and we are getting on with it.

A handwritten signature in black ink that reads "Peter Hendy". The signature is written in a cursive, slightly slanted style.

**Peter Hendy CBE**  
Commissioner  
Transport for London

## > Efficient and effective business operations

The scope and ambition of TfL's savings programme has more than doubled since last year's Business Plan, with £1.3bn in savings now assumed to 2011/12, and more than £5bn in total over the period of the Plan.

This represents an ambitious and comprehensive change programme encompassing all areas of the organisation, and includes a 27 per cent reduction in TfL's non-operational overheads by 2012, when compared with today's levels.

Last year's Business Plan included £2.4bn of efficiencies (arising from back-office and support expenditure) which resulted from the operating cost review. On coming to office and faced with significant financial pressures, the Mayor challenged TfL's management and staff to deliver further cost savings in order to minimise the need to cut investment or frontline services.

A continuous savings exercise was undertaken as part of TfL's planning process, in which all budget holders

were asked to identify opportunities to meet a savings target, through further efficiencies, generating additional secondary revenue and by identifying or cutting out the lowest priority areas of expenditure, without affecting frontline services.

TfL's comprehensive savings programme comprises around 250 individual initiatives, ranging from small scale local savings projects to high value organisational change programmes. Specific examples include:

- > A reduction of around 1,000 back-office and support roles at LU following the merger with Metronet, plus several hundred roles being cut elsewhere across TfL
- > Management delayering and the consolidation of activities
- > Significant reductions in all back-office costs including accommodation (through desk-sharing and cheaper locations), IM (through technology consolidation), and support functions such as HR and Finance (through simplification of processes and potential outsourcing)
- > A reduction in the number of temporary workers and consultants
- > Commercial savings from all parts of the organisation including the re-

Table 1

## Savings in the Business Plan

(£m)	2009/ 2010	2010/ 2011	2011/ 2012	2012/ 2013	2013/ 2014	2014/ 2015	2015/ 2016	2016/ 2017	2017/ 2018	Total
LU	69	171	233	257	288	294	306	307	312	2,238
Surface Transport	93	136	178	175	194	200	204	219	212	1,612
Corporate and Group-wide	94	130	184	188	196	201	215	191	205	1,603
London Rail	3	8	11	10	11	13	17	17	18	108
<b>Total gross savings</b>	<b>259</b>	<b>446</b>	<b>606</b>	<b>629</b>	<b>689</b>	<b>708</b>	<b>743</b>	<b>734</b>	<b>746</b>	<b>5,560</b>
Less one-off implementation costs										(379)
<b>Total net savings</b>										<b>5,181</b>
LU project efficiencies	15	70	120	146	124	175	90	111	83	933

tender of the Congestion Charging, Oyster ticketing and Metronet sourcing arrangements

- > A restructure of TfL's Planning Group following the cancellation of work on unfunded projects and other long-term studies, plus an extensive review of activities to avoid duplication with other parts of TfL
- > Consolidating customer service activities, reducing cost and improving service
- > A review of marketing and customer research activities to focus on core activities. Savings made from reducing marketing expenditure across TfL have been re-allocated to fund the Mayor's election commitment to provide extra policing resource
- > The completion of a fundamental redesign of the way in which TfL delivers walking and cycling and other programmes, plus the creation of a new directorate that is responsible for cycling, walking, road safety, bus priority and freight, as well as red route network planning, the Smarter

Travel Unit and the borough funding programme

- > A reduction in planned bus network costs through the removal of the next phase of quality incentive contracts
- > Freezing the base pay of senior managers in 2009 and reducing the funds available for bonus payments

In addition, following the introduction of an efficiency target applied across LU's investment programme, LU is taking forward a number of initiatives that aim to deliver savings in the cost of capital projects, for example:

- > Changing the way LU procures and operates signalling and other specialist equipment, making better use of proven technologies and minimising development costs
- > Changing the way physical works are programmed to maximise productive hours during night shifts or closures

Delivery of this challenging savings programme will require significant ongoing focus across TfL's organisation, and progress will be actively monitored.



The MTS was published for public consultation on 12 October and is scheduled for final publication in spring 2010



## > Key priorities to 2017/18

This Business Plan defines the priorities and programmes to be delivered over the period of TfL's funding settlement with Government, building on TfL's Business Plan published in November 2008 and work over the past year on the new Mayor's Transport Strategy (MTS).

The revised MTS is being shaped in a joint process with a new London Plan and Economic Development Strategy to establish a Mayoral vision for the Capital's long-term growth and development. This Business Plan represents one of a number of implementation plans to deliver that vision.

The MTS was published for public consultation on 12 October and is scheduled for final publication in spring 2010. The MTS public consultation document expands upon the Mayor's vision for transport set out in his 'Way to Go!' document of November 2008 and his Statement of Intent document published in May 2009.

The Mayor's goals that are at the heart of both this revised Business Plan and the public consultation on the new MTS are:

- > Supporting economic development and population growth
- > Enhancing the quality of life for all Londoners
- > Improving the safety and security of all Londoners
- > Improving transport opportunities for all Londoners
- > Reducing transport's contribution to climate change and improving its resilience
- > Delivering for the London 2012 Games and securing a lasting legacy

### Supporting economic development and population growth

London has seen steady growth in its population and economy over recent years. Around 7.6 million people live in the Capital, about 4.7 million people work in London and about 24 million journeys are made on the city's transport network every day.

## An important part of TfL's work during this Plan will be to improve the flow of London's traffic

Greater London Authority (GLA) forecasts show that despite the current recession, population and employment will grow by around 800,000 and 400,000 respectively by 2021.

To prepare for this expansion and cope with more immediate demands, TfL plans to carry out a major programme of renewals and upgrades across the Tube network, as well as building Crossrail, the east-west link vital to London's transport future. This programme of investment involves:

- > An increase in capacity of more than 30 per cent across the Tube network when the line upgrade programme is complete in 2020, through new trains and signalling on most lines, resulting in more trains and quicker journeys. Better seating, air conditioning and CCTV will add to passenger comfort and security. Accessibility will also be improved
- > Major congestion-relief schemes at King's Cross, Tottenham Court Road, Victoria, Bond Street and Paddington (Hammersmith & City line) stations
- > Constructing Crossrail, which will increase London's rail network capacity by 10 per cent, cutting journey times

substantially and relieving congestion on many other rail and Tube lines

- > Infrastructure improvements and new carriages for trains on the DLR, increasing capacity by 50 per cent by 2010 and also increasing journey opportunities
- > A 50 per cent capacity increase on the North London Railway thanks to extra carriages and more frequent services, as well as track and signal upgrades and extended platforms. It will also connect with the new East London line extension from Dalston to West Croydon, Crystal Palace and Clapham Junction, a project that involves reinstating disused rail routes and modifying infrastructure to deliver faster, more reliable services
- > Encouraging even more people to take up walking and cycling through improved facilities, including Cycle Superhighways, and better information

An important part of TfL's work during this Plan will be to improve the flow of London's traffic, in partnership with other authorities.

Keeping people, goods and services moving smoothly is essential to the



economy of London as well as to the wellbeing of road users, pedestrians and neighbourhoods.

TfL is tackling this issue in several ways:

- > Intelligent traffic signals that monitor road conditions and respond automatically to fluctuations are being installed. They are now operating at around 2,000 sites and will be introduced at a further 1,000

locations, which will mean that more than half of London's traffic signals will be operated by this system

- > Timings will be reviewed at 1,000 traffic signals each year to ensure they are optimally balanced for the benefit of all users
- > In partnership with London boroughs, TfL is taking steps to improve the way roadworks are handled. It is also





examining, with the police and others, how congestion-causing incidents are dealt with

## Enhancing the quality of life for all Londoners

London's public transport system – road, rail and river – plays a fundamental part in enhancing the quality of life in the Capital. Personal freedom, mobility and access are benefits all Londoners value.

Every bus, train, tram or riverbus journey reduces the number of private vehicles on the roads, enabling quicker journeys and contributing to a cleaner environment.

TfL is also pursuing opportunities to improve the quality of life for Londoners, for instance by reducing the impact of its services on noise and air quality and making journeys easier and more comfortable. A variety of measures are planned, aimed at both improving the journey experience and making the Capital a more pleasant place. These include:

- > Improving the quality of travel on the Tube, for instance with more comfortable, air-conditioned trains; greater accessibility at stations; better customer information and high standards of passenger care
- > Introducing more comfortable, air-conditioned trains on the Overground,

## More than half a million cycle journeys are being made each day in the Capital and the numbers are constantly growing

which began in July 2009; new and improved rolling stock on the DLR; and improvements to systems and surroundings at Overground stations

- > Developing a new iconic bus called the New Bus for London. The joint winners of a design competition were announced in December 2008 from 700 entries
- > Introducing a new generation of Countdown, which will deliver real-time arrival and service information for all routes and stops across London's bus network via the internet as well as SMS text messaging on mobile phones. This service will be complemented by a new generation of Countdown signs providing real-time information at around 2,500 key bus stops in London
- > Crossrail's construction meeting best practice guidelines and being carefully managed to minimise disruption to local residents, businesses and public transport services. Once completed, Crossrail will improve the journey experience for passengers and transform the areas around stations along the route

Leading a revolution in cycling and walking is a key Mayoral priority – and it is clear that the revolution is well under way. More than half a million cycle

journeys are being made each day in the Capital and the numbers are constantly growing – an eight per cent increase over the past year amounts to an extra 45,000 journeys a day.

The Mayor's commitment to promoting cycling and walking, with all their health, environmental and congestion-easing benefits, will be backed by significant investment aimed at raising cycling's current two per cent share of journeys to five per cent by 2025, and walking from 24 per cent to 25 per cent over the same period. During this Plan, TfL will pursue a number of walking and cycling initiatives that include:

- > Urban realm schemes that will provide better and safer streets and public spaces, creating a city for people to enjoy being outdoors and active in
- > Trials beginning in 2010 on Pedestrian Countdown, a safety system that tells pedestrians how much time they have left to cross the road after the 'green man' symbol disappears
- > Cycle Superhighways – 12 main radial routes between Outer and central London to encourage more people to cycle from home to work via specially designated fast and direct lanes along recognised commuter routes. Two trial superhighways are currently



## Crime levels on London's transport network have fallen to their lowest in five years

under construction, four more will be completed by October 2012 and the remaining six by 2015

- > The London Cycle Hire Scheme which will be introduced in summer 2010, with 6,000 cycles available from 400 docking stations in central London. Smart-key technology will give users quick and convenient access to a bicycle all day, every day of the year
- > Biking Boroughs – local centres of excellence in Outer London to encourage more cycling in areas where public transport coverage is less comprehensive and average car journeys are of two miles or less

Supporting these programmes, TfL will continue to invest in successful initiatives, such as local safety and access schemes, cycle parking and training, plus information and promotion campaigns.

Building on the Mayor's manifesto commitment, there is a target to provide 66,000 new cycle parking spaces by 2012.

Walking is at the core of the Mayor's agenda to civilise London's streets and transform the city as a place in which to live, work or visit. As with

cycling, walking contributes to a healthy and active lifestyle and offers environmental, economic and social benefits.

TfL will concentrate on enhancing key local walking routes, high street revitalisation measures, upgrading station access areas and tackling the fear of street crime.

Such changes in walking and cycling cannot be carried out by one organisation alone. TfL will work with user groups, the boroughs and other stakeholders to 'raise the bar' and make a difference across London, with action plans focused on achieving the Mayor's agenda.

### Improving the safety and security of all Londoners

Crime levels on London's transport network have fallen to their lowest in five years and studies show that public perceptions and confidence have improved accordingly.

Measures have included recent initiatives such as more uniformed police officers and an alcohol ban, supported by the introduction of CCTV, Help points and other improvements to the public realm.







Road safety has also improved, with the number of fatalities and serious injuries falling in all categories except cycling, where there has been a slight increase but in a period that has seen a far greater rise in numbers taking up cycling.

Building on the safety and security improvements, TfL will continue working with the police, boroughs and other partners to make travelling in London – whether on public transport or on the

streets – even safer. During this Plan, further measures will include:

- > CCTV on new Tube and Overground trains
- > Help points and anti-vandalism measures at stations
- > Improving the safety and security of walking and cycling



TfL's aim is to address the barriers – physical, communication or financial – that deter people from using the transport network

- > Steps to combat illegal touting and improve the safety of cabs and travelling at night
- > A three-year community safety strategy to be developed in 2011, following publication of the MTS

## Improving transport opportunities for all Londoners

TfL's aim is to address the barriers – physical, communication or financial – that deter people from using the transport network and ensure that development of the network supports London's regeneration aspirations.

Much has already been done to make services accessible to all. For instance, more than 90 per cent of Londoners now live within 400 metres of a bus stop and the Capital's entire fleet of more than 8,000 buses (except Heritage Routemasters) are accessible for mobility-impaired people. Additionally, completion of the iBus project means sight or hearing-impaired passengers now have on-board next stop information.

TfL will continue to improve the accessibility of the Tube. DLR and

Croydon Tramlink services are all accessible from street to carriage. On the streets, more than two-thirds of signalised pedestrian crossings are accessible to disabled people.

Further accessibility improvements will continue to be made across the network. For example:

- > Twenty-eight of the 37 Crossrail stations will be step-free, including all interchanges
- > Crossrail trains will have wide doors with dedicated spaces for wheelchairs, along with audio-visual information
- > Wide-aisle gates are being installed on the Tube for people with pushchairs or luggage, and wheelchair users
- > All major Tube station developments include step-free access
- > Tactile strips and colour-contrasted handrails for visually impaired people, plus new electronic information displays, are also planned on the Tube
- > Improved accessibility at more than 65 per cent of bus stops will be delivered by the end of this Plan period

## The Mayor has set a target of reducing London's greenhouse gas emissions by 60 per cent by 2025

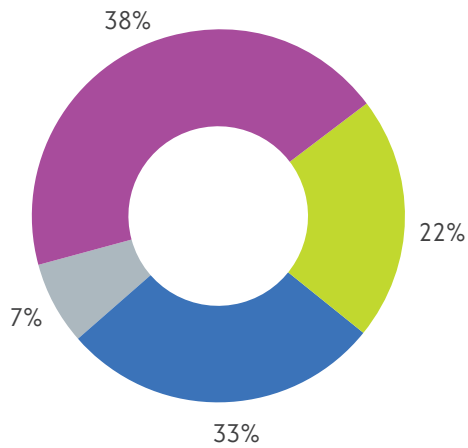
### Reducing transport's contribution to climate change and improving its resilience

One of the best ways to tackle climate change is to persuade people to leave their cars behind and use public transport or to walk and cycle – so TfL already makes an important contribution to this environmental challenge.

Ground-based transport accounts for about 22 per cent of London's carbon dioxide (CO<sub>2</sub>) emissions, and TfL is taking action in a variety of ways to reduce its contribution.

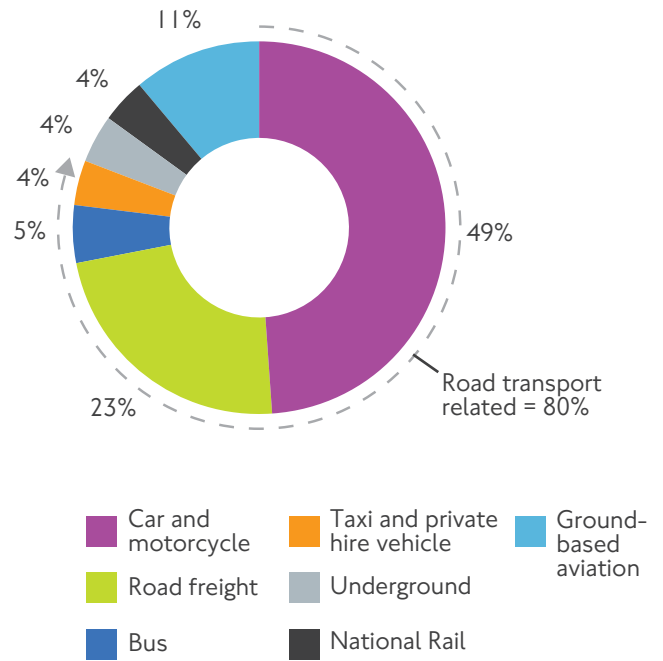
Responding to the need to tackle climate change in the Capital, the Mayor has set a target of reducing London's greenhouse gas emissions by 60 per cent by 2025. Measures being taken by TfL include those listed below:

- > Fifty-six diesel-electric hybrid buses are now on trial and 300 more will enter service by 2012. From then, it is planned that all new buses entering the fleet will be hybrids. Zero-emission hydrogen buses will also be introduced on route RV1 during 2010
- > Energy-efficiency measures are being taken whenever possible on the Tube, including the adoption of regenerative braking which recycles up to 25 per cent of energy. TfL is also working with the wider energy industry to create significant and sustainable long-term renewable energy measures for the Tube
- > London Overground's new trains will have regenerative braking and a trial is also under way on the DLR, which already has the technology, to store energy recovered by braking. This could save at least 10 per cent of electricity consumption
- > TfL is investing in the Building Energy Efficiency Programme, with promised savings of 24 per cent across its buildings, equivalent to more than 3,500 tonnes of CO<sub>2</sub> a year
- > TfL is supporting the Mayor's programme to encourage electric vehicles and car clubs. It is estimated that there are 2,000 electric vehicles in use in the Capital at present and the Mayor aims to increase this to 100,000 as soon as possible. TfL will help enable this by supporting the installation of 25,000 charging points across London by 2015



Domestic Commercial  
Transport Industrial

100% = 42 million tonnes pa (7% of UK emissions)



Car and motorcycle Taxi and private hire vehicle Ground-based aviation  
Road freight Underground  
Bus National Rail

100% = 10 million tonnes pa

CO<sub>2</sub> emissions across London

- > Active and smarter travel options are being promoted to increase uptake and help reduce transport and traffic-related noise and emissions

As well as mitigating the extent of future climate change, London's transport system must adapt to its unavoidable consequences. Work will be undertaken to better understand the threat posed by climate change to the Capital's transport system to establish the most effective adaptation measures.

