

**Board**

**Date: 19 July 2016**

**Item: Operational and Financial Performance and Investment Programme Reports – Fourth Quarter 2015/16**

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**This paper will be considered in public**

## **1 Summary**

- 1.1 This paper informs the Board of TfL's Operational and Financial Performance and presents the Investment Programme Report for the fourth quarter of 2015/16. An executive summary is also provided.
- 1.2 On 8 July 2016, the Finance and Policy Committee reviewed the reports.

## **2 Recommendation**

- 2.1 **The Board is asked to note the TfL Operational and Financial Performance and Investment Programme Reports – Fourth quarter 2015/16.**

## **3 Views of the Finance and Policy Committee**

- 3.1 On 8 July 2016, the Finance and Policy Committee reviewed the reports.
- 3.2 Members commended the recording of the lowest level of KSIs (those killed or seriously injured on the network) and requested that bus related KSI figures be reported separately. More generally, there was significant support for work taking place to review central London bus corridors in order to produce a smarter network for customers.
- 3.3 Members noted the Mayor's commitment to a review the impact of the Fit for the Future stations programme on staff and foreign visitors. Consideration would be given to how best to review its impact on the safety and security of station staff. Members were advised that the Mayor had asked Lord Harris to undertake a wider security review for London, which would include transport.
- 3.4 Since the meeting of the Committee, the full year KSI figures have been updated in the Operational and Financial Performance Report to reflect the final figures from TfL's Casualties in Greater London report.

### **List of appendices to this report:**

- Appendix 1: Executive Summary for TfL's quarterly finance, investment and operational performance reports and Operational and Financial Performance Report – Fourth Quarter 2015/16
- Appendix 2: Investment Programme Report – Fourth Quarter 2015/16

## List of Background Papers:

None

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# TfL's quarterly finance, investment and operational performance reports

Quarter 4, 2015/16

**MAYOR OF LONDON**



**TRANSPORT  
FOR LONDON**  
EVERY JOURNEY MATTERS

## About Transport for London

We are the integrated transport authority for London. Our purpose is to keep London working and growing and to make life in the Capital better. We reinvest all of our income to run and improve London's transport services.

Our operational responsibilities include London Underground, London Buses, Docklands Light Railway, London Overground, TfL Rail, London Trams, London River Services, London Dial-a-Ride, Victoria Coach Station, Santander Cycles and the Emirates Air Line.

On the roads, we regulate taxis and the private hire trade, run the Congestion Charging scheme, manage the city's 580km red route network, operate all of the Capital's 6,200 traffic signals and work to ensure a safe environment for all road users.

We are delivering one of the world's largest programmes of transport capital investment, which is building Crossrail, modernising Tube services and stations, improving the road network and making the roads safer, especially for more vulnerable road users, such as pedestrians and cyclists.

We are pioneers in integrated ticketing and providing information to help people move around London. Oyster is the world's most popular smartcard, and contactless payment is making travel ever more convenient. Real-time travel information is provided by us directly and through third parties who use the data TfL makes openly and freely available to power apps and other services.

Improving and expanding transport in London is central to driving economic growth, jobs and housing across the country.

# Executive Summary

## Quarter 4 (Periods 10-13), 13 December 2015 – 31 March 2016

Our performance was strong over the full year. Customer satisfaction improved, or was maintained, on every service, with both London Underground (LU) and buses achieving their highest levels. Passenger journeys were also up on last year for most of our services, although buses saw a decline in demand. Bus journeys were down due to a slight dip in reliability this year, due to congestion from increased traffic flows and the construction of effects of our Road Modernisation Plan; we expect bus reliability and passenger journeys to pick up in the latter half of 2016/17. Underlying reliability improved in LU for the fifth consecutive year. Road safety has seen further improvements; the numbers of people killed and seriously injured on our roads is down by 42.3 per cent from the 2005-2009 baseline, the lowest level on record.

Our finances show some slippage against Budget over the full year. Our Operating Account is £202m under Budget while our Capital Account is £113m lower than Budget. Total cash balances (including funds ring fenced for the Crossrail project) now stand at £3.3bn, £315m higher than Budget. Over the full year we used £1,364m of our cash reserves to help fund our capital investment programme.

### Outlook

We are now undertaking a root-and-branch review of our business to eliminate unnecessary duplication in our operations, obtain greater value from our vast procurement activity, significantly cut reliance on expensive agency staff and stop IT projects which only deliver limited benefits. We have already identified savings to cover the next two years, including:

- A fundamental review of our organisational structure to review management layers and eliminate wasteful duplication across all our functions, including bringing together engineering operations and IT departments (estimated saving £20-25m)
- Improved procurement and renegotiation of contracts from our suppliers and other third-party spending which accounts for over two thirds of our total budget (estimated saving £50-60m)
- Reprioritisation and consolidation of IT projects which deliver relatively low benefits (estimated saving £20-30m)
- Freezing recruitment for all but the most essential roles and significantly cutting the most expensive of the existing circa 3,000 agency contractors

## Customer

- Customer satisfaction levels remain high, with all services better, or equal to, target and last year. Over the full year, LU achieved record customer satisfaction levels of 85 – this was consistently achieved in every individual quarter. This has been achieved against a backdrop of record passenger journeys, with journeys up 3.4 per cent from 2014/15.
- Bus customer satisfaction was 86 over the year, equalling its highest score on record.
- Underlying LU passenger journeys remain strong, with a record breaking number of journeys in Quarter 3. The quarter saw four out of five of the busiest weeks and the five busiest days on record.
- Bus passenger journeys remain down against target and last year. Over the full year bus passenger journeys totalled 2,323 million, 62 million or 2.6 per cent lower than last year, and 122 million or 5 per cent below Budget. Journeys in Quarter 4 were particularly low, with 57 million fewer journeys than the same quarter last year, a decline of 8 per cent.

## Reliability

- Underlying LU reliability is at its best ever levels, with year-on-year reductions every year since 2011. LU delivered a 38 per cent reduction in delays from 2011 to 2015, with delays on the Tube now at their lowest ever level. On the Victoria, Jubilee and Northern lines, reliability has improved by 74 per cent, 67 per cent and 40 per cent respectively.
- Both bus excess wait time and the Transport for London Road Network (TLRN) journey time reliability continue to be affected by increased traffic levels, a rapidly rising population, and by our Road Modernisation Plan and urban improvement schemes.
- This has led to a worsening in bus reliability. Over the full year, bus excess wait time was 1.2 minutes, 0.1 minutes worse than target and last year. We have introduced measures to improve reliability and reduce the short-term construction impacts from our Road Modernisation Plan, and expect reliability to see improvement from the second half of 2016/17.

## Safety and security

- The number of people killed and seriously injured (KSI) on our roads continues to fall. Figures from our annual Casualties in Greater London report show that KSIs fell by three per cent in 2015 to the lowest level on record and by 42.3 per cent from the 2005-2009 baseline<sup>1</sup>. This performance keeps us on track to meet the tougher longer term target of a 50 per cent reduction in KSIs by 2020 against the baseline.
- Both the rates and volumes of crime are up on our services. Since 2010/11, the crime rate fell by 29 per cent on buses to 7.5 crimes per million passenger journeys, and by 36 per cent on the LU and DLR network to 7.3 crimes per million passenger journeys. However, despite this long-term reduction, there has been a rise in the volume of recorded crime this year compared with 2014/15 on all networks. This increase is largely due to rises in reported sexual offences and violence against the person (VAP) - the latter primarily due to new crime recording practices introduced in summer 2014.

## Financial update

- Our Operating Account is £202m under Budget while our Capital Account is £113m lower than Budget.
- The underspend on our Operating Account was driven by lower bus fares income of £87m, more than offset by project rephasing of £200m and cost reductions of £100m.
- Our Capital Account variance was driven by £548m of project rephasing to future years (which is offset by a £337m overprogramming provision), and a net increase in costs of £60m, the latter largely from the Metropolitan Line Extension. This project will be funded by the DfT and from a Local Enterprise Partnership.
- Total cash balances (including funds ring fenced for the Crossrail project) now stand at £3.3bn, £315m higher than Budget. Over the full year we used £1,364m of our cash reserves to help fund our capital investment programme.
- We expect to continue to use our cash balances to fund the improvements outlined in the new 2016/17 Budget and Business Plan. We also hold a prudential minimum level of cash - approximately £500m - which is held for exceptional circumstances and so that we retain a high credit rating with our investors. Following continued investment we expect our cash balances - after taking into account the prudential minimum - to reduce to zero by the end of 2017/18.



**£2.8bn** cash funding  
for investment projects



Crossrail	£1.5bn
Cycle Superhighways	£0.1bn
New Routemasters	£0.1bn
Jubilee, Northern and Victoria line upgrades	£0.5bn
Bank and Victoria station upgrades	£0.5bn

<sup>1</sup> The UK standard for measuring reductions in KSI statistics: *Strategic framework for road safety* (May, 2011)

## Delivery

### Reliability

Rail reliability	Full year	Variance to Target
LU: Lost Customer Hours <sup>1</sup>	26.4	7.6 ▲
LU: Lost Customer Hours (excl. industrial action)	18.4	-0.4 ▼
LU: Excess Journey Time <sup>2</sup>	4.6	0.1 ▲
LU: Excess Journey Time (excl. industrial action)	4.3	-0.1 ▼
DLR departures <sup>3</sup>	98.5	-0.5 ▼
DLR departures (excl. industrial action)	99.1	0.1 ▲
London Overground PPM <sup>4</sup>	94.4	-0.1 ▼
TfL Rail	94.0	2.0 ▲

Bus and roads reliability	Full year	Variance to Target
Buses: Excess Wait Time <sup>5</sup>	1.2	0.1 ▲
TLRN journey time reliability <sup>6</sup>	87.8	0.8 ▲

Underlying LU reliability measured by Lost Customer Hours (LCH) and excluding industrial action has improved once again this year – this is now the fifth consecutive year underlying LCH has got better on the network. Reliability continued to improve throughout the year; Period 10 was the best period on record and the first time LCH was below one million hours. However, due to planned Night Tube and Fit for the Future – Stations implementation we experienced episodes of industrial action early in the year; taking this into account, LCH was both worse than last year and target. LU Excess Journey Time saw a similar pattern, with year-on-year improvements in underlying performance. These improvements means our customers' journeys are more reliable and they lose less time travelling.

DLR reliability was better than target, but just down on last year's high.

Both bus excess wait time and TLRN journey time reliability continued to be affected by increased traffic levels and the construction effects of our Road Modernisation Plan. Journey Time Reliability (JTR) met target, but was down on the previous year. Bus Excess Wait Time (EWT) averaged 1.2 minutes over the full year, 0.1 minutes worse than last year and target.

We have introduced measures to improve reliability and reduce the impact from the Road Modernisation Plan.

<sup>1</sup> Total additional journey time, measured in million hours, experienced by all customers as a result of delays that lasted two minutes or longer

<sup>2</sup> The average extra time that it took to complete a journey, compared to the time it would have taken if there were no delays, measured in minutes

<sup>3</sup> Docklands Light Railway (DLR) departures: the percentage of actual train departures of the base service departures

<sup>4</sup> The percentage of trains which arrive at their destination on time

<sup>5</sup> The number of minutes that a passenger has had to wait in excess of the time that they should expect to wait if buses ran as scheduled

<sup>6</sup> Transport for London Road Network (TLRN) journey time reliability: the percentage of journeys completed within an allowable excess of 5 minutes for a standard 30 minute journey during the AM peak



## Crime

Recorded crime	Full year, 2015/16	Variance to Target
LU and DLR	7.3	0.5 ▲
London Overground	6.8	-0.7 ▼
London Buses	7.5	0.3 ▲

Crime volumes	Full year, 2015/16	Variance to 2014/15
LU and DLR	10,719	1,120 ▲
London Overground	1,253	452 ▲
London Buses	17,367	258 ▲

Both the rate and levels of crime have improved on the LU and DLR network and on buses over recent years. Since 2010/11, the crime rate has fallen by 29 per cent on buses to 7.5 crimes per million passenger journeys, and by 36 per cent on the LU and DLR network to 7.3 crimes per million passenger journeys. However, despite this long-term reduction trend, there has been a rise in recorded crime in the full year 2015/16 compared with 2014/15 on all the networks. This increase is largely due to rises in reported sexual offences and violence against the person (VAP) – the latter primarily due to new crime recording practices established in Summer 2014.

Increases in VAP offences reflect wider increases across London and the UK. VAP offences are being closely monitored and resources have been put in place to address the increases.

In line with Project Guardian expectations, there has been an increase in the number of sexual offences reported to the police on the bus network and on LU and DLR. Project Guardian was launched in July 2013 to reduce unwanted sexual behaviour on public transport in London, which has been historically underreported. Project Guardian aims to increase confidence in reporting of sexual offences, to reduce the risk of becoming a victim and to target offenders.

## Road safety

Safety	Full year, 2015/16	Variance to target
Cumulative reduction in killed and seriously injured <sup>1</sup>	42.3	2.3 ▲

Road safety has improved dramatically in London. Provisional figures for 2015 show that there was a reduction in KSIs of 42.3 per cent from the baseline, to the lowest level on record.

Quarter 4 continued the trend, with the lowest level of KSIs (527) on record for Quarter 4; KSIs are 43.9 per cent reduction from the 2005–2009 baseline. This performance keeps us on track meet the tougher longer term target of a 50 per cent reduction in KSIs by 2020 against the 2005–2009 baseline.

During Quarter 4, we hosted a 20mph conference for all London boroughs, providing an update on the 20mph trials on the TLRN and to share best practice examples of 20mph implementation, both in London and other parts of the UK. We also completed a trial of Intelligent Speed Assistance (ISA) on buses and are reviewing the evidence from the trial to identify the next steps in applying this technology.

<sup>1</sup> The UK standard for measuring reductions in KSI statistics: *Strategic framework for road safety* (May, 2011).

## Project and milestone progress

Budget milestone completion <sup>1</sup>	Full year, 2015/16
Completed on time or early	88%
Late by less than 90 days	7%
Late by 90 days or more	5%

£m	Full year, 2015/16 actuals	Variance to Budget	
Capital expenditure	2,470	99 ▲	4%
Revenue investment	310	70 ▲	18%
<b>Total investment</b>	<b>2,780</b>	<b>169 ▲</b>	<b>6%</b>

Our Investment programme is vital in keeping London moving, working and growing. In 2015/16 we delivered 88 per cent of our investment project milestones on time, with a further seven per cent complete within 90 days of target date. Key milestones and improvements include:

- The Central line platforms at Tottenham Court Road re-opened following an 11-month closure, during which we constructed a new step-free access lift shaft, a new passageway that will link to the new larger ticket hall, and refitted the platforms and refurbished escalators.
- Following the award of the Automatic Train Control (ATC) contract to Thales we are beginning to fit out ATC equipment on LU trains, and are now trialling these at the Derby test track. Once complete this will help increase passenger capacity through a more reliable and frequent train service.
- As part of our works to enable a 36 trains per hour peak service to be introduced across the Victoria line next year, we replaced the deep level crossover at Walthamstow and installed new, more reliable point machines. The Victoria line is already the most frequent rail service in the UK.
- On our major Tube station upgrades we achieved a key milestone with the tunnel breakthrough from Bond Street station into the new Crossrail station. At Victoria, we completed the connection of the tunnels joining the new north ticket hall and enlarged south ticket hall.
- On the Northern Line Extension we started construction of the retaining walls within which the new Battersea and Nine Elms Underground stations and track junctions will be built in subterranean boxes.
- On roads we completed the Hammersmith Flyover strengthening works, which have prolonged its life and will ensure no major maintenance is required for many years. As part of our Road Modernisation Plan, we completed the second phase of works at Elephant & Castle to transform this vital transport interchange.
- We also completed construction of two key Cycle Superhighways, including the North – South and East –

<sup>1</sup> Automatic Train Control (ATC) milestones have been excluded from these scores following the cancellation of the ATC contract in December 2013

West. On the North-South Cycle Superhighway, the final section of the two-way lane opened on Blackfriars Bridge, with the full length of the route now running from Elephant & Castle to Stonecutter Street near Holborn Viaduct.

# Value

## Financial summary

### Operating account

£m	Full year, 2015/16 actuals	Variance to Budget	
Fares income	4,550	(90) ▼	-2%
Other income	675	34 ▲	5%
Total income	5,225	(56) ▼	-1%
Operating expenditure	(6,306)	328 ▲	5%
Group Items	(327)	17 ▲	5%
Margin	(1,408)	289 ▲	17%
DfT grants	628	(41) ▼	-6%
GLA precept	6	0 ▲	0%
BRR	773	(75) ▼	-9%
Other revenue grants	29	29 ▲	N/A
Total revenue grants	1,436	(87) ▼	-6%
Operating contribution to fund investment	28	202 ▲	116%

### Capital account

£m	Full year, 2015/16 actuals	Variance to Budget	
Capital expenditure	(2,413)	98 ▲	4%
Sales of property	407	22 ▲	6%
Crossrail expenditure	(1,508)	27 ▲	2%
Net capital expenditure	(3,514)	146 ▲	-4%
Operating contribution	28	202 ▲	116%
Investment grant	925	0 ▲	0%
Crossrail funding sources	959	66 ▲	7%
Other capital grants	132	(33) ▼	-20%
Working capital	(491)	(65) ▼	-15%
Net borrowing	598	(3) ▼	0%
Cash movements	1,364	315 ▲	19%

Over the full year, our Operating Account is £202m under Budget while our Capital Account is £113m lower than Budget. Total cash balances (including funds ring fenced for the Crossrail project) now stand at £3.3bn, £315m higher than Budget. Over the full year we used £1,364m of our cash reserves to help fund our capital investment programme.

The £202m underspend on our Operating Account is driven by a combination of:

- Lower fares income of £90m, mainly from £87m lower bus fares income, driven by less fare-paying passengers, a result of the deterioration in reliability of the bus network. This has been partly offset by better than expected performance on the Tube and London Overground from increased passenger journeys.
- In addition, fare income is down by a further £22m across the Group due to a provision for payment of compensation to the Train Operating Companies (TOCs) for lost revenue as a result of introduction of daily capping in January 2015.
- Operating expenditure is £328m under Budget, driven by a combination of rephasing of project expenditure totalling £200m (offset by a £53m overprogramming provision) and cost savings of £100m. Project rephasing includes: £51m for the Central and Victoria line fleet Heavy Overhaul Programme; £29m relating to Fit for the Future – Stations and Predict & Prevent projects; £13m for Mini Holland schemes; £10m for the Earls Court Joint Venture. Cost savings include: £18m from LU operational savings, including traction current and provisions that were not required; £56m from lower bus contract costs, a result of lower diesel and wage inflation, and lower bus performance payments due to the deterioration in reliability.
- Operating grants are £87m lower than Budget, a result of lower DfT General Grant of £48m – with £31m from the Summer Budget – and Business Rates Retention of £66m, a result of lower receipts to London boroughs.
- Capital expenditure is £98m under Budget, largely a result of project rephasing. Key rephasing includes the £113m on the Four Lines Modernisation project, £83m

for the Northern Line Extension (NLE), £47m on infrastructure renewals, £33m for the Metropolitan Line Extension, £35m on TfL Rail trains, £21m on Cycle Quietways, £15m on road Structures and Tunnels projects. In addition, Crossrail project expenditure is £25m lower than Budget.

- Capital funding is £33m higher than Budget, within an upside of £66m for Crossrail – largely driven by higher developers’ contributions – partly offset by lower capital grants of £33m which is down to match this year’s underspend on the Northern Line Extension.

## Cash balances and movements

£m	End of 2015/16	Variance to Budget
Crossrail SFA	1,539	(35) ▼
Other TfL	1,776	350 ▲
<b>Closing cash</b>	<b>3,314</b>	<b>315 ▲</b>

In 2015/16 we used £1,364m of our cash reserves to help fund our extensive improvements across the transport network. Against Budget, our cash reserves are now £315m higher than expected.

Our total cash balances stand at £3,314m at the end of the financial year, with £1,539m solely ring fenced to deliver the Crossrail project.

£m	Variance to Budget
Timing differences	
Investment rephasing	748 ▲
Crossrail	27 ▲
Overprogramming	(390) ▼
Grant changes	(12) ▼
Working capital	(65) ▼
<b>Total timing differences</b>	<b>308 ▲</b>

We expect to continue to use our balances to fund the improvements outlined in the new 2016/17 Budget and Business Plan. We also hold a prudential minimum level of cash - approximately £500m - which is held for exceptional circumstances and so that we retain a high credit rating with our investors. Following continued investment we expect our cash balances – after taking into account the prudential minimum - to reduce to zero by the end of 2017/18.

Underlying differences	
Net cost reductions/ (increases)	39 ▲
Group items	17 ▲
Fares income	(90) ▼
Grant changes	(42) ▼
Other	83 ▲
<b>Total underlying changes</b>	<b>7 ▲</b>
<b>Total cash movements</b>	<b>315 ▲</b>

## Efficiencies

£m	Full year, 2015/16 actuals	Variance to Budget
Gross savings secured	180	(16) ▼
Implementation costs	(97)	23 ▲
Net efficiencies	83	6 ▲

Our £16bn efficiency programme aims to deliver improvements to London's transport network ensuring the Capital continues to work and grow, while keeping fares affordable and managing with less government funding. We have already secured £14bn of our long-term savings target of £16bn and have plans to secure at least a further £2bn by the end of 2020/21.

The recent government Spending Review has presented us with a significant new challenge to reduce our cost base. As a result we will reset the savings target to zero from 2016/17 and develop new cost reduction targets which will run over one to three years. These cost reductions will be hard wired into the annual budget and long-term business plan.

# Customer

## Passenger journeys

Million	Full year, 2015/16	Variance to Target
London Underground	1,349.3	5.6 ▲
London Buses	2,323	-122 ▼
DLR	117.0	-2.3 ▼
London Overground	184.4	15.9 ▲
Tramlink	27.0	-4.1 ▼
Emirates Air Line	1.5	-0.2 ▼
TfL Rail	40.1	8.3 ▲
London River Services	10.3	0.1 ▲

LU experienced a record breaking number of journeys in 2015/16, with a year-on-year increase of 3.4 per cent.

Demand was especially high in Quarter 3, which saw a record breaking number of journeys with both the four busiest weeks and five busiest days on record. Daily passenger journeys topped 4.8 million twice, and weekly demand exceeded 29 million journeys for the first time.

Bus passenger journeys totalled 2,323 million over the full year, 62 million or 2.6 per cent lower than last year, and 122 million or 5 per cent below Budget. Journeys in Quarter 4 were particularly low, with 57 million fewer journeys than the same quarter last year, a decline of 8 per cent.

The primary cause of this decline in demand is due to the slight deterioration in the reliability of the bus network, due to increased traffic levels driven by London's strong economic growth (including extensive building and construction projects across London), a rapidly rising population, our Road Modernisation Plan and by urban improvement schemes.

Passenger journeys on the DLR in 2015/16 totalled 117 million, an increase of 6.1 per cent – 6.8 million journeys – on the previous year. Passenger numbers were two per cent lower than target, largely due to the industrial action in Period 8.

London Overground saw passengers up by 44.6 million from 2014/15, with 66 per cent of this increase from the new services operated on the West Anglia route, which began on 31 May 2015.

## Cycling

Cycling levels	Full year, 2015/16	Variance to Target
Cycling growth per cent	3.1	-0.9 ▼
Cycling levels on TLRN <sup>1</sup>	323	-25 ▼
Cycle Hire	9,886	-414 ▼

More than 645,000 journeys are made by bike every day in London and cycling in London has more than doubled in the last decade. Over the full year, cycling levels in central London increased by 3.1 per cent.

2015/16 saw a record £158m invested in cycling. The budget for the year was £145m, with £13m of schemes delivered ahead of schedule, principally reflecting good progress made on the implementation of Cycle Superhighways.

<sup>1</sup> Cycling levels on the Transport for London Road Network (TLRN), indexed at 100 in March 2000

## Customer satisfaction and complaints

CSS score	Full year, 2015/16	Variance to Target
London Underground	85	1 ▲
London Buses	86	1 ▲
DLR	89	1 ▲
London Overground	84	2 ▲
Tramlink	90	2 ▲
Emirates Air Line	93	0 ►
TfL Rail	83	3 ▲
Transport for London Road Network (TLRN)	74	0 ►
Dial-a-Ride	92	0 ►

Complaints per 100,000 journeys	Quarter 4, 2015/16	Variance to Quarter 4, 2014/15
London Underground	1.02	-0.12 ▼
Docklands Light Railway	1.06	-0.57 ▼
London Overground <sup>1</sup>	4.73	2.09 ▲
London Tramlink	1.84	0.41 ▲
Emirates Air Line	6.68	2.74 ▲
London Buses	3.24	0.58 ▲
Congestion Charge	7.27	-1.27 ▼
Dial-a-Ride <sup>2</sup>	134.95	21.21 ▲
Santander Cycle Hire	5.08	-2.36 ▼
Contactless Payment Card	0.17	-0.56 ▼
Oyster	0.15	-0.05 ▼

Customer satisfaction levels are up, or have been maintained, on every service. LU customer satisfaction reached a record high over the full year and in each quarter of the year. This has been achieved against a backdrop of record passenger journeys. Bus customer satisfaction was 86 over the full year, despite the slight dip in reliability levels. Customers were particularly satisfied with levels of crowding and seat availability.

Against the same quarter last year, complaints show a mixed picture with increases on London Overground (mainly from the new West Anglia service), Tramlink, Emirates Air Line (EAL), Dial-a-Ride and buses. Issues with late and cancelled trains were the most frequent on London Overground, making up over a third of complaints. The West Anglia service continues to receive the highest number of complaints, with a high number of service failures. This will be rectified through modification of the train stock and improvements in driver availability.

On buses, driver complaints remain the highest category, counting for over 11,000 complaints over the quarter, a 12 per cent increase since last year. To help ensure drivers deliver consistently good customer service, all bus drivers in London are undergoing mandatory customer service training from June 2016.

Dial-a-Ride complaints have increased significantly since last quarter; up 40.7 per cent on the previous quarter and 18.4 per cent on the same quarter last year. This is due to driver shortages and the resulting number of journeys that we are unable to fulfil. An in-house driver recruitment initiative has been implemented in order to improve reliability and reduce the complaints.

<sup>1</sup> Includes West Anglia services from 31 May 2015

<sup>2</sup> Per 100,000 journey requests



# People

## Headcount

FTE	End of 2015/16	Variance to Budget	£m staff cost variance to Budget
London Underground	21,613	(1,365) ▲	(6)
London Rail	378	(73) ▲	(7)
Surface Transport	3,859	(132) ▲	0
Shared Services	4,380	(424) ▲	(9)
Crossrail	983	21 ▼	4
<b>Total TfL</b>	<b>31,214</b>	<b>(1,972) ▲</b>	<b>(17)</b>

At the end of the financial year, we employed 31,214 full-time equivalent (FTE) staff, 1,972 more than Budget. Overall staff costs are £17m higher than Budget over the full year. While headcount is seven per cent higher than Budget, staff costs are one per cent over. The financial impact from the headcount variance to Budget is lessened as the average headcount variance over the full year was 730. In addition, pay awards were less than Budget, due to lower inflation and our new Pay for Performance framework.

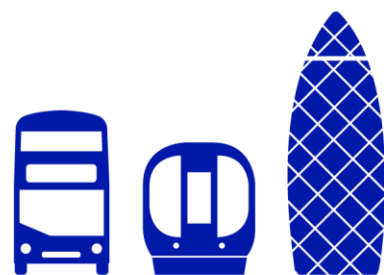
The main increases were:

- 652 higher in LU Operations, largely driven by delays to the Fit for the Future - Stations programme. Staff were expected to leave during the final quarter of 2015/16, but the majority of these staff will now leave in the first quarter of 2016/17. The impact on staff costs is small as these staff have been employed for an additional three periods
- 242 additional staff to deliver the Four Lines Modernisation programme. The cost was included in the Budget, but we then anticipated staff would be employed indirectly through the contractor. In addition, 130 Project Management Office (PMO) staff transferred from shared services, where the cost impact to TfL is neutral
- 98 additional FTEs in Surface Transport's Taxi & Private Hire to support the higher volumes of private hire licences and compliance activities. These staff will be funded by through licence application income
- 338 project staff across shared services, supporting Night Tube and Fit for the Future – Stations implementation, the London Road User Project, investment projects including Silvertown Tunnel, Crossrail 2 development as well as support functions including Desktop Futures and Web Integration. Staff costs for most of these additional roles were fully costed into the project, but were not included as FTE in the Budget. Staff working on Crossrail 2 are funded by a DfT grant
- 175 roles due to increased demand, including the Lost Property Office, customer contact centres, and in HR due to increased recruitment demand and support for

schemes such as graduates and apprentices. These staff costs were not included in the Budget.

# Operational and Financial Performance Report

Quarter 4, 2015/16



EVERY JOURNEY MATTERS

# Operational and Financial Performance Report

Quarter 4 (Periods 10-13), 13 December 2015 – 31 March 2016

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# Delivery

## Reliability

Table 1: Rail and Underground reliability

Performance indicator	Unit	Quarter 4, 2015/16			Full year 2015/16			
		Actual	Variance to target	Variance to last year	Actual	Variance to target	Variance to last year	2011/12 – 2015/16
▼ lower is better								
London Underground: total lost customer hours	Millions of hours	5.7	-0.1 ▼	0.2	26.4	7.6 ▲	3.8	
London Underground: total lost customer hours (excl. industrial action)	Millions of hours	5.2	-0.6 ▼	-0.2	18.4	-0.4 ▼	-0.5	
London Underground: excess journey time	Minutes	4.4	0.0 ▼	0.1	4.6	0.1 ▲	-0.1	
London Underground: excess journey time (excl. industrial action)	Minutes	4.4	-0.1 ▼	0.0	4.3	-0.1 ▼	-0.2	
▲ higher is better								
DLR: Departures	%	99.2	0.2 ▲	4.0	98.5	-0.5 ▼	-0.8	
DLR: Departures (excl. industrial action)	%	99.2	0.2 ▲	-0.1	99.1	0.1 ▲	-0.2	
London Overground: public performance measure <sup>1</sup>	%	94.4	-0.1 ▼	-0.8	94.4	-0.1 ▼	-0.8	
TfL Rail <sup>2</sup>	%	94.0	2.0 ▲	2.3*	94.0	2.0 ▲	2.4*	

### Rail and Underground reliability

1.0 LU delivered a 38 per cent reduction in delays from 2011 to 2015, with delays on the Tube now at their lowest-ever level. On the Victoria, Jubilee and Northern lines, reliability has improved by 74 per cent, 67 per cent and 40 per cent respectively. This has been achieved from: sustained investment in modernisation of Tube signalling, track and trains:

- New techniques to predict when maintenance on the lines is required to prevent unexpected equipment failure and delays to customers

<sup>1</sup> Includes services between Liverpool Street and Enfield, Chestnut and Chingford from 31 May 2015

<sup>2</sup> Operated by TfL from 31 May 2015

\* Last year's results were achieved under the previous franchise

- Working with the British Transport Police to respond to incidents more quickly by getting engineers to incidents under 'blue light' conditions
- Locating engineering and operations staff in one control centre to speed up incident recovery times
- The installation of covers on train passenger alarms, which has significantly reduced the number of accidental activations.

- I.1 Over the full year, underlying LCH which excludes the effects of industrial action, was better than target and improved on 2014/15. Quarter 4 performance was also significantly better than target and the same quarter last year. Period 10 was the best period on record and the first time LCH was below one million. The Quarter saw two significant incidents on the Central line towards the end of the year: a third party tunnel breach at Shepherd's Bush, and a power supply problem at Bow.
- I.2 London Overground (LO) reliability, as measured by the public performance measure (PPM) moving annual average (MAA), was 94.4 per cent over the full year, just under the target of 94.5 per cent. LO had a strong finish to the year, with reliability in three periods of Quarter 4 exceeding 95 per cent. The West Anglia fleet performed well in Period 13 and, together with better reliability, the lines out of Liverpool Street achieved 96.3 per cent PPM, representing a vast improvement in reliability before TfL began operating the service.
- I.3 Performance has continued to improve on the services running from Liverpool Street to Shenfield (known as TfL Rail), which will form part of the Elizabeth line. The PPM MAA has shown a strong upward trend since TfL took over these services, and is now comfortably better than target. TfL Rail remains in fifth place in the national PPM league (based on the MAA).
- I.4 DLR departures performance was 99.2 per cent for the Quarter and 98.5 per cent over the full year (excluding industrial action), which was better than target although just down on last year's performance. Performance has been consistently good throughout the year on the DLR, having only dipped below target in three periods, or four including Period 8 when there was a 48 hour strike.

## Road and bus reliability

1.5 Since late 2014/15 road and bus reliability have been affected by increased traffic levels, driven by London's strong economic growth (including extensive building and construction projects across London), a rapidly rising population, as well as the construction effects of our Road Modernisation Plan.

**Table 2: Road and bus reliability**

Performance indicator	Unit	Quarter 4, 2015/16			Full year 2015/16			
		Actual	Variance to target	Variance to last year	Actual	Variance to target	Variance to last year	2011/12 – 2015/16
<b>▼ lower is better</b>								
London Buses: excess wait time	Minutes	1.1	0.0 ►	0.0	1.2	0.1 ▲	0.1	
TLRN: planned serious and severe disruption	Hours	414	- ►	80	1,404	-96 ▼	473	
TLRN: unplanned serious and severe disruption per event	Hours per event	2.0	0.0 ►	-0.2	1.9	-0.1 ▼	-0.1	N/A
<b>▲ higher is better</b>								
TLRN: journey time reliability (AM peak)	%	88.2	1.3 ▲	0.0	87.8	0.8 ▲	-0.5	
Dial-a-Ride: trip requests scheduled	%	89.3	-1.7 ▼	-2.4	89.9	-1.1 ▼	-0.3	

1.6 Over the full year bus excess wait time was 1.2 minutes, 0.1 minutes worse than both target and last year. This was due to the continued high levels of congestion caused by London's population growth and our Road Modernisation Plan, the latter including major highway schemes, Cycle Superhighways and urban improvement schemes. Further measures have recently been introduced to reduce the impact of major roadworks and a wider deterioration in traffic congestion upon service reliability.

1.7 Full-year journey time reliability in 2015/16 was 87.8%, 0.8 percentage points better than target<sup>1</sup> but 0.5 percentage points worse than last year. Quarter 4 saw strong performance, despite a background of challenging conditions including increased demand for road space and planned disruption from highways improvements as part of our Road Modernisation Plan.

1.8 Quarter 4 saw a total of 1,055 hours of serious and severe disruption resulting from unplanned and planned events, spread across 374 separate incidents. Planned disruption totalled 414 hours, with unplanned totalling 641 hours. Planned disruption was up 80 hours compared to the same quarter last year, largely due to the increased intensity of improvement schemes..

1.9 The amount of disruption per event, a measure of our effectiveness in resolving unplanned incidents, averaged 2.0 hours in Quarter 4, 0.2 hours less than Quarter 4 last year.

<sup>1</sup> JTR targets for 2015/16 were lower compared to last year due to the anticipated effects of our Road Modernisation Plan

- 1.10 For the full year Dial-a-Ride scheduled 1,454,053 trips, 89.9 per cent of trips requested. Performance was particularly affected during Quarter 4 due to the effects of a driver shortage and from reduced service levels due to vehicle reliability issues.



## Safety and security

Table 3: Crime rates




Performance indicator	Unit	Quarter 4, 2015/16			Full year 2015/16			
		Actual	Variance to target	Variance to last year	Actual	Variance to target	Variance to last year	2011/12 – 2015/16
▼ lower is better								
LU and DLR recorded crime <sup>1</sup>	Rate per million passenger journeys	8.4	1.6 ▲	1.4	7.3	0.5 ▲	0.5	
London Overground recorded crime	Rate per million passenger journeys	6.9	-0.2 ▼	N/A	6.8	-0.7 ▼	1.1	
London Buses: recorded crime	Million passenger journeys	7.7	0.2 ▲	0.0	7.5	0.3 ▲	0.3	

Table 4: Crime volumes

Performance indicator	Unit	Quarter 4, 2015/16		Full year 2015/16	
		Actual	Variance to last year	Actual	Variance to last year
▼ lower is better					
LU and DLR recorded crime	No. crimes reported	4,094	787 ▲	10,719	1,120 ▲
London Overground recorded crime	No. crimes reported	426	184 ▲	1,253	452 ▲
London Buses: recorded crime	No. crimes reported	5,701	- 242 ▼	17,367	258 ▲

1.11 Both the rate and levels of crime have improved on the LU and DLR network and on buses over recent years. Since 2010/11, the crime rate has fallen by 29 per cent on buses to 7.5 crimes per million passenger journeys, and by 36 per cent on the LU and DLR network to 7.3 crimes per million passenger journeys. However, despite this long-term reduction trend, there has been a rise in recorded crime in the full year 2015/16 compared with 2014/15 on all the networks. The volume of crime on the bus network was 1.5 per cent higher in 2015/16 compared to 2014/15 with 258 additional offences; the LU/DLR network was 11.7 per cent higher in 2015/16 compared to 2014/15 with 1,120 additional offences; and the LO network was 56.4 per cent higher in 2015/16 compared to 2014/15 with 452 additional offences.

1.12 Over the full year, the crime rate on the LU and DLR network was 0.5 index points higher than last year and did not achieve the annual target. The rate of crime on LU and DLR in Quarter 4 was also

<sup>1</sup> Quarter 4 refers to snapshot crime figures for December 2015 – xxx. The information reported here may be different to other quarterly crime information published by TfL

higher than target. The volume of crime on the LU and DLR network was 23.8 per cent higher in Quarter 4 than the same quarter last year, with 787 additional offences.

- I.13 Sexual offences were 76.3 per cent - 122 additional offences - higher in Quarter 4 compared to the same quarter last year. This is in line with the expectations of Project Guardian, a partnership initiative with the British Transport Police, Metropolitan Police and the City of London Police, and with advice from the Everyday Sexism Project, the End Violence Against Women Coalition and Hollaback London, which aims to increase confidence in reporting sexual offences which occur on London's transport system, reduce the risk of becoming a victim, challenge unwelcome sexual behaviour and to target offenders. There was also an increase in Violence Against the Person offences (VAP), up by 32.3 per cent (262 additional offences); this reflects the increase in VAP offences seen across London and the wider UK, plus a minor reporting change with the inclusion of a low level violent offence previously included within the category of serious public order (this is different to the recording change which has affected recorded bus-related crime). This rise is being addressed through targeted police activity such as Operation Station.
- I.14 Over the full year, the crime rate on the LO network was 0.7 index points lower than target, and 0.2 points better than target in Quarter 4. However, the volume of crime on the LO network was 76.0 per cent higher in Quarter 4 than the same quarter last year, with 184 additional offences. Sexual offences rose by 23.1 per cent - 3 additional offences - which is in line with the expectations of Project Guardian. VAP offences also rose by 106.8 per cent, with 79 additional offences. The increases in crime volume can be explained by the expansion of the LO network with the transfer of the former West Anglia services from 31 May 2015. Despite the expansion of the services and an increase in crime volume, the crime rate has remained low on the LO network.
- I.15 Over the full year, bus-related crime was 0.3 index points higher than last year and did not achieve the annual target. The rate of crime on London buses was higher than target in Quarter 4. The volume of crime on the bus network was 4.1 per cent lower in Quarter 4 than the same quarter last year, with 242 fewer offences. A notable reduction was seen in theft and handling, down 9.1 per cent, with 245 fewer offences.
- I.16 VAP offences rose slightly by 0.6 per cent, with 13 additional offences; this is a slowing down of the increases seen earlier in 2015/16. Changes to the recording of VAP offences were introduced in Summer 2014 which has resulted in an increase in the number of minor VAP offences being recorded, where these offences would not have been recorded previously. Resources have been reallocated and additional measures have been put in place to address the increase in VAP being experienced in some boroughs. Despite these increases, crime remains low on the bus network.


**Table 5: Safety**

Performance indicator	Unit	Quarter 4, 2015/16			Full year 2015/16			
		Actual	Variance to target	Variance to last year	Forecast	Variance to target	Variance to last year	2011/12 – 2015/16
▼ <i>lower is better</i>								
London Underground & Rail significant injuries per million hours	Rate	0.16	-0.24 ▼	-0.15	0.16	-0.24 ▼	-0.15	N/A

1.17 Rail & Underground significant injuries per million hours includes death (excluding suicide) and RIDDOR (Reporting of Injuries, Diseases and Dangerous Occurrences Regulations) reportable injuries to all customers, staff and contractors. It is aligned with the revised Office of Rail and Road (ORR) standard. The trend of improvement in 2014/15 has continued throughout 2015/16, with a significant injuries rate of 0.16 per million hours over the full year. Quarter 4 saw a 48 per cent improvement from the same quarter last year.

## Road safety

Table 6: Killed and seriously injured (KSI) reduction from 2005–2009 average

Performance indicator	Unit	Quarter 4, 2015/16			Full year 2015/16			
		Actual	Variance to target	Variance to last year	Forecast	Variance to target	Variance to last year	2011/12 – 2015/16
▲ higher is better								
Cumulative reduction in KSI Londonwide <sup>1</sup>	%	43.9	3.3 ▲	3.1	42.3	2.3 ▲	2.1	

- I.18 In Quarter 4 527 people were killed or seriously injured (KSI) on London’s roads. This is the lowest level of KSIs on record for Quarter 4 and represents a 43.9 per cent reduction from the 2005–2009 baseline. The reduction in KSIs for quarter 4 is 3.1 percentage points better than the same quarter last year.
- I.19 Road safety has improved dramatically in London. We are well on track to reduce KSIs by 50 per cent against the 2005–2009 baseline by 2020. Our annual Casualties in Greater London report shows that KSIs fell by three per cent in 2015 to the lowest level on record; and by a reduction of 42 per cent from the baseline
- I.20 During Quarter 4, we hosted a 20mph conference for all London boroughs, providing an update on the 20mph trials on the TLRN and to share best practice examples of 20mph implementation, both in London and other parts of the UK. Under the Pedestrian Town Centres project, a strategy and action plan was developed to improve the environment and safety for pedestrians in Tooting and Peckham. The programme aims to pilot innovative and creative solutions, and use the learning from these in other town centres across London.
- I.21 We also completed a trial of Intelligent Speed Assistance (ISA) on buses and are now reviewing the evidence from the trial in order to identify the next steps in applying this technology.

<sup>1</sup> Reduction from a baseline of the 2005–2009 average, July 2015 to September 2015

## Value

The operating and capital accounts below show financial variances over the full year against Budget and our latest full-year forecast, the latter completed in Quarter 3. The table highlights TfL's operating contribution to fund investment, after revenue grants, including DfT General Grant, Business Rates Retention and the Greater London Authority (GLA) precept. The operating contribution is used to help fund investment and is allocated to projects through the annual business planning process.

**Table 7: TfL group finances – Operating account**

TfL group (£m)	Full year 2015/16						
	Actual	Budget	Variance to Budget		Quarter 3 forecast	Actual variance to Quarter 3 forecast	
Fares income	4,550	4,640	(90) ▼	-2%	4,584	(34) ▼	-1%
Other operating income	675	641	34 ▲	5%	675	1 ▲	0%
<b>Total income</b>	<b>5,225</b>	<b>5,281</b>	<b>(56) ▼</b>	<b>-1%</b>	<b>5,259</b>	<b>(34) ▼</b>	<b>-1%</b>
Operating expenditure (net of third-party contributions)	(6,306)	(6,634)	328 ▲	-5%	(6,492)	186 ▲	-3%
<b>Operating margin</b>	<b>(1,081)</b>	<b>(1,353)</b>	<b>272 ▲</b>	<b>-20%</b>	<b>(1,234)</b>	<b>152 ▲</b>	<b>-13%</b>
Interest income <sup>1</sup>	25	23	2 ▲	10%	23	2 ▲	11%
Debt interest	(372)	(401)	30 ▲	-7%	(378)	6 ▲	-2%
Contingency and group items	20	34	(15) ▼	-43%	37	(17) ▼	-46%
<b>Margin</b>	<b>(1,408)</b>	<b>(1,697)</b>	<b>289 ▲</b>	<b>-17%</b>	<b>(1,552)</b>	<b>144 ▲</b>	<b>-10%</b>
<b>Finance sources</b>							
General grant	591	640	(48) ▼	-8%	591	0 ►	0%
Overground grant	37	29	8 ▲	26%	37	0 ►	0%
GLA precept	6	6	0 ►	0%	6	0 ►	0%
Business Rates Retention	773	848	(75) ▼	-9%	773	0 ►	0%
Other revenue grants	29	(0)	29 ▲	N/A	1	28 ▲	2,795%
<b>Total revenue grants</b>	<b>1,436</b>	<b>1,522</b>	<b>(87) ▼</b>	<b>-6%</b>	<b>1,408</b>	<b>28 ▲</b>	<b>2%</b>
<b>Operating contribution to fund investment <sup>2</sup></b>	<b>28</b>	<b>(175)</b>	<b>202 ▲</b>	<b>116%</b>	<b>(144)</b>	<b>172 ▲</b>	<b>119%</b>

<sup>1</sup> Includes interest on the Crossrail Sponsors' Fund Account

<sup>2</sup> The operating contribution to fund investment is allocated to projects in our annual Business Plan. Any in-year variances to these values are assessed as part of our planning process.