CO<sub>2</sub> London transport emissions

### Delivering for the London 2012 Games and securing a lasting legacy

More than 800,000 spectators are expected to make their way to the Games each day, presenting a special challenge to London and its transport network. One of the aims of the Olympic Delivery Authority (ODA) is to ensure every spectator can travel by public transport or park-and-ride services,



Work under way at Stratford Regional station in preparation for the 2012 Games

or else walks or cycles to the venues. Although smaller, the 2012 Paralympic Games will pose similar challenges.

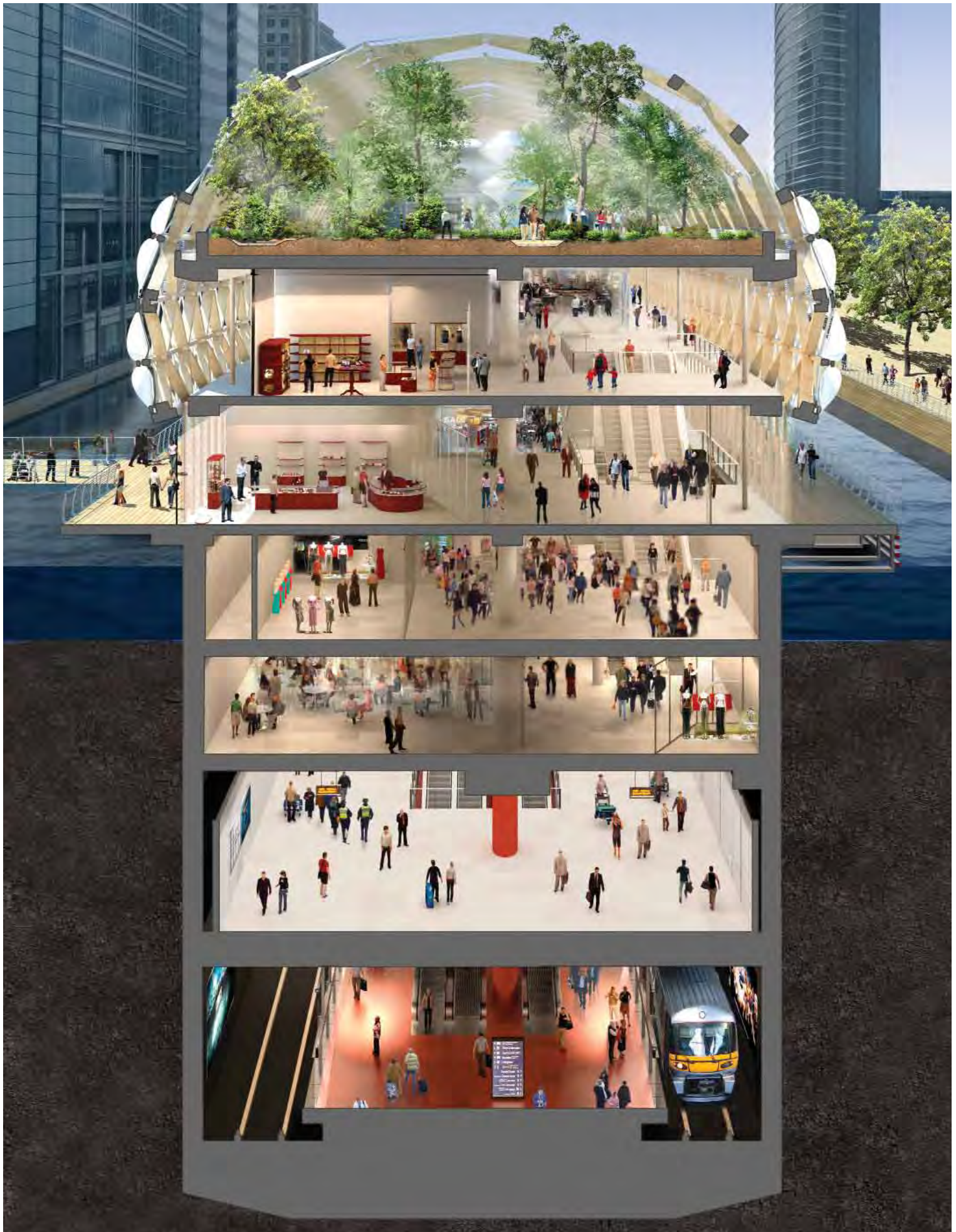
The work now being done by TfL will not only make this possible, it will also leave a lasting legacy in the shape of a better transport network for the benefit of Londoners and the Capital as a whole.

A substantial proportion of TfL's Investment Programme will directly support the Games. Many schemes, such as the addition of a seventh car on the Jubilee line in 2006, have already been completed. Others will include:



## A substantial proportion of TfL's Investment Programme will directly support the Games

- > Completing the upgrade of the Jubilee line, with new signalling, improved journey times and frequency, and a 33 per cent increase in the line's capacity. The first phase of the Northern line upgrade is due for completion and the Victoria line upgrade will be substantially finished, including a brand new fleet of higher-capacity, more accessible trains and an increase in frequency during the daytime peak period
- > Refurbishing stations on the Tube network, including step-free access at Green Park and Southfields which are key 2012 Games stations
- > Upgrades on the Overground's North London and East London lines, including new air-conditioned trains at increased frequencies
- > Major work at Stratford Regional station to include new DLR and Central line platforms as well as signalling modifications, platform extensions and other station improvements
- > DLR line extensions, including one of 6.5km from Stratford International to Canning Town, and upgrading the DLR east route for three-car operation will be complete
- > Developing cycle lanes and walking routes to and around the Olympic Park and other venues, linking to the wider London network. The Games will be a showcase for cycling and walking, encouraging active travel and benefiting health and the environment



An artist's impression of Canary Wharf Crossrail station

## > Crossrail

Crossrail is vital to London and crucial to TfL's plans for developing the Capital's transport services.

Running from Maidenhead and Heathrow in the west to Shenfield and Abbey Wood in the east, Crossrail will provide a peak service of 24 trains per hour between Liverpool Street and Paddington. It involves more than 20km of new tunnel and six new central London stations integrated with Tube services at the key locations of Paddington, Bond Street, Tottenham Court Road, Farringdon, Liverpool Street and Whitechapel. It will also feature a new station at Canary Wharf. Twenty-eight of the 37 stations served by Crossrail will be fully accessible, including all stations in central London.

The new railway – Europe's biggest transport project – will provide the outer suburbs east and west of the Capital with fast, frequent, high-capacity links to the City, West End, Heathrow Airport and Docklands.

It will by itself increase the capacity of London's rail network by 10 per cent, achieving an estimated 45 per cent reduction in congestion on parallel Tube

and DLR services, and bringing the heart of London within an hour's direct reach for 1.5 million more people.

All Crossrail stations will be well lit and CCTV-monitored to provide a safe, secure environment. Stations will be staffed throughout the day. Trains will have wide doors, dedicated space for wheelchairs and CCTV-monitored carriages. Enhancements to the wider public realm at Crossrail stations will include improved pavements, crossings and cycling facilities.

Plans are currently being refined in order to deliver the benefits Crossrail will bring to passengers as quickly as possible. Services will begin in phases, with the new trains being first introduced into passenger service during 2015 on existing Network Rail suburban services into Liverpool Street. New trains will start operating to Heathrow by early 2017 and in the central tunnel section by late 2017. Crossrail services will be fully operational by early 2018.

### Improving links and cutting journey times

Crossrail will significantly improve connectivity on the network, particularly in central London where it will connect



## Crossrail will bring up to £36bn of benefits to the wider UK economy over 60 years through reduced journey times, job growth and increased productivity

with nine Tube lines. It will reduce overcrowding on the Central, Piccadilly, Metropolitan, Jubilee, Circle and Hammersmith & City lines, and also link with the London Overground and DLR. Crossrail will also directly link Outer London suburbs to central London without the need to change trains, so journey times will be cut. Ilford to Bond Street, for instance, will be 15 minutes faster (20 minutes compared with 35 minutes today). Heathrow to the West End will be 21 minutes quicker (31 minutes compared with 52 minutes currently). Journeys will be simpler and the shorter travelling times will also improve accessibility in the Capital.

On London's roads, Crossrail is expected to give rise to a two per cent reduction in road traffic flows and reduce the extent of future growth in traffic by providing the capacity for further transfers from car to rail.

### Supporting regeneration

Crossrail has the potential to transform areas around stations along the route, increasing land values, supporting high quality development and attracting private sector investment.

Regeneration plans for Whitechapel, Custom House, Woolwich and Stratford will be significantly strengthened and additional development in the Isle of Dogs, wider Docklands area and central London could also be stimulated by the improved accessibility and transport capacity.

### Economic benefits

Crossrail's benefits will be huge and will be felt across London's entire transport network, encouraging regeneration, boosting the jobs market and making the Capital a more attractive place in which to live, work and do business.

But its impact will extend beyond London and the South East. It is estimated that Crossrail will bring up to £36bn of benefits to the wider UK economy over 60 years through reduced journey times, job growth and increased productivity – more than twice the estimated cost of £15.9bn.

Up to 14,000 people will be employed on the project at the peak of construction between 2013 and 2015. Once fully operational, it will generate about 1,000 jobs.

## Crossrail funding

Crossrail Limited (CRL), the single purpose company charged with delivering Crossrail, became a wholly owned subsidiary of TfL on 5 December 2008, following signature of the suite of legal agreements that establish Crossrail's funding and governance framework. TfL's funding commitment to CRL,

together with the anticipated cost of Crossrail operations, is fully funded within TfL's Business Plan and is set out, together with the Department for Transport's (DfT's) funding commitment, in Table 2 on page 28. The remainder of the construction cost will be met by third-party finance, including Network Rail.



An artist's impression of Farringdon ticket hall – south

# Crossrail



## Crossrail route map and peak frequency diagram

**Table 2**

### Crossrail funding

(£m)	2009/10 forecast	2010/ 2011	2011/ 2012	2012/ 2013	2013/ 2014	2014/ 2015	2015/ 2016	2016/ 2017	2017/ 2018	9-year total
Fares and other income	(0)	(0)	(0)	(0)	(0)	30	31	129	218	408
Operating expenditure	(0)	(0)	(0)	(6)	(2)	(36)	(38)	(127)	(265)	(474)
<b>Net operating expenditure</b>	<b>(0)</b>	<b>(0)</b>	<b>(0)</b>	<b>(6)</b>	<b>(2)</b>	<b>(6)</b>	<b>(7)</b>	<b>2</b>	<b>(47)</b>	<b>(66)</b>
Crossrail cash commitment*	(694)	(1,052)	(1,410)	(2,049)	(2,537)	(2,212)	(1,631)	(549)	(622)	(12,757)
<b>Cash required (including for Crossrail train operations)</b>	<b>(694)</b>	<b>(1,052)</b>	<b>(1,410)</b>	<b>(2,055)</b>	<b>(2,539)</b>	<b>(2,218)</b>	<b>(1,638)</b>	<b>(547)</b>	<b>(669)</b>	<b>(12,823)</b>
Funded by:										
<b>External funding sources of which:</b>	<b>172</b>	<b>1,237</b>	<b>1,547</b>	<b>2,150</b>	<b>2,296</b>	<b>1,744</b>	<b>1,184</b>	<b>293</b>	<b>144</b>	<b>10,767</b>
<i>DfT committed funding**</i>	172	220	622	1,250	1,313	1,142	800	(0)	(0)	5,519
<i>GLA funding</i>	(0)	1,002	868	829	886	518	(0)	(0)	(0)	4,103
<i>Developer contributions</i>	(0)	15	57	71	97	79	130	60	91	600
<i>Sale of surplus land</i>	(0)	(0)	(0)	(0)	(0)	5	254	233	53	545
Cash funding from TfL Group	522	(185)	(137)	(95)	243	474	454	254	525	2,056
<b>Total Crossrail funding</b>	<b>694</b>	<b>1,052</b>	<b>1,410</b>	<b>2,055</b>	<b>2,539</b>	<b>2,218</b>	<b>1,638</b>	<b>547</b>	<b>669</b>	<b>12,823</b>

\*£500m was provided by TfL to CRL in 2008/09, resulting in total direct funding of £13.2bn up to 2017/18. The remainder of the cost is being met by third-party sources, including Network Rail

\*\*Inclusive of contributions from BAA and Corporation of London



An artist's impression of the regenerated Whitechapel station





By the end of the current programme in 2020, the Tube will have an extra 30 per cent capacity

# > London Underground

## TfL carried a record 1.1 billion passengers on the Underground in 2008/09.

The Tube carries as many passengers as the entire National Rail network with up to four million journeys made each day on 11 lines serving 270 stations. Over the past decade, it has experienced unprecedented growth in demand and is running a higher volume of service than ever.

To support the growth of London and correct the legacy of under-investment in the system, TfL has embarked on its largest investment programme for 70 years, focusing on improving reliability, delivering faster journey times and increasing capacity across the network. Ultimately these improvements will encourage economic activity and contribute to making the Capital a better place to live, work and visit.

## Upgrades

The Tube is the oldest metro system in the world, with some of the infrastructure dating back to the 1860s. Now, the network is undergoing major renewal, rebuilding and

refurbishment – effectively a ‘transformation’ of the system.

The line upgrades are the cornerstone of the Tube’s transformation. Without them the infrastructure would continue to age and deteriorate and the Tube would gradually grind to a halt, unable to maintain current service levels or meet the demands of the future.

By the end of the current programme in 2020, the Tube will have an extra 30 per cent capacity, with new trains and signalling systems allowing an increase in services and quicker, more comfortable journeys.

## Jubilee line

**Contractual completion date:  
December 2009**

LU has expressed grave doubts about the prospects for Tube Lines meeting this contractual date and, following an independent review of Tube Lines’ programme, completion seems certain to be delayed into 2010. LU will work with Tube Lines to confirm a revised delivery date.

As the link to Canary Wharf, the Jubilee line has grown fastest. Capacity was boosted by 17 per cent in 2006 when a seventh car was added to all trains.

**On the Victoria line the first of a new fleet of trains – faster with greater capacity, better ventilation and CCTV in every carriage – are now progressively entering service**

This further upgrade involves replacement of the signalling and train control system. This will enable more trains to run, increasing capacity by a further 33 per cent – equivalent to 5,000 more passengers an hour – and reducing journey times by 22 per cent.

### Victoria line

#### **Due for completion: late 2012**

A comprehensive programme to upgrade ‘the world’s first automatic railway’, as the Victoria line was billed when it opened some 40 years ago, is under way. The first of a new fleet of trains – faster with greater capacity, better ventilation and CCTV in every carriage – are now progressively entering service. From early 2010 the old trains will be replaced at the rate of one every two weeks.

Other improvements will include:

- > A new signalling system and control centre
- > Improved track, power and ventilation
- > Better accessibility
- > Improved on-train customer information
- > More trains during peak hours – up to 33 an hour instead of the current 27

These improvements will bring faster and more comfortable travel, with journey times cut by 16 per cent and capacity increased by 21 per cent.

### Northern line upgrade – part one

#### **Due for completion: January 2012**

A new control centre and computerised signalling system will be installed as part of the upgrade to the Northern line, the busiest and most complex line on the network, carrying more than 800,000 passengers a day. These improvements will enable trains to run closer together and at higher speeds, cutting journey times by 18 per cent and increasing capacity by 20 per cent.

### Northern line upgrade – part two

#### **Due for completion: 2018**

The second stage of the upgrade involves simplifying and reorganising service patterns which, with extra trains, will enable a higher frequency service to reduce crowding and improve reliability. This will relieve the severe pressure on north-south routes, particularly through the City. This further upgrade will increase capacity by an extra 21 per cent.

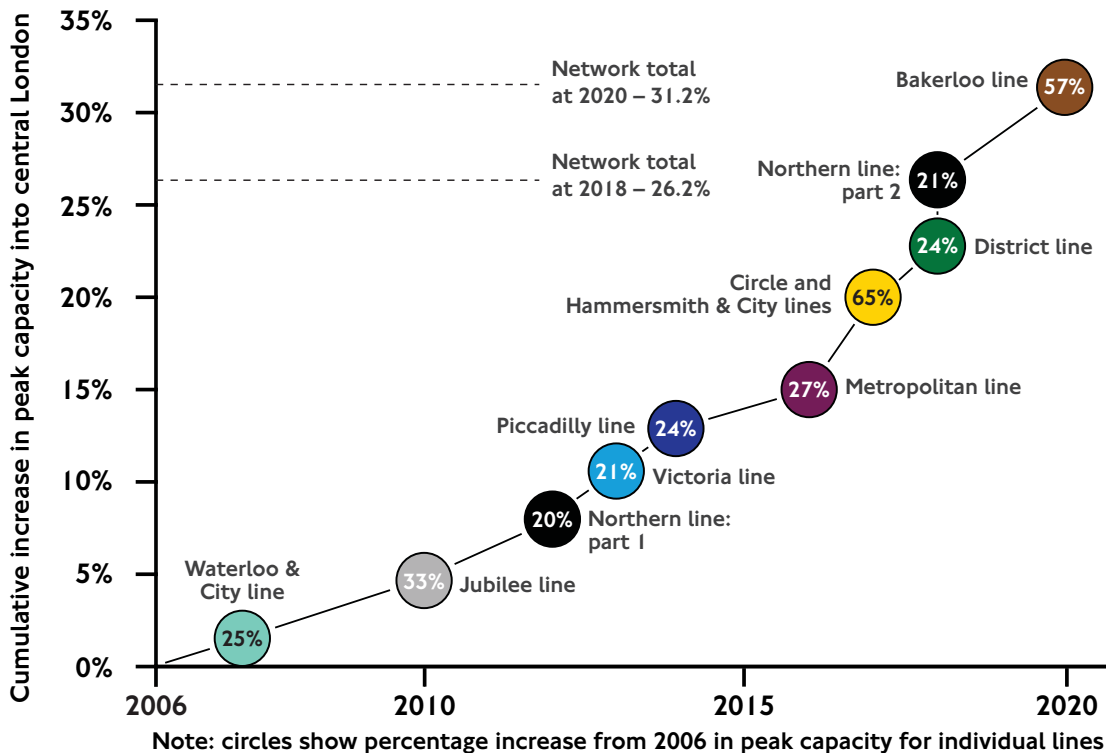
### Piccadilly line

#### Due for completion: 2014

Tube Lines is due to carry out this upgrade during the second review period of the Public Private Partnership (PPP). The core upgrade will be completed in 2014. This delivers more spacious and faster trains, and new signalling allowing a much higher frequency of service. The line's train service operations will be coordinated by a new state-of-the-art service control centre dedicated to the Piccadilly line, replacing the Earl's

Court facility, which is shared with the District line.

As part of the revised PPP contract, in 2015 additional enhancements will be made to the core upgrade, namely improvements to the signalling on the Heathrow and Rayners Lane branches and additional reversing capacity at junctions and depots. Overall journey times will be cut by about 19 per cent and capacity will increase by 24 per cent.







**Sub-surface railway: District, Circle, Hammersmith & City and Metropolitan lines**

**Due for completion: 2018**

Work is well under way on the 191 new S-Stock trains destined for the four lines, with the first to be delivered into service next year. The new trains are a key component in the upgrade of the sub-surface railway, the part of the Underground most needing renewal. Serving all four lines, the trains will have walk-through carriages and, for the first time on the Tube, air conditioning in all cars. On the Circle and Hammersmith & City lines, trains will be longer with an

additional car, which increases capacity by 17 per cent. In addition, they will be fitted with CCTV throughout and enhanced customer information systems.

The other critical element of the sub-surface railway upgrade is the installation of a new signalling system. This enables the trains to be run more frequently and with reduced journey times, as well as enabling a much more reliable service by replacing signalling equipment that has come to the end of its life. In July 2009 LU invited tenders for the re-signalling of the sub-surface lines. The sub-surface upgrade is the

Although LU is carrying more passengers than ever before, its customer satisfaction levels last year reached a record high of 79 out of 100

single biggest piece of work in the investment programme on the Tube.

In December 2009 a new service pattern will be introduced on the Circle line, almost doubling the frequency of trains on the Hammersmith branch. This will enable quicker recovery and greater reliability on the line, with knock-on reliability benefits across the whole of the sub-surface railway. The revised service pattern will help pave the way for new signalling and trains, which will produce the biggest improvement in capacity on the entire network.

### Bakerloo line

#### Due for completion: 2020

Faster journey times and higher capacity during peak hours will follow the introduction of new signalling and higher-capacity, energy-efficient trains.

The signalling system, similar to the technology to be used on the sub-surface lines, will ultimately improve reliability and allow higher service frequencies.

### Customer care

The line upgrades will ensure LU's passengers can enjoy reliable journeys with shorter travelling times. LU will

also maintain and improve its levels of customer service, focusing on personal security, a clean and welcoming environment, plus accurate and timely information. When passengers need assistance, they will continue to receive high quality service from staff.

Although LU is carrying more passengers than ever before, its customer satisfaction levels last year reached a record high of 79 out of 100.

Success has also been recognised elsewhere, with the Tube named Best Metro in Europe at the prestigious Metro Awards in 2009 – a real testament to the service given by LU staff.

Customer information and personal service from staff will be especially important as the renewal programme, which can disrupt service, is delivered over the next decade. TfL will continue to invest in customer-focused training, including disability awareness training, and providing the right information to passengers when they want it, on or off system.

Security at stations is important, especially at night. LU will continue to staff its stations and invest in systems

## Capacity enhancements to strategic stations and interchanges are critical to the functioning of the Underground

which improve station management, such as CCTV, and will ensure the stations are well lit, visibly managed, clean and graffiti-free.

The transformation programme cannot be achieved overnight, however, or without a certain amount of service disruption. Some weekend closures will be necessary to improve signalling equipment and other infrastructure, so TfL will carry on providing information on disruptions and 'Check before you travel', its high-profile campaign, will continue.

### Station capacity

To relieve congestion experienced at key locations on the network and enable quicker journeys, some stations need more extensive improvements to ensure safe and efficient operation. Capacity enhancements to strategic stations and interchanges are critical to the functioning of the Underground as an integrated network, both for existing passenger flow and for future increases in demand.

Major work will take place at the following stations to increase capacity and reduce overcrowding:

### Victoria

A new ticket hall will be built beneath Bressenden Place and the existing (southern) ticket hall will also be rebuilt to provide greater capacity. Upgrading work will improve the interchange between the Victoria, District and Circle lines and allow step-free access from the street to all LU platforms. Nine new escalators to the Victoria line will be installed.

A Transport & Works Act Order application was submitted in 2007. In July 2009 the project was approved by the Secretary of State for Transport following a three-month public inquiry. Due for completion in 2018, this work will ensure that benefits from the upgrade to the Victoria line, where a 21 per cent increase in capacity is expected, are not compromised.

### Paddington (Hammersmith & City)

A new ticket hall, extra staircase, step-free access from street to platforms, and a significant increase in space in congested areas, are planned. The improvements, due for completion in 2015, will meet a greater demand for the Hammersmith & City line at the station once service frequency is doubled between Paddington and Hammersmith.





At Bank extra stairs and concourse capacity will be provided for the Northern line, along with relief for some severely congested areas

### Tottenham Court Road

Work to rebuild Tottenham Court Road station has now begun. This is already an important interchange station and will become even busier when the Northern line upgrade is completed and Crossrail services begin. At that point, 200,000 passengers a day will use the station.

To cope with these developments, significant improvements in capacity

must be made. Plans include a new ticket hall six times larger than at present, with escalators to the Northern line, more space in congested areas and step-free access from street to platforms.

Due for completion in 2017, the work also involves other escalator improvements and a new public piazza at St Giles Circus. The new ticket hall will be operational from 2016.



The line upgrades are the cornerstone of the Tube's transformation

### Bank

Extra stairs and concourse capacity will be provided for the Northern line, along with relief for some severely congested areas. Additional step-free access and improvements to signage, décor and information will be completed by 2021.

A new entrance and exit, along with step-free access, is planned for the Waterloo & City line in Walbrook Square by 2015, subject to planned office development above the station.

### Bond Street

A major scheme to relieve congestion and improve accessibility is to be carried out at this busy station in conjunction with the planned Crossrail interchange. Significant capacity improvements will be made throughout the station but particularly to and from the Jubilee line platforms. Work will be completed by 2017.

### King's Cross St. Pancras

The northern ticket hall will be completed in December 2009 serving international and domestic rail services and providing direct access to the Northern, Piccadilly and Victoria lines. It will also allow step-free access to six Underground lines serving the station.

### Cannon Street

Improvements at this station are part of a wider development of the National Rail station and Cannon Place. The LU ticket hall and station entrance are being modernised, staff accommodation enlarged and improved, and step-free access between National Rail, street, ticket hall and platform (westbound only) provided. Work will be completed by 2012.

### Other stations

Further projects will include step-free access at Blackfriars and Farringdon – important interfaces with Crossrail and Thameslink – in 2011.

During this Business Plan period, improvement schemes to relieve congestion will also begin at Vauxhall, Highbury & Islington and Finsbury Park, which are important interchanges with National Rail and London Overground.

## Station refurbishments and step-free access

Between 2003 and 2009, 124 Underground stations have been refurbished. This programme has brought improvements to station systems (CCTV, public address, communications



## As part of the Tube cooling programme, various improvements are being carried out

equipment and fire systems) and to customer service features such as Help points, new electronic information displays in ticket halls and on platforms, and enhanced seating and lighting. Accessibility improvements such as tactile strips and colour-contrasted handrails for visually impaired people have also been made. The improvements will continue at the Jubilee, Northern, and Piccadilly line stations, which are part of the PPP contract with Tube Lines. That programme will be completed in 2012, when all stations on those lines which are not part of larger congestion relief schemes will have received an enhancement.

As a result of Metronet's collapse and the downturn in TfL's revenue, it has been necessary to review the affordability of the station enhancement programme for the former Metronet lines, which was already late and over budget when Metronet entered administration. Work already under way at stations will be completed, but at stations where work has not started, enhancements will not be carried out in the first three years of the Business Plan period. Beyond this period a sustainable run-rate of station enhancements is assumed, continuing the type of improvements seen between 2003 and

2009 but seeking to deliver them at a much lower cost. In addition, work will continue on a needs basis to ensure station equipment supports the safe and efficient operation of stations.

TfL will continue to improve street to platform accessibility, building on the foundation of 58 step-free stations already in place. However, TfL has had to stop work at Osterley, Ladbroke Grove, Amersham, West Kensington, Newbury Park and Greenford. These are relatively quiet and some are already one or two stops away from existing step-free stations. Instead, at a time when funding is restricted, TfL has chosen to protect the schemes at Victoria, Bond Street, Tottenham Court Road, and the accessibility of the key 2012 Games stations at Green Park and Southfields. Through wider TfL investment, improvements will also be made at LU interchanges with Crossrail and Thameslink. This programme will support a 40 per cent improvement in the number of step-free journeys possible.

In the current financial climate, delivering step-free access as part of wider schemes at stations, such as congestion relief or developer/partnership projects, offers greater value for fare and tax payers.



The new air-conditioned S-Stock trains will also help to cool the Tube

## Cooling the Tube

High tunnel temperatures during the summer months are a major challenge, particularly for the deep-tunnelled sections of the Underground, such as the Victoria line.

As a result of increased train service capacity (primarily through higher train frequencies) and reduced journey times (largely resulting from quicker acceleration and faster maximum speeds), electricity

use on the Underground is expected to increase with more heat being released in the tunnels.

As part of the Tube cooling programme, various improvements are being carried out, including restoring ventilation fans and installing mechanical chillers and portable summer fans to provide a safe and more comfortable environment for passengers as the Tube is transformed.



Table 3

LU income, operating and capital expenditure plan

(£m)	2009/10 forecast	2010/ 2011	2011/ 2012	2012/ 2013	2013/ 2014	2014/ 2015	2015/ 2016	2016/ 2017	2017/ 2018	9-year total
<b>Income</b>										
Traffic revenue	1,609	1,656	1,748	1,912	2,051	2,227	2,399	2,574	2,632	18,809
Secondary revenue	131	133	137	142	146	150	154	159	163	1,315
<b>Total income</b>	<b>1,740</b>	<b>1,789</b>	<b>1,885</b>	<b>2,054</b>	<b>2,196</b>	<b>2,377</b>	<b>2,554</b>	<b>2,732</b>	<b>2,796</b>	<b>20,124</b>
<b>Operating expenditure</b>										
Operating costs (incl. LU risk)	(1,831)	(1,902)	(1,854)	(1,963)	(1,952)	(2,021)	(2,115)	(2,184)	(2,246)	(18,069)
Tube PPP contract costs	(628)	(934)	(959)	(973)	(932)	(874)	(885)	(841)	(817)	(7,843)
<b>Total operating expenditure</b>	<b>(2,459)</b>	<b>(2,836)</b>	<b>(2,813)</b>	<b>(2,937)</b>	<b>(2,884)</b>	<b>(2,895)</b>	<b>(2,999)</b>	<b>(3,025)</b>	<b>(3,063)</b>	<b>(25,912)</b>
<b>Capital expenditure</b>										
<b>Net capital expenditure</b>	<b>(1,163)</b>	<b>(1,327)</b>	<b>(1,188)</b>	<b>(1,330)</b>	<b>(1,322)</b>	<b>(1,310)</b>	<b>(1,299)</b>	<b>(1,426)</b>	<b>(1,567)</b>	<b>(11,932)</b>
<b>Net expenditure</b>	<b>(1,882)</b>	<b>(2,374)</b>	<b>(2,115)</b>	<b>(2,213)</b>	<b>(2,010)</b>	<b>(1,828)</b>	<b>(1,745)</b>	<b>(1,719)</b>	<b>(1,834)</b>	<b>(17,720)</b>







London Overground improvements include line extensions, new trains, upgraded track and signalling systems, as well as station upgrades

## > London Rail

TfL is carrying out a programme of upgrades and improvements across the London Rail network to increase capacity, quality and reliability during this Plan period.

This will enable the network to play an integral part in serving the London 2012 Olympic and Paralympic Games.

By then, TfL will have:

- > Completed a portfolio of capital projects on the DLR
- > Completed Phase I of the East London line extension to the London Overground network
- > Improved the rest of the Overground network by upgrading the North London Railway infrastructure and stations and connecting it to the East London line
- > Enhanced the Croydon Tramlink network and explored further improvements

### London Overground

Major improvements include line extensions, new trains, upgraded track and signalling systems, as well as station upgrades. Made up of the East London line and the North London Railway, the Overground will be transformed into an orbital network for London, linking 20 of the Capital's 33 boroughs.

#### East London line extension Phase I

This is a new Overground railway connecting West Croydon and Crystal Palace to Dalston – extending and improving the existing East London line between Shoreditch and New Cross/New Cross Gate. The extensions are being created by reinstating disused National Rail routes to provide the link to Dalston in the north and by modifying existing infrastructure to reach West Croydon and Crystal Palace in the south. A rolling stock maintenance facility at New Cross Gate is being created.

Extension and refurbishment of the East London line will allow more frequent and reliable services and is on schedule to be introduced into passenger service in June 2010.



**New stock for the North London line began operating in July 2009. All carriages are due in service on this line in early 2010**

### East London line Phase 2

A new connection from Surrey Quays to the South London line will complete the Overground's orbital route in 2012, enabling Overground services to operate to Clapham Junction and providing passengers with alternative links to reach key locations in Inner London without transferring in the centre of the Capital. Part of this project will be funded by Network Rail.

### North London Railway

A substantial infrastructure project is under way, involving track and signalling improvements and platform extensions, enabling more trains to be run. Extra carriages are to be introduced, extending trains from three to four cars. The exception to this will be Gospel Oak to Barking, which is operated by upgraded two-car diesel trains. These improvements will pave the way for a smoother and more reliable service, at the same time as increasing the line's capacity by 50 per cent.

The East London line extension will then be connected to the North London Railway via new track in the Dalston area, and East London line services

will then run to Highbury & Islington.

The work will be completed in early 2011.

The North London Railway is also a major cross-London freight route, providing a valuable alternative to the road network. The DfT has announced funding of £54m to create a four-track section around Camden to increase freight capacity and reduce conflict between freight and passenger services. This project will begin after the 2012 Games.

### New rolling stock

TfL is introducing 65 new trains on the Overground network. These will have air conditioning, CCTV, wheelchair bays, audio-visual improvements and energy-efficient braking.

New stock for the North London line began operating in July 2009. All carriages are due in service on this line in early 2010. The fleet for the East London line extension will be ready when the line opens in June 2010.

### Upgrades for Overground stations

North London line stations are all fully staffed and will be upgraded under a project that began in August 2009. Improvements include:

- > CCTV covering 90 per cent of station areas, with 100 per cent coverage in ticket halls, entrances, subways, footbridges and at Help points
- > Upgrading the customer information system to provide real-time train departure information that is compliant with the Disability Discrimination Act on each platform and in ticket halls or entrances

- > Tube-style Help points on all platforms and within ticket halls or station entrances
- > Refurbishment of ticket halls, entrances, platforms, canopies, footbridges and subways

All improvements will incorporate anti-vandalism and anti-graffiti measures.



The Thames Tunnel, built by Sir Marc Brunel and his son Isambard between 1825 and 1843, will form part of the new £1 bn East London line and the London Overground network. More than 160 years after it was completed, it will carry London's latest fleet of 21st century commuter trains



The new Woolwich Arsenal station which opened in January 2009

## Docklands Light Railway

The number of passengers using the DLR is forecast to grow from 68 million currently to 83 million by 2012. A total of 55 new carriages have been ordered, expanding trains from two to three cars and giving a 50 per cent capacity increase by June 2010.

To allow for longer trains, the network is to be upgraded and platforms lengthened. This too is scheduled for completion in June 2010.

Part of this work, being delivered in May 2011 with funding support from the ODA, is the east route between Custom House and Beckton – enabling three-car trains to serve London ExCel, an

important Olympic venue, as well as supporting regeneration of key development sites along the route.