**Table 8: TfL group finances – Capital account**

TfL group (£m)	Full year 2015/16						
	Actual	Budget	Variance to Budget		Quarter 3 forecast	Actual variance to Quarter 3 forecast	
Capital expenditure	(2,460)	(2,569)	108 ▲	-4%	(2,526)	65 ▲	3%
Third-party contributions – capital	47	57	(10) ▼	-18%	65	(18) ▼	-28%
Sales of property and other assets	407	385	22 ▲	6%	393	14 ▲	3%
Net capital expenditure excl. Crossrail	(2,006)	(2,126)	120 ▲	-6%	(2,068)	61 ▲	3%
Crossrail capital expenditure	(1,508)	(1,535)	27 ▲	-2%	(1,613)	105 ▲	7%
Net capital expenditure incl. Crossrail	(3,514)	(3,661)	146 ▲	-4%	(3,681)	166 ▲	5%
<b>Finance sources</b>							
Surplus/ -deficit to fund investment	28	(175)	202 ▲	116%	(144)	172 ▲	119%
Investment grant	925	925	0 ►	0%	925	0 ►	0%
Crossrail funding sources	959	893	66 ▲	7%	906	53 ▲	6%
Other capital grants	132	165	(33) ▼	-20%	141	(9) ▼	-6%
Working capital	(491)	(427)	(65) ▼	15%	(339)	(152) ▼	45%
Borrowing	598	601	(3) ▼	0%	598	1 ▲	0%
Cash movement	1,364	1,678	(315) ▲	-19%	1,594	(231) ▲	-14%
<b>Total</b>	<b>3,514</b>	<b>3,661</b>	<b>(146) ▼</b>	<b>-4%</b>	<b>3,681</b>	<b>(166) ▼</b>	<b>-5%</b>

## Fares income

2.0 Total fares income is £4,550m over the full year, £90m lower than Budget and a variance of 1.9 per cent. LU and London Overground have seen higher than expected levels of passenger journeys, driven by a strong economy and population growth. However, bus fares income was £87m lower than Budget, a result of lower passenger numbers. As in previous quarters, this is largely due to reduced bus reliability, which has been affected by high levels of traffic flows and the construction impacts from our Road Modernisation Plan.

2.1 In addition to lower bus fares income, fare income is down by a further £22m across the Group due to the provision of payment for compensation to the Train Operating Companies (TOCs) for lost revenue as a result of introduction of daily capping in January 2015.

**Table 9: Fares income**

Fares income (£m)	Full year 2015/16				
	Actual	Budget	Variance to Budget	Quarter 3 forecast	Actual variance to Quarter 3 forecast
London Underground	2,552	2,556	(4) ▼	2,561	(9) ▼
London Rail (incl. TfL Rail)	473	472	1 ▲	489	(16) ▼
London Buses	1,524	1,611	(87) ▼	1,534	(10) ▼
<b>Total fares income</b>	<b>4,550</b>	<b>4,640</b>	<b>(90) ▼</b>	<b>4,584</b>	<b>(34) ▼</b>

2.2 LU fares income was £4m lower than Budget over the full year:

- £55m additional income largely due to increased passenger numbers coupled with a favourable travelcard allocation; offset by
- £17m compensation to TOCs for lost revenue as a result of introduction of daily capping in January 2015 (see Section 2.1 above)
- A further £17m reduction from lower than expected fare increases in January 2016, due to a lower than previously assumed inflation rate (which in part determines the level of increase) and a real terms fares freeze, whereas the Budget assumed fares would increase at the rate of inflation plus one per cent
- £16m lower income due to industrial action in July and August
- £9m lower than expected income due to deferred introduction of Night Tube.

2.3 Against forecast for the year, LU fares income was £9m lower than forecast driven by the £17m compensation to the Train Operating Companies (noted above) partly offset by a favourable travelcard allocation from DLR.

2.4 London Rail and TfL Rail fares income was £1m higher than Budget for the year, mainly due to passenger journey growth on London Overground and TfL Rail, partly offset by lower than expected demand on DLR and Tramlink.

2.5 Against the Quarter 3 forecast, LR and TfL Rail fares income was down by £16m, with DLR income down by £10m due to the combined impact of lower passenger volumes and the reallocation of travelcard allocation to LU.

2.6 Bus fares income was £87m below Budget, a result of less fare paying passenger journeys than anticipated; fare paying passenger volumes are 104.5 million under Budget. The primary cause of this decline in demand is due to the deterioration in the reliability of the bus network, through congestion caused by London's population growth and the construction of major highway and urban improvement schemes. Underlying passenger volumes are 3.6 per cent down on last year, with fare paying passengers down by 4.3 per cent and non-fare paying passengers lower by 2.1 per cent.

## Other operating income

Table 10: Other operating income

Other operating income (£m)	Full year 2015/16				
	Actual	Budget	Variance to Budget	Quarter 3 forecast	Actual variance to Quarter 3 forecast
London Underground	147	140	7 ▲	148	(1) ▼
London Rail (incl. TfL Rail)	27	26	1 ▲	28	(2) ▼
Congestion Charge, LEZ and Road Network Compliance	294	300	(6) ▼	300	(5) ▼
Santander Cycles	16	16	0 ▲	16	0 ▲
Other Surface Transport	118	102	15 ▲	115	2 ▲
Shared services	74	57	16 ▲	67	6 ▲
<b>Total other income</b>	<b>675</b>	<b>641</b>	<b>34 ▲</b>	<b>674</b>	<b>1 ▲</b>

2.7 Other operating income - from advertising, property rental, the Congestion Charge, enforcement and licencing activities and from cycle hire charging - totalled £675m over the full year, which was £34m higher than Budget:

- LU other income was £7m higher than Budget from improved digital and poster advertising performance
- £7m of higher income from application fees for Oyster schemes, including Zip Cards for children and 18+ and 60+ Oyster cards
- £5m from higher than expected private hire licencing income, with driver licenses up by 40 per cent compared to last year and private hire vehicle licenses up by 29 per cent. This income is reinvested to meet the higher cost of licencing and compliance activities associated with more private hire vehicles and drivers
- £4m over programming risk adjustment formed part of the Budget to provide risk contingency against the volatility and nature of Commercial Development activities and initiatives
- £3m higher than budgeted income on property services provided to the GLA and recharging of Crossrail rent and rates (offset by higher expenditure below)
- £3m unbudgeted income from White City Westfield and the sale of licenses to third parties at North Greenwich and Archway Tower



- £1m up from the provision of replacement bus services to Network Rail, higher advertising revenue on New Routemasters, increased shelter advertising revenues, and higher than expected Lane Rental charges.

2.8 Congestion Charge income was down £5m against Budget, with Autopay detection volumes 15 per cent lower than Budget and due to lower registrations volumes than expected (450,000 registrations against the Budget level of 490,000). Traffic Enforcement Notice Processing (TENP) income is £9m lower, reflecting an increase in PCN reductions following the efforts to resolve workflow queries in the backlog. Lower TENP income is partially offset by higher Congestion Charge e Enforcement income of £8m, suggesting that some drivers are not opting to pay on account, but risking the resulting PCN fines.

## Operating expenditure

Table 11: Operating expenditure

Operating expenditure (£m)	Full year 2015/16				
	Actual	Budget	Variance to Budget	Quarter 3 forecast	Actual variance to Quarter 3 forecast
London Underground	(2,242)	(2,348)	106 ▲	(2,306)	64 ▲
London Rail (incl. TfL Rail)	(519)	(557)	39 ▲	(544)	26 ▲
Surface Transport	(2,856)	(2,956)	89 ▲	(2,898)	31 ▲
Shared services	(679)	(772)	94 ▲	(744)	66 ▲
<b>Total operating expenditure</b>	<b>(6,296)</b>	<b>(6,634)</b>	<b>328 ▲</b>	<b>(6,492)</b>	<b>186 ▲</b>

- 2.9 Total TfL operating expenditure is £6,296m in 2015/16, up £143m from our 2014/15 results - an increase of 2.3 per cent. Against the 2015/16 Budget, expenditure is £328m lower, a variance of 5.1 per cent. The variance to Budget is driven by rephasing of project expenditure totalling £200m (offset by a £53m overprogramming provision) and cost savings of £100m, and other items including reclassification of expenditure from operating to capital expenditure.
- 2.10 LU operating expenditure is £106m under Budget over the full year, with operations, maintenance and back office expenditure £54m lower than Budget and renewals and reliability improvements £45m under Budget. The key variances include:
- £76m of rephasing, including £51m of delays to the Central and Victoria line fleet Heavy Overhaul Programme, £29m relating to Fit for the Future – Stations and Predict & Prevent projects, and £6m from a deferral within the Integrated Stations Programme following a scope review
  - £18m of operational cost decreases, including £9m from lower traction costs due a mix of lower prices and volumes (the latter from delayed Night Tube introduction and industrial action when a reduced service was operated) and a further £9m from operational rebates and unutilised provisions
  - £9m reduction relating to accounting reclassification for statutory accounts purposes
  - Project rephasing was offset by the release of a £26m overprogramming provision
  - These underspends were partly offset by increased costs, including £9m on train fleet maintenance and £8m additional contractual incentive fees.
- 2.11 Against forecast, LU operating expenditure is £64m lower than forecast, £45m lower on operations and £15m lower on renewals and reliability projects. Major movements included:
- £12m deferred operating expenditure comprising various fleet works including Central, Victoria and Bakerloo line overhaul costs
  - £34m rephased expenditure relating to a number of rescheduled programmes including Jubilee and Northern line upgrades, Lifts & Escalators and Legacy Train Systems life extension works
  - £16m operating cost decrease including lower traction current costs, operational contract rebates and unutilised provisions.

- 2.12 LR and TfL Rail operating expenditure is £39m lower than Budget for the full year. Key variances included:
- £15m cost decreases largely due to lower performance payments to LO rail operating company plus prior year profit share payment
  - £14m reduction due to operating expenditure reclassified as capital
  - £6m rephased costs including delayed LO rebrand activity and DLR electronic control unit overhauls
  - Partly offsetting these were cost increases of £8m including project management and legal costs relating to West Anglia devolution, and additional TfL Rail costs.
- 2.13 Against forecast for the year, LR/TfL Rail operating expenditure was £26m under. The reduction includes LO rephasing including delayed station works and West Anglia maintenance and signalling spend, plus other smaller variances across the area.
- 2.14 Surface Transport operating expenditure was £100m lower than Budget over the full year, due to £75m net cost reductions, £42m of project rescheduling (partly offset by a £27m overprogramming provision) and a £10m reclassification of risk expenditure from revenue to capital. Cost reductions totalled £107m and included:
- £56m from lower bus contract costs, due to worse than expected bus contractor performance, lower than budgeted diesel prices and less ticket commission costs as a result of lower fare income
  - £14m cost reductions across a number of areas, including lower than expected policing costs due to difficulties in Metropolitan Police Service (MPS) recruitment, lower iBus costs and savings in passenger survey expenditure
  - £12m from Local Implementation Plans (LIPS) projects due to slow delivery of major schemes
  - £12m cost reductions in Asset Management largely due to savings identified following the restructure of Traffic Infrastructure revenue maintenance activities, reduced A13 DBFO payments and a London Highway Alliance Contract (LoHAC) annual volume rebate
  - A further £9m of savings across a range of initiatives following a detailed prioritisation exercise

The main cost increases were:

- £10m in the Asset Management Directorate related to LoHAC contractual entitlements for design for maintenance, local overheads and statutory utility drawings.
  - £7m extra costs on buses to improve reliability and a further £2m higher fuel costs for New Routemasters with the actual miles per gallon achieved less efficient than that assumed in the Budget.
- 2.15 Project rescheduling to future years totalled £42m, partly offset by £27m of overprogramming. The key slippages included:
- £13m slippages in Strategy and Planning, including Strategy & Outcome Planning (Cycle Super Hubs, Monitoring & Research and Crossrail Complementary Measures)
  - £13m related to slow progress on Mini Hollands, in particular delays in getting construction for Mini Hollands Kingston started owing to difficulties appointing a contractor. There were also delays due to slow progress on Transforming Streets and Places projects and delays in

Better Junctions programme due to difficulties in agreeing a design for the northern roundabout with Westminster.

2.16 Shared services (including HR, IM, Finance, Marketing and Communications and Planning) expenditure was £679m over the full year, £94m lower than Budget. The key reasons for this underspend are:

- £41m lower than budgeted expenditure for property and advertising investments (incorrectly budgeted as operating expenditure) that have been re-profiled and moved to capital in current forecasts
- £38m accounting adjustment for rent and rates transferred from Finance to business areas at the end of the financial year
- £10m lower expenditure on the Earls Court project reflecting re-sequencing of demolition and construction costs offset by additional land acquisitions and an incorrect split between opex and capex in the budget. The delays to budgeted investment do not impact on the critical path for the development
- £7m lower merchant fees for card payments following the imposition of a cap on fees by the European Union.

2.17 Full-year shared services expenditure is £66m lower than forecast, the key variances being:

- A £38m accounting adjustment for rent and rates transferred from Finance to business areas at the end of the year
- £9m savings made across property portfolio, including buildings and maintenance, catering, dilapidations, rates and utilities
- £5m of savings for various projects including Future Ticketing project, transformation projects throughout corporate and various IM projects
- £3m lower merchant fees for card payments following the imposition of a cap on fees by the European Union
- £3m rephased costs due to delay of Night Tube and Gatwick Oyster extension
- £3m savings from Revenue Collection Contract due to contractor not meeting SLAs and lower than expected transition costs;
- £2m Oyster card savings from lower procurement volumes and reduced photocard costs.

## Interest income, debt service and other group items

Table 12: Interest income, debt service and other group items

Interest income, debt service and other group items (£m)	Full year 2015/16				
	Actual	Budget	Variance to Budget	Quarter 3 forecast	Actuals variance to Quarter 3 forecast
Interest income	25	23	2 ▲	23	2 ▲
Debt service	(372)	(401)	30 ▲	(378)	6 ▲
Contingency and other group items	20	34	(15) ▼	37	(17) ▼
Total interest, debt service and other group items	(327)	(344)	17 ▲	(318)	(8) ▼

- 2.18 In Quarter 1 we completed most of the planned borrowing for the full year. A combination of low market rates and a successful execution of £400m Green Bond and £120m private placement transactions allowed TfL to achieve an overall favourable rate of interest, significantly lower than expected when completing the Budget. This has resulted in a £30m saving in debt service over the full year.
- 2.19 In the full year contingency and other group items are £15m higher than Budget.

## Capital expenditure

Table 13: Capital expenditure

Gross Capital expenditure (£m)	Full year 2015/16				
	Actual	Budget	Variance to Budget	Quarter 3 forecast	Actuals variance to Quarter 3 forecast
London Underground	(1,199)	(1,217)	19 ▲	(1,162)	(37) ▼
London Rail (incl. TfL Rail)	(233)	(301)	68 ▲	(284)	51 ▲
Surface Transport	(501)	(500)	(1) ▼	(501)	0 ▲
Shared services	(527)	(548)	21 ▲	(577)	50 ▲
Gross capital expenditure	(2,460)	(2,569)	108 ▲	(2,526)	65 ▲

2.20 Over the full year, our capital expenditure totalled £2,476m, £497m more than in 2014/15. The single main reason for this increase is the purchase of £376m of loan notes for the Earls Court joint venture project. Expenditure is £108m lower than Budget, due to £548m of project rephasing to future years (which is offset by a £337m overprogramming provision), and a net increase in costs of £60m, the latter largely from the Metropolitan Line Extension. This project will be funded by the DfT and from a Local Enterprise Partnership.

2.21 LU capital expenditure is £19m lower than Budget over the year, due to £351m of project rephasing (partly reduced by an overprogramming provision of £198m) which is partly offset by cost increases of £117m. Rephasing includes:

- £113m on Four Lines Modernisation driven by the Automatic Train Control (ATC) programme, reflecting alignment to the new signalling contractor's schedule - which was awarded after the budget was finalised
- £83m due to major design changes on Northern Line Extension impacting delivery schedule
- £47m relating to infrastructure renewals, including Sub-Surface Line (SSL) power upgrade, lifts, escalators, plant strategy and legacy train renewals
- £33m rephased Metropolitan Line Extension due to delays following the programme transition
- A net £16m on stations due to underspend of £31m - including Vauxhall, Asset Development and Stations Work Improvement Programme - offset by £15m of accelerated spend on property compensation and acquisition costs on Bank station where the Transport & Works Act Order was secured earlier than anticipated
- £13m within World Class Capacity including minor delays to the Victoria line upgrade
- £25m for rephasing across a number of projects including Fit for the Future Stations, Predict & Prevent, and Information Communications Technology Transformation
- Project rephasing was partly offset by the release of a £198m overprogramming provision.

In addition, there were cost increases of £117m including:

- £64m from the Metropolitan Line Extension programme, due to the agreement made with the Department for Transport to take on the responsibility for delivering the programme - this expenditure is expected to be funded from the DfT and a Local Enterprise Partnership

- £38m for the Northern line upgrade following a re-estimate of the project scope to deliver the required benefits.

2.22 Against forecast, LU capital expenditure for the year was £37m higher than forecast. Expenditure totalling £101m has been rephased into future years, including:

- £35m of rephasing on the Four Lines Modernisation
- £26m on Station Upgrades and the Northern Line Extension
- Project rephasing was more than offset by the release of a £115m overprogramming provision.

In addition there was a £28m increase in Station Capacity expenditure mainly due to Bank Station accelerated spend on property compensation and compulsory purchases and Victoria Station fit-out works with fewer delays than anticipated.

2.23 LR/TfL Rail capital expenditure was £68m lower than budget for the year. This was largely due to reductions:

- £35m rephased expenditure in TfL Rail mainly due to rolling stock milestone re-profiled
- £35m delayed spend across LO including delayed station works, lower spend on renewals and enhancements, reprofiled Gospel to Barking electrification project and delay in awarding West Anglia station works contract
- £19m DLR rephasing of rebranding costs, Your Railway and Customer Experience project slippage including Blackwall stairs, ROV canopies, Limehouse escalator and East India Urban Realm, plus other smaller variances across the area
- Project rephasing was partly offset by the release an overprogramming provision of £8m.

The delayed expenditure was partly offset by a £14m increase from a reclassification of operating expenditure to capital.

2.24 Against forecast for the year, LR/TfL Rail capital expenditure was £51m lower. Key variances include £34m in TfL Rail due to delayed milestone achievement on the rolling stock contract and £11m in LO largely due to rephased West Anglia station works following extended tender period.

2.25 Surface Transport capital expenditure was £1m higher than Budget over the year, a result of £92m expenditure rescheduled to future years, £18m of Management Contingency which has not been needed, £36m of cost reductions and reduced scope. This was more than offset by £131m of overprogramming as we anticipated – and made a provision for – more project slippage than actually materialised during the year.

2.26 The key items that have been rescheduled include:

- £15m on the Structures and Tunnels Improvement Programme 1 (STIP1) due to Network Rail possession and design approval issues across all bridges, as well as delays due to cracks in beams at Highbury Corner Bridge
- £21m on cycle Quietways due to issues across several boroughs, including Lewisham, which required re-design, and on Millwall link which required negotiation with Network Rail for access
- £13m London Cycling Grid due to borough resource constraints
- £8m on the Better Junctions programme which has been reschedule to future years, including Westminster Bridge South delayed following consultation with stakeholders and a new design to incorporate consultees
- £7m of slippage on Future Bus Systems

- £6m delays in New Routemaster delivery
- £4m rephasing across the Cycle Superhighways Programme, including CSI 1 which has been put on hold due to the estimated negative impacts on traffic flow on Hendon Way and Finchley Road
- £4m on the Cycle Hire Relet, from delays in confirming transition of the Cycle Hire system and the revenue collection solution.

- 2.27 The main works ahead of schedule were £15m of expenditure was accelerated into 2015/16 from later years, including additional carriageway renewals which will deliver value for money, and lighting expenditure which will maximise energy efficiency and financial savings. These variances were offset by overprogramming of £131m.
- 2.28 In addition, we made £31m of cost savings in Surface Transport, including £14m savings from the release of project risk, £9m from the Hammersmith Flyover, £2m from Fore Street Tunnel, a further £7m from AMD Asset Capital Programme.
- 2.29 Shared services capital expenditure is £533m, £376m of which was for the purchase of Earls Court joint venture loan notes. Over the full year, expenditure is £17m under Budget, largely a result of project rephasing including End User Computing, Stratford Hib and the Future Ticketing project. In addition, £6m of project contingency is no longer required. This rephasing and cost reduction has been partly offset by £4m for the purchase of hardware for the Data Consolidation project, supporting Oyster and Contactless ticketing systems.
- 2.30 Capital expenditure in shared services is £45m lower than the latest forecast. This is due to £17m of project reprofiling above (Section 2.29), £21m rephasing of commercial development, as well as £5m of project contingency is no longer required.



## Capital third-party contributions

Table 14: Capital third-party contributions

Third-party contributions (£m)	Full year 2015/16				
	Actual	Budget	Variance to Budget	Quarter 3 forecast	Actuals variance to Quarter 3 forecast
London Underground	31	32	(2) ▼	45	(14) ▼
London Rail (incl. TfL Rail)	3	7	(4) ▼	3	0 ▲
Surface Transport	13	17	(3) ▼	16	(3) ▼
Shared services	(0)	1	(2) ▼	0	(1) ▼
Capital third-party contributions	47	57	(10) ▼	65	(18) ▼

- 2.31 LU third-party contributions were £2m lower than budget for the year, with delays in Crossrail funded stations project offsetting unbudgeted Metropolitan Line Extension contributions. For the full year against forecast, LU third-party contributions were £14m lower, mainly driven by phasing of the third-party funded element of the Cross stations project.
- 2.32 LR/TfL Rail third-party contributions were £4m lower than Budget in the year, mainly due to phasing of LO and DLR projects and, therefore, corresponding funding..
- 2.33 Surface Transport third-party contributions are £3m lower than Budget over the full year due to the transfer of Community Infrastructure Levy (CIL) funding - for Elephant & Castle and Wandsworth Gyrotory – to grant income, the latter included in other capital grants (see Section 2.40). This was partly offset by the drawdown of deferred income for footways capital renewals.

## Sales of property and other assets

Table 15: Sales of property and other assets

Sales of property and other assets (£m)	Full year 2015/16				
	Actual	Budget	Variance to Budget	Quarter 3 forecast	Actuals variance to Quarter 3 forecast
Total sales of property and other assets	407	385	22 ▲	393	14 ▲

- 2.34 In the year to date property sales expenditure is £407m, predominantly from the sale of £376m of land for the Earls Court joint venture in exchange for loan notes.

## Crossrail

Table 16: Crossrail

Crossrail (£m)	Full year 2015/16				
	Actual	Budget	Variance to Budget	Quarter 3 forecast	Actuals variance to Quarter 3 forecast
Crossrail	(1,508)	(1,535)	27 ▲	(1,613)	105 ▲

2.35 Crossrail project expenditure is £27m under Budget over the full year.

2.36 Direct costs (including risk) were £44m below Budget for the full year, due to:

- Programme risk –underspend of £120m due to budget being held centrally, but related spend occurring at a Sector level
- Systemwide - underspend of £85m primarily due to less than budgeted procurement, signalling design work and lower than expected production
- Operations – underspend of £12m driven by works at Old Oak Common being budgeted for but no longer being required
- Surface works – underspend of £8m due to a revised funding agreement for Network Rail Traction Power; offset by
- Stations – overspend of £93m primarily due to contractor performance and delays at Whitechapel, and overspends on design and labour costs to support the Systemwide Programme
- Civils – overspends of £82m driven by the late finish of Tunnels West; Portals and Shafts to enable early access to Systemwide and an overspend on Ilford Yard due to poor contractor performance and rephrasing of cost since the budget was set
- Other – net overspend of £6m.

2.37 Indirect project costs were £4m above Budget for the full year, predominantly due to:

- A payment to Network Rail to extend the interim funding agreement (£9m)
- A provision for Rights of Light settlements (£4m); offset by
- A reduction in legal fees and insurance costs to re-align with forecast project costs (£5m)
- Lower than expected staff costs due to vacancies (£2m)
- Other net underspends (£2m).