The ODA is also part-funding the extension of the DLR to Stratford International. Construction works are under way at all stations along the new route and remain on target for completion in July 2010.

The Woolwich Arsenal extension, which involved digging a new tunnel under the Thames, has already been delivered on time and within budget, going into passenger service on 10 January 2009.

## Croydon Tramlink

Passenger numbers are expected to

## The Woolwich Arsenal extension, which involved digging a new tunnel under the Thames, has already been delivered

be 28 million on Croydon Tramlink in 2009/10. This follows a similar six per cent increase (to 26 million passengers) in 2008/09.

The tram fleet and tram stop refurbishment, which began in 2009, is now complete, significantly improving the

customer environment. Planned improvements to alleviate overcrowding at peak times and upgrade Help points and communication systems should further enhance customer safety, security and the travel experience into the future.

**Table 4**

London Rail income, operating and capital expenditure plan

(£m)	2009/10 forecast	2010/ 2011	2011/ 2012	2012/ 2013	2013/ 2014	2014/ 2015	2015/ 2016	2016/ 2017	2017/ 2018	9-year total
<b>Income</b>										
DLR	74	82	94	105	122	135	150	165	174	1,102
London Overground	37	72	83	96	107	115	123	129	135	897
Trams	17	19	19	20	21	22	23	24	26	191
<b>Total income</b>	<b>129</b>	<b>173</b>	<b>196</b>	<b>221</b>	<b>250</b>	<b>273</b>	<b>296</b>	<b>318</b>	<b>335</b>	<b>2,190</b>
<b>Operating expenditure</b>										
DLR	(120)	(123)	(128)	(139)	(134)	(136)	(138)	(141)	(146)	(1,206)
London Overground	(124)	(175)	(147)	(159)	(167)	(171)	(174)	(175)	(179)	(1,470)
Trams	(26)	(23)	(23)	(24)	(24)	(24)	(25)	(26)	(27)	(222)
London Rail development & HQ	(26)	(20)	(10)	(13)	(13)	(13)	(11)	(11)	(12)	(130)
<b>Total operating expenditure</b>	<b>(295)</b>	<b>(341)</b>	<b>(308)</b>	<b>(336)</b>	<b>(338)</b>	<b>(345)</b>	<b>(349)</b>	<b>(353)</b>	<b>(364)</b>	<b>(3,029)</b>
<b>Capital expenditure</b>										
DLR	(160)	(98)	(15)	(18)	(9)	(9)	(10)	(10)	(10)	(340)
London Overground	(371)	(164)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(537)
Trams	(5)	(1)	(0)	(1)	(1)	(1)	(1)	(0)	(0)	(10)
London Rail development & HQ	14	(14)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
<b>Net capital expenditure</b>	<b>(522)</b>	<b>(276)</b>	<b>(17)</b>	<b>(19)</b>	<b>(10)</b>	<b>(10)</b>	<b>(11)</b>	<b>(11)</b>	<b>(11)</b>	<b>(886)</b>
<b>Net expenditure</b>	<b>(689)</b>	<b>(445)</b>	<b>(130)</b>	<b>(134)</b>	<b>(97)</b>	<b>(81)</b>	<b>(63)</b>	<b>(45)</b>	<b>(40)</b>	<b>(1,725)</b>





TfL is developing technology to enable the London Streets Traffic Control Centre to improve its responses to traffic disruption

# > Surface Transport

## Smoothing traffic flow

A smooth flow of traffic through London's streets is essential, not just for the convenience and wellbeing of road users, pedestrians and residents, but for the economic health of the Capital as a whole. Delays and disruption cost money.

TfL's Business Plan predicts a very small change in Surface Transport journey times over its course. This will be due to a number of factors, including efforts to encourage more walking or cycling journeys, which by their very nature are slower. The Mayor's 'smoothing traffic flow' agenda will include a range of measures aimed at improving the reliability and ease of travel on London's streets.

TfL is developing a strategy for smoothing traffic flow based on delivering the outcomes presented in the new MTS.

Progress and achievement will be measured and monitored through a journey time reliability metric. However, TfL is already delivering a range of measures:

- > At present, some 2,000 traffic signal sites are controlled by an 'intelligent' system called SCOOT (Split Cycle Offset Optimisation Technique), which uses sensors in the road to monitor traffic conditions and automatically change signal timings in response to traffic fluctuations. TfL is investing in a programme to expand this network to a further 1,000 sites. When the programme is completed, just over half of London's signals will be SCOOT-controlled
- > TfL will conduct a yearly review of timings at 1,000 traffic signal sites throughout London to ensure the most effective balance is being maintained for all road users, including pedestrians
- > TfL is developing technology to enable the London Streets Traffic Control Centre to improve its responses to traffic disruption. One system programmes SCOOT's on-street detectors to automatically activate a different operation at signals when a traffic problem occurs. Known as SASS (System Activated Strategy Selection), it is being developed for locations where there are routine but significant changes, such as the Tower Bridge lifting or vehicles leaving a major event

## Some 1,800 highway structures are owned and maintained by TfL in accordance with national guidelines

### Improving the road network: highways (carriageway, footway, lighting and drainage)

TfL is responsible for maintaining a 580km network of roads which includes 2,400km of carriageway, 1,100km of footways and thousands of other associated assets such as drainage systems and street furniture. A programme of resurfacing, reconstructing and repairing these assets is prioritised using surveys and asset modelling techniques, and works are coordinated to minimise disruption and maximise opportunities for combining with other work programmes.

The programme allows TfL to meet its long-term objectives in line with the Highways Asset Management Plan and bring London's infrastructure into a steady state of good repair. Programme priorities include:

- > Evaluation on a 'whole life cost' and optimal intervention basis to provide value for money
- > Smoother surfaces to aid buses, cycling and walking
- > Anti-skid surfacing to improve safety
- > Systematic maintenance of carriageways and footways to

contribute towards local regeneration. Footways, street furniture and landscaping in particular can add to the perception of public safety and help reduce crime

### Tunnels

TfL has begun a seven to 10-year programme of safety improvements to its 13 road tunnels. Operational responsibility for the renamed London Streets Tunnel Operations Centre was transferred from the Metropolitan Police to TfL in April 2009. The centre's control and communications system is to be modernised and expanded, and additional safety systems introduced within, and on the approaches to, the tunnels. These will include automatic vehicle incident detection and tunnel closure systems. Through these measures TfL will aim to manage driver behaviour better, to reduce the risk of incidents and, if they do occur, trigger the quickest possible response and reduce network disruption.

The necessary tunnel safety and systems upgrade works required in the Blackwall Tunnel (northbound) will include fire detection, vehicle overheight detection measures, new lighting and improved communication and ventilation. The works are likely to result

in significant disruption to tunnel users and TfL will work closely with all stakeholders to explore how to mitigate any disruption.

### Structures

Some 1,800 highway structures are owned and maintained by TfL in accordance with national guidelines. Regular inspections are carried out to identify potential repair works and schemes are prioritised.

### Better journey information

TfL is making improvements to the way it structures and analyses road-related data. One significant benefit will be to the quality of real-time information to alert motorists to problem areas.



The A40 Western Avenue Bridge replacement scheme, which will create two new roads over rail bridges and secure the route over the railway for the next 120 years. It will also deliver significant improvements to cycling and walking facilities in the area





In 2010, TfL will begin on-street trials of Pedestrian Countdown, a system that tells pedestrians at traffic signals how long they have left to cross the road once the 'green man' symbol disappears. It will give pedestrians much more certainty about how much time they have to cross, giving them more confidence and making the roads safer.

### Managing roadworks

Many roadworks have a significant impact on traffic flows and when different contractors dig up the same section of road at different times, road users suffer unnecessarily. Some of the

impact could be lessened through planning and coordination.

With the introduction of LondonWorks it is now possible to see a computerised view of activities on the road network across the Capital. This helps to improve the planning and coordination of street works and reduces their effect on traffic flows.

TfL is also working with the London boroughs to improve traffic flows between and across borough boundaries. In partnership with 18 boroughs, TfL submitted an application

## TfL is also working with the London boroughs to improve traffic flows between and across borough boundaries

to the DfT to run a permit scheme that will require companies and utilities wanting to dig up the Capital's roads to agree terms and conditions for their work. Now the Government has given TfL the go-ahead, the scheme could be in place by early 2010.

A lane rental scheme, developed as an avoidable charge and applied on a peak hours/traffic sensitive basis, and on the most congested parts of the network, would incentivise shorter works durations and has the potential to deliver real benefits in terms of reduced congestion.

Other initiatives are under way to tackle unauthorised or poorly managed street works. In southwest London traffic wardens are reporting unauthorised works to the Network Operations Team, which has successfully taken action to penalise infringements. Similarly, members of the public are being encouraged to report poorly managed works to the TfL website ([tfl.gov.uk](http://tfl.gov.uk)), which carries details of all works.

### Traffic enforcement

In recent years, TfL has successfully increased compliance on its 580km

network of roads through enforcement. Now the emphasis is being placed on compliance through improved communication with drivers and clearer signage.

A Driver's Charter has been developed with four central themes:

- > TfL will take a more common-sense approach to help drivers
- > TfL will make it easier for drivers to understand the rules
- > Where a penalty is issued TfL will make the process as simple as possible
- > If TfL makes a mistake it will apologise and cancel the penalty

Under the charter, warning notices rather than penalty charges will be issued for new offences, and challenges for certain contraventions will be accepted by telephone rather than in writing.

In addition, members of TfL's Freight Operator Recognition Scheme are, among many other benefits, offered advice and guidance toolkits to help reduce the number of penalty charge notices they receive.

## The Low Emission Zone (LEZ) is aimed at improving Londoners' quality of life by reducing harmful traffic emissions

### Congestion Charging

Congestion Charging continues to be effective in reducing the volume of traffic in central London. Around 80,000 fewer vehicles now use the centre of the Capital every day, a 25 per cent drop compared with the period immediately before charging was introduced.

There will be important changes in Congestion Charging during the next year. A new contract to operate the scheme goes live in November 2009. This will bring significant efficiencies to TfL and create a more flexible scheme that tackles many of the concerns previously raised by users.

The Mayor is committed to implementing easier and fairer ways for people to pay the charge. Automated payment, the most consistently requested improvement, is planned to be introduced by December 2010, provisionally entitled 'CC Auto Pay'. Those registering for this service will immediately eliminate the risk of forgetting to pay and so avoid incurring a penalty charge. The registration fee for this service will be confirmed in due course.

Subject to consultations on the MTS and any subsequent Variation Order, further changes to the scheme proposed by December 2010 include:

- > Removal of the Western Extension of the Congestion Charging zone
- > An increase in the daily charge to £9 for CC Auto Pay customers
- > An increase in the daily charge to £10 for customers who do not take up CC Auto Pay and continue to pay through existing channels
- > Removal of the £1 fleet discount so that fleet operators will pay the same per vehicle as customers using CC Auto Pay

### Low Emission Zone

The Low Emission Zone (LEZ) is aimed at improving Londoners' quality of life by reducing harmful traffic emissions in the Greater London area. The first two phases, targeting the highest polluting vehicles, were introduced in 2008 and have been very successful in cutting emissions from lorries, buses and coaches in the Capital. The proportion of affected vehicles now meeting the LEZ standard is 95-97 per cent, compared with 60-75 per cent when the scheme was announced in 2007.

### Public realm improvements

The Mayor will shortly publish a comprehensive strategy for improving the quality of London's streets and public spaces. This will include the Mayor's







Great Spaces initiative, being led by the London Development Agency (LDA). As part of a wider Mayoral programme, TfL is seeking to improve the public realm around its transport system – making London more liveable – by ensuring safe, accessible and attractive environments for cyclists, pedestrians and disabled people, with good travel links.

It will also continue to consider the local public realm in its plans for maintaining existing assets and developing new

ones, for instance when improving pavements and crossings, and removing obsolete street furniture.

Several station access and town centre schemes will be implemented in this Business Plan period and are aimed at improving the quality of life for Londoners. These include improvements to Brixton Central Square and Gants Hill station environs. Other schemes include:



Improvements already delivered as part of the Woolwich town centre project

## Several station access and town centre schemes will be implemented in this Business Plan period

### Exhibition Road

The area receives 11.5 million annual visitors but is in need of improvement. This scheme, part-funded by TfL and delivered by the Royal Borough of Kensington & Chelsea and the City of Westminster, will move traffic to the east side of Exhibition Road, providing a new large space for pedestrians which, with high quality repaving, will provide a significantly enhanced environment. The Royal Borough of Kensington & Chelsea is looking to introduce more character to the street by having a criss-cross paving pattern over the whole width of the road without traditional kerbs. It will be more akin to continental shared space arrangements. This will put pedestrians, cyclists and motorists on an equal footing and create a safer, more pleasant environment for residents, workers and visitors to the area.

### Woolwich town centre – General Gordon Square

The two-phase Woolwich town centre project will regenerate the area and improve movement between the main public spaces, public transport, shops and businesses. The first phase, completed in 2008, included the planting of 100 trees and installing high quality street furniture and lighting, improved footways and the introduction of a raised 'super crossing'

on Plumstead Road to enable pedestrians and cyclists to cross four lanes of traffic. The second phase, which began in 2009, will link in with the Woolwich Squares project and pedestrianisation of General Gordon Square.

### Bounds Green

Scheduled for completion in May 2012, this project involves a number of safety and environmental improvements along the A406 Telford Road, Bowes Road and North Circular Road between Bounds Green Road, Station Road and Chequers Way. A two-lane dual carriageway will be created, pedestrian crossing facilities improved and a dedicated cycleway provided.

### Tottenham Hale

The existing one-way system is to be converted to two-way working. This will reduce its impact on local communities and the environment and unlock a number of potential housing sites, supporting the local regeneration set out in the London Borough of Haringey's master plan. Tottenham Hale station forecourt will be upgraded with a new bus station and public square, bringing improvements to transport interchange, pedestrian crossings, cycling facilities and road safety. The scheduled completion date is 2014.

Since 2000, when TfL was created, the number of people cycling on the city's major roads has risen by 107 per cent

### Henlys Corner

A junction improvement scheme, taking account of all local community needs, will provide signal-controlled pedestrian and cycling facilities. TfL is in regular discussion with the London Borough of Barnet on affordability and deliverability and, subject to consents, work will start in early 2011 and is expected to take one year.

### Oxford Circus diagonal crossing

TfL is providing funding towards this scheme, led by Westminster City Council. The project will introduce a diagonal crossing for pedestrians to reduce overcrowding and improve pedestrian 'flow' across the junction by widening footways and pedestrian crossings. With 200,000 pedestrian 'movements' each day at Oxford Circus, the scheme will play an important part in improving conditions and helping the West End to maintain its popularity as a leading shopping district. Work began in May 2009 and the crossing will be in use by the end of November 2009.

### Cycling and walking

More than half a million cycle journeys are made every day in London. Since 2000, when TfL was created, the

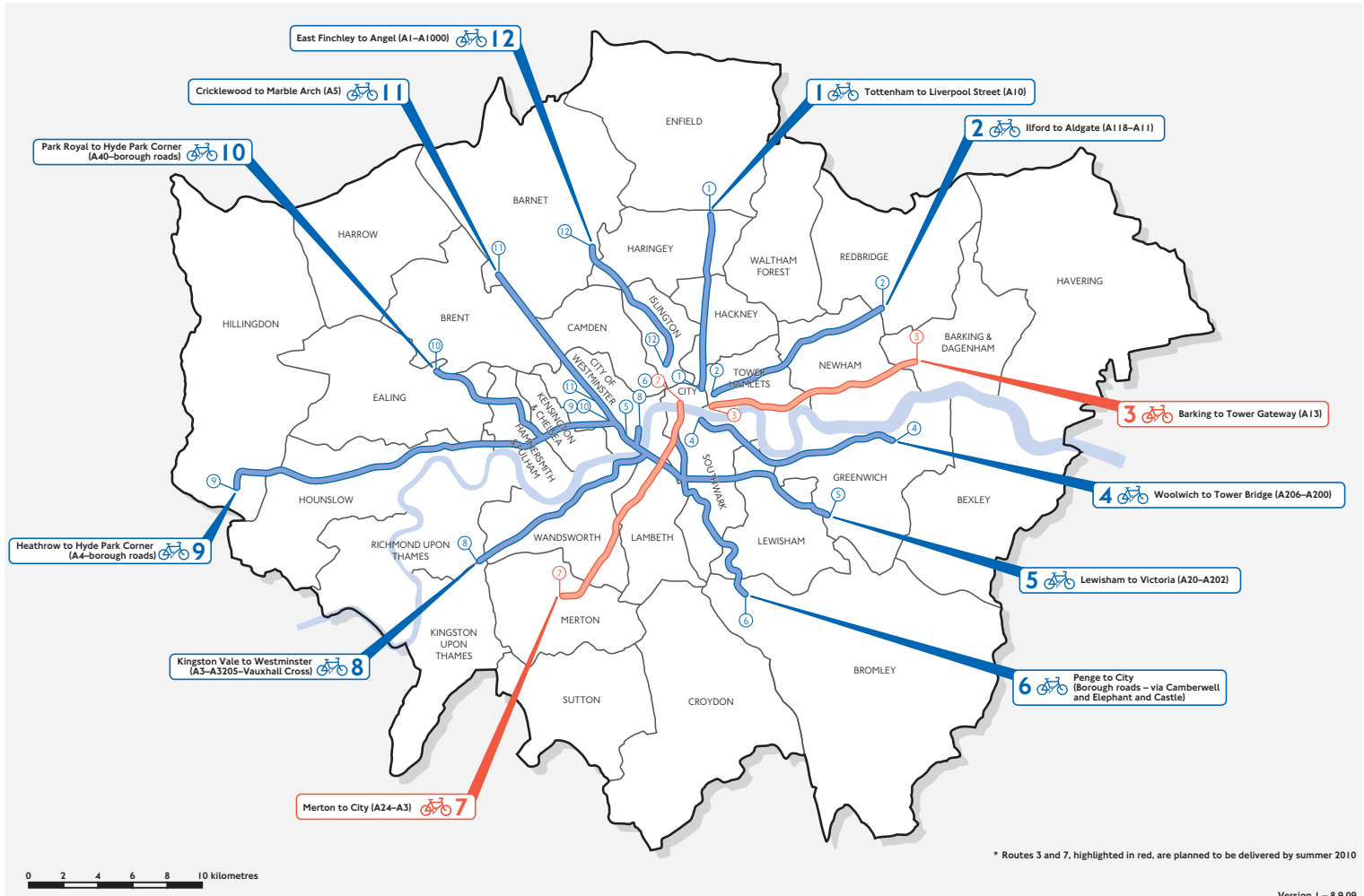
number of people cycling on the city's major roads has risen by 107 per cent. In the past year, cycling has grown by eight per cent – equivalent to 45,000 journeys each day.

The Mayor is committed to a cycle revolution in the Capital. To bring this about, TfL has created a powerful programme based on three core developments – Cycle Superhighways, the London Cycle Hire Scheme and Biking Boroughs.

### Cycle Superhighways

Cycle Superhighways will be aimed at improving conditions for existing cycling commuters and encouraging more people to cycle to and from work. Twelve radial Cycle Superhighways from Outer London into the centre will provide cyclists with safe, fast, direct and continuous routes along recognised commuter roads. They will be identifiable by blue road surfacing and special signage and symbols. Two trial superhighways – Barking to Tower Hill (A13) and Merton to the City of London (A24-A3) – are currently under construction. Four more will be completed by October 2012 and the remaining six by 2015.





Cycle Superhighways – indicative routes

London Cycle Hire Scheme

The scheme will make cycling a true part of public transport when it is introduced in summer 2010. With 6,000 bicycles available for hire from 400 purpose-built docking stations in central London, it will provide a fast, easy and economic alternative to the bus, Tube and car – as well as being a greener and healthier way to travel.

Using experience gained from bike-sharing operations in other cities around the world, London’s scheme has been designed to cater for short

trips. Placed at 300-metre intervals, the docking stations will comprise secure, centrally controlled docking points and smart-key technology to provide users with quick and convenient access to a bicycle. They will be able to hop on and off a bike whenever they like, 24 hours a day, 365 days a year.

Biking Boroughs

Biking Boroughs will be centres of cycling excellence in Outer London, where there is a particular opportunity to encourage more cycling – and walking. About half of all car trips in Outer



An example of the Legible London wayfinding system of on-street signs and maps

## Walking is a key component of the transport mix, forming part of most journeys

London are of two miles or less and public transport coverage is not as comprehensive as in central London.

These flagship programmes will be underpinned by continued investment in successful supporting programmes, including local safety access schemes, the provision of 66,000 new cycle parking spaces by 2012, cycle training and information (including the London Cycle Guides).

### Walking

Walking is a key component of the transport mix, forming part of most journeys and accounting for 21 per cent of the total modal share. By connecting its activities with those of the boroughs and other stakeholders, TfL is helping to create safer and better streets, and is making walking count.

This will be important in encouraging people to walk rather than use the car or congested public transport. Integrated planning will be necessary to increase walking's modal share, based around three principles:

- > Promoting the social, economic, environmental and health benefits of walking
- > Making it easier to plan and undertake journeys on foot

- > Offering a safe, comfortable, attractive street environment

Future programmes will include:

- > Major projects – high street revitalisation through good quality public realm measures to support regeneration of small businesses and foster local shopping
- > Public space – providing excellent public realm areas along major walking routes
- > Station access – improving the access and safety between the station and surrounding areas
- > Improving personal safety – encouraging people to walk more by tackling the fear of street crime, a significant barrier to walking

In addition, removing obstacles such as guardrails continues. So far, more than 20km has been removed. A further 32km will be removed by February 2010

### Smarter Travel

The Smarter Travel programme is aimed at getting people to change their behaviour by promoting more active and sustainable travel and support reduced car use through travel planning advice and tools for businesses, schools and residents.



## The Smarter Travel Richmond initiative, introduced in March 2009, will continue through 2010/11 as a showcase for smarter travel techniques

Under the programme, 88 per cent of London schools now have a travel plan, resulting in an average 6.5 per cent drop in the proportion of car journeys to schools. The aim in 2010/11 is to ensure the remaining schools complete their plans. More than 400 organisations, employing in excess of 450,000 people, have also adopted TfL-supported travel plans, leading to a 13 per cent cut in the proportion of car journeys to work.

The Smarter Travel Richmond initiative, introduced in March 2009, will continue through 2010/11 as a showcase for smarter travel techniques when coordinated with infrastructure improvements such as new cycle and pedestrian routes. Its aim is to achieve a five per cent combined increase in walking, cycling and public transport use across the borough.

In addition, TfL and the ODA are investing in eight enhanced walking and cycling routes, totalling 74km, to the main 2012 Games venues. These will be coordinated with an active spectator programme to encourage people to make the choice to walk or cycle during the Games.

There are now more than 1,400 car club vehicles on London's streets, including plug-in hybrids and the latest low emission diesels. Each car club vehicle typically results in eight privately owned vehicles being sold and members cutting their annual mileage by more than 25 per cent. Another 380 vehicles will be added to the fleet in 2010/11.

The Mayor has committed to having 100,000 electric vehicles in use as soon as possible. TfL will underpin this initiative by supporting the installation of 25,000 charging points across London by 2015.

There are currently 154 electric charging points in the Capital. A further 95 points will be introduced by 2010/11 through Local Implementation Plan (LIP) funding. Plans are under way to add more as part of the LIPs area-based scheme.

A Borough Electric Vehicle Infrastructure working group was created in 2008 to establish a common process and protocol to meet the Mayor's Electric Vehicle Delivery Plan. In partnership with the boroughs, TfL is submitting a London bid for the

European Green Cars initiative and a DfT infrastructure grant proposal for additional funds to carry out some of the Mayor's plan from 2010 onwards. Guidance for the boroughs and others on implementing charging points is being developed. This is expected to be ready by January 2010. A London Electric Vehicle marketing brand will also be created.

## London Buses

The bus has been one of the Capital's transport success stories over the past decade. London's buses now carry more than 2.2 billion passengers a year – more than at any time since 1962.

Achievements include:

- > A highly accessible network, with more than 90 per cent of London residents



A further 95 electric charging points will be introduced in London by 2010/11



One of 56 hybrid buses now being trialled in the Capital

living within 400 metres of a bus stop and all buses, except Heritage Routemasters, wheelchair accessible

- > Reliable services, with excess waiting times falling to the lowest levels recorded
- > Measures to make the system easier to use, including better information, improved bus stops, simplified ticketing and improvements to driver training
- > CCTV cameras on every bus and successful trials of a diesel-electric hybrid and fuel cell technology to lower CO<sub>2</sub> emissions

The most widely used form of public transport throughout the Capital and

the main provider for journeys in Outer London, buses support connectivity by feeding into railway stations and central London terminals.

### Fleet development

Progressive improvements to the bus fleet have increased passenger comfort and safety through upgraded seat layouts, air-cooling systems, CCTV and outward-opening exit doors to create more internal space. Engine emission standards are ahead of legal requirements and will be hugely improved by the introduction of diesel-electric hybrid buses, 56 of which are currently on trial. Another 300 will enter service by 2012, and from then it is planned that all new buses entering the



## Progressive improvements to the bus fleet have increased passenger comfort and safety

fleet will be of this type. TfL is also introducing a fleet of zero-emission hydrogen buses to central London route RVI in 2010.

### New Bus for London

TfL is developing a new iconic bus, called the New Bus for London. The joint winners of a design competition were announced in December 2008 from 700 entries. Based on the best design concepts, manufacturers have been invited to consider the innovative ideas in combination with their own expertise and come up with a final design that incorporates green technology and can include a platform at the rear. A vehicle specification will also be developed as well as a procurement strategy setting specific environmental and performance targets.

TfL is seeking to award the contract to build the new bus by the end of 2009, with the first prototype expected to start testing by the end of 2011.

### Withdrawal of articulated (bendy) buses

Withdrawal started in July 2009 with routes 507 and 521, followed by route 38 in autumn 2009. The remaining nine routes will all be replaced by the end of 2011.

### Network development

Passenger research and consultation enables the bus network to go on responding to changing travel needs. Regular reviews will consider future changes – new homes, workplaces, shopping centres and leisure attractions – and will support other transport investment, such as Crossrail.

TfL will continue to keep the bus network under regular review. Priorities will be to maintain:

- > Ease of use
- > Attractive frequencies and adequate capacity
- > Reliable services
- > Good coverage

Despite improvements to rail networks, the bus fleet will remain the only city-wide accessible public transport mode, operating around the clock to support London's 24-hour economy.

### Service quality

Passengers' top priority is the overall time their journey takes, including waiting time and service reliability. Quality incentive contracts have been very successful in encouraging operators to maintain reliability, and other measures such as bus-only roads,

## A River Concordat group has been formed to develop a shared approach that allows greater use of the River Thames for passenger transport

bus lanes and selective vehicle detection at traffic signals, help ensure services run more smoothly.

TfL will continue to work with the boroughs, the Metropolitan Police and others to identify critical locations for bus priority, adopt appropriate measures to maintain reliability and ensure bus priorities are enforced.

### Passenger information

Bus information has been transformed through the introduction of iBus. The technology – which allows real-time bus tracking for service control and emergency response coordination – makes London's fleet of buses even more reliable. The audio-visual, on-bus displays and announcements provide details of the next stop and final destination. The technology also supplies Countdown signs at bus stops with improved bus arrival information.

In September 2009, TfL awarded contracts as part of a new generation of the Countdown system. This will provide real-time bus arrival and service information to passengers, who will be able to access personalised arrival time predictions for all of the 19,000 bus stops and 700 routes in London via the internet and mobile phones. This will be

complemented by new Countdown signs offering real-time information at around 2,500 key bus stops.

The internet and text message services are scheduled to be available by the beginning of 2011. Roll-out of the new Countdown signs will start in spring 2011, and will be complete by summer 2012.

'Spider' maps and timetables are in place throughout the network, increasing access to static information.

### River transport

Running through the heart of London, the Thames is a pleasant means of getting about in the Capital. TfL licenses private boat operators to run passenger services from eight TfL-owned piers on the Thames. It will continue to maintain the piers during the period of this Plan, as well as overseeing the Woolwich Ferry operation.

A River Concordat group has been formed to develop a shared approach that allows greater use of the River Thames for passenger transport. The group, which includes the LDA, GLA, boat operators, boroughs and other interested parties, is looking at issues such as pier signage, greater pier





London's 22,000 taxis and 48,000 private hire vehicles make a significant contribution to the Capital's economy

provision in central London and acceptance of Oyster pay as you go on boats.

The River Concordat's pier signage workstream has brought together representatives from key groups and local authorities to address an important Mayoral priority: integrating river services with other modes and increasing passenger numbers.

The group has conducted a detailed audit of 23 piers across London from Wandsworth in the west to Woolwich Arsenal in the east. The audit looked at the piers, the main street level routes and junctions, plus the key interchanges in the area to establish (via a 'whole journey' approach) how effective current signage is to and from piers.



This audit has resulted in a two-stage approach to implementation. Phase one ('quick wins') has focused on the 'high priority' piers, as well as Waterloo rail station and Charing Cross station, with the intention of making rapid changes to the existing signs for tourists and commuters to raise awareness of the piers nearby. The project complements the work of the Legible London wayfinding initiative.

The pier audit also identified the lack of visibility of the piers at street level and along the river as a concern. To remedy this, a pilot exercise is scheduled for Blackfriars Pier to trial a new, larger flag in a more prominent location.

Promoting water and rail as alternative modes for freight movement is important, but these offer relatively few opportunities to deliver to the final destination, so wharf and terminal locations must be safeguarded through the land-use planning process.

## Licensed taxis and private hire vehicles

London's 22,000 taxis and 48,000 private hire vehicles make a significant contribution to the Capital's economy,

providing door-to-door services for businesses, visitors and residents. TfL is committed to maintaining the standards of the services and ensuring they continue to meet London's needs.

TfL is responsible for safe taxi and private hire transport as well as taxi and taxi-driver licensing. TfL is reviewing the options for modernising driver and operator licensing to improve services and reduce operating costs. It is committed to ensuring these licensing systems maintain value for money and avoid imposing unnecessary costs on the trades and their customers.

## Freight

The London Freight Plan outlines how freight operators should be able to reduce fuel use, emissions and CO<sub>2</sub> levels by 10 per cent by 2016. The Freight Operator Recognition Scheme helps benchmark operators' efficiency and offers guidance on improving safety and performance, including advice about low-carbon vehicles.

Improving freight sustainability and reducing undesirable kerbside activity, for example loading or unloading when it

## TfL is considering ways to further reduce the impact of freight activity

is unlawful or unsafe to do so, will help to alleviate congestion on London's streets and reduce the impact on other road users. TfL is considering ways to further reduce the impact of freight activity, for example during the morning

peak, by looking at greater use of out-of-hours deliveries, other modes, new vehicle technology and operator best practice, and by examining the influence of procurement activity.

**Table 5**

Surface Transport income, operating and capital expenditure plan

(£m)	2009/10 forecast	2010/ 2011	2011/ 2012	2012/ 2013	2013/ 2014	2014/ 2015	2015/ 2016	2016/ 2017	2017/ 2018	9-year total
<b>Bus network subsidy</b>										
Bus network income	1,115	1,185	1,237	1,313	1,391	1,473	1,553	1,631	1,702	12,601
Bus network costs	(1,690)	(1,709)	(1,776)	(1,852)	(1,897)	(1,961)	(2,025)	(2,088)	(2,154)	(17,153)
<b>Net bus subsidy</b>	<b>(574)</b>	<b>(524)</b>	<b>(540)</b>	<b>(540)</b>	<b>(506)</b>	<b>(487)</b>	<b>(471)</b>	<b>(457)</b>	<b>(452)</b>	<b>(4,552)</b>
<b>Other operating expenditure</b>										
Enforcement (incl. Congestion Charging and policing)	60	68	18	15	15	1	8	31	40	255
London Streets	(185)	(189)	(184)	(192)	(186)	(194)	(203)	(210)	(214)	(1,757)
Integrated programme delivery	(158)	(124)	(114)	(146)	(147)	(134)	(133)	(117)	(118)	(1,189)
Other bus support costs	(79)	(71)	(65)	(64)	(67)	(67)	(67)	(68)	(70)	(618)
Other operating expenditure	(143)	(142)	(121)	(86)	(63)	(78)	(94)	(141)	(166)	(1,035)
<b>Total net operating expenditure</b>	<b>(1,079)</b>	<b>(982)</b>	<b>(1,005)</b>	<b>(1,014)</b>	<b>(955)</b>	<b>(960)</b>	<b>(961)</b>	<b>(962)</b>	<b>(979)</b>	<b>(8,896)</b>
<b>Capital expenditure</b>										
Enforcement (incl. Congestion Charging and policing)	(9)	(5)	(6)	(4)	(5)	(7)	(4)	(3)	(3)	(46)
London Streets	(105)	(147)	(131)	(125)	(107)	(107)	(108)	(88)	(92)	(1,011)
Integrated programme delivery	(25)	(16)	(15)	(16)	(16)	(16)	(16)	(16)	(16)	(154)
Other capital expenditure	(56)	(70)	(35)	(38)	(48)	(35)	(9)	(9)	(9)	(309)
<b>Net capital expenditure</b>	<b>(195)</b>	<b>(237)</b>	<b>(187)</b>	<b>(183)</b>	<b>(176)</b>	<b>(166)</b>	<b>(137)</b>	<b>(117)</b>	<b>(121)</b>	<b>(1,520)</b>
<b>Net expenditure</b>	<b>(1,274)</b>	<b>(1,220)</b>	<b>(1,192)</b>	<b>(1,197)</b>	<b>(1,131)</b>	<b>(1,126)</b>	<b>(1,097)</b>	<b>(1,079)</b>	<b>(1,100)</b>	<b>(10,415)</b>





Promoting smarter freight management through the GLA Group and London boroughs with delivery and service plans, and through publications such as TfL's Kerbside Loading Guidance and the Freight Environmental Review System (to be published in April 2010), will help minimise freight's impact on congestion.

'Fresnel' lenses adhere to the passenger side window of the HGV and improve the driver's vision of cyclists. TfL has issued 20,000 of these and provided 5,000 to the ODA. In addition to this, all HGVs, since April 2009, must now have enhanced mirrors that serve a similar function.



Crime on the Tube and DLR  
is down by 20 per cent from  
the 2005/06 peak

## > Safety and security

London's public transport network is becoming safer – and surveys show the travelling public's confidence is growing too.

Bus-related crime is down by more than 30 per cent from its peak in 2005/06. In 2008/09 it fell by 18.3 per cent, with 6,063 fewer offences than the previous year.