2.38 Land and Property costs were £12m above Budget for the full year. This is predominantly due to:

- New commitment at Plumstead (£7m)
- Upward revaluations across a number of sites including Farringdon (£4m), Ealing Broadway (£3m), Limmo Peninsula (£2m) and Paddington (£2m)
- A number of downward revaluations but most notably Tottenham Court Road (£2m), Westbourne Grove (£2m) and Hayes and Harlington (£3m).

2.39 Against the latest forecast, Crossrail expenditure is £105m lower, predominantly driven by direct project cost underspends. Material drivers include:

- Civils – an underspend of £43m driven by Eastern Running Tunnels’ better than expected productivity on Tunnel Boring Machine (TBM) dismantling, cost reduction initiatives, agreement of disallowed costs and an underspend on risk.

- Systemwide - underspend of £36m primarily due to low productivity on the main works; schedule changes on the communications and controls contract; lower than budgeted procurement and slippages for the Limmo Bulk Supply Point, and later than planned access for the High Voltage Power contractor; as well as rephasing of risk in relation to the Systemwide contracts; and
- Programme risk –underspend of £25m due to budget being held centrally, but related spend occurring at a Sector level.

## Government grants and other funding

Table 17: Government grants and other funding

Government grants and funding (£m)	Full year 2015/16				
	Actual	Budget	Variance to Budget	Quarter 3 forecast	Actuals variance to Quarter 3 forecast
DfT General grant	591	640	(48) ▼	591	0 ▲
DfT Investment grant	925	925	0 ▲	925	0 ▲
DfT Overground grant	37	29	8 ▲	37	0 ▲
GLA precept	6	6	0 ▲	6	0 ▲
Business Rates Retention (BRR)	773	848	(75) ▼	773	0 ▲
Crossrail funding sources	959	893	66 ▲	906	53 ▲
Other capital grants	132	165	(33) ▼	255	(123) ▼
Other revenue grants	29	(0)	29 ▲	1	28 ▲
<b>Total grants and funding</b>	<b>3,452</b>	<b>3,505</b>	<b>(54) ▼</b>	<b>3,493</b>	<b>(42) ▼</b>

2.40 Total grants and funding are £54m lower than Budget over the full year:

- DfT General Grant is down by £48m over the year, with funding reduced by £31m following the Summer Budget, and a further £11m from a change in accounting treatment for Garden Bridge grants, which was fully credited in the previous financial year.
- BRR receipts are down by £75m, reflecting the shortfall in business rates received by the London Boroughs
- Other capital grants are £33m lower than Budget, with NLE funding down by £58m – reflecting the lower project expenditure this year - which is partly offset by £20m new capital grant for the Metropolitan Extension and a further £5m from the GLA for the Elephant & Castle project.

These were offset by new unbudgeted grants, including:

- Other revenue grants are £29m higher than Budget, largely due to £26m new funding from the DfT for Crossrail 2
- An additional £8m for the DfT Overground Grant following the periodic assessment
- Crossrail Funding sources are £66m higher than Budget from higher Section 106 and CIL receipts.

## Working capital

Table 18: Working capital

Working capital (£m)	Full year 2015/16				
	Actual	Budget	Variance to Budget	Quarter 3 forecast	Actuals variance to Quarter 3 forecast
Working capital	(491)	(427)	(65) ▼	(339)	(152) ▼

2.41 Working capital is £65m adverse at the end of 2015/16. This is due to lower project expenditure across the Group, with £79m relating to reduced creditors.

## Borrowing and reserve movements

Table 19: Net borrowing and reserve movements

Borrowing, repayments and cash reserve movements (£m)	Full year 2015/16				
	Actual	Budget	Variance to Budget	Quarter 3 forecast	Actuals variance to Quarter 3 forecast
Borrowings Raised	624	626	(3) ▼	623	1 ▲
Borrowings Repaid	(25)	(25)	0 ▲	(25)	0 ▲
Net borrowing	598	601	(3) ▼	598	1 ▲

2.42 Over the full year we borrowed £624m to help fund our investment programme, £3m less than expected at the time of the Budget.

## Cash movements and balances

**Table 20: Cash movements**

Borrowing, repayments and cash reserve movements (£m)	Full year 2015/16				
	Actual	Budget	Variance to Budget	Quarter 3 forecast	Actuals variance to Quarter 3 forecast
Reserve movements	1,364	1,678	315 ▲	1,594	222 ▲

2.43 In 2015/16 we used £1,364m of our cash reserves to help fund our extensive improvements across the transport network. Against Budget, our cash reserves are now £315m higher than expected.

**Table 21: Cash balances**

Cash summary (£m)	Full year 2015/16				
	Actual	Budget	Variance to Budget	Quarter 3 forecast	Actuals variance to Quarter 3 forecast
Crossrail Sponsors' Funding Account	1,539	1,574	(35) ▼	1,445	93 ▲
Other TfL cash balances	1,776	1,426	350 ▲	1,647	128 ▲
Closing cash	3,314	3,000	315 ▲	3,093	222 ▲

2.44 Our total cash balances stand at £3,314m at the end of the financial year, with £1,539m ring fenced to deliver the Crossrail project.

2.45 Our cash balances are allocated to investment and cannot be used for any other purpose. We expect to continue to use our balances to fund further improvements across the network. We also hold a prudential minimum level of cash - approximately £500m - which is held for exceptional circumstances and so that we retain a high credit rating with our investors. Following continued investment we expect our cash balances – after taking into account the prudential minimum - to reduce to zero by the end of 2017/18.

## TfL's efficiency programme

Table 22: Efficiencies

Efficiencies Programme <sup>1</sup> (£m)	Full year 2015/16				
	Actual	Budget	Variance to Budget	Quarter 3 forecast	Actuals variance to Quarter 3 forecast
Gross Savings Secured	180	197	(16) ▼	177	3 ▲
Implementation costs to secure savings	(97)	(120)	23 ▲	(92)	(6) ▼
Net Efficiencies secured	83	77	6 ▲	86	(3) ▼

2.46 Our £16bn efficiency programme is allowing us to deliver improvements to London's transport network ensuring the Capital continues to work and grow, while keeping fares affordable and managing with less government funding. We have already secured £14bn of our long-term savings target of £16bn and plan to secure a further £2bn by the end of 2020/21. The targets shown above relate to the unsecured portion of the efficiencies programme only.

2.47 Our efficiencies programme is largely in line with Budget in the year to date. Over the full year, we expect to secure £6m of additional savings. This variance is due to a reduction in implementation costs, where we have stopped an initiative following review of its delivery plans. Implementation costs for this project outweighed savings in the year, leading to a net increase in savings in-year. New initiatives are currently being identified to mitigate the shortfall over the rest of the Business Plan. The a small shortfall against the Quarter 3 forecast due to higher than expected implementation costs from changes to LU's Fit for the Future – Stations programme.

### Our long-term savings programme

2.48 Our existing efficiencies programme has allowed us to safeguard our investment programme, delivering more for London while managing with less government funding.








2.49 The recent government Spending Review has presented us with a significant new challenge to reduce our cost base. As a result we will reset the savings target to zero from 2016/17 and develop new cost reduction targets which will run over one to three years. These costs reductions will be hard wired into the annual budget and long-term business plan.

<sup>1</sup> Efficiencies are quoted net of implementation costs

# Customer

## Passenger journeys

Table 23: Passenger journeys

Millions	Quarter 4, 2015/16			Full year 2015/16			
	Actual	Variance to target	Variance to last year	Actual	Variance to target	Variance to last year	2011/12 – 2015/16
▲ higher is better							
London Underground	395.9	4.0 ▲	-13.3	1,349.3	5.6 ▲	43.9	
London Buses	662	-53 ▼	-57	2,323	-122 ▼	-62	
DLR	34.3	-0.9 ▼	-0.3	117.0	-2.3 ▼	6.8	
London Overground	54.3	3.6 ▲	10.5	184.4	15.9 ▲	44.6	
London Tramlink	8.1	-1.8 ▼	-1.4	27.0	-4.1 ▼	-3.7	
Emirates Air Line	0.3	-0.1 ▼	0.0	1.5	-0.2 ▼	0.0	
TfL Rail	13.0	1.7 ▲	N/A	40.1	8.3 ▲	N/A	N/A
London River Services	2.17	0.1 ▲	0.1	10.3	0.1 ▲	0.3	

- 3.0 LU experienced a record breaking number of journeys in 2015/16, with a year-on-year increase of 3.4 per cent. Demand was especially high in Quarter 3, which saw a record breaking number of journeys on the Tube with both the four busiest weeks and five busiest days on record. Daily passenger journeys topped 4.8 million twice, and weekly demand exceeded 29 million journeys for the first time.
- 3.1 Bus passenger journeys totalled 2,323 million over the full year, 62 million or 2.6 per cent lower than last year, and 122 million or 5 per cent below Budget. Journeys in Quarter 4 were particularly low, with 57 million fewer journeys than the same quarter last year, a decline of 8 per cent.
- 3.2 The primary cause of this decline in demand is due to the slight deterioration in the reliability of the bus network, due to increased traffic levels driven by London's strong economic growth (including extensive building and construction projects across London), a rapidly rising population, our Road Modernisation Plan and by town centre improvements.
- 3.3 Passenger journeys on the DLR in 2015/16 totalled 117 million, an increase of 6.1 per cent – 6.8 million journeys – on the previous year. Passenger numbers were two per cent lower than target, largely due to the industrial action in Period 8.
- 3.4 London Trams passenger journeys were 27 million in 2015/16, which was 4.1 million lower than target and 3.7 million lower than last year. Planned closures in Periods 7 and 8 coupled with declining number of visitors to Croydon shopping centres affected demand in the year.





3.5 LO carried 184.4 million people in 2015/16, an increase of 44.6 million on the previous year. Over 66 per cent of this increase was from the new services operated on the West Anglia route, which began in May 2015.

## Cycling

3.0 More than 645,000 journeys are made by bike every day in London, and cycling in London has more than doubled in the last decade. Levels of cycling in central London reached a daily average of 453,065 kilometres, or an estimated 148,000 journeys. This represents a 6.5 per cent increase in cycling compared to the same quarter in 2014. Over the full year, cycling levels in central London increased by 3.1 per cent.

**Table 24: Cycling journeys on the Transport for London Road Network (TLRN)**

	Unit	Quarter 4, 2015/16			Full year 2015/16			
		Actual	Variance to target	Variance to last year	Actual	Variance to target	Variance to last year	2011/12 – 2015/16
▲ higher is better								
Central London Cycling CC Zone – per cent growth	per cent	6.5	3.5 ▲	7	3.1	-0.9 ▼	3.1	N/A
Cycling levels on the TLRN <sup>1</sup>	Index	235	-53 ▼	-28	323	-25 ▼	-7	
Cycle Hire	000s	2,176	-51 ▼	-106	9,886	-414 ▼	-198	

3.1 The TLRN cycling index has been in place for over 15 years and uses 38 automatic counters to measure cycling on London’s main roads. This provides a long-term and detailed view of changes in cycling levels on London’s main roads, which have more than tripled since the index began. Over time, however, some counters have stopped working and, due to the historic location of counters, the index does not correctly capture cycling on new infrastructure such as cycle superhighways. This means that the index is no longer a true representation of cycling on London’s main roads. As part of TfL’s London cycle monitoring plan, enhanced cycling measures have been developed that correctly represent cycling on London’s roads to report during the new financial year.

3.2 The TLRN cycling index reports that levels of cycling on London’s main roads during quarter 4 of 2015/16 were 10.6 per cent (28 index points) lower than the same period last year. The latest full-year index of cycle flows on the TLRN for 2015/16 is 323, which is 2.1 per cent lower than last year and below the full-year target of a 5.6 per cent increase in cycling between 2014/15 and 2015/16.

3.3 The full-year target for cycling growth during 2015/16 is based on past growth in cycling levels on the TLRN, which has increased by an average of 9.1 per cent each year since the index began. This level of growth was not recorded by the TLRN cycling index this year, and further analysis is underway to understand whether this change is due to long term changes in patterns of cycling

growth; short term responses to road disruption; weather; or failures of the monitoring equipment to provide accurate readings.

**Table 25: Cycling: expenditure, 2012/13 to 2021/22**

Cycling expenditure £m	Full year 2015/16				
	Actual	Budget	Variance to Budget	Quarter 3 forecast	Actuals variance to Quarter 3 forecast
Cycling expenditure	(158)	(145)	(13) ▼	(145)	(13) ▼

- 3.4 2015/16 has seen a record £158m invested in cycling. The Budget for the year was £145m, with £13m of schemes delivered ahead of the business plan profile, reflecting good progress made on the implementation of Cycle Superhighways.
- 3.5 We are now four years into the ten year £913m Cycling Vision, with £315m invested so far. By the end of 2016/17, at the halfway mark, the total spend is likewise budgeted to hit fifty percent of the ten year total.
- 3.6 In Quarter 4 we made further progress in delivering improvements to London’s cycling infrastructure:
- Construction progressed well on the four upgraded Cycle Superhighway routes plus four new routes. These were all open by May 2016
  - The core Better Junctions programme saw progress at a number of locations. At Oval Triangle all cycle facilities are now fully operational. By the end of the Quarter, about 50 per cent of the main construction works were complete at Stockwell Cross, as were all the planned utility works. And at Archway Gyratory the main construction works started as planned on 29 February 2016.
  - All three Mini-Holland boroughs have begun construction. A pedestrian/cycle bridge and a cycle hub were completed in Waltham Forest. Designs for half of the total 101 schemes that make up the mini-Hollands programme have been submitted by boroughs and a fifth of them have started consultation.
  - On the Central London grid, 80 per cent of the total 134 schemes have been approved for construction, and a third are either complete or now under construction. Good progress has been made on the Quietways programme with five of the first phase of eight routes under construction.
  - Alongside infrastructure delivery we are supporting behaviour change measures, including cycle training for adults and children and engaging businesses through Cycling Workplaces.

## Customer satisfaction

- 3.7 Customer satisfaction has increased or been maintained, across all of our services.
- 3.8 LU's Customer Satisfaction Survey (CSS) overall score was a record 85 over the full year and for each quarter, also the highest quarterly scores ever achieved. In Quarter 4, customer satisfaction with the temperature inside the train, in line with seasonal trends, and with the length of time waiting for a train. After dipping in Quarter 3, the Central line customer satisfaction returned to its previous peak of 85, with customers reporting fewer delays and better scores for journey comfort and train crowding.
- 3.9 Bus customer satisfaction also continued to improve, also reaching 86 over the full year and in Quarter 4. Customers were particularly satisfied with the level of crowding and seat availability in the Quarter. They were also more positive about the ease of journey, boarding and paying.
- 3.10 Dial-a-Ride satisfaction is up two points compared to the same time last year, particularly among those who travelled and have been recently contacted. Customers are more satisfied with the service, despite a slight decline in the proportion of requests scheduled compared to the same time last year. Satisfaction with the booking process increased to 82, the highest score since Quarter 2 last year, reflecting an improvement in peak call answering times.

**Table 26: Customer satisfaction by service**

Score (out of 100)	Quarter 4, 2015/16			Full year 2015/16			
	Actual	Variance to target	Variance to last year	Actual	Variance to target	Variance to last year	2011/12 – 2015/16
▲ higher is better							
London Underground	85	1 ▲	0	85	1 ▲	1	
London Buses	86	2 ▲	2	86	2 ▲	1	
DLR	89	1 ▲	1	89	1 ▲	0	
London Overground	84	2 ▲	1	84	2 ▲	1	
London Tramlink	91	3 ▲	2	90	2 ▲	1	
Emirates Air Line	93	0 ►	-1	93	0 ►	0	
TfL Rail	83	3 ▲	N/A	83	3 ▲	N/A	N/A
Transport for London Road Network (TLRN)	74	0 ►	0	74	0 ►	0	
Dial-a-Ride	93	1 ▲	1	92	0 ►	0	

## Customer satisfaction – environment

Table 27: Environmental performance

Numbers	Quarter 4, 2015/16			Full year 2015/16		
	Actual	Variance to target	Variance to last year	Actual	Variance to target	Variance to last year
▲ higher is better						
Hybrid bus introduction	1,670	N/A	417	1,670	20 ▲	417

- 3.11 The proportion of the bus fleet served by low-carbon emission and quieter diesel-electric buses remains at 19 per cent. There are currently around 1,670 hybrids in the fleet and this total will grow further (including the 800 New Routemasters) to around 20 per cent by late 2016. In addition, the bus fleet now has around 1,000 of the latest ultra-low emission Euro VI engine vehicles, many of which are hybrids.

## Customer complaints

Table 28: Customer complaints

No. complaints per 100,000 journeys	Quarter 4, 2015/16	
	Actual	Variance to Quarter 3, 2014/15
▼ <i>lower is better</i>		
London Underground	1.02	-0.12 ▼
Docklands Light Railway	1.06	-0.57 ▼
London Overground	4.73	2.09 ▲
TfL Rail	4.75	N/A
London Tramlink	1.84	0.41 ▲
Emirates Air Line	6.68	2.74 ▲
London Buses	3.24	0.58 ▲
Streets	0.17	0.17 ►
Congestion Charge	7.27	-1.27 ▼
Dial-a-Ride	134.95	21.21 ▲
River Services	0.64	-0.08 ▼
Santander Cycle Hire	5.08	-2.36 ▼
Taxi and Private Hire	5.81	-1.17 ▼
Contactless Payment Card	0.17	-0.56 ▼
Oyster	0.15	-0.05 ▼

- 3.12 Complaints about London Overground increased to 4.73 per 100,000 journeys. Issues with late and cancelled trains remains the most frequent cause for contact, making up over a third of complaints. The West Anglia service continues to receive the highest number of complaints, with a high number of service failures. This will be rectified through modification of the train stock and improvements in driver availability.
- 3.13 London Buses complaints have increased by 0.58 per 100,000 journeys from Quarter 4 of last year. Driver complaints remain the highest category, counting for over 11,000 complaints over the quarter; this is a 12 per cent rise on last year. To help ensure drivers deliver consistently good customer service, all bus drivers in London are undergoing mandatory customer service training, starting in June 2016.
- 3.14 Complaints regarding congestion charging continue to reduce, down 15 per cent on Quarter 4 of last year. The auto pay system remains the most frequent cause for complaint due to payments

being rejected by the card issuer. Complaints about contact centre staff dropped over the quarter due to improved training.

- 3.15 Dial-a-Ride complaints have increased significantly since last quarter; up 40.7 per cent on the previous quarter and 18.4 per cent on the same quarter last year. This is due to on an ongoing issue with driver shortage, and the number of journeys that we were unable to fulfil. An in-house driver recruitment initiative has been implemented in order to improve reliability and reduce the complaints.
- 3.16 Complaints about Santander Cycles reduced by 2.36 per 100,000 journeys. This reduction can be attributed to customer familiarity with the system, with fare queries and issues with access keys both reducing significantly. Journeys were down during the winter period, with 31 per cent less than Quarter 3 and 43 per cent less than Quarter 4.
- 3.17 Complaints regarding Taxi and Private Hire reduced to 5.81 per 100,000 journeys. Over 70 per cent of complaints are in relation to driver behaviour. Each driver is informed of the issue, and steps are put in place to avoid similar complaints going forward.
- 3.18 Contactless Payment Card usage continues to increase, with the number of journeys more than doubling from last year. Despite this, there has been a large decrease of over 80 per cent in issues with touching in/out complaints as customers get used to using the technology.

## Customer services

**Table 29: Customer communications and correspondence**

	Quarter 4, 2015/16			Full year 2015/16		
	Actual	Variance to target	Variance to last year	Actual	Variance to target	Variance to last year
<b>▲ higher is better</b>						
Correspondence Service level agreement	92.0	12.0 ▲	9.8	81.7	1.7 ▲	-1.5
Mystery shopper quality assessment scores	87.2	2.2 ▲	1.5	86.8	1.8 ▲	1.6
<b>▼ lower is better</b>						
Call abandonment rate	10.3	-4.7 ▼	-0.7	12.6	-2.4 ▼	-1.7

- 3.19 Our correspondence performance improved by nine per cent on Quarter 3 and is almost 10 per cent better than Quarter 4 last year. On average, our periodic demand dropped by 20 per cent in comparison to last quarter. In particular, bus related correspondence dropped significantly, with seasonal trends resulting in reliability contacts reducing by 37 per cent.
- 3.20 Our average periodic telephony demand dropped by 22 per cent from the previous quarter. This was partly due to the ending of the student photocard application peak in Quarter 3, with periodic demand subsequently reduced by 46 per cent in Quarter 4. This drop in demand enabled us to improve our abandonment rate by over 6 per cent compared to the previous quarter.
- 3.21 Our quality score improved by 1.5 percentage point from Quarter 3 last year. We continued to perform particularly well on telephony, scoring 95 per cent over the period.

## Ticketing

**Table 30: Ticketing system availability <sup>1</sup>**

	Quarter 4, 2015/16			Full year 2015/16		
	Actual	Variance to target	Variance to last year	Actual	Variance to target	Variance to last year
<b>▲ higher is better</b>						
London Underground-ticketing system overall availability	98.88	0.08 ▲	0.09	98.72	-0.08 ▼	-0.11
London Buses- ticketing system overall availability	99.49	0.49 ▲	N/A	99.38	0.38 ▲	N/A

<sup>1</sup> TfL entered into a new Revenue Collection Contract during Quarter 2, 2015/16. This changed the measurement of availability and figures are not precisely comparable with previous quarters.



3.22 London Underground ticketing system availability was above target, improving by 0.5 per cent from Quarter 3. Quicker fix fault times has helped to improve availability. London Buses ticketing availability remained above target

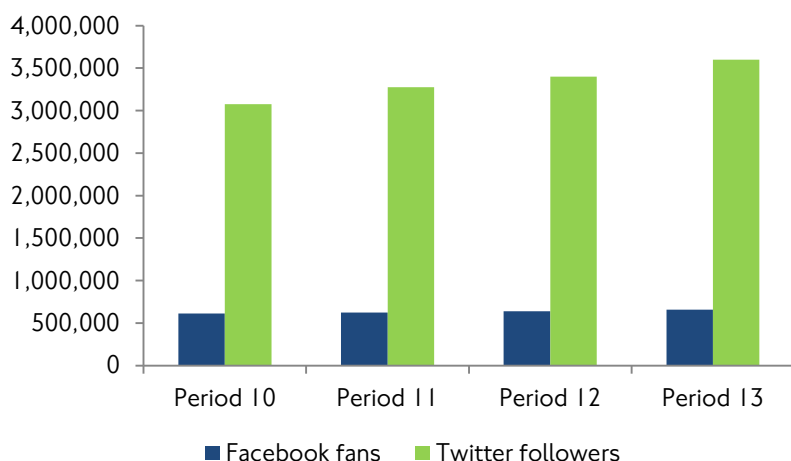
### Website and social media

3.23 Social media, including Twitter and Facebook continues to be an increasingly important method of communicating with our customers. Our 21 Twitter feeds provide real time travel updates, ticketing information and weekend engineering work schedules. The total social media followers has now reached 4.3 million.