Bus-related crime now stands at 12 crimes per million passenger journeys – a 21 per cent improvement on the previous year.

Crime on the Tube and DLR is down by 20 per cent from the 2005/06 peak. In 2008/09 it fell by nine per cent (1,336 fewer offences) from the previous year.

This equates to a crime rate of 13.1 crimes per million passenger journeys – a nine per cent improvement on the previous year.

At the same time TfL surveys show improvements in customer perceptions and confidence, with concerns about crime and antisocial behaviour reducing for the first time since 2005/06.

However, improving safety and security

on London's transport network remains a top priority for the Mayor and a major commitment for TfL.

Measures contributing to the improvements have included:

- > Deploying more than 2,500 uniformed officers, funded by TfL, to police the transport network, providing a visible presence in partnership with TfL's own uniformed staff
- > Designing out crime – making improvements to the public realm and installing better lighting, CCTV and Help points to reduce opportunities for crime and antisocial behaviour
- > Activities with schools and the media, and via marketing, to improve public awareness and confidence in safety and security on the system

The principal commitments set out in the Mayor's manifesto have also been introduced:

- > Hub Teams – 32 Hub Teams of more than 400 uniformed officers, working alongside the borough-based Safer Transport Teams, are tackling crime and disorder on and around the transport network in response to local intelligence and community priorities



## TfL will continue to work with the police, boroughs and other partners to improve the perception of safety and security on the network

- > Alcohol ban – a ban on the consumption or carrying of alcohol in open containers, introduced in 2008, is being enforced by TfL staff and police
- > Earn Your Travel Back – under-18s who have had their free bus travel pass withdrawn for breaches of the behaviour code can earn it back through voluntary community service. The scheme is not open to young people convicted of a transport-related crime
- > Cab enforcement officers – TfL has doubled the number of dedicated cab enforcement officers, maximising anti-touting activities. Tougher penalties have also been introduced, with licensed private hire drivers convicted of touting losing their private hire driver's licence for a minimum of one year

Despite the improvements there is more to be done to make travelling safer in London. TfL will continue to work with the police, boroughs and other partners to improve the perception of safety and security on the network, deal with antisocial behaviour and reduce crime levels further.

Examples of main activities include:

- > Targeting police resources effectively and ensuring services provide value for money for Londoners
- > Preventing crime and antisocial behaviour affecting the public transport system and responding effectively to community needs
- > Improving the safety of cabs and travelling at night, building on the Safer Travel at Night initiative, and measures to combat illegal touting
- > Improving the safety and security of walking and cycling. TfL has been developing a Cycling Safety Action Plan and has circulated it for informal comment to London Councils and key stakeholders. The plan coordinates activity across a range of agencies, building on past success and identifying what is needed in future
- > Preventing cash-in-transit robberies and theft from freight vehicles. Security advice is given to operators as part of the Freight Operator Recognition Scheme and is also given to highway engineers where there are opportunities to design-out the risk of armed robberies

- > Developing plans to maximise safety and security during the 2012 Games when significant numbers of visitors will be using the transport system

A three-year community safety strategy will be developed in 2011 after the MTS has been published, setting out the priorities of TfL and its partners and their plans to improve transport safety and security.

## Road safety

Road casualty rates continue to fall in the Capital. The London Road Safety Plan's original targets – including a 40 per cent reduction in the number of people killed or seriously injured (KSI) by 2010 – were mostly met by 2005 and two of the revised targets have also been reached already. By 2008, a 60 per cent reduction in child KSIs had been



The Safer Travel at Night initiative has been successful in reducing the number of women taking unlicensed minicabs home at night, so improving their travelling safety



**Don't let your  
friendship die  
on the road**

**THINK** Look out for your mates



## Major advertising and communication campaigns aimed at young drivers, motorists and those on two wheels have been effective

exceeded (66.9 per cent) along with a 25 per cent reduction in slight casualties (36.8 per cent).

A further reduction in KSIs of around 13 per cent is expected during this Business Plan period. The current cost of collisions in London is £1.5bn a year, so a 13 per cent reduction equates to a saving of more than £200m.

Major advertising and communication campaigns aimed at young drivers, motorists and those on two wheels have been effective in reducing KSIs. These have been supported by education campaigns for children and a road safety programme for engineering works.

However, cyclist KSIs have increased slightly over the past four years, mainly because of the large rise in the numbers cycling in London. This means meeting the 50 per cent target reduction by 2010 will be a significant challenge and more will need to be done to improve cyclists' safety.

Pan-London campaigns have proved one of the most effective ways to improve safety, and more resources will be made available for these.

New time-distance camera technology is now becoming available and will be tested on main roads and for enforcing 20mph zones.



Passengers using National Rail services within London will be able to do so with Oyster pay as you go from January 2010

## > Fares, ticketing and customer information

Paying for travel on London's transport network will become simpler and quicker thanks to planned improvements in ticketing.

These include some of the most radical changes seen in the past 150 years.

The first of the improvements will begin to emerge after August 2010 when a new ticketing services contract comes into force. This will enable TfL to raise performance levels and increase the future flexibility of the ticketing system while generating savings by reducing the cost of collecting revenue.

More dramatic changes will follow in 2011 when passengers on some journeys will be able to pay for travel with the latest generation of debit and credit payment cards now being issued by the banks.

This will mean customers can access the network and pay for their journey without having to buy a ticket – saving time and inconvenience.

The new payment method, which will benefit from the banks' global security systems and wider merchant network, will be extended later to the whole of TfL's services.

As a result of DfT funding TfL will, from 2011, be able to accept Integrated Transport Smartcard Organisation (ITSO) tickets. These tickets are mostly issued either under the English National Concessionary Travel Scheme for disabled people and those aged over 60, or on National Rail services for journeys starting or finishing outside London.

### Oyster extension to National Rail

Oyster pay as you go is available already on London Overground as well as at 19 stations served by Chiltern Railways, c2c and National Express East Anglia, and on First Great Western services in the Capital. Passengers using all other National Rail services within London will be able to do so with Oyster pay as you go from January 2010.

Oyster pay as you go is also being extended to Thames Clippers river services in November 2009.



## The Freedom Pass for older people and people who are registered disabled will remain valid 24 hours a day on TfL services

### Fares and other income

Fare levels and income projections for this Business Plan include the impact of the increase in bus and Underground fares in January 2010, as set out in the Mayor's fares announcement on 15 October.

The Plan also assumes that fares will rise at the Retail Price Index (RPI) plus two per cent from January 2011, to ensure that fares income keeps track of underlying cost growth and that future investment can be funded. Future fares decisions will, however, continue to be made on an annual basis by the Mayor.

A scheme introduced in 2009, allowing half adult-rate bus and tram travel for London residents receiving benefits under the Government's Income Support, Jobseekers' Allowance or the new Employment and Support Allowance, will continue. So too will the War Veterans' scheme, which allows free travel on TfL and National Rail services in the London area.

The concession is available to those in receipt of an ongoing payment under the War Pensions Scheme or Guaranteed Income Payment under the Armed

Forces Compensation Scheme. War widows, war widowers and dependants in receipt of the same payments will also be eligible.

The Freedom Pass, which is provided and paid for by London's borough councils for older people and people who are registered disabled, will remain valid 24 hours a day on TfL services. TfL will also continue with free child bus and tram fares for children under 16 and 16 to 17-year-olds in full-time education, and free Tube travel for children under 11 accompanied by an adult.

### Customer information

TfL's award-winning website ([tfl.gov.uk](http://tfl.gov.uk)), with its live, up-to-the-minute travel news, valuable tools and information, is already extremely popular with the travelling public. New developments during the period of this Plan should make it even more so.

Each month around 10 million visits are made to the site to plan journeys, find travel information and maps, buy Oyster cards or pay the Congestion Charge. Some 68 per cent of Londoners have used it, and five per cent visit it every day.

Refinements are continually being made to the site. In 2009/10 these will include improvements to key areas such as Journey Planner and transactions for Oyster and Congestion Charging, making the system easier to use.

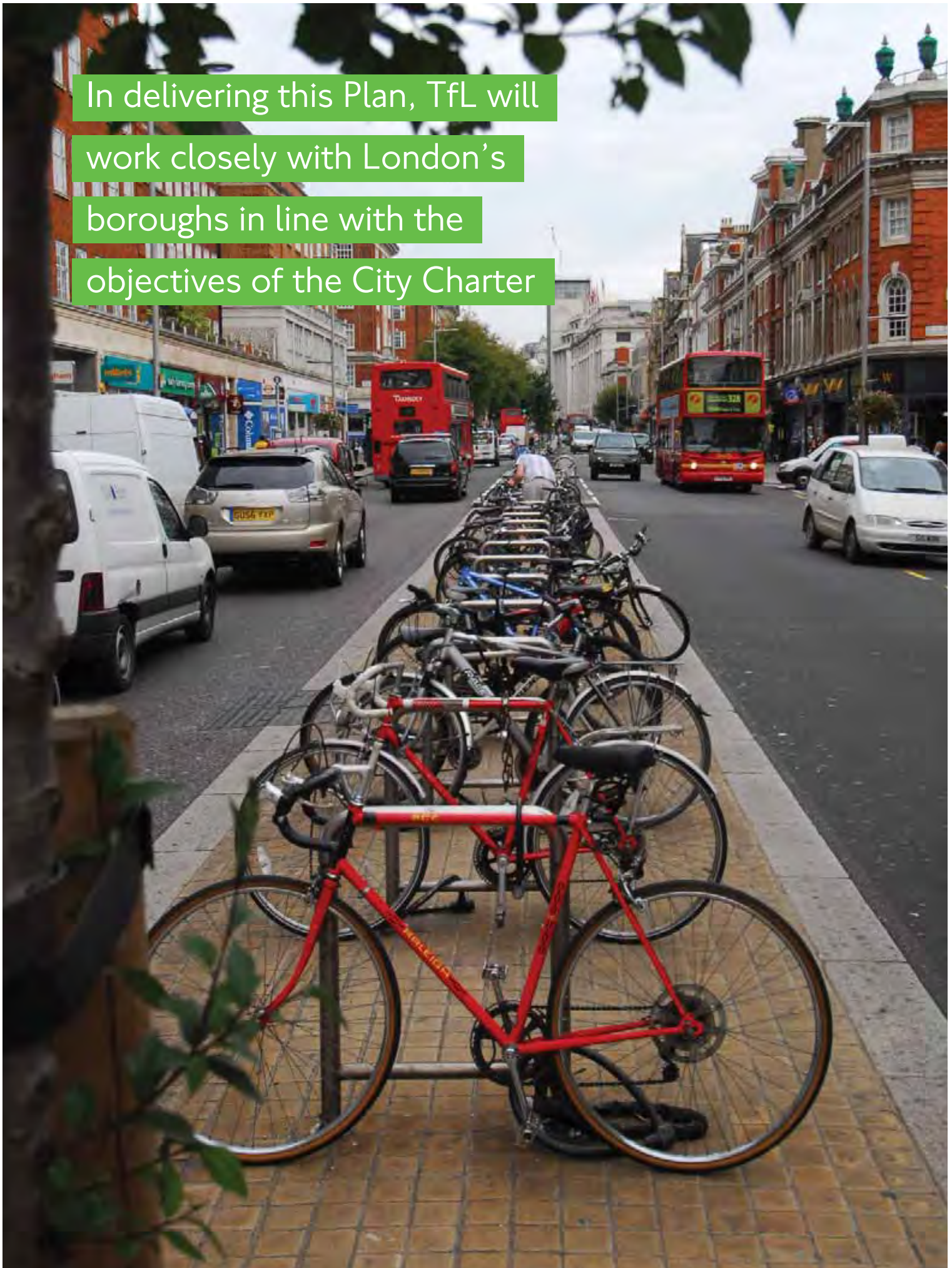
TfL is also keeping pace with advances in mobile phone technology. It is currently working on systems that will give mobile

users access to even more journey planning services. By 2014 they will, for instance, be able to get real-time travel updates as well as street and Tube maps and receive personalised information. They will also be able to use their mobiles for Oyster top-ups and other payment services – quickly, reliably and while on the move.





In delivering this Plan, TfL will work closely with London's boroughs in line with the objectives of the City Charter





## > Working with London boroughs and other partners

TfL continues to work collaboratively with others – businesses, London Travelwatch, the Metropolitan Police, promoters of a wide range of works around the Capital and in particular the 33 London boroughs – to ensure projects and operations are well coordinated.

In delivering this Plan, TfL will work closely with London's boroughs in line with the objectives of the City Charter. The boroughs control 95 per cent of the Capital's road network, so the successful delivery of innovative projects such as the London Cycle Hire Scheme and Cycle Superhighways will demand close partnership working to deliver the outcomes for which the Mayor strives.

TfL has reformed the LIP process in collaboration with the boroughs, with a

reduction in the number of programmes from 20-plus to five and the majority of the funding being allocated through a set formula. These reforms will provide the boroughs with greater flexibility and reduce the processes associated with managing them.

TfL has also informed boroughs of the LIP funding levels for the next three years, to provide greater certainty and enable more long-term planning. In 2010/11 this will be £155m, and for the following two financial years will be £150m a year.

TfL is improving its relationships with the boroughs at all levels and has identified senior leads within the organisation to provide the key contacts and lead on strategic discussions with the boroughs. TfL has established new forums for joint working with the London boroughs on a sub-regional basis. Following publication of the new MTS, these forums will be used to develop sub-regional transport plans to provide details on how it will be implemented at a more local level.

The 2008-2011 CIF has now been allocated across the country. Of the £300m available, London was allocated £54m

TfL also provides advice to the Mayor on the transport aspects of strategically important planning applications and borough local development frameworks, master plans and planning guidance. This ensures development and transport are integrated and helps with implementing the London Plan and MTS.

As part of the detailed assessment of these planning applications, TfL negotiates financial contributions from developers towards improving the capacity on the transport network by way of section 106 agreements – such as for the DLR three-car upgrade. During the Business Plan period they will have a critical role in securing £300m for Crossrail through this method and a further £300m from the Community Infrastructure Levy in partnership with the boroughs.

Some funding is also secured from the Community Infrastructure Fund (CIF), a joint Department for Communities and Local Government/ DfT scheme. The fund supports the delivery of transport infrastructure as part of the Government's Sustainable Communities initiative, focusing on a

number of growth areas and growth points across the country. It applies to boroughs in the Thames Gateway growth area, the London-Stansted-Cambridge-Peterborough corridor (Enfield, Haringey, Waltham Forest, Redbridge and Hackney boroughs) as well as the 'opportunity boroughs' of Barnet, Brent, Croydon and Islington.

The 2008-2011 CIF has now been allocated across the country. Of the £300m available, London was allocated £54m (£50m for the Thames Gateway and £4m for the London-Stansted-Cambridge-Peterborough corridor). The London boroughs and TfL made bids for the fund, resulting in the East London Transit and Tottenham Hale proposals being delivered by TfL using CIF funding. Proposals delivered by the boroughs, with TfL support, include the refurbishment of the Greenwich and Woolwich foot tunnels and the Canning Town roundabout.

No announcements have yet been made about whether any CIF money will be available for the period beyond 2011.

## Interchanges

Good interchanges make it easier to travel across and around London and encourage people to use public transport, improving the public realm. TfL's interchange programme aims to provide easier, safer and more efficient movement between transport modes and the communities they serve.

TfL has taken the lead in developing effective partnerships with boroughs, property developers, National Rail and other stakeholders.

Detailed proposals are currently being developed at 15 locations around London, including stations to be served by Crossrail, London Overground and Thameslink.



Transport interchange at St. Pancras International station





## > Financing TfL's plans

TfL's Business Plan is financed from six main sources:

1. Income from fares and the Congestion Charging scheme
2. Government grant (TfL has a settlement with Government to 2017/18, resulting from the 2007 Comprehensive Spending Review)
3. Prudential borrowing (the amount and profile of which also forms part of TfL's settlement with Government)
4. Secondary income, such as advertising, property rentals and interest earned on cash held on deposit
5. Third-party funding for specific projects
6. Sales of property and other assets

The overall financial summary is shown in Table 6. The Plan is financially balanced: income from the sources above fully meets the projected costs of operations and investments, including TfL's funding commitment to Crossrail. In-year differences between funding and expenditure are managed through transfers to or from TfL's reserves.