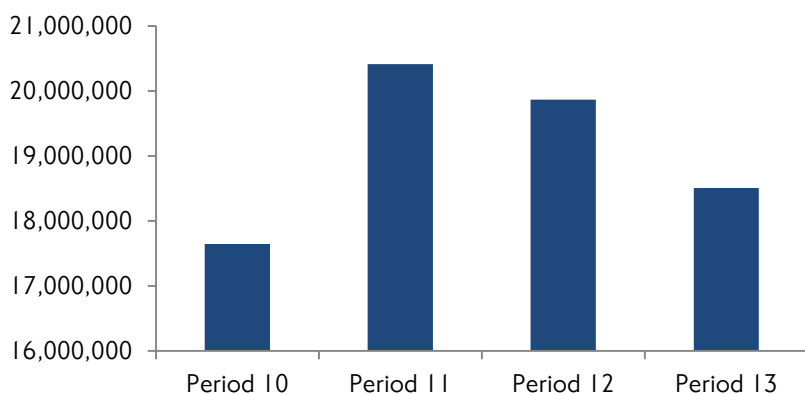
3.24 The Digital Media Monitor survey of March 2016 shows that more Londoners are using the website than ever before at 83 per cent (up from 80 per cent in Autumn 2015). The number of Londoners using apps powered by our data remains at 42 per cent.

3.25 The number of users rating our website as 'above average', 'good' or 'excellent' remains at 90 per cent, achieving the 2015/16 target.

**Chart 2: Social media followers, 2014/15 to 2015/16**



**Chart 3: Website visits, Quarter 4 2015/16**



## People

4.0 At the end of Quarter 4, TfL's headcount – measured in full-time equivalent (FTE) – was 31,214, 1,972 higher than Budget. Overall staff costs are, however, £17m higher than Budget over the full year. While headcount is seven per cent higher than Budget, staff costs are one per cent over. The financial impact from the headcount variance to Budget is lessened as the average headcount variance over the full year was 730. In addition, pay awards were less than Budget, due to lower inflation and our new Pay for Performance framework.

**Table 31: Headcount**

FTE	End of 2015/16	Variance to Budget	Average year to date FTE	Average variance to Budget	£m – YTD variance
London Underground	21,613	(1,365) ▲ 7%	21,419	(536)	(6) ▲ 0%
London Rail	378	(73) ▲ 24%	339	(33)	(7) ▲ 38%
Surface Transport	3,859	(132) ▲ 4%	3,706	(2)	0 ▲ 1%
Shared services	4,380	(424) ▲ 11%	4,294	(244)	(9) ▲ 3%
Crossrail	983	21 ▼ -2%	988	85	4 ▼ 0%
<b>Total TfL</b>	<b>31,214</b>	<b>-1,972 ▲ 7%</b>	<b>30,746</b>	<b>(730)</b>	<b>(17) ▲ 1%</b>

4.1 At the end of Quarter 4, LU and London Rail employed 21,991 FTE – 21,613 in LU and 378 in London Rail – which was 1,438 higher than Budget. LU headcount is 1,365 higher than Budget. Underlying headcount was 1,105 higher, after taking in to account a 260 vacancy provision that was included in the Budget; the vacancy provision was not utilised as recruitment levels are now running closer to the underlying budget than previously assumed. The key drivers of the underlying headcount variance are:

- 652 more FTEs in Operations than budgeted, largely driven by delays to the Fit for the Future – Stations programme. The majority of the programme leavers were budgeted to leave the organisation from January 2016, but this has been delayed to the first quarter of 2016/17
- 242 additional headcount to deliver the Four Lines Modernisation programme
- 130 Project Management Office staff transferred from corporate services to LU

4.2 London Rail (including TfL Rail) is 73 higher than Budget at the end of the Quarter, mainly due to additional resources for London Overground projects that were not budgeted – including the Barking Riverside Extension – and the use of agency staff for Tram maintenance rather than external consultants.

4.3 Surface Transport headcount is 132 FTE – or four per cent – higher than Budget, primarily due to externally funded posts including 98 additional FTEs in Taxi & Private Hire to support the higher volumes of private hire licence applications and greater compliance activities.

4.4 Over the full year Surface Transport staff costs were £0.3m – less than one per cent – under the gross staff cost Budget. This was a result of average headcount exceeding Budget by only two FTE, and lower than Budget pay awards for operational staff.

- 4.5 Shared services headcount is 424 higher than Budget, from a combination of:
- 338 additional project roles supporting areas such as Night Tube and Fit for the Future – Stations implementation, the London Road User Project, investment projects including Silvertown Tunnel, Crossrail 2 development as well as support functions including Desktop Futures and Web Integration
  - 175 roles due to increased demand, including the Lost Property Office, customer Contact Centres, and in HR due to increased recruitment demand and support for schemes such as graduates and apprentices
  - These increases have been partly offset by 33 vacancies.
- 4.6 The full year financial impact from the increased headcount is £9m. This is largely due to the increased recruitment demand across TfL, and £3m of additional work for Crossrail 2 and GLA, the latter offset by increased income from the DfT and the GLA.

## Appendix A: Business Unit financial tables

### Rail and Underground

London Underground & London Rail (£m)	Full year 2015/16					Section
	Actual	Budget	Variance to Budget	Quarter 3 forecast	Actual variance to Quarter 3 forecast	
London Underground	2,552	2,556	(4)	2,561	(9)	2.2 and 2.3
London Rail	473	472	1	489	(16)	2.4 and 2.5
<b>Total fares income</b>	<b>3,025</b>	<b>3,029</b>	<b>(3)</b>	<b>3,050</b>	<b>(25)</b>	
Other operating income	173	165	8	176	(2)	2.7
<b>Total operating income</b>	<b>3,198</b>	<b>3,194</b>	<b>5</b>	<b>3,226</b>	<b>(27)</b>	
LU operating costs	(2,132)	(2,191)	59	(2,182)	49	2.10, 2.11, 2.12 and 2.13
Renewals and reliability Projects	(110)	(157)	47	(124)	14	
London Rail Operations (incl. TfL Rail)	(519)	(557)	39	(544)	26	2.12 and 2.13
<b>Total operating expenditure</b>	<b>(2,761)</b>	<b>(2,906)</b>	<b>145</b>	<b>(2,850)</b>	<b>89</b>	
Capital expenditure						
London Underground	(1,199)	(1,217)	19	(1,162)	(37)	2.21 and 2.22
Third-party capital contributions	31	32	(2)	45	(14)	2.31
London Rail	(233)	(301)	68	(284)	51	2.23 and 2.24
Third-party capital contributions	3	7	(4)	3	(0)	2.32
<b>Net capital expenditure</b>	<b>(960)</b>	<b>(1,191)</b>	<b>231</b>	<b>(1,023)</b>	<b>63</b>	
<b>Net Service Expenditure</b>	<b>(1,199)</b>	<b>(1,217)</b>	<b>19</b>	<b>(1,162)</b>	<b>(37)</b>	

## Surface Transport

Surface Transport (£m)	Full year 2015/16					Section
	Actual	Budget	Variance to Budget	Quarter 3 forecast	Actual variance to Quarter 3 forecast	
Bus fares income	1,524	1,611	(87)	1,534	(10)	2.6
Bus contract costs	(1,987)	(2,036)	49	(2,003)	16	2.14 and 2.15
Direct Bus Subsidy	(463)	(425)	(38)	(469)	6	
Other Bus Income	32	29	4	33	(0)	2.7 and 2.8
Bus operating Expenditure	(78)	(84)	7	(79)	1	2.14 and 2.15
Bus Capital Expenditure	(120)	(141)	21	(126)	6	2.25, 2.26, 2.27 and 2.28
Net Bus Service Expenditure	(628)	(622)	(6)	(641)	13	
Other Surface Transport						
Other Operating Income	386	382	4	390	(3)	2.7 and 2.8
Other Operating Expenditure	(792)	(828)	36	(807)	15	2.14 and 2.15
Other Capital Expenditure	(368)	(342)	(25)	(359)	(9)	2.25, 2.26, 2.27 and 2.28
Net Service Expenditure	(1,401)	(1,410)	8	(1,417)	16	

## Shared services

Corporate (£m)	Full year 2015/16					Section
	Actual	Budget	Variance to Budget	Quarter 3 forecast	Actual variance to Quarter 3 forecast	
Other Operating Income	74	57	16	67	6	2.7
Operating Expenditure (net of third-party contributions)	(679)	(772)	94	(744)	66	2.16 and 2.17
Net capital Expenditure	(121)	(163)	42	(184)	64	2.29 and 2.30
Net Service Expenditure	(726)	(878)	152	(862)	136	

## Appendix B: Reconciliation to the Investment Programme Report (IPR)

TfL group (£m)	Full year, 2015/16				
	Actual	Budget	Quarter 3 forecast	Actuals variance to Quarter 3 forecast	
TfL gross capital expenditure					
London Underground	(1,199)	(1,217)	19	(1,162)	55
London Rail	(233)	(301)	68	(284)	17
Surface Transport	(501)	(500)	(1)	(501)	(1)
Shared services	(537)	(550)	13	(578)	(29)
<b>Total gross capital expenditure</b>	<b>(2,470)</b>	<b>(2,569)</b>	<b>99</b>	<b>(2,526)</b>	<b>43</b>
London Underground	(110)	(157)	47	(124)	33
Surface Transport	(199)	(222)	23	(206)	17
<b>TfL revenue investment</b>	<b>(310)</b>	<b>(380)</b>	<b>70</b>	<b>(330)</b>	<b>50</b>
London Underground	(1,309)	(1,375)	66	(1,287)	88
London Rail	(233)	(301)	68	(284)	17
Surface Transport	(700)	(722)	22	(707)	16
Shared services	(537)	(550)	13	(578)	(29)
<b>TfL gross investment programme</b>	<b>(2,780)</b>	<b>(2,948)</b>	<b>169</b>	<b>(2,856)</b>	<b>92</b>

## Appendix C: Balance Sheet

TfL Group Balance Sheet at Quarter 3 (£m)	End of 2015/16			
	Actual	Variance to Budget	Quarter 3 forecast	Variance to Quarter 3 forecast
Long term assets* – (higher) / lower than budget	36,207	(707)	35,534	(673)
Stocks and short term debtors – (higher) / lower than budget	710	(132)	615	(95)
Short term loans receivable – (higher) / lower than budget	622	688	1,283	661
Cash & short term investments – (higher) / lower than budget	3,314	(324)	3,084	(230)
Creditors - higher / (lower) than budget	(2,940)	(54)	(3,102)	(162)
Derivative net liabilities - higher / (lower) than budget	(111)	32	(98)	13
Borrowings – higher / (lower) than budget	(9,113)	(2)	(9,111)	2
Provisions – higher / (lower) than budget	(3,152)	86	(3,029)	123
<b>Total Net Assets – (higher) / lower than budget</b>	<b>25,537</b>	<b>(413)</b>	<b>25,176</b>	<b>(361)</b>

### Long-term assets

- 5.0 Long term assets at the end of Quarter 4 were £36,207m, £707m above the full year Budget. However, £660m of the variance was caused by the extension to the repayment date of the cash advance made to Network Rail by Crossrail (causing a higher proportion of the loan to score as long term assets – there is an offsetting effect below in the short term loan receivable balance). A further £158m was due to the year end property revaluation exercise and £26m was for unrealised fair value adjustment in the carrying value of our share of the Earls Court Partnership company net assets, neither of which was included in the budget.
- 5.1 Excluding the impact of these three unbudgeted increases, the underlying variance for long term assets was £137m below Budget, £107m of which was lower activity capital expenditure as detailed above. The remaining £30m includes £6m net for higher depreciation / lower disposals, £10m lower long term invested balances, £10m for lower cash advances to the Earls Court Partnership and a net £4m for other debtor and derivative movements.
- 5.2 The long term asset outturn variance to the Quarter 3 forecast of £673m was similarly affected by the three ‘one-off’ adjustments to property values (£158m), the Earls Court investment (£26m) and the Network Rail advance (£660m), leaving the underlying variance at £171m below forecast. This was due to lower than expected capital expenditure activity in the final quarter of £159m (£107m from the Crossrail project and £52m in other TfL). The remaining variance of £12m was again the net of higher depreciation and lower disposals across the group of £5m and £7m lower cash advanced to the Earls Court Partnership.

## Stocks and short-term debtors

- 5.3 Stock and short term debtors were £132m above Budget at the end of Quarter 4. In Corporate, Rail Settlement Plan (RSP) balances were £30m higher than the budget as TfL has sold a smaller proportion of tickets for our own and National Rail services than assumed, meaning TfL is now due to receive higher amounts from the Train Operating Companies. In LU and LR, capital debtors were £27m higher than budget as a result of the re-financing of certain assets. trade and other receivables were £44m higher than Budget including £12m for some contractual income. Accrued income was £34m above budget, including £18m in TfL for Crossrail related Community Infrastructure Levy and £9m in London Rail in respect of London Overground Rail Operations Ltd. (LOROL) and the West Anglia franchise, which were partially offset by a £20m reduction in the grant accrued for the Northern Line Extension. Finally, stocks were £17m higher than Budget, mainly due to increased levels of maintenance items such as new rolling stock parts.
- 5.4 Against the Quarter 3 forecast, the full year balance for short term debtors and stock was £95m above Budget. Many of the issues listed in the year to date are repeated here including the LOTRAIN capital debtor (£27m), the Exterior advertising debtor (£11m) and the RSP debtor (£15m), whilst stock levels, which had expected to reduce by year end, remained £14m above Budget. The remaining £28m variance across the Group was for trade and other debtors.
- 5.5 As referenced above, the short term loan variances against both Budget and forecast represents the agreement to defer repayment of an element of the Network Rail cash advance into future periods, rather than receive full settlement in May 2016. The full balance of the Network Rail loan at year end was £1,283m, in increase of £460m in the year. £623m will be repaid in 2017 and the remaining balance in 2018.

## Cash and short-term investments

- 5.6 Cash and short term investments at Quarter 4 were £3,314m some £314m above Budget and £230m higher than forecast at Quarter 3. Appendix D below summarises actual and forecast cash movements compared to Budget.

## Creditors

- 5.7 Year to date creditors were £54m, or 1.8 per cent lower than Budget, and £162m or 5.2% below the quarter 3 forecast. The budget variance was primarily driven by lower capital creditors in R&U and Crossrail, reflecting the reduced capital activity, partially offset by higher trade creditors and accruals across the group. Again, the forecast variance reflects certain assumptions used at quarter 3 on expenditure and payment profiles around the year end on major projects such as Four Line Modernisation, which did not materialise at the year end.

## Derivatives

- 5.8 The derivatives position at quarter 4 is based on market values. TfL is obliged to record the fair value of its derivatives on the balance sheet. Where hedge accounting applies, any movement in the fair value of the derivative liability is recognised directly in reserves; otherwise the movement is recorded in the income statement. The fair value movement is expected to reverse by maturity in future years.



## **Borrowings**

5.9 Borrowings at Quarter 4 were as expected, on budget and forecast.

## **Provisions**

5.10 Provisions at the end of Quarter 4 were £86m higher than budget £32m of which related to the Crossrail project, with lower payments for property claims of £16m and an £16m increase in the balance for contractual claims. Elsewhere provisions were established for potential commercial claims. The outturn was £123m higher than the quarter 3 forecast position. The Crossrail project accounted for £71m with lower property related payments of £24m and a £46m for increased property and contractual claims. As per the budget position, the forecast variance includes the effect of the other commercial claims provision as well as adjustments to severance and dilapidation provisions.

Balance Sheet (£m)	Full year, 2015/16				
	Actual	Budget	Variance to Budget	Quarter 3 forecast	Variance to Quarter 3 forecast
Intangible assets	123	97	(26)	90	(33)
Property, plant & equipment	34,391	34,452	61	34,511	120
Investment properties	518	438	(80)	438	(80)
Share of net assets of associate entities	70	44	(26)	44	(26)
Long term investments*	-	10	10	-	-
Long term derivatives	7	-	(7)	-	(7)
Long term debtors	1,098	459	(639)	451	(647)
<b>Non current assets</b>	<b>36,207</b>	<b>35,500</b>	<b>(707)</b>	<b>35,534</b>	<b>(673)</b>
Stocks	71	53	(18)	56	(15)
Assets held for Sale	639	525	(114)	559	(80)
Short term debtors	5	23	18	5	-
Short term derivative	622	1,310	688	1,283	661
Cash and Short Term Investments	3,314	2,990	(324)	3,084	(230)
<b>Current Assets</b>	<b>4,651</b>	<b>4,901</b>	<b>250</b>	<b>4,987</b>	<b>336</b>
Short term creditors	(2,201)	(2,216)	(15)	(2,353)	(152)
Short term derivatives	(21)	(1)	20	(11)	10
Short term borrowings	(832)	(784)	48	(784)	48
Short term lease liabilities	(94)	(53)	41	(95)	(1)
Short term provisions	(222)	(137)	85	(100)	122
<b>Current Liabilities</b>	<b>(3,370)</b>	<b>(3,191)</b>	<b>179</b>	<b>(3,343)</b>	<b>27</b>
Long term creditors	(80)	(119)	(39)	(79)	1
Long term borrowings	(8,281)	(8,331)	(50)	(8,327)	(46)
Long term lease liabilities	(565)	(606)	(41)	(575)	(10)
Long term derivatives	(95)	(101)	(6)	(92)	3
Other provisions	(46)	(47)	(1)	(49)	(3)
Pension provision	(2,884)	(2,882)	2	(2,880)	4
Long Term Liabilities	<b>(11,951)</b>	<b>(12,086)</b>	<b>(135)</b>	<b>(12,002)</b>	<b>(51)</b>
<b>Total Net Assets</b>	<b>25,537</b>	<b>25,124</b>	<b>(413)</b>	<b>25,176</b>	<b>(361)</b>
Capital and Reserves					
Usable reserves	3,238	2,882	(356)	2,853	(385)
Unusable reserves	22,299	22,242	(57)	22,323	24
<b>Total capital employed</b>	<b>25,537</b>	<b>25,124</b>	<b>(413)</b>	<b>25,176</b>	<b>(361)</b>

#### Cash and Investments

CRL Sponsor funding account	1,539	1,574	35	1,448	(91)
Other cash and investments	1,775	1,426	(349)	1,636	(139)
<b>Total as above <sup>1</sup></b>	<b>3,314</b>	<b>3,000</b>	<b>(314)</b>	<b>3,084</b>	<b>(230)</b>

<sup>1</sup> Includes Cash and Investments, and long-term investments

## Appendix D: Cash summary

Cash Summary In / (Out) Flow (£m)	Year to date			Full year, 2015/16	
	Actual	Budget	Variance to Budget	Quarter 3 Forecast	Variance to Budget
Margin	(1,408)	(1,697)	(289)	(1,552)	(155)
Working Capital Movements	110	41	(69)	(10)	(120)
Cash Spend on Operating Activities	(1,298)	(1,656)	(358)	(1,562)	(275)
Net Capital Expenditure	(2,006)	(2,126)	(120)	(2,068)	(51)
Crossrail	(1,508)	(1,535)	(25)	(1,613)	(105)
Working Capital Movements	165	322	157	411	246
Cash Spend on Capital Activities	(3,349)	(3,339)	10	(3,270)	90
Cash Settlement of derivatives	-	-	-	-	-
Capitalised Interest and other items not included in activity or working capital	98	111	13	130	32
Fair value adjustment for long term investments	-	-	-	-	-
Loans to 3 <sup>rd</sup> Parties (issued) / repaid	(862)	(900)	(38)	(870)	(8)
Non-Activity Movements	(764)	(789)	(25)	(740)	24
Grants, Precept & other contributions	3,448	3,505	57	3,380	(68)
Borrowings Raised	624	626	2	623	(1)
Borrowings Repaid	(25)	(25)	-	(25)	-
Total Funding	4,047	4,106	59	3,978	(69)
Net Movement in Cash	(1,364)	(1,678)	(314)	(1,594)	(230)

## Appendix E: Financial comparison with 2014/15

### TfL group finances – operating income, expenditure and funding

TfL group (£m)	Full Year, 2015/16			
	Actuals, 2014/15	Actuals, 2015/16	Year on year change	
Fares income	4,281	4,550	268	6%
Other operating income	720	675	-45	-6%
<b>Total income</b>	<b>5,002</b>	<b>5,225</b>	<b>223</b>	<b>4%</b>
Operating expenditure (net of third-party contributions)	-6,152	-6,306	-154	2%
<b>Operating margin</b>	<b>-1,150</b>	<b>-1,081</b>	<b>69</b>	<b>-6%</b>
Interest income	28	25	-3	-9%
Debt interest	-358	-372	-14	4%
Contingency and group items	27	20	-7	-27%
<b>Margin</b>	<b>-1,453</b>	<b>-1,408</b>	<b>46</b>	<b>-3%</b>
<b>Finances sources</b>				
General grant	897	591	-306	-34%
Overground grant	26	37	11	40%
GLA precept	6	6	0	0%
Business Rates Retention	828	773	-55	-7%
Other revenue grants	8	29	21	271%
<b>Total revenue grants</b>	<b>1,766</b>	<b>1,436</b>	<b>-329</b>	<b>-19%</b>
<b>Operating contribution to fund investment</b>	<b>313</b>	<b>28</b>	<b>-284</b>	<b>-91%</b>

## TfL group finances – capital expenditure, income and funding

TfL group (£m)	Full Year, 2015/16			
	Actuals, 2014/15	Actuals, 2015/16	Year on year change	
Capital expenditure	-1,979	-2,460	-482	<b>24%</b>
Third-party contributions – capital	25	47	22	<b>86%</b>
Sales of property and other assets	47	407	360	<b>761%</b>
<b>Net capital expenditure excl. Crossrail</b>	<b>-1,906</b>	<b>-2,006</b>	<b>-100</b>	<b>5%</b>
Crossrail capital expenditure	-1,475	-1,508	-33	<b>2%</b>
<b>Net capital expenditure incl. Crossrail</b>	<b>-3,382</b>	<b>-3,514</b>	<b>-133</b>	<b>4%</b>
<b>Finance sources</b>				
Surplus/ -deficit to fund investment	313	28	-285	<b>-91%</b>
Crossrail funding sources	1,702	959	-742	<b>-44%</b>
Investment grant	909	925	16	<b>2%</b>
Metronet grant	124	132	7	<b>6%</b>
Other capital grants	-389	-491	-102	<b>26%</b>
Working capital	645	598	-47	<b>-7%</b>
Net borrowing and reserve movements	76	1,364	1,288	<b>1,695%</b>
<b>Total</b>	<b>3,382</b>	<b>3,514</b>	<b>133</b>	<b>4%</b>

## Glossary

Measure	Unit	Description
<b>London Underground: total lost customer hours</b>	Hours	The total additional journey time, measured in hours, experienced by all customers as a result of delays that lasted two minutes or longer. A delay at a busy location or during peak hours results in more 'lost customer hours' because more customers are affected.
<b>London Underground: excess journey time</b>	Perceived minutes	<p>The average extra time that it took to complete a journey, compared to the time it would have taken if there were no delays. This can be affected by many things, such as queues to buy tickets or board trains, escalators being out of service, delays to trains, longer walking routes within stations, or planned weekend closures. A lower EJT figure means customers experience less delay whether planned or unplanned.</p> <p>TfL weight the figures according to when and where the delay occurred. For example, we know that for customers, waiting on a train that is delayed in the tunnel feels longer than waiting on a platform for a delayed train to arrive, even if the total length of delay is the same. This means that the 'minutes' used in the measure are not actual minutes, but reflect customers' perception of the delay they experience.</p>
<b>London buses: excess wait time</b>	Minutes	<p>Excess wait time (EWT) represents the amount of time that a passenger has had to wait in excess of the time that they should expect to wait if buses ran as scheduled.</p> <p>EWT is the key measure of reliability of high frequency bus services as experienced by passengers and is also used to calculate operator performance bonuses or penalties.</p>
<b>Transport for London Road Network (TLRN): serious and severe disruption</b>	Hours	The KPI measures the numbers of hours of serious and severe disruption on the Transport for London Road Network (TLRN) as a result of planned and unplanned interventions.