Table 6

TfL income, operating and capital expenditure plan

TfL Group (£m)	2009/10 forecast	2010/2011	2011/2012	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017	2017/2018	9-year total
<b>Income</b>										
Fares	2,854	3,013	3,181	3,446	3,691	4,004	4,280	4,652	4,887	34,008
Congestion Charging, LEZ and enforcement	378	342	291	302	304	303	301	323	339	2,882
Other income	212	230	245	268	279	286	293	300	306	2,418
<b>Total income</b>	<b>3,443</b>	<b>3,586</b>	<b>3,716</b>	<b>4,016</b>	<b>4,275</b>	<b>4,592</b>	<b>4,873</b>	<b>5,275</b>	<b>5,533</b>	<b>39,309</b>
<b>Operating expenditure</b>										
Operating costs (excl. PPP/PFI <sup>2</sup> )	(4,874)	(4,981)	(4,907)	(5,138)	(5,145)	(5,334)	(5,505)	(5,761)	(6,091)	(47,737)
Tube PPP contract costs	(628)	(934)	(959)	(973)	(932)	(874)	(885)	(841)	(817)	(7,843)
PFI activities (incl. staffing)	(267)	(180)	(182)	(184)	(192)	(194)	(201)	(214)	(209)	(1,823)
Third-party contributions – revenue	25	45	55	42	43	45	46	44	46	391
<b>Total operating expenditure</b>	<b>(5,744)</b>	<b>(6,050)</b>	<b>(5,994)</b>	<b>(6,254)</b>	<b>(6,227)</b>	<b>(6,358)</b>	<b>(6,544)</b>	<b>(6,771)</b>	<b>(7,071)</b>	<b>(57,012)</b>
<b>Net operating expenditure</b>	<b>(2,300)</b>	<b>(2,464)</b>	<b>(2,277)</b>	<b>(2,238)</b>	<b>(1,952)</b>	<b>(1,766)</b>	<b>(1,671)</b>	<b>(1,497)</b>	<b>(1,539)</b>	<b>(17,703)</b>
<b>Capital expenditure</b>										
Capital expenditure – TfL Group	(2,131)	(2,145)	(1,620)	(1,858)	(1,636)	(1,503)	(1,453)	(1,561)	(1,707)	(15,613)
Third-party contributions – capital	176	65	23	11	12	3	3	3	3	299
<b>Total net capital expenditure</b>	<b>(1,956)</b>	<b>(2,080)</b>	<b>(1,596)</b>	<b>(1,848)</b>	<b>(1,623)</b>	<b>(1,500)</b>	<b>(1,450)</b>	<b>(1,558)</b>	<b>(1,703)</b>	<b>(15,314)</b>
Group items	(51)	(110)	(122)	(97)	(131)	(135)	(139)	(142)	(147)	(1,075)
Property sales (capital income)	54	33	43	63	72	71	91	94	94	612
Debt service	(168)	(207)	(258)	(313)	(349)	(368)	(398)	(433)	(467)	(2,962)
Interest income	12	5	4	8	15	16	8	11	14	94
<b>Net expenditure</b>	<b>(4,409)</b>	<b>(4,824)</b>	<b>(4,207)</b>	<b>(4,426)</b>	<b>(3,968)</b>	<b>(3,682)</b>	<b>(3,559)</b>	<b>(3,524)</b>	<b>(3,748)</b>	<b>(36,348)</b>
Working capital released/(created)	(40)	23	40	10	(116)	(97)	(76)	26	45	(183)
Crossrail cash commitment	(694)	(1,052)	(1,410)	(2,049)	(2,537)	(2,212)	(1,631)	(549)	(622)	(12,757)
<b>Cash required</b>	<b>(5,143)</b>	<b>(5,853)</b>	<b>(5,577)</b>	<b>(6,464)</b>	<b>(6,621)</b>	<b>(5,991)</b>	<b>(5,266)</b>	<b>(4,046)</b>	<b>(4,326)</b>	<b>(49,287)</b>
<b>Funded by:</b>										
DfT transport grant	2,887	3,314	3,028	3,174	3,329	3,491	3,588	3,689	3,791	30,292
Additional Metronet funding	(0)	291	424	369	216	(0)	(0)	(0)	(0)	1,300
Other grant items	150	106	15	82	(0)	(0)	(0)	(0)	(0)	352
GLA precept	12	12	12	12	12	12	12	12	12	108
TfL borrowing and other financing	1,100	405	575	652	1,298	233	482	282	282	5,309
Crossrail funding sources	172	1,237	1,547	2,150	2,296	1,744	1,184	293	144	10,767
<b>Cash funding</b>	<b>4,321</b>	<b>5,365</b>	<b>5,601</b>	<b>6,439</b>	<b>7,150</b>	<b>5,480</b>	<b>5,267</b>	<b>4,276</b>	<b>4,229</b>	<b>48,128</b>
<b>Opening cash position<sup>1</sup></b>	<b>1,561</b>	<b>739</b>	<b>251</b>	<b>275</b>	<b>250</b>	<b>779</b>	<b>268</b>	<b>268</b>	<b>498</b>	<b>-</b>
<b>Closing cash position<sup>1</sup></b>	<b>739</b>	<b>251</b>	<b>275</b>	<b>250</b>	<b>779</b>	<b>268</b>	<b>268</b>	<b>498</b>	<b>402</b>	<b>-</b>

<sup>1</sup>Excluding Crossrail Sponsor Funding Account

<sup>2</sup>Private Finance Initiative



This Plan takes account of the hugely significant changes that have occurred over the past year, in particular the economic downturn and the cost legacy left by Metronet's failure. It also provides additional funding to a number of Mayoral priorities, such as Cycle Superhighways and urban realm projects.

## Income

### Fares income

The fares income projections in the Plan are based on the anticipated demand for TfL's services and the assumed fare levels. These reflect the Mayor's fares decision for January 2010, and a planning assumption for subsequent years linked to the RPI.

Each autumn, the Mayor makes his decision on fares for the following January based on a number of considerations, including the need to ensure that fares provide an appropriate and necessary level of financial contribution towards the cost of providing transport services.

To ensure that fares income keeps track of underlying cost growth in the medium term, and that investment can be sustained, fares in January 2011 and in subsequent years are now assumed to rise at RPI plus two per cent.

### Demand

The number of passenger journeys has declined significantly, with passenger journeys on the Tube currently around six per cent lower than last year. Bus journeys have seen a less pronounced decline of around one per cent. This difference reflects the fact that Tube journeys tend to be for purposes that are more closely linked with economic activity, such as employment and discretionary leisure trips.

As the economy recovers from recession, it is projected that demand will return to current levels by 2012 and then continue to grow strongly as London's employment and population increase, with demand reaching record levels by the end of the Plan.

### Congestion Charge income

This Plan assumes that a number of changes to the Congestion Charging scheme, including an increase in the charge, the introduction of payment by account and the removal of the Western Extension, are introduced by December 2010, as set out on page 56.

### Government grant and TfL borrowing

In 2007, following the Comprehensive Spending Review, TfL secured a 10-year funding settlement with Government. This was designed to support both existing operations and TfL's Investment Programme, including the upgrade of the Tube and construction of Crossrail.

As well as a fixed grant profile to 2017/18, the settlement also incorporated the Government's agreement to TfL's prudential borrowing plans, and provided an additional £1.3bn of funding to reflect the impact that Metronet would have had on public finances, had it remained in the private sector. The settlement letter established the Secretary of State's intention that all possible steps would be taken to avoid deviating from the funding plan,

which would be reviewed only if exceptional pressures on the TfL budget emerged. TfL's funding letters are available to download from the TfL website ([tfl.gov.uk](http://tfl.gov.uk)).

Subsequent to the settlement, the DfT has agreed to an increase in TfL's borrowing limits of £598m, to enable TfL, rather than Tube Lines, to finance directly the acquisition of a new fleet of trains for the Piccadilly line. There have also been some minor changes to the grant profile, reflecting for example the additional Government funding to enable TfL to complete the East London line extension through to Clapham Junction.

TfL's borrowing programme reflects two key principles: borrowing must be for capital purposes only (and not to fund operations); and the level of borrowing must be prudent. TfL borrows from a variety of sources, based on considerations such as market conditions, value for money and the level of flexibility offered. Sources of borrowing include:

- > A £3.3bn bond issuance programme created in 2004/05, which saw TfL

become the first UK local authority to raise finance on the capital markets independently of Government

- > The European Investment Bank, with which a £1bn loan for Crossrail was recently agreed
- > Finance leasing arrangements, used for specific assets such as rolling stock and extensions to the DLR
- > The Public Works Loans Board

TfL believes its proposed levels of borrowing remain affordable and consistent with prudent financial management, which is reflected in TfL's healthy AA credit rating.

The settlement with Government was nonetheless very tight, and difficult choices had to be made in the previous Business Plan. These included some £2.4bn of efficiency savings resulting from an operating cost review, and cancelling development work on a number of unfunded projects. Since then, to counteract the subsequent financial deterioration, TfL's savings programme has more than doubled in scope and ambition, as set out on pages 8 and 9.

### Secondary income

To maximise funding for high quality services, TfL has consistently sought to increase its income from secondary sources such as advertising and property rental.

Advertising opportunities are being exploited on the Tube, buses, DLR, trams and London Overground. Examples include greater use on the Tube of digital panels alongside escalators as part of a contract with CBS Outdoor, plus the proposed introduction in 2010 of advertising on Journey Planner on TfL's website, building on the success of the existing arrangement with Yell.com. However, both the advertising and property markets have suffered a significant downturn, and projected secondary income has fallen since the previous Plan as a consequence.

### Third-party funding for specific projects

Third-party contributions are planned for a variety of specific projects.

TfL has agreed a series of transport improvements in support of the Olympic Transport Plan with the



ODA. The improvements are contained in a Memorandum of Understanding, and include:

- > Schemes that were pre-existing at the time London was awarded the 2012 Games, such as the Northern and Jubilee line upgrades
- > New schemes to which the ODA is contributing financially, for example the Olympic Route Network, the extension of the DLR to Stratford International, the addition of a third carriage to DLR trains and walking routes in the vicinity of the Olympic Park
- > ODA-funded enhancements for transport operations during the 2012 Games

The total ODA contribution to TfL for these works is £263m.

In June 2009, TfL and the ODA carried out an initial review of the operating budget allocated to TfL. This concluded that, under current assumptions, the original operating budget of £90m remained sound.

In addition, the Plan assumes funding will be received from:

- > The LDA, in relation to a number of specific projects including the new Overground station at Dalston Junction, West Ham bus garage and Brixton Central Square
- > The Department for Communities and Local Government, for example in the form of contributions from the CIF and the Growth Area Fund to the East London Transit and improvements to the Tottenham Hale Gyrotory
- > Property developers, who contribute to specific infrastructure projects through section 106 agreements

### Sales of property and other assets

TfL's Property Development Strategy aims to maximise the use and value of existing and future property assets, producing total disposal receipts of more than £600m over the Plan period, in addition to the anticipated Crossrail development proceeds of £545m. The strategy simultaneously seeks to advance Mayoral policies such as sustainability and quality design standards, and where possible to use TfL's property assets to provide residential sites and open spaces.

In addition, TfL is committed to exploring value for money asset financing arrangements to minimise the need for public funding and create further benefits for passengers.

## Key risks

The previous Plan identified a number of key risks, including the impact of the economic slowdown, higher contributions to TfL's Pension Fund caused by the volatility in global asset values, higher than anticipated cost inflation, and higher than anticipated Tube Lines costs.

Although some of these risks have crystallised over the past year and are provided for in this Plan, further risk remains in several areas, including:

- > The future performance of the economy and its effect on fares and secondary income. A prolonged slowdown, such as was seen in the early 1990s, or a 'double dip' recession could have a significant further impact on demand. A further risk would be a 'spike' in cost inflation caused, for example, by the unprecedented economic stimulus currently being applied
- > The periodic review process, which Tube Lines, LU and the PPP Arbiter have been carrying out over the past year to determine the costs and scope of the second seven-and-a-half-year period of the PPP. LU has set out its affordability constraint, which reflects the funding that has been allocated to the Tube Lines contract in the Business Plan. However, there remains a significant difference between LU's and Tube Lines' estimate of costs, and on 23 September, LU submitted a reference to the Arbiter requesting him to determine the Infrastructure Service Charge to be paid to Tube Lines during the second period, which begins in July 2010
- > More than £5bn of efficiencies and other cost savings that are assumed in this updated Plan – which is more than double the level of savings assumed in the previous Plan. This includes a reduction of 27 per cent in TfL's non-operational overhead costs compared with today's levels, with

many of the underlying initiatives involving organisational change and restructuring

- > TfL's plans to sell property and other assets. These are dependent on market conditions, and may have legislative requirements which would be subject to securing appropriate Parliamentary time
- > Unexpected events or acts of terrorism which could have a larger impact than the reserves included in the Plan to cover such attacks

TfL will manage these and other risks by continuously reviewing the assumptions underpinning the Plan and updating risk-specific mitigation strategies that address any negative impacts, as described below.

TfL's grant from Government will fund more than 40 per cent of expenditure over the period of this Plan. The settlement is fixed to 2017/18 and provides TfL with some protection against these risks.

### Risk management processes

In carrying out the Business Plan's objectives, TfL has to understand the possible risks and ensure appropriate actions and resources are in place to manage them and mitigate any possible impact.

Safety risks are at the core of TfL's operations and are managed as part of the safety case for each asset or service.

Strategic risks are managed through the annual business planning and associated in-year reporting and monitoring processes. TfL seeks to maintain a General Fund balance of £150m (and a minimum cash balance of £250m), to protect TfL from the short-term effects which may arise from the crystallisation of specific risks, and to ensure liquidity. Should there be a significant call on the General Fund, provision would be made in future years' budgets to rebuild the reserve to this target level.

TfL has a strategic risk management policy that is approved on an annual



basis by TfL's Audit Committee.

Risk management is the responsibility of all managers within TfL. The top 10-15 risks to the Business Plan objectives are identified through a process that includes direct input from all Chief Officers, and risks are regularly reviewed throughout the year by the director-level Risk Management Group. Information on TfL's risk management activity is reported to the TfL Audit Committee, and mitigations are monitored by TfL's Internal Audit department.

# > Appendices

## Appendix A

### Key performance indicators

Performance indicator	Units
<b>Economic development and growth</b>	
London Underground: excess journey time	Mins
Bus: excess wait time – high frequency routes	Mins
London Overground: passenger performance measure – moving annual average	Per cent
Docklands Light Railway: on-time performance	Per cent
London Underground: percentage scheduled services operated	Per cent
Bus: percentage scheduled services operated	Per cent
Docklands Light Railway: percentage scheduled services operated	Per cent
London Trams: percentage scheduled services operated	Per cent
London River Services: percentage scheduled services operated	Per cent
*Surface Transport: person journey time (roads)	Mins
Cycling journeys: TfL road network	Index
<b>Climate change</b>	
Total CO <sub>2</sub> emissions	Thousand tonnes
Improve environmental performance in Head Office portfolio	Per cent
<b>Transport opportunities</b>	
London Underground: accessible step-free to platforms	Per cent
London Overground: accessible step-free to platforms	Per cent
London Trams: accessible step-free to platforms	Per cent
Bus stop: accessible bus stops with accessible footways	Per cent
London Underground: stations enhanced (additional security, access and information provision – current PPP projection)	Per cent

\* This indicator will be replaced from 2011/12 onwards with the indicator 'journey time reliability'

	Forecast 2009/10	Plan projections							
		2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18
	6.62	6.54	6.41	6.05	5.79	5.63	5.38	5.35	5.24
	1.1	1.1	1.2	1.2	1.2	1.2	1.2	1.2	1.2
	93.4	93.2	94.0	94.2	94.2	94.2	94.2	94.2	94.2
	96.0	96.0	96.0	96.0	96.0	96.0	96.0	96.0	96.0
	96.3	96.6	96.8	97.6	97.6	97.3	97.8	97.8	97.8
	97.4	97.4	97.3	97.2	97.2	97.1	97.1	97.1	97.0
	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0
	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0
	98.7	98.5	98.5	98.5	98.5	98.5	98.5	98.5	98.5
	4:24	4:25	4:25	4:25	4:25	4:25	4:25	4:25	4:25
	223	240	256	272	289	305	321	337	354
	1,864	1,844	1,838	1,860	1,875	1,838	1,817	1,792	1,816
	55.25	70.90	94.37	96.07	98.43	98.44	99.09	98.97	100.00
	21.9	23.0	24.1	24.1	24.1	24.4	24.4	25.2	26.7
	39.3	35.9	44.9	44.9	44.9	47.4	47.4	47.4	47.4
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	50	51	53	55	57	59	61	63	65
	60.1	67.7	68.8	70.0	71.1	72.6	73.8	75.3	76.8



## Appendix A

### Key performance indicators (continued)

Performance indicator	Units
<b>Quality of life</b>	
London Underground: customer satisfaction survey – overall	Score
Bus: customer satisfaction survey – overall	Score
Docklands Light Railway: customer satisfaction survey – overall	Score
London Overground: national passenger survey – overall	Score
London Trams: customer satisfaction survey – overall	Score
Congestion Charging: customer satisfaction survey – overall	Score
Dial-a-Ride: customer satisfaction survey – overall	Score
Total nitrogen oxides (NO <sub>x</sub> ) emissions	Tonnes
Total particulate matter (PM <sub>10</sub> )	Tonnes
<b>Safety and security</b>	
**Reduction killed or seriously injured (London-wide) from 1994-98 base	Per cent
**Reduction killed or seriously injured (London-wide) from 2004-08 base	Per cent
London Underground: customer major injuries (per million journeys)	No.
London Underground: recorded crime (per million journeys)	No.
Bus: recorded crime (per million journeys)	No.
Londoners whose use of public transport is significantly affected by crime and disorder concerns	Per cent

\*\* The baseline for targets against this indicator has been reviewed as part of the MTS, which will come into effect during the Business Plan period

	Forecast 2009/10	Plan projections							
		2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18
	79	79	80	81	82	82	83	83	84
	80	79	79	78	78	78	78	78	78
	90	90	90	90	90	90	90	90	90
	73	75	76	78	80	80	81	81	81
	85.5	86	86	86	86	86	86	86	86
	76	84	84	85	85	86	86	87	87
	93	93	93	93	93	93	93	93	93
	7,115	6,992	6,820	6,605	6,277	5,937	5,589	5,241	4,898
	125	122	118	113	108	102	96	92	86
	47.8	50.0							
			4.7	9.4	14.1	18.9	23.6	28.3	33.0
	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13
	13.3	12.9	12.7	12.9	12.7	12.6	12.5	12.4	12.3
	11.0	10.2	10.2	10.3	10.1	10.0	9.8	9.6	9.3
	32.5	28.0	27.0	27.0	26.5	26.0	25.5	25.0	24.0