<b>Docklands Light Railway: on-time performance</b>	%	The number of valid train departures expressed as a percentage of the base service departures: valid departures must have a minimum dwell of 5 seconds, the correct number of carriages and complete the whole of the scheduled route.
<b>London Overground: public performance measure</b>	%	<p>The Public Performance Measure (PPM) shows the percentage of trains which arrive at their destination on time.</p> <p>The PPM combines figures for punctuality and reliability into a single performance measure. It is the rail industry standard measurement of performance.</p> <p>PPM measures the performance of individual trains advertised as passenger services against their planned timetable as agreed between the operator and Network Rail at 22:00 the night before. PPM is therefore the percentage of trains 'on time' compared to the total number of trains planned.</p> <p>In London and the South East, a train is defined as on time if it arrives at the destination within five minutes (ie 4 minutes 59 seconds or less) of the planned arrival time. Where a train fails to run its entire planned route calling at all timetabled stations it will count as a PPM failure.</p>
<b>Emirates Air Line: availability</b>	%	Operating availability is the ratio of actual operating hours / planned operating hours. Planned operating hours are not necessarily the same as scheduled due to instances when the EAL is open outside of schedule in support of local events – particularly those at the O <sub>2</sub> .
<b>TLRN: journey time reliability (am peak)</b>	%	The key measure for monitoring smoothing traffic flow is journey time reliability (JTR). It is defined as the percentage of journeys completed within an allowable excess of 5 minutes for a standard 30 minute journey during the AM peak.

<b>Scheduled services operated</b>	%	The amount of service that TfL actually operated, compared to what we planned beforehand – comparing peak and off-peak times. (Peak times are 07.00 – 10.00 and 16.00 – 19.00 Monday – Friday.) This helps us check whether the service we operate at the busiest times of day is as good as during quieter periods.
<b>Recorded crime</b>	Per million passenger journeys	The number of recorded (or notifiable) crimes per million passenger journeys on the appropriate network.
<b>LU and LR major injury frequency rate</b>	Major injuries/million hours	<p>The KPI records the number of serious injuries to customers, employees and contractors using or working on London Underground and London Rail as a measure of customer and employee safety.</p> <p>A major injury is one classified as ‘major’ under schedule 1 of RIDDOR (Reporting of Injuries, Diseases and Dangerous Occurrences Regulations). Injuries arising from criminal acts, alleged suicide attempts, and medical conditions are excluded.</p>
<b>Cumulative reduction in killed and seriously injured (KSI) Londonwide</b>	%	The percentage reduction in Killed or Seriously injured (KSI) KPI relates to personal injury road traffic collisions occurring on the public highway, and reported to the police, in accordance with the Stats 19 national reporting system. The KPI measures the percentage change in KSI casualties on London's roads compared to the baseline average number of KSI casualties between 2005 and 2009. The Safe Streets for London (SSfL) Road Safety Action Plan published on 6 June 2013 sets out the target of a 40 per cent reduction in KSI casualties by 2020 against the 2005-09 baseline.
<b>Vehicles operated by FORS accredited companies</b>	Number	The KPI measures the cumulative total of vehicles operated by Fleet Operators’ Recognition Scheme (FORS) accredited companies. The numbers of vehicles recognises those from at all levels (bronze, silver & gold) of accreditation. The cumulative total starts from 2008.
<b>Passenger journeys</b>	Millions	It’s important to know how much people are travelling on TfL services. We use this information to plan for the future.



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**Cycling levels on the TLRN**

Index

The purpose of this indicator is to assess the level of cycle use on the TLRN. The overall ambition is to increase cycling levels by 400% such that by 2025 cycling will equate to a 5% mode share of all journey trips. This indicator does not represent cycling across London as a whole; It only represents cycling on the 5% of London's roads that are the TLRN. The indicator is presented as an indexed flow relative to a baseline of March 2000 (a flow level that is represented as 100 on the index). Sixty automatic cycle counters on the TLRN provide sample counts of cyclists using the network. The indicator converts these counts into an index that is used to represent increases in cycle flows on the TLRN over time. It does not represent the total number of cyclists in London. Automatic cycling counters are pieces of monitoring equipment that emit a magnetic field that detects the presence of a moving cycle.

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**Customer satisfaction**

%

One of our most important performance measures is customer satisfaction; this helps us understand what the people who use our services really think.

An independent research company interviews around 10,000 customers every year, as they complete their trip. They are asked to make an 'overall evaluation' of their journey experience, by giving a score out of 10. We take the average of everybody's scores and multiply it by 10, to give a final result out of 100

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The new south plaza entrance

# Investment Programme Report Quarter Four

January-March 2016

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# TfL Investment Programme

Our Investment Programme described in this report contains a range of projects that will deliver world-class transport services to London. The report covers the larger projects, defined as those with an estimated final cost of £50m or more. Significant yet smaller value projects may be included to provide a rounded view of the whole Transport for London (TfL) Investment Programme.

This Investment Programme Report (IPR) includes:

- Investment Programme highlights – summary of progress of the overall Investment Programme
- Programme updates – commentary update to the significant projects and programmes within the Investment Programme and commentary on significant delivery milestone movements or variances
- Financial variance – variance with commentary on financial key performance indicators (KPIs)



An artist's impression of the proposed Better Junctions improvements at Hammersmith gyratory

## Q4 2015/16 Plan milestone analysis



■ On time or early ■ Late – up to 89 days ■ Late – 90 days or more

## Investment Programme highlights

The Investment Programme is at the heart of our strategy to improve the travel experience of our customers and cope with the growing demand for our services. We continued to deliver against our milestones this quarter and by year end have delivered 88 per cent of our budget milestones on time or early for the year.

We made significant progress across our Investment Programme. On the Four Lines Modernisation programme, production of the last of the S-Stock fleet has completed and almost two-thirds of the new trains for the District line have been delivered to London. We continued testing the Automatic Train Control (ATC) prototype S-Stock train and are using the results to finalise the design of the train and the wayside ATC systems. On the wayside enabling project, which provides the infrastructure for the new ATC signalling system, we installed four kilometres of cable route management systems. We continued construction on the first tranche of five signal equipment rooms (SERs) and handed over the first two SERs to Thales, the signalling contractor, for equipment installation.

We issued the invitation to tender for the Metropolitan line extension civils, structures and stations scope. On the Northern line extension, we completed the Battersea Power Station crossover box diaphragm wall construction, and the two tunnel boring machines, which have been manufactured in France, are being dismantled for shipment to the Battersea site.

On New Tube for London (NTfL), we released the invitation to negotiate for the design and build of the NTfL trains and, following approval of the NTfL signalling and train control procurement strategy, we also released the signalling pre-qualification questionnaire. The Board has approved funding for the scope for the next two financial years.

As part of continuing works to ensure our station assets are maintained, we re-opened Tufnell Park station to customers two weeks early on 4 March 2016. We replaced two lifts with new, more energy efficient ones, contributing towards TfL's commitment to reduce the carbon footprint of Tube stations. We took advantage of the station closure to refurbish the ticket hall with an extra ticket gate, automatic wide-aisle gate and an improved customer information area. For the Victoria station upgrade works, we started work on the lift to connect the existing Network Rail (NR) concourse to the enlarged London Underground (LU) ticket hall, and the south ticket hall floor slab has been fully cast.

We entered into a funding agreement and a land and works agreement with Barking Riverside Ltd, which were signed in early March 2016. We submitted our application for a Transport and Works Act Order (TWAO) to the Secretary of State for Transport on 31 March 2016. If approved, construction of the 4.5km extension of the Gospel Oak to Barking line could start in late 2017, with train services starting in 2021.

Our TfL Rail station improvement works started in a phased approach at the 11 stations on the eastern section of the Crossrail route. The work will conclude in 2017 and includes significant external station renovations, new architectural internal fit-out and installation of gatelines to increase station security. The work is complementary with the Crossrail Anglia works that Network Rail will complete and will harmonise the appearance between these existing stations and the new central London stations. This will create a 'family of stations' with step-free access across the entire route.

We have been preparing the Silvertown Tunnel Development Consent Order application, which we submitted post quarter end on 29 April 2016. The application is to provide all the necessary powers and consents to construct, operate and maintain the Silvertown Tunnel.

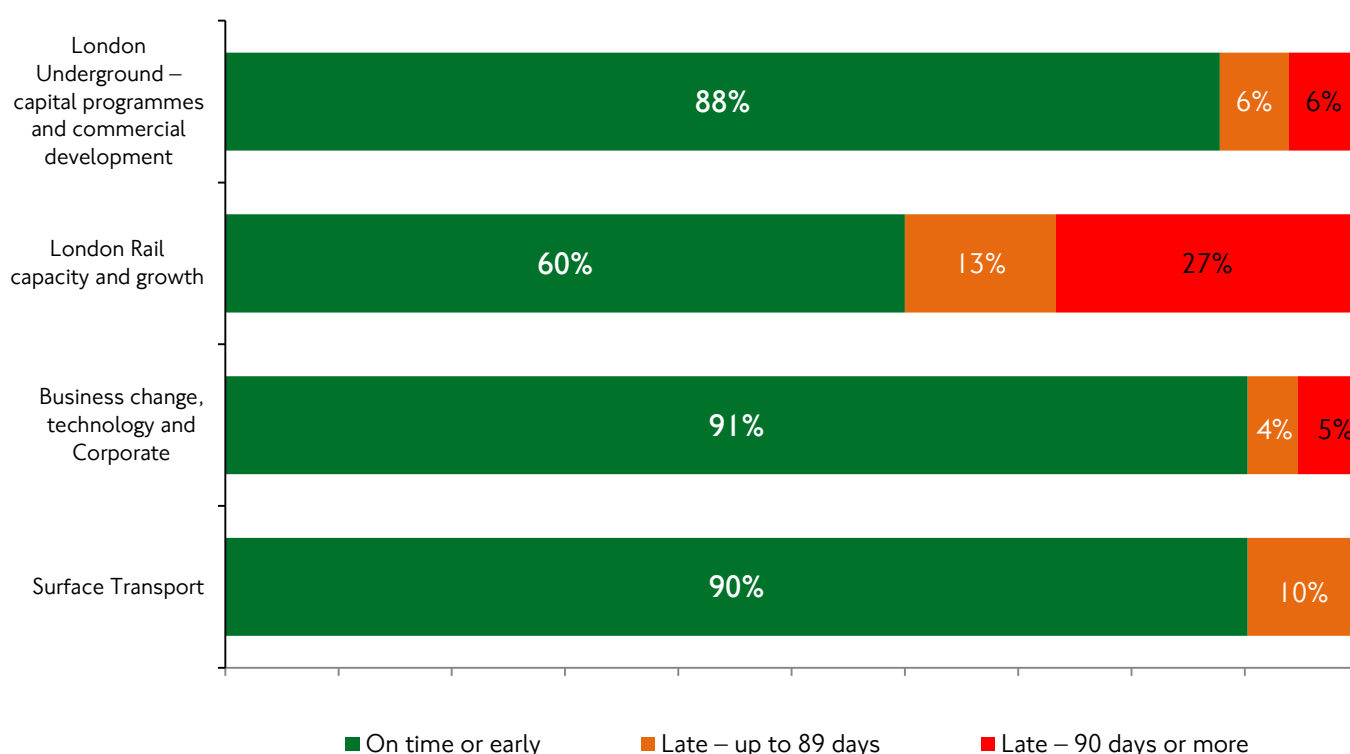
We completed construction activities on two sections of central London's key Cycle Superhighways, providing a safer environment for people to cycle by making junctions safer and reducing the risk of coming into contact with vehicles. On the North-South Cycle Superhighway, the final section of the two-way lane has opened on Blackfriars Bridge with the full length of the route now running from Elephant and Castle to Stonecutter Street near Holborn Viaduct. On the East-West Cycle Superhighway, which now connects with the North-South Cycle Superhighway, the first section of the route is in use between Tower Hill and Parliament Square.

Following public consultation for Hammersmith gyratory between 2 February and 15 March 2016, we are producing the consultation response report, which we hope to publish in summer 2016 confirming a way ahead.

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## Q4 2015/16 Plan milestone analysis



The milestones in the chart above represent projects of all values, including those of a lower value than are covered in this report. The London Rail capacity and growth 2015/16 portfolio comprises 15 budget milestones, of which only half feature in this report as the other half relate to projects with an estimated final cost of less than £50m. The significantly late milestone score of 27 per cent comprises four milestones that are not covered in this report. Following the Government’s Spending Review and Autumn Statement 2015, the Yourailway Royal Victoria and Canary Wharf to Stratford double track projects are on hold pending a decision on whether to continue, defer or cancel them. The Yourailway Limehouse project was delayed for this reason while the decision to continue the project was made. We decided to delay the Croydon town centre Dingwall loop TWAO application submission while Westfield prepares to submit a replacement planning application, a key dependency for the financing of the project, in July 2016.

# London Underground and London Rail

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# London Underground

## Four Lines Modernisation (4LM)

### Overview

The 4LM project covers 40 per cent of the LU network. This major modernisation programme will deliver a 33 per cent increase in peak-hour capacity, operating at 32 trains per hour on one of the world's most complex railways. To continue running reliable and regular services on the Circle, Metropolitan, District and Hammersmith & City lines, we are introducing a phased replacement of fleet, signalling and supporting systems most of which are at, or beyond, their design life. The need for their replacement has also created an opportunity for asset modernisation and delivery of improved journey times and capacity; both are essential to accommodate London's projected population and employment growth.

The modernisation includes the complete replacement of trains across all four lines with new 'S-Stock' trains. These trains are walk-through with air conditioning, are fully access compliant and have improved visual and audio displays, dedicated wheelchair spaces and colour contrasting interiors.

### S-Stock train roll-out

#### Quarterly progress

S-Stock roll-out on the Metropolitan, Circle and Hammersmith & City lines has completed and 51 (of a total of 80) new trains for the District line have been delivered to London. Production of the last of the 192 trains (an additional train was added to the order for the Metropolitan line extension project) in the S-Stock fleet has also been completed. Introduction of the fleet into service is planned to complete in 2016, ahead of the Department for Transport's (DfT's) milestone date.



S-Stock train in service at Liverpool Street

#### Programme milestones forecast

Milestone	Current plan date	Actual/forecast date	RAG	Commentary	Forecast change from Q3 (days)
Roll-out of new air-conditioned trains on the District line complete (Annex B: 2016)	31-Dec-16	24-Oct-16	●		-7

## Programme financial forecast

Spend to end Quarter 4, 2015/16 £m	Estimated final cost (EFC) £m	Full life			In year		
		Authority £m	Variance to authority £m/%	EFC movement in quarter £m/%	Year-end actual £m	Year budget £m	Variance to budget £m/%
2,907.8	3,134.9	3,144.0	9.1 ▼ 0.3%	3.9 ▼ 0.1%	137.6	140.3	2.7 ▼ 1.9%

The EFC is below authority.

## Automatic Train Control (ATC)

### Quarterly progress

The approach to delivering 4LM is to drive the forward-leaning programme plan (where zero time risk allowance is included), which is 18 months earlier than the contracted programme plan (where a significant level of risk allowance is included). If the forward-leaning plan is achieved, we will deliver considerable cost saving and early revenue benefits. The signalling design and fitting of ATC equipment to trains currently represents a risk of three months to the forward-leaning plan and we are exploring mitigations to recover the forward-leaning position.

We continued testing the ATC prototype S-Stock train at the Melton Rail Innovation and Development Centre. The test results are being used to finalise the design of the train and the wayside ATC systems. We will start testing finalised design on the pre-production train in summer 2016.

Our work to change the track layout to optimise the infrastructure capacity ready for ATC included plain lining (removal) of points at Hornchurch and Gloucester Road. Seven of the 21 sites requiring track work are complete.

On the wayside enabling project, which provides the infrastructure for the new ATC signalling system, installation of cable route management systems (CRMS) started at Paddington and Euston Square stations. We installed four kilometres of CRMS during Quarter 4.

We continued construction on the first tranche of five signal equipment rooms and the first two of these, at Hammersmith and Edgware/Paddington, have been handed over to Thales, the signalling contractor, for installation of their equipment.



Hammersmith signal equipment room, which has been completed and handed over to Thales to start installation of the ATC signalling system

### Programme milestones forecast

Milestone	Current plan date	Actual/forecast date	RAG	Commentary	Forecast change from Q3 (days)
Train-borne system approved	26-Jan-18	26-Jan-18	●	It should be noted that to implement the timetable changes associated with revenue service uplifts, a number of adjacent migration areas need to be commissioned and an appropriate reliability proving period completed. The forecast dates are the forward-leaning programme plan (ie the earliest possible commissioning dates) for Thales, based on services operated at the time.	-
Revenue service – Hammersmith (H&C) to Latimer Road	25-Aug-19	16-Apr-18	●		-
Revenue service – Sloane Square to Paddington (Circle)/Barons Court/Fulham Broadway/Olympia	16-Aug-20	25-Mar-19	●		-
Revenue service – Becontree to Upminster	03-Dec-20	15-Jul-19	●		-
Revenue service – Fulham Broadway to Wimbledon	16-Oct-21	26-May-20	●		-
Revenue service – South Harrow/West Harrow to Uxbridge	26-Mar-22	20-Nov-20	●		-

### Significant quarterly milestones movement

Milestone description	Current plan date	Q4 forecast date	RAG	Movement commentary	Forecast change from Q3 (days)
Start site installation	09-Apr-16	07-Apr-16	Complete	We postponed the start on site to allow more time to develop the design of the signalling system, however, it was achieved ahead of the plan date.	-93

### Programme financial forecast

Spend to end Quarter 4, 2015/16 £m	Estimated final cost (EFC) £m	Full life			In year		
		Authority £m	Variance to authority £m/%	EFC movement in quarter £m/%	Year-end actual £m	Year budget £m	Variance to budget £m/%
742.5	2,257.0	2,268.0	11.0 ▼ 0.5%	6.5 ▼ 0.3%	138.7	235.3	96.6 ▼ 41.0%
The EFC is below authority.					The year-end actual is less than the budget as the budget was set before the award of the ATC signalling contract. Following contract award, the expenditure profile and the associated infrastructure works have been updated.		

# Metropolitan line extension

## Overview

The key objectives of the Metropolitan line extension are to provide a catalyst for regeneration and growth in the Watford area, and to improve connectivity between southwest Hertfordshire and northwest London. The project involves the diversion and extension of the existing Metropolitan line from just north of Croxley to a new terminus at Watford Junction via the existing Watford High Street station. The scope also includes the construction of a 400-metre viaduct and two new stations at Cassiobridge and Watford Vicarage Road; the upgrading of infrastructure on the disused Croxley Green Network Rail branch line; the installation of a new signalling system (including over the Network Rail-owned section); and the purchase of an additional S-Stock train.

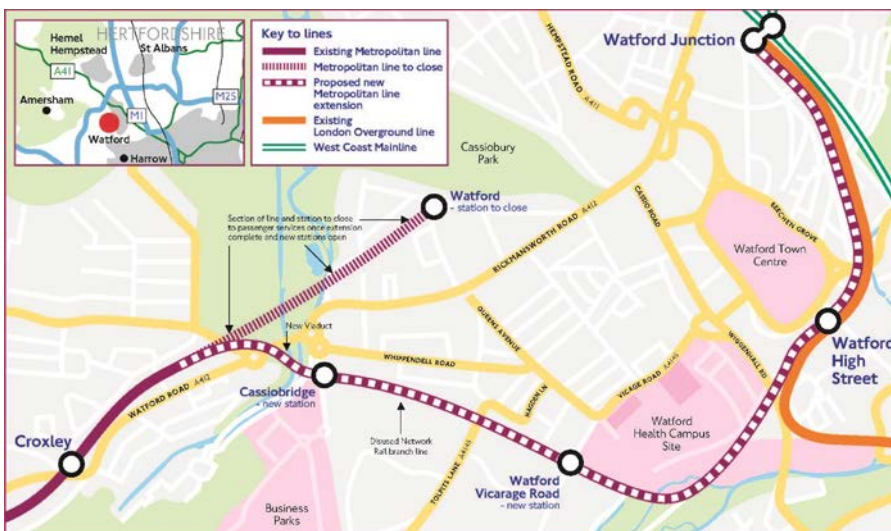
## Quarterly progress

The revised procurement strategy for delivery of the respective packages has been approved. The repackaging of the Taylor Woodrow (TW) Stage 2 works was the key element of the revision of the procurement strategy. This allows us to enter into service level agreements (SLAs) with our internal delivery partners (IDPs) and start the negotiation of terms and conditions with Network Rail for works on NR infrastructure.

The invitation to tender (ITT) was issued to TW for the Stage 2 civils, structures and stations scope. We are in the process of reviewing the tender from TW and, assuming the negotiated submission represents an acceptable position, we will seek procurement authority in Quarter 2 2016/17.

Final drafting of the SLAs for the signalling, power and track works will be undertaken by our IDPs and the associated estimates are being completed. It is intended that the SLAs will be ready for sign-off in May 2016.

Design on the LU-operable section continues to plan and we continue to negotiate the signalling and power solutions for the NR section. We are working with NR to ensure that the scope required in the preferred solution is within the available budget.



The planned route for the Metropolitan line extension to Watford Junction

## Programme milestones forecast

Milestone	Current plan date	Actual/forecast date	RAG	Commentary	Forecast change from Q3 (days)
Start on site	16-Jun-16	12-Sep-16	●	This relates to the revised procurement strategy. The repackaging of the major civil engineering works contract is the key element of this strategy. The revised contract award date does not necessarily impact the overall programme.	-
Network Rail signalling contract award (Guide to Rail Investment Process [GRIP] Stage 4 Single Option Development)	14-Aug-16	14-Jul-16	●		31
Structures piling commences	22-Oct-16	29-Nov-16	●	Delayed due to design delays specifically on the viaduct and the delay in contract award from March 2016 to August 2016 to strengthen the tender documents, and afford more time to explore value engineering (VE) and value management (VM) opportunities.	-38
Station construction starts	19-Jan-17	16-Feb-17	●	Delayed due to design delays specifically on the stations and the delay in contract award from March 2016 to August 2016 to strengthen the tender documents, and afford more time to explore value engineering and value management opportunities.	-28
Network Rail signalling (GRIP Stage 4) complete	01-Aug-17	11-Jul-17	●		-
Vicarage Road station complete	18-Mar-19	18-Dec-18	●		-
GRIP Stage 6 (construction, testing and commission) installation complete	11-Dec-19	12-Sep-19	●	The contemporaneous rationale given in January when the movement in the contract award date was reported was to strengthen the tender documents and afford more time to explore VE/VM opportunities. These date movements did not impact the delivery into service date.	-
Delivery into service	13-Dec-20	13-Dec-20	●		-

**Significant quarterly milestones movement**

Milestone description	Current plan date	Q4 forecast date	RAG	Movement commentary	Forecast change from Q3 (days)
Wiggenhall junction installation works complete	27-Mar-19	27-Mar-19	●	The previous schedule forecast of 27 December 2018 was based on information available at the time. However, we have now received a schedule from NR (who will undertake these works), which reflects delays owing to contract negotiations taking longer than expected.	-90
Trial running of train commence	09-Jul-20	30-Jan-20	●	We are now in receipt of all schedules from suppliers and, having integrated the schedules, the overall critical path has been shortened, however, this has not impacted the completion.	133

**Significantly late milestones**

Milestone description	Current plan date	Variance to budget (days)	Variance commentary
Stage 2 contract award	31-Mar-16	-124	This relates to the delay in the procurement process which was identified in the first period of Quarter 4, in particular the award of the major civil engineering works contract, which is currently not on the project's critical path.

**Programme financial forecast**

Spend to end Quarter 4, 2015/16 £m	Estimated final cost (EFC) £m	Full life			In year		
		Authority £m	Variance to authority £m/%	EFC movement in quarter £m/%	Year-end actual £m	Year budget £m	Variance to budget £m/%
52.1	299.7	285.1	-14.6 ▲ -5.1%	-0.7 ▲ -0.3%	48.0	17.0	-31.0 ▲ -182.4%
The EFC is currently in excess of authority. A value engineering and management exercise is underway to identify opportunities to reduce the EFC and align with current authority.					The increase against budget relates to the Mayoral decision to transfer the delivery obligations for the programme from Hertfordshire County Council to TfL, which was made after the budget was set.		

# Infrastructure renewals

## Overview

A well-managed renewals portfolio is central to maintaining and improving reliability across our network. Better asset condition improves reliability and allows for capacity increases. Our programme of work comprises:

- Track and drainage renewals: replacement and reconditioning of ballasted and deep Tube track, including depots and sidings and the improvement of track drainage infrastructure
- Points: refurbishment/renewal of points and the installation of new faster and more reliable junction layouts
- Track plant and depot support: to assist renewals and maintenance activities by providing an enhanced engineering vehicle fleet capacity and capability
- Power upgrades: providing traction and signalling power supplies necessary to allow the capacity increases planned for line modernisations and increased service frequencies
- Cooling upgrades: controlling temperatures on the deep Tube to protect the wellbeing of customers and staff, especially where more heat will be created as a consequence of higher service frequencies
- Civils earth structures: carrying out work to embankments and associated structures to prolong lifespans and prevent movement
- Access: identifying and implementing improvements to the way we plan and control access to key Underground assets, while transforming business culture to support these improvements and providing cost savings
- Signals: supplying specialist signalling expertise to support the delivery of the Infrastructure Renewals portfolio and deliver solutions that minimise impact to the operational railway and increase reliability

## Track programme

### Quarterly progress

We won the Apprenticeship Development Scheme Award at the 2016 UK Rail Industry Awards for our Track Apprenticeship Programme Scheme. We were also shortlisted in the Track Technology category for our new track configuration, where we install pads under the sleepers and reduce sleeper spacing to extend the life of the ballast, avoiding costly midlife reballasting.

In Quarter 4, we delivered more than 6.8km of ballasted track and 4.2km of drainage renewal, renewed nine sets of points, and completed almost two kilometres of deep Tube renewals.

We delivered two consecutive weekend 'four track' closures where the Jubilee and Metropolitan lines were closed both ways. The work was designed around three strategic objectives:

- To deliver as much new track as possible with the large capacity GB Railfreight (GBRf) trains before the contract ended
- To renew the difficult track through the curved platforms at Finchley Road and reprofile the problematic platform train interface
- To replace the track and drainage between Finchley Road and Baker Street on the Metropolitan line



We successfully completed the first in a series of new sections of track and drainage between Finchley Road and Baker Street on the Metropolitan line in an area historically prone to flooding, which regularly results in signal failures. To enable us to complete vital track repairs, we have extended engineering hours on Monday to Wednesday evenings by closing the line between Aldgate and Wembley Park at around 22:00 for two years, which started on 16 May 2016, to avoid a full six-month closure or many weekend closures over seven years of this section of the line. These major works required four years of planning to avoid what was originally envisaged as a 26-week blockade. Innovative access planning meant this was the first closure with the remaining Jubilee line operating and therefore all stations on the network staying open.

We carried out the first full weekend of an innovative reballasting method near Buckhurst Hill, following a successful trial there last year. Within the closure we also completed more than 10km of rail grinding to the east of Loughton to reduce the risk of broken rails and improve ride quality and noise.

We installed a new crossover to the west of Paddington. The timing was critical as this had to be installed before the 4LM project reaches this area. We worked closely with Network Rail, including the sharing of each other's trains. The crossover is significant as it will allow customers to travel to Paddington station from either Hammersmith or Edgware Road in the event of a planned closure or unplanned disruption, once signalling is completed by Thales in May 2018.

We installed almost 850 metres of new ballasted track on the northbound Jubilee line approach to Wembley Park. This was our longest single weekend delivery of ballasted track renewal for several years, using the full engineering train fleet, including the Balfour Beatty mechanical track construction train.

We completed the first phase of the Road Rail Access Point (RRAP) at Hanger Lane, where vehicles will be able to access the track from the road, providing more flexibility for network access for renewal work. Once complete, the RRAP will allow access to the Central and District lines at Ealing Broadway and support our track strategy to install the RRAPs across the network.

We continue to upgrade 1963-vintage point machines with modern electrically operated 'Surelock' machines to improve reliability and reduce future maintenance requirements. We have replaced a total of 166 to date with a further 29 planned for completion by April 2018.

We took delivery of a new train-borne concrete mixer, which will deliver high volumes of consistent quality concrete to work sites via train and thereby generate higher productivity and reduce the number of closures required for track and drainage installation.



Hanger Lane RRAP Phase I works completed



Concrete mixer mounted on donor wagon

### Programme milestones forecast

Milestone	Current plan date	Actual/forecast date	RAG	Commentary	Forecast change from Q3 (days)
Ballasted track renewal and reballast – achieve 13,760 metres	08-Jan-16	08-Jan-16	Complete		-
Achieve 'consent to operate' for first of two new tamping machines	03-Mar-16	21-Mar-16	Complete	Restricted access to the network, due to engineering prioritisation, caused delays to works for signal sighting and final commissioning of tampers.	-45
Renew points and crossings units – achieve 35 units	31-Mar-16	20-Feb-16	Complete		40
Ballasted track renewal and reballast – achieve 19,500 metres	31-Mar-16	07-Mar-16	Complete		24
Track drainage renewal – achieve 6,000 metres	31-Mar-16	27-Feb-16	Complete		33
Deep Tube renewal – achieve 6,012 metres	31-Mar-16	31-Mar-16	Complete		-
Upminster sidings project works – finish on site	31-Mar-16	31-Mar-16	Complete		-
Neasden depot project works – finish on site	31-Mar-16	26-Mar-16	Complete		5
Cumulative 16 per cent of track replaced on Sub-Surface and Bakerloo, Central and Victoria (BCV) lines (Annex B: 2016)	31-Dec-16	25-May-16	●	This milestone has been set as a DfT milestone in the 'Spending Review 2015: 2016/17-2020/21 funding agreement' letter received from the DfT in March 2016 with a revised plan date.	-54

### Programme financial forecast

Spend to end Quarter 4, 2015/16 £m	Estimated Final Cost (EFC) £m	Annual			In year		
		Authority £m	Variance to authority £m/%	EFC movement in quarter £m/%	Year-end actual £m	Year budget £m	Variance to budget £m/%
251.4	251.4	229.8	-21.6 ▲ -9.4%	3.4 ▲ 1.3%	251.4	229.8	-21.6 ▲ -9.4%

The current year EFC increase is due to the new three-year Track authority which was approved after the budget was set and the workbank has been reprofiled. The workbank EFC is in line with authority.

## 4LM Major Power Works (Traction)

This programme provides the traction and signalling power supply upgrades to allow capacity and service frequency increases on the Sub-Surface network.

On the west end of the District line, we switched on the new transformer at Putney Bridge and the substation at Chiswick Park. At Shepherd's Bush substation, we commissioned the new traction supply voltage board. We also completed the detailed design for the new Cromwell Curve substation.

On the east end of the District line, we energised new 22kV feeders to Plaistow and completed concept designs for the substation ventilation. We installed and pre-commissioned a new high voltage board at East Ham substation and completed commissioning of the new track paralleling hut at Southfields, which maintains traction voltage levels between substations.

We completed the installation of the new 132kV road route supply from Hendon grid station to the Neasden bulk supply point.

Major power work for the 4LM signalling upgrade progressed to schedule: we started work on site for the Neasden bulk supply point and substations for Blackfriars, North Ealing and Upminster depot. We handed over the Stepney Green transformer room to maintenance and the contract is underway for the third package of transformer rooms.

We are holding clarification meetings with the 4LM high voltage network power quality equipment tenderers.



The track paralleling hut at Southfields

### Programme milestones forecast

Milestone	Current plan date	Actual/forecast date	RAG	Commentary	Forecast change from Q3 (days)
Package 3B Putney Bridge first transformer rectifier ready to energise	12-Feb-16	12-Feb-16	Complete		-18
Package 3B Chiswick Park substation ready to energise	17-Feb-16	17-Feb-16	Complete		-28
Package 5A enabling works complete (first cable route)	18-Feb-16	18-Feb-16	Complete		-
Package 5A all cable route surveys complete	07-Mar-16	07-Mar-16	Complete		-

## Programme financial forecast

Full life					In year		
Spend to end Quarter 4, 2015/16 £m	Estimated final cost (EFC) £m	Authority £m	Variance to authority £m/%	EFC movement in quarter £m/%	Year-end actual £m	Year budget £m	Variance to budget £m/%
447.9	502.9	521.4	18.5 ▼ 3.5%	-	26.2	45.1	18.9 ▼ 41.8%
<p>The current year EFC increase is due to the new three-year Track authority which was approved after the budget was set and the workbank has been reprofiled. The workbank EFC is in line with authority.</p>					<p>The variance reflects further rephasing of 4LM power projects and 4LM signalling expenditure post ATC contract award. Efficiencies have also been embedded following successful contract negotiations.</p>		

## Power system control replacement (SCADA)

We are renewing our life expired power control system across the London Underground network. To ensure we specify the correct design, we have adopted virtual reality methods and are using headset technology to model and virtualise the future control room concept. We have built in human factor elements to help plan and configure the layout options for the power control room. This low cost approach will help to engage our key stakeholders, end users and the supply chain at an early phase in the lifecycle to prevent costly changes and contract variations in the design and build phase. It will also provide confidence in our conceptual requirements.

The programme is currently working its way through the ITT procurement phase. We continue to review bidder submissions and address clarifications. We are also working to determine either a preferred bidder or a 'best and final offer' process. We expect to inform a contract recommendation by November 2016.



A conceptual image of the new power control room

## Programme financial forecast

Full life					In year		
Spend to end Quarter 4, 2015/16 £m	Estimated final cost (EFC) £m	Authority £m	Variance to authority £m/%	EFC movement in quarter £m/%	Year-end actual £m	Year budget £m	Variance to budget £m/%
4.8	45.9	5.4	-40.5 ▲ -748.4%	-0.1 ▲ -0.2%	2.6	6.9	4.3 ▼ 62.5%

Partial authority has been granted up to invitation to tender stage. Authority for future stages will be sought in September 2016.

# Legacy train systems

## Overview

The programme's objective is to extend the life of trains to keep them in service until New Tube for London delivers new trains. The programme will deliver a range of refurbishments on the Bakerloo 1972 Tube Stock, battery locomotives (engineering trains), Central line 1992 Tube Stock, installation of inter-car canopy barriers on the Waterloo & City line fleet, and improvements to track monitoring through the installation of an automatic track monitoring system on LU fleets.

## Quarterly progress

We completed 750-volt upgrades on 23 out of 28 existing battery locomotives and life extension works on 15, all of which are on or ahead of schedule. We are continuing life extension work on the Bakerloo 1972 Tube Stock and the fourth train, of a planned eight trains per year, is ahead of schedule.

We are creating a programme to deliver a number of significant improvements to the Central line fleet. This includes replacement of the train management system to improve fleet maintenance management. We will also upgrade the traction system. The tenders were returned post quarter end on 8 April 2016 and we expect to award the contract by the end of 2016.



Saloon of a refurbished 72TS carriage

## Programme milestones forecast

Milestone	Current plan date	Actual/forecast date	RAG	Commentary	Forecast change from Q3 (days)
Complete life extension work for 16th battery loco	24-Feb-16	25-Jan-16	Complete		2
Complete life extension work for 17th battery loco	28-Jun-16	07-Jun-16	●		21
Battery locos engineering vehicles available for service upgraded for 750v traction supply	28-Nov-16	28-Oct-16	●		-
Finish on site – 28 battery locomotives	18-Apr-19	02-Apr-19	●		-6

### Programme financial forecast

Full life					In year		
Spend to end Quarter 4, 2015/16 £m	Estimated final cost (EFC) £m	Authority £m	Variance to authority £m/%	EFC movement in quarter £m/%	Year-end actual £m	Year budget £m	Variance to budget £m/%
172.7	790.4	354.4	-436.0 ▲ -123.0%	-	25.5	47.5	22.0 ▼ 46.3%
<p>Partial authority has been granted for the current stages of the programme and is therefore lower than the EFC, which represents the total estimate through to completion. Authority for future stages will be sought when required.</p>					<p>The variance to budget is due to agreeing a revised delivery plan, delaying the start of Bakerloo and Central line life extension works. A slower rate of increase for repair and replacement activities due to previous resource issues and material defects have also reduced spend this year.</p>		

# Northern line extension

## Overview

The primary aim of the Northern line extension (NLE) is to support economic growth in London and the wider UK economy by facilitating the sustainable regeneration of the Vauxhall Nine Elms Battersea (VNEB) Opportunity Area. This includes the creation of a major new residential, business and leisure district in London's Central Activities Zone (CAZ). The London Plan (2011) defines the CAZ policy area as the City of London, most of Westminster and the inner parts of Camden, Islington, Hackney, Tower Hamlets, Southwark, Lambeth and Kensington and Chelsea.

The London Plan designates VNEB as an Opportunity Area with the potential to create more than 20,000 new homes and more than treble the number of jobs, totalling 25,000. This level of development cannot occur sustainably without the appropriate transport infrastructure. The NLE will achieve this primary aim by providing a twin-tunnelled extension from Kennington to a terminus station at Battersea Power Station, via an intermediate station at Nine Elms. The NLE will help to relieve existing congestion at Vauxhall station, and provide relief to the Northern line south of Kennington and to the Victoria line. Journey times from Battersea Power Station to the West End or the City will, in some cases, be less than 15 minutes.

The project will provide the infrastructure works, signalling, power supply, communications and control systems to support a regular service on this new section of the Northern line. We are working to achieve these key deliverables and target completion is in 2020.

## Quarterly progress

Since September 2015, the Battersea muck-away conveyor has moved 50,000 tonnes of spoil from excavations at the Battersea Power Station and from the Nine Elms stations on to river barges for removal to a land reclamation site to the east of Tilbury. So far, more than 5,500 lorry movements have been avoided and the barges have also reduced the NLE carbon footprint by 74 tonnes of carbon dioxide (CO<sub>2</sub>).

We have completed the diaphragm wall construction at the Battersea Power Station crossover box. Once the bearing piles are installed, we will start excavation of the crossover box within the vast retaining walls. The launch of the tunnel boring machines (TBMs) is dependent on this activity as boring will start from the crossover box.

The two TBMs have been manufactured in France, accepted by LU and our contractor Ferroviaire Agroman Laing O'Rourke (FLO) joint venture, and are being dismantled for shipment to the Battersea Power Station site.

The design of the main Battersea station has progressed and, as part of the technical approval process, we received and are reviewing the compliance submission for the primary structure. The London Borough of Wandsworth approved an application for outline planning permission for the redesigned eastern station entrance on 8 March 2016.

At the Nine Elms station construction site, we continue piling activities for the retaining walls which, when excavated, will create the void for the new station box. We installed the first of 30 plunge columns – 15-metre-long steel girders that are concreted into deep holes with extreme precision – that will support the new structure.

We will construct the station platforms at the base of the box, linked to the surface by lifts and escalators. There will be three underground levels in the station for use by the public, staff, and for equipment. Above the station, we plan a major development of four buildings that will include residential units, offices and shops. The London Borough of Lambeth approved a detailed consent planning application for this development on 8 March 2016.

In support of Talent Match's week of events with our suppliers, we hosted nine young people at the Battersea Power Station site where they learnt about various project processes. Talent Match is a youth-led approach supporting long-term unemployed young people by helping them to find and stay in work. We took part in Lambeth Academy's first ever careers fair for students of all ages from Lambeth Academy and other schools. We are also visiting local schools as part of our school engagement programme to provide information to local children about these construction works in their community.



The muck-away conveyor



Installation of the first plunge column at Nine Elms site

### Programme milestones forecast

Milestone	Current plan date	Actual/forecast date	RAG	Commentary	Forecast change from Q3 (days)
Kennington completion of loop and platform early enabling works	18-Jan-16	18-Jan-16	Complete		-9
First tunnel boring machine (TBM) final factory acceptance test (FAT) approved to allow TBM to be delivered	28-Mar-16	26-Feb-16	Complete		-7



## Northern line extension

Milestone	Current plan date	Actual/forecast date	RAG	Commentary	Forecast change from Q3 (days)
Battersea crossover box retaining walls, piles and plunged columns all complete	02-Jul-16	29-Apr-16	●		
Battersea station box initial civils design issued for construction	19-Jul-16	27-May-16	●		
Spray concrete lining and excavation to bottom of shaft complete	04-Aug-16	07-Jul-16	●		
Nine Elms phase two capping beam start	30-Sep-16	16-Jun-16	●		
Northbound tunneling headwall No 1 completion	12-Jan-17	23-Nov-16	●		
Battersea station box retaining walls, piles and plunged columns all complete	20-Mar-17	07-Feb-17	●		

### Significantly late milestones

Milestone description	Current plan date	Variance to budget (days)	Variance commentary
Battersea commence excavation works (crossover box)	14-Mar-16	-95	Battersea Power Station Development Company (BPSDC) over station development (OSD) design changes delayed finalisation of the station box design. This has delayed the design and construction activities. The project will continue to work with BPSDC to mitigate the slippage.
Handover of crossover box for commencement of tunnelling launch chambers	30-Mar-16	-106	
Northern line extension completion	31-Dec-20	-169	

### Programme financial forecast

Spend to end Quarter 4, 2015/16 £m	Estimated final cost (EFC) £m	Full life			In year		
		Authority £m	Variance to authority £m/%	EFC movement in quarter £m/%	Year-end actual £m	Year budget £m	Variance to budget £m/%
*	*	*	*	*	*	*	*

Marked \* where there is commercial confidentiality.

# World Class Capacity

## Overview

The World Class Capacity programme will provide additional capacity beyond that delivered by the first phase of upgrades on the Northern, Victoria and Jubilee lines. There are also relatively minor works outstanding to complete the original scope for the Northern line upgrade. Reliability and performance on the Jubilee and Northern line is excellent, with both lines consistently performing better than target. Once complete, redundant assets will be decommissioned and removed. The assets to be decommissioned include lineside signals, train-stops and associated cabling and control centre assets.

The second phase of upgrades are at differing stages of maturity, with the Victoria line Upgrade 2 in implementation, Jubilee line Upgrade 2 in design and the Northern line Upgrade 2 feasibility stage concluded and progressing to the design phase. We are planning capacity improvements across three lines, which will increase the Victoria line peak service from a current level of 34 trains per hour (tph) up to 36tph by spring 2017. The Jubilee line capacity will increase from a current peak service level of 30tph up to 36tph by mid 2019, and capacity on the Northern line (central branches) will further increase to 30tph by mid 2023.

## Capacity I modernisations

### Quarterly progress

The Northern line upgrade works were substantially completed at the end of March 2016. The final Northern line software upgrade (3.17) has been achieved in part but the majority has been postponed to 2017, where it is planned for delivery alongside Working Timetable 58 on 30 August 2017.

The Jubilee line midlife refurbishment scope is being increased to address water ingress, but will be delivered within the existing budget through use of a joint LU fleet maintenance and supplier team. We are now working towards putting contracts in place to start work at the end of September 2016.

Enabling works, which are underway on site at Stratford Market depot for the train fit-out building, are expected to complete mid May 2016.

### Programme milestones forecast

Milestone	Current plan date	Actual/forecast date	RAG	Commentary	Forecast change from Q3 (days)
Northern line software commissioning 3.16	28-Sept-15	13-Feb-16	Complete	This was initially impacted by the prioritisation of Night Tube with further delays due to inclement weather.	-13

## Significant quarterly milestones movement

Milestone description	Current plan date	Q4 forecast date	RAG	Movement commentary	Forecast change from Q3 (days)
Award 'key' contracts for Jubilee line rolling stock midlife fit-out	26-Jul-15	30-Jun-16	●	Initial procurement delays have lead to cost and scope changes. Tender clarifications have also been required on key points. The revised forecast date allows time for the invited suppliers to submit responses, which we will review.	-123
Northern line software commissioning 3.17	25-Apr-16	30-Aug-17	●	The initial delay was caused by a knock-on impact of software commissioning 3.16. Further delays, caused by rescoping, access and safety issues, have resulted in the majority of activities being postponed to August 2017 where it will be implemented alongside Working Timetable 58.	-546
Commencement of Jubilee line midlife fit-out	30-Nov-16	30-Oct-16	●	This milestone was delayed while an alternative delivery strategy was developed to allow existing scope and the additional water ingress work to be completed within the existing budget. The contract award will now take place in June 2016 and commencement of the fit-out will follow in October 2016.	-122
Complete Jubilee line fit-out of first train	31-Mar-17	09-Feb-17	●	In light of a reassessment based on previous experience of the fit-out, assurance and acceptance process on the equivalent Northern line project, the duration of works on train one is now estimated to be 80 days. The milestone continues to be forecast ahead of the current plan date.	-132

## Significantly late milestones

Milestone description	Current plan date	Variance to budget (days)	Variance commentary
Award 'key' contracts for Jubilee line rolling stock midlife fit-out	26-Jul-15	-340	As above.
Northern line software commissioning 3.17	25-Apr-16	-492	As above.

## Programme financial forecast

Spend to end Quarter 4, 2015/16 £m	Estimated final cost (EFC) £m	Full life			In year		
		Authority £m	Variance to authority £m/%	EFC movement in quarter £m/%	Year-end actual £m	Year budget £m	Variance to budget £m/%
1,239.7	1,279.3	1,639.1	359.8 ▼ 21.9%	43.9 ▼ 3.3%	18.2	4.0	-14.2 ▲ -356.3%
Through collaborative working, savings were made resulting in the contractor delivering below the target price. The authority and EFC reductions in Quarter 4 reflect scope transfer within capital programmes.					The variance to budget reflects additional costs that have arisen in prior quarters in the close-out process of the Jubilee and Northern line upgrade programme.		