## Appendix B

### Supporting performance indicators

Performance indicator	Units
<b>Economic development and growth</b>	
London Underground: infrastructure lost customer hours	Million hours
London Underground: increase in peak capability into central London	Per cent
State of good repair – percentage road assets not in good repair	Per cent
Freight services: sign-up to Freight Operator Recognition Scheme	No.
London Underground: train kilometres	Million
Bus: bus kilometres	Million
Docklands Light Railway: train kilometres	Million
London Overground: train kilometres	Million
London Trams: train kilometres	Million
London Underground: passenger journeys	Million
Bus: passenger journeys	Million
Docklands Light Railway: passenger journeys	Million
London Overground: passenger journeys	Million
London Trams: passenger journeys	Million
Delivery of traffic signal modernisation	No. of sites
Traffic signal availability	Per cent
<b>Climate change</b>	
London Underground traction energy per passenger journey	Wh
<b>Transport opportunities</b>	
Dial-a-Ride: number of journeys	Million

	Forecast 2009/10	Plan projections							
		2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18
	24.7	25.5	24.5	24.1	23.5	22.9	22.0	21.8	21.6
	1.8	5.1	8.0	10.7	10.7	12.8	15.4	19.9	26.2
	6.7	6.7	7.1	7.1	7.2	7.3	7.7	8.0	8.2
	500	1,550	2,075	2,575	3,075	3,575	4,050	4,525	5,000
	70.8	71.9	73.3	76.7	81.7	81.5	81.9	81.9	81.9
	485.5	482	482	484	480	478	478	478	478
	4.4	5.6	6.0	6.0	6.0	6.0	6.0	6.0	6.0
	2.3	4.1	4.9	5.5	5.5	5.5	5.5	5.5	5.5
	2.5	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
	1,047	1,037	1,057	1,100	1,132	1,180	1,220	1,237	1,229
	2,250	2,183	2,181	2,204	2,227	2,252	2,268	2,277	2,278
	67.5	75.6	83.4	89.7	99.9	107.1	114.4	120.8	122.2
	27.1	51.5	64.9	71.5	75.2	77.7	80.0	81.8	83.3
	27.3	27.8	27.9	28.3	28.9	29.5	30.1	30.7	31.3
	N/A	150	148	191	189	184	200	186	195
	99.10	99.10	99.10	99.10	99.10	99.10	99.20	99.25	99.30
	944	982	979	1,052	1,095	1,053	1,022	1,007	1,002
	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4



## Appendix B

### Supporting performance indicators (continued)

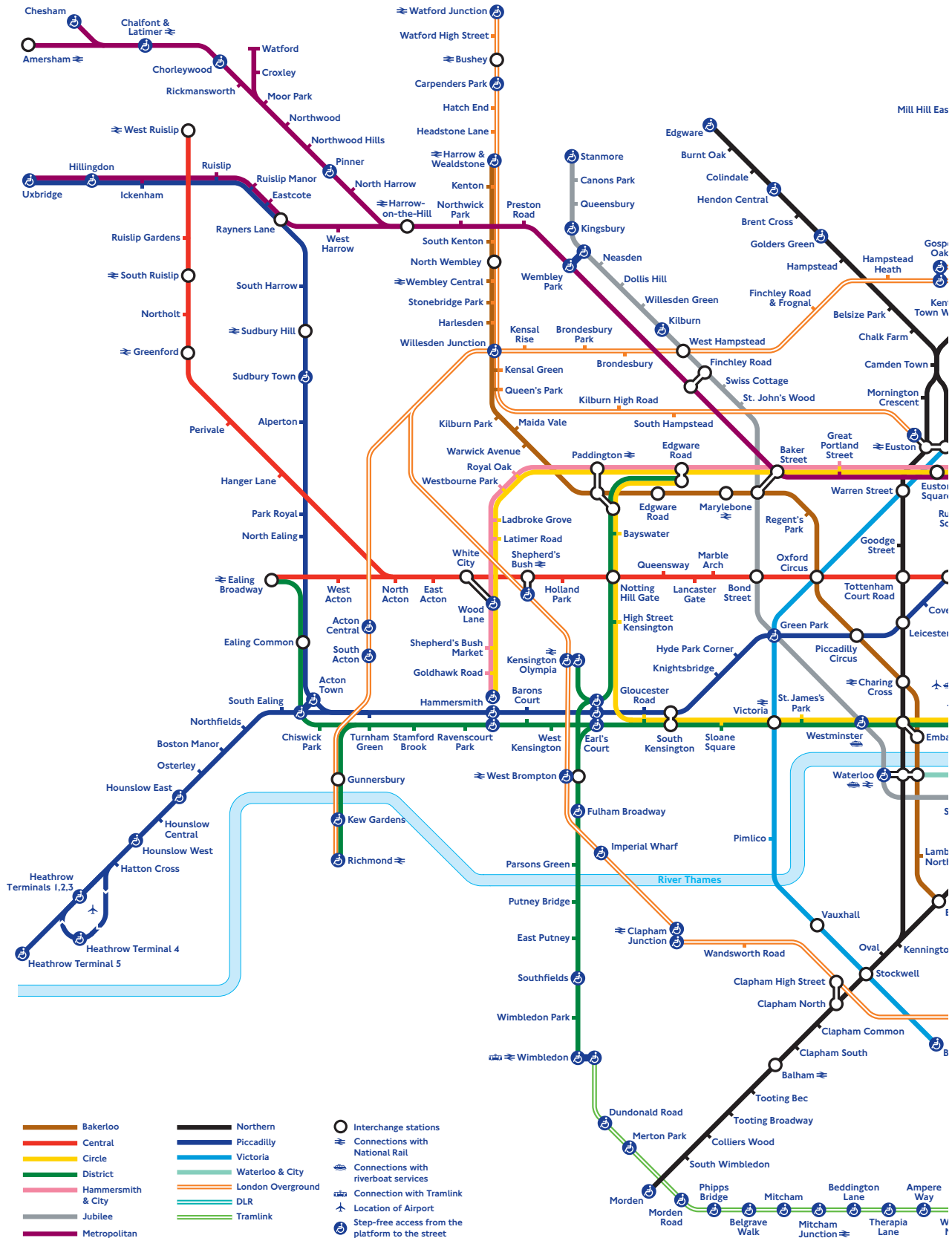
Performance indicator	Units
<b>Quality of life</b>	
London Underground: customer satisfaction survey – safety and security	Score
Docklands Light Railway: customer satisfaction survey – safety and security	Score
London Underground: customer satisfaction survey – information	Score
Bus: customer satisfaction survey – information	Score
Docklands Light Railway: customer satisfaction survey – information	Score
Journey Planner – number of solutions offered	Million per year
Successful online customer interactions	
- Successful completion of Congestion Charging transactions	Per cent
- Successful completion of Oyster purchases	Per cent
- Successful completion of Journey Planning enquiries	Per cent
Low Emission Zone – compliant vehicles phase 2	Per cent
Smarter travel: reduction in car use across all participating schools	Per cent
Buses at Euro III standard and above	Per cent
<b>Safety and security</b>	
**Reduction killed or seriously injured (TfL road network) from 1994-98 base	Per cent
**Reduction killed or seriously injured (TfL road network) from 2004-08 base	Per cent
**Reduction of children killed or seriously injured (London-wide) from 1994-98 base	Per cent
**Reduction of children killed or seriously injured (London-wide) from 2004-08 base	Per cent
Street lights operating	Per cent
Dangerous carriageway defects repaired in 24 hours	Per cent

\*\* The baseline for targets against this indicator has been reviewed as part of the MTS, which will come into effect during the Business Plan period

	Forecast 2009/10	Plan projections							
		2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18
	83	83	83	83	83	83	83	83	84
	90	90	90	90	90	90	90	90	90
	81	81	82	83	84	84	84	84	84
	76	76	76	76	76	76	76	76	76
	90	90	90	90	90	90	90	90	90
	900.0	990.0	1,089.0	1,197.9	1,197.9	1,197.9	1,197.9	1,197.9	1,197.9
	67	67	67	67	67	67	67	67	67
	25	25	25	25	25	25	25	25	25
	68	65	65	65	65	65	65	65	65
	94	95	96	97	98	99	99		
	N/A	6	6	6	6	6	6	6	6
	76.4	78	83	88	93	98	100	100	100
	46.0	50.0							
			4.7	9.4	14.1	18.9	23.6	28.3	33.0
	68.0	70.0							
			4.7	9.4	14.1	18.9	23.6	28.3	33.0
	98	98	98	98	98	98	98	98	98
	N/A	98	98	98	98	98	98	98	98

# Appendix C

## TfL's rail transport network at 2012



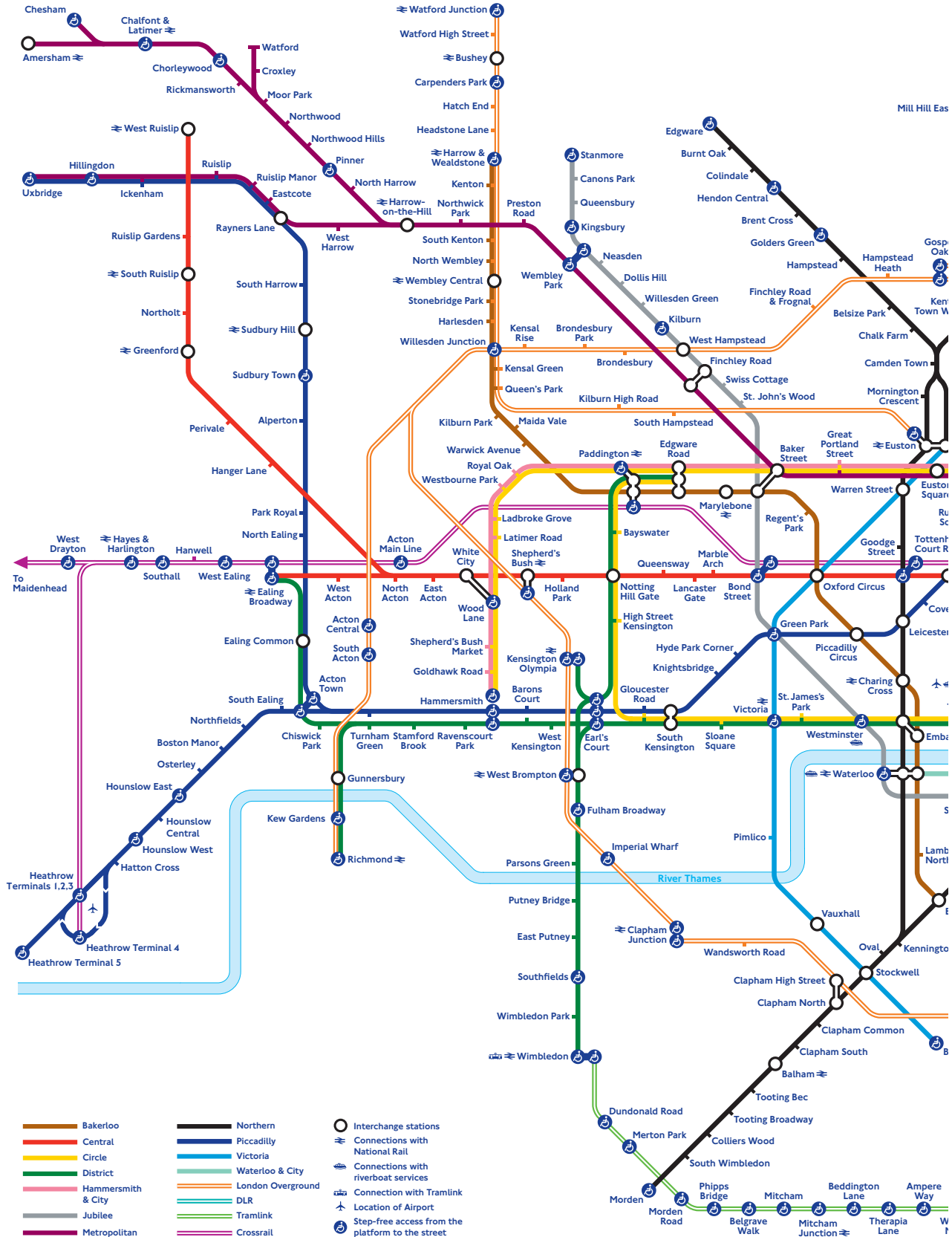


2018 KTS 2d September 2009



# Appendix D

## TfL's rail transport network at 2018





2018 KTS 2d September 2009

# Appendix E

This document is also available in audio, Braille and a range of other languages.

To order the format you require, please tick the relevant box in the list below, include your name and address and return to:

Transport for London, Windsor House, 42-50 Victoria Street, London SW1H 0TL.

Alternatively, call 020 7126 4500 or email [enquire@tfl.gov.uk](mailto:enquire@tfl.gov.uk).

Audio (English)

Arabic

إذا كنت تود الحصول على نسخة من هذه المعلومات باللغة العربية، يُرجى أن تضع علامة في هذا المربع، وأن تدون الاسم والعنوان في المقطع أدناه ثم تعيد هذه القسيمة إلينا على العنوان التالي. شكرًا لك.

Bengali

যদি আপনি বাংলা ভাষায় এই তথ্যটুকুর একটি কপি চান, তাহলে এই খালি ঘরে টিক চিহ্ন দিন এবং নিচের নাম এবং ঠিকানার অংশটুকু পূরণ করে নিয়ে এই ফরমটি আমাদের কাছে নিম্নলিখিত ঠিকানায় পাঠিয়ে দিন। ধন্যবাদ।

Chinese

如欲索取本資料文件的中文（繁體字）版本，請在空格內打勾，並在下文填寫你的姓名和地址，然後把本表格寄交以下地址。謝謝。

French

Cette information est disponible dans plusieurs langues, en format audio et en braille. Cochez la case appropriée pour préciser le format requis, indiquez votre nom et votre adresse et renvoyez le tout à Tfl à l'adresse ci-dessous.

Greek

Εάν θέλετε να λάβετε αντίτυπο των πληροφοριών αυτών στα ΕΛΛΗΝΙΚΑ, παρακαλούμε σημειώστε σ' αυτό το τετραγωνάκι, συμπληρώστε την παρακάτω ενότητα με όνομα και διεύθυνση και επιστρέψτε το παρόν έντυπο σε μας στην παρακάτω διεύθυνση. Ευχαριστούμε πολύ.

Gujarati

જો તમને આ માહિતીની નકલ ગુજરાતી ભાષામાં મેળવવી હોય તો, કૃપા કરી બોક્સમાં નિશાની કરી, નીચેના વિભાગમાં તમારું નામ અને સરનામું પૂરું કરી, અને નીચે જણાવેલ સરનામે આ ફોર્મ અમને મોકલો. તમારો આભાર.

Braille

Hindi

यदि आपको इस जानकारी की एक कॉपी हिन्दी में चाहिए तो कृपया इस बाक्स में टिक करें, नाम और पता नीचे दिए गए भाग में भरें, और इस फार्म को हमें नीचे दिए गए पते पर वापिस भेजें। धन्यावाद।

Punjabi

ਜੇ ਕਰ ਤੁਹਾਨੂੰ ਇਸ ਜਾਣਕਾਰੀ ਦੀ ਇਕ ਕਾਪੀ ਪੰਜਾਬੀ ਵਿਚ ਚਾਹੀਦੀ ਹੈ ਤਾਂ ਕਿਰਪਾ ਕਰ ਕੇ ਇਸ ਬਾਕਸ ਵਿਚ ਟਿੱਕ ਕਰੋ, ਨਾਮ ਅਤੇ ਪਤਾ ਹੇਠ ਦਿੱਤੇ ਭਾਗ ਵਿਚ ਭਰੋ, ਅਤੇ ਇਸ ਫਾਰਮ ਨੂੰ ਹੇਠ ਦਿੱਤੇ ਗਏ ਪਤੇ ਤੇ ਸਾਡੇ ਕੋਲ ਵਾਪਸ ਭੇਜੋ। ਧੰਨਵਾਦ।

Spanish

Esta información está disponible en distintos idiomas, así como en formato de audio y en braille. Por favor, marque la casilla correspondiente al formato requerido, complete su nombre y dirección, y devuélvalo a Tfl a la dirección que se indica más abajo.

Turkish

**Bu bilgilerin TÜRKÇE bir kopyasını edinmek istiyorsanız, lütfen bu kutuyu işaretleyip aşağıdaki isim ve adres bölümünü doldurduktan sonra altta belirtilen adresimize postalayın. Teşekkür ederiz.**

Urdu

اگر آپ اس انفارمیشن کی کاپی اردو زبان میں حاصل کرنا چاہتے ہیں تو براہ مہربانی باکس میں نشان لگائیں، نیچے دی گئی جگہ پر اپنا نام اور پتہ درج کریں اور اس فارم کو درج ذیل پتہ پر روانہ کر دیں۔ آپ کا شکریہ۔

Vietnamese

Nếu bạn muốn nhận được một bản của tin tức này bằng Tiếng Việt hãy móc vào ô này, điền vào phần tên và địa chỉ dưới đây, và gửi tờ đơn này trở lại cho chúng tôi ở địa chỉ sau. Cảm ơn.

Name:

---

Address:

---



---



---