## Capacity II modernisations

### Quarterly progress

We completed a strategic review of scope, cost, implementation strategy and risk on the Victoria line Upgrade 2, which has resulted in a revised delivery approach with a reduced scope and that will provide a more robust 36tph service in spring 2017. Siemens is working on a proposal and price that supports this. The revised approach was approved by senior management in April 2016.

The Jubilee line Upgrade 2 (JLU2) and Northern line Upgrade 2 authority submissions were approved by the Board on 17 March 2016. The JLU2 funding approval was based on a 10 per cent EFC reduction, which we identified through a series of scope and cost reviews, and the new authority of £69m reflects this.



A Northern line train in service

### Programme milestones forecast

Milestone	Current plan date	Actual/forecast date	RAG	Commentary	Forecast change from Q3 (days)
Jubilee line – all concept design complete	28-Feb-16	31-Jan-16	Complete		-

### Significant quarterly milestones movement

Milestone description	Current plan date	Q4 forecast date	RAG	Movement commentary	Forecast change from Q3 (days)
Victoria line Upgrade 2 (VLU2) – completion of signalling works required to support 36tph for the 90 minute peak	25-Apr-17	25-Apr-17	●	The new NEC3 contract will better protect TfL from risk and will be more suited to capital works projects once agreed. Delays from the Quarter 3 forecast date are due to a lengthy rebid process following change to contract, which have considerably impacted the signalling works. The milestone continues to be forecast on the current plan date.	-133

**Programme financial forecast**

Full life					In year		
Spend to end Quarter 4, 2015/16 £m	Estimated final cost (EFC) £m	Authority £m	Variance to authority £m/%	EFC movement in quarter £m/%	Year-end actual £m	Year budget £m	Variance to budget £m/%
27.7	1,001.2	155.0	-846.2 ▲ -545.9%	-7.5 ▲ -0.7%	20.1	38.7	18.7 ▼ 48.2%
<p>Partial authority has been granted for the current stages of the programme and is therefore lower than the EFC, which represents the total estimate through to completion. Authority for future stages will be sought when required.</p>					<p>The variance to budget is a result of rephasing of the Victoria line Upgrade 2 programme due to delays during contract negotiations with the signalling contractor, which are now complete.</p>		

# New Tube for London (NTfL)

## Overview

As a coordinated series of modernisation schemes for the Piccadilly, Bakerloo, Central and Waterloo & City lines, the NTfL programme will form the next generation of line modernisations. The programme provides an opportunity to capitalise on the need to renew life-expired assets and to deliver long-term business transformation through the introduction of more efficient maintenance models and higher levels of automation. This technology-enabled change will improve the customer experience and will result in a Piccadilly line capacity increase of 60 per cent (space for up to an additional 19,000 customers per hour).

## Quarterly progress

We released the invitation to negotiate for the design and build of the NTfL trains on 18 January 2016 to the five pre-qualified manufacturers – Alstom, Bombardier, CAF, Hitachi and Siemens. Tenders are due for return in July 2016.

The Board approved funding for the scope for the next two financial years. We have developed a detailed two-year baseline to measure the performance of this work and to derive an efficiencies plan. We also developed an interim baseline for the engineering, procurement and construction phase of the programme, which reflects the current programme maturity.

Following approval of the NTfL signalling and train control procurement strategy, we released the signalling pre-qualification questionnaire in March 2016.



New Tube for London will introduce new state-of-the-art trains

## Programme milestones forecast

Milestone	Current plan date	Actual/forecast date	RAG	Commentary	Forecast change from Q3 (days)
Issue ITT for NTfL rolling stock (Annex B: 2015)	29-Dec-15	18-Jan-16	Complete		-

**Programme financial forecast**

Full life					In year		
Spend to end Quarter 4, 2015/16 £m	Estimated final cost (EFC) £m	Authority £m	Variance to authority £m/%	EFC movement in quarter £m/%	Year-end actual £m	Year budget £m	Variance to budget £m/%
48.1	55.7	154.1	98.4 ▼ 63.9%	0.8 ▼ 1.4%	14.2	18.1	3.9 ▼ 21.5%

On 17 March 2016, additional authority of £95m was approved by the Board to start the procurement of new rolling stock and signalling systems for the Piccadilly line modernisation, to deliver enabling works, and continue design development for the Bakerloo, Central and Waterloo & City line upgrades. An EFC transfer will be enacted in Quarter 1 to reflect the authority uplift.

# Stations, Crossrail and third party

## Overview

Stations are the gateway to our network. For them to perform effectively they need to cope with the millions of customers who use them every day. As we increase the capacity on the network and run more trains, our key stations must be rebuilt to meet and cope with the increased customer demand. We continue to meet the challenge of keeping stations open and operating safely and effectively while we rebuild them. A programme of station capacity upgrades is central to London Underground's strategy to meet rising demand and changing customer needs, to ensure that congestion does not rise significantly.

As well as increasing capacity, we also need to ensure our station assets are maintained. The Integrated Stations Programme (ISP) will implement a range of improvements to ensure stations remain safe, maintainable and operable. ISP will also deliver improvements to the condition of customer facing areas (including walls, ceilings and floors). In conjunction with current and potential third party funding, we have developed a strategy for a partnership step-free access programme at approximately 12 additional stations during the next 10 years, where this is not being delivered by other programmes.

## Vauxhall station upgrade

### Quarterly progress

On 12 February 2016, we opened the newly replaced lift that links the bus station and the Underground station ticket hall. The premises works associated with the new step-free access lift to platform level are continuing and site works are expected to complete in late summer 2016.

### Programme milestones forecast

Milestone	Current plan date	Actual/forecast date	RAG	Commentary	Forecast change from Q3 (days)
Bring into use – bus station lift	31-Mar-16	12-Feb-16	Complete		-23



**Significant quarterly milestones movement**

Milestone description	Current plan date	Q4 forecast date	RAG	Movement commentary	Forecast change from Q3 (days)
Vauxhall station capacity and step-free access (SFA) – bring into use (lift and stairs)	08-Jan-16	23-May-16	●	Completion of the step-free and congestion relief scheme has been delayed until late summer 2016 due to ongoing quality issues with some of the blockwork in the vicinity of the SFA lift lobbies and with the rendering to the cross passages. We have committed more LU resources to support the contractor in delivering the final elements of the scheme. The newly replaced lift linking the bus station and the Underground station ticket hall was successfully opened on 12 February 2016 and the premises works associated with the new SFA lift to platform level are continuing.	-68
Vauxhall station capacity and SFA – completion of all site works (including snagging)	11-Mar-16	23-May-16	●		-68
Vauxhall mandatory asset information deliverable (MAID) accepted by LU	25-Jan-16	27-Jul-16	●	Completion of MAID documentation has been delayed until early summer 2016, while we focus on delivery of the physical project works.	-75

**Significantly late milestones**

Milestone description	Current plan date	Variance to budget (days)	Variance commentary
Vauxhall station capacity and step-free access bring into use (lift and stairs)	08-Jan-16	-136	As previous.
Vauxhall MAID accepted by LU	25-Jan-16	-184	As previous.

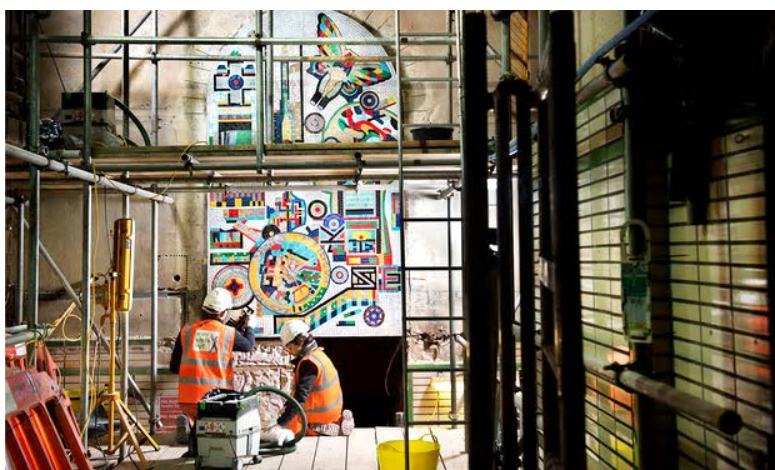
**Programme financial forecast**

Spend to end Quarter 4, 2015/16 £m	Estimated final cost (EFC) £m	Full life			In year		
		Authority £m	Variance to authority £m/%	EFC movement in quarter £m/%	Year-end actual £m	Year budget £m	Variance to budget £m/%
26.1	30.2	35.1	4.9 ▼ 13.9%	0.4 ▼ 1.2%	5.5	10.8	5.3 ▼ 49.3%
The EFC is below authority and reflects savings on the primary tunnel lining works risk provision and legal fees for party wall requirements.					The variance to budget reflects the contractor's revised programme.		

**Tottenham Court Road station upgrade****Quarterly progress**

Waterproofing is progressing well within both the LU and the Crossrail stations. We completed preparations for the removal of Sir Eduardo Paolozzi's Church Window mosaic from the former entrance for relocation to the new Central line interchange passageway.

The project was shortlisted in the infrastructure category of the Royal Institution of Chartered Surveyors (RICS) Awards 2016 and the judging panel has visited the site.



Sir Eduardo Paolozzi's mosaic

### Significant quarterly milestones movement

Milestone description	Current plan date	Q4 forecast date	RAG	Movement commentary	Forecast change from Q3 (days)
New passenger facilities open including new entrances to the station and new ticket hall (Annex B: 2016)	20-Nov-16	15-Sep-16	●	The positive forecast date movement reflects the contractor's revised programme to completion.	67

### Programme financial forecast

Spend to end Quarter 4, 2015/16 £m	Estimated final cost (EFC) £m	Full life			In year		
		Authority £m	Variance to authority £m/%	EFC movement in quarter £m/%	Year-end actual £m	Year budget £m	Variance to budget £m/%
452.3	487.2	538.0	50.8 ▼ 9.4%	-0.1 ▼ 0.0%	49.6	41.2	-8.4 ▲ -20.5%
Efficiency savings have resulted in an EFC that is lower than authority.					The variance to budget reflects the contractor's revised programme.		

## Bond Street station upgrade

### Quarterly progress

We completed the secondary spray concrete lining and started the blockwork in the northern tunnels. We started fit-out of the southern tunnels and this is progressing to schedule.

The construction of the new escalator shaft to the Jubilee line is nearing completion and escalator installation started post quarter end at the end of April 2016.



The new escalator shaft

### Programme milestones forecast

Milestone	Current plan date	Actual/forecast date	RAG	Commentary	Forecast change from Q3 (days)
Start escalator 9 and 10 installation	21-Jun-16	31-May-16	●	The plan date has been revised to reflect agreed changes to the installation sequence and schedule.	-18
Tunnelling set up decommissioned	18-Jul-16	24-May-16	●		9
Over station development frame handover to developer	28-Apr-17	11-Apr-17	●		-12
Bond Street station upgrade complete including a new station entrance and step-free access to all platforms (Annex B: 2017)	28-Apr-17	11-Apr-17	●		-12

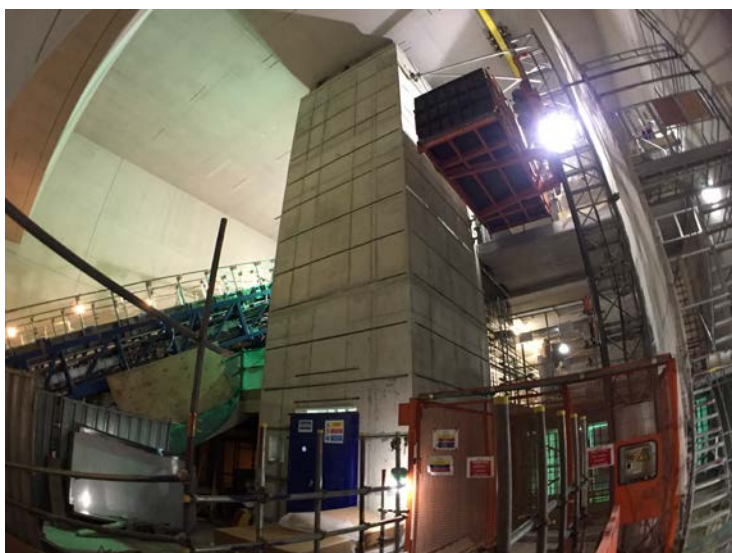
### Programme financial forecast

Spend to end Quarter 4, 2015/16 £m	Estimated final cost (EFC) £m	Full life			In year		
		Authority £m	Variance to authority £m/%	EFC movement in quarter £m/%	Year-end actual £m	Year budget £m	Variance to budget £m/%
269.5	307.5	307.6	0.1 ▼ 0.0%	0.3 ▼ 0.1%	41.9	36.4	-5.5 ▲ -15.2%
The EFC is in line with authority.					The variance to budget is due to tunnel and Baker Street to Bond Street works brought forward to realign with the latest programme schedule.		

## Bank Bloomberg Place

### Quarterly progress

We completed the casting of the new step-free access lift shaft and we continue with the installation of the lifts and escalators. Work on the cross passages is well progressed and construction of back-of-house areas is ahead of schedule.



The new step-free access lift shaft is complete

### Programme milestones forecast

Milestone	Current plan date	Actual/forecast date	RAG	Commentary	Forecast change from Q3 (days)
Cross passages civil works complete	26-Feb-16	26-Feb-16	Complete		-
Bring into use (Stage 5) (Annex B: 2015)	31-Dec-17	31-Dec-17	●		-

### Programme financial forecast

Spend to end Quarter 4, 2015/16 £m	Estimated final cost (EFC) £m	Full life			In year		
		Authority £m	Variance to authority £m/%	EFC movement in quarter £m/%	Year-end actual £m	Year budget £m	Variance to budget £m/%
38.7	57.4	58.0	0.6 ▼ 1.0%	-0.5 ▼ -0.8%	10.9	13.5	2.7 ▼ 19.9%

The EFC is below authority.

## Bank station capacity

### Overview

A redevelopment of this critical interchange serving London's major business and financial centre, known as the City, is needed to reduce congestion and increase capacity at the station, principally to the Northern line and Docklands Light Railway (DLR) areas as well as to provide step-free access to both. The work will include a new station entrance, the construction of a new tunnel and platform for the southbound Northern line and conversion of the old platform into customer walkways.

## Quarterly progress

Funding for the delivery of the second and final stage of the project was approved by the Board on 17 March 2016. We took possession of all the buildings on the 'whole block site' and started early isolation and strip-out works prior to main demolition. (Post quarter end we commenced demolition works). The design is nearing completion (targeted for mid June 2016) and utility diversion works are progressing well. We are preparing to start main construction works in Quarter 1.

We hosted an information drop-in session for key stakeholders from the surrounding businesses and local authority, TfL staff and customers. The session provided opportunity for internal and external stakeholders to learn more about the project and ask questions directly of the project team. Feedback from those who attended was positive.



Reviewing the Bank station project plans

## Programme milestones forecast

Milestone	Current plan date	Actual/forecast date	RAG	Commentary	Forecast change from Q1 (Days)
Transport and Works Act Order grant of powers	15-Jun-16	12-Jan-16	Complete		-1
Completion of all designs to compliance to Category 1 Standard for Design Assurance	31-Mar-16	14-Jun-16	●	A single date for full design compliance was restricting our ability to leverage design capability through the supply chain. Following rescheduling of the completion of the design, we accepted a minor delay to design completion to benefit from greater supply chain design input.	42
Start on site	16-Jun-16	21-Apr-16	●		-
Works to relieve station congestion on the Northern line at Bank complete (Annex B: 2021)	31-Dec-21	31-Dec-21	●		-

### Significant quarterly milestones movement

Milestone description	Current plan date	Q4 forecast date	RAG	Movement commentary	Forecast change from Q3 (days)
Partial opening (without new ticket hall entrance/exit or lift)	08-Oct-20	27-Jul-20	●	The project has yet to commence construction and we are in the process of refining our schedule; as such there are changes to milestone dates while the schedule evolves.	87
New ticket hall open to the public	14-Sept-21	06-Apr-21	●		164

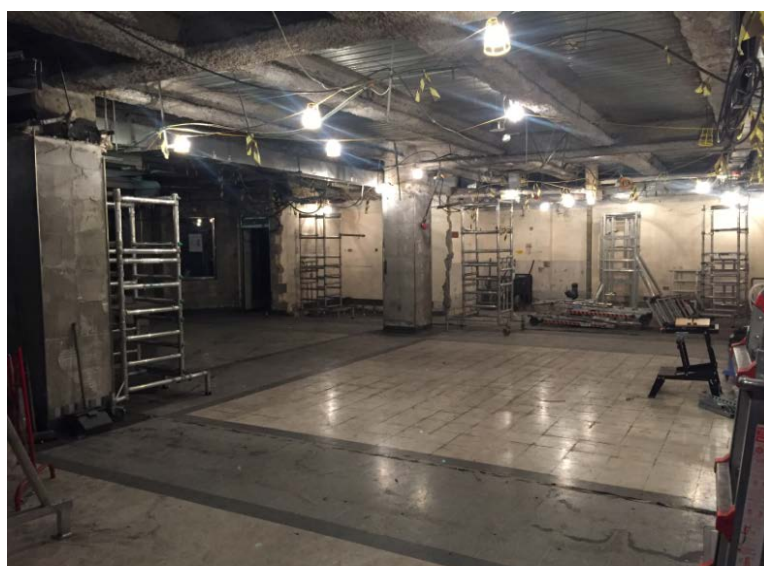
### Programme financial forecast

Spend to end Quarter 4, 2015/16 £m	Estimated final cost (EFC) £m	Full life			In year		
		Authority £m	Variance to authority £m/%	EFC movement in quarter £m/%	Year-end actual £m	Year budget £m	Variance to budget £m/%
213.2	607.5	607.5	-	-	75.6	57.6	-18.0 ▲ -31.1%
Additional authority of £353.2m approved by the Board on 17 March 2016. The project is now fully authorised at £607.5m.					The variance to budget is as a result of acceleration of property compensation and acquisitions.		

## Bank station systems integration upgrade

### Quarterly progress

We started demolition of the old station operations room (and completed it post quarter end), and the cable management system installation is well progressed. Progress has improved on the design and premises works following the resolution of design issues.



New station operation room worksite following the demolition works

**Programme financial forecast**

Spend to end Quarter 4, 2015/16 £m	Estimated final cost (EFC) £m	Full life			In year		
		Authority £m	Variance to authority £m/%	EFC movement in quarter £m/%	Year-end actual £m	Year budget £m	Variance to budget £m/%
9.1	15.4	15.4	-	-	4.4	10.0	5.6 ▼ 55.9%
The EFC is in line with authority.					The variance to budget reflects the contractor's revised programme.		

**Victoria station upgrade****Quarterly progress**

The Little Ben Clock, a Grade II listed scale model of the Elizabeth Tower, has been fully restored and returned to its original position at the junction of Victoria Street and Vauxhall Bridge Road following four years in storage during station upgrade works.

The south ticket hall floor slab has been fully cast and we started work on the construction of the lift that connects the existing Network Rail concourse to the enlarged London Underground ticket hall.

We completed the civils and structural works for the north ticket hall and the testing and commissioning of the station systems is progressing well. This work has taken place alongside the installation of the architectural finishes. Ceiling fixing and granite wall cladding in the north ticket hall has started, and wall and floor tiling is also progressing well.

Construction of the new Cardinal Place entrance structure is continuing as we install the glazed façade. We completed the installation of the road kerbline on Bressenden Place and Victoria Street and realigned the Bressenden Place west crossing to incorporate the new kerb alignment.

There is staged completion from December 2016 to December 2017 when the whole project will be complete.



Works in progress outside the main entrance to Victoria railway station

### Programme milestones forecast

Milestone	Current plan date	Actual/forecast date	RAG	Commentary	Forecast change from Q1 (Days)
Completion of south paid area link tunnelling	18-Mar-16	11-Feb-16	Complete		-13
South ticket hall station operations room complete	31-Dec-16	12-Oct-16	●	The plan date has been revised in the 'Spending Review 2015: 2016/17-2020/21 funding agreement' letter received from the DfT in March 2016.	49
North ticket hall complete	31-Dec-16	19-Dec-16	●		12
Hand back north ticket hall worksites to Land Securities	31-Dec-16	19-Dec-16	●		12
North ticket hall complete, including step-free access to all platforms via lifts (Annex B: 2017)	31-Dec-17	01-Feb-18	●	The plan date and milestone name has been revised in the 'Spending Review 2015: 2016/17-2020/21 funding agreement' letter received from the DfT in March 2016. We are in the process of agreeing revised contractual agreements with the main contractor to allow us to deliver within or ahead of the plan date.	-14

### Significant quarterly milestones movement

Milestone description	Current plan date	Q4 forecast date	RAG	Movement commentary	Forecast change from Q3 (days)
Hand back basement areas to Network Rail	26-Jun-17	27-May-16	●	The schedule has been revised to secure the project end date. The dates for some intermediate milestones have changed.	-101

### Programme financial forecast

Spend to end Quarter 4, 2015/16 £m	Estimated final cost (EFC) £m	Full life			In year		
		Authority £m	Variance to authority £m/%	EFC movement in quarter £m/%	Year-end actual £m	Year budget £m	Variance to budget £m/%
465.3	608.3	677.4	69.0 ▼ 10.2%	-0.7 ▼ -0.1%	69.0	78.1	9.1 ▼ 11.7%
Efficiency savings have resulted in an EFC that is lower than authority.					The variance to budget is due to design delays impacting the delivery schedule.		



## Future station capacity

### Quarterly progress

The report from the recent Camden Town public consultation confirmed strong support for the need for a capacity upgrade to the station. We await confirmation on the proposed delivery model to undertake value enhancement of the concept design.

We started traffic modelling of the Holborn area, which includes the closure of Procter Street, where the new Holborn station entrance is planned.

Land Securities has proposed changes to part of its Moorgate over-station development. This will reduce the amount of piling required at sub-surface platform level and therefore reduce the extent of staff accommodation needing relocation.

Following a series of workshops to review options to provide step-free access and additional stair and escalator capacity at Old Street station, we are working towards agreeing a preferred option.

We also started feasibility work and commercial discussions for the Elephant & Castle station capacity upgrade.



Indicative sketch showing new Camden Town station entrance viewed from Kentish Town Road

### Programme financial forecast

Spend to end Quarter 4, 2015/16 £m	Estimated final cost (EFC) £m	Full life			In year		
		Authority £m	Variance to authority £m/%	EFC movement in quarter £m/%	Year-end actual £m	Year budget £m	Variance to budget £m/%
7.6	798.5	18.1	-780.4 ▲ -4,322.2%	-0.3 ▲ 0.00%	3.1	6.5	3.4 ▼ 52.4%

Partial authority has been granted for the current stages of the programme and is therefore lower than the EFC, which represents the total estimate through to completion. Authority for future stages will be sought when required.

## Integrated Stations Programme (ISP)

### Quarterly progress

We are progressing the scoping of the ISP programme as planned. Three stations are in feasibility stage, two stations are in concept design and six stations are in detailed design.

We finished on site at South Kensington ahead of schedule and continue to deliver main works at Holland Park.



The bottom of the lift shaft at Holland Park

### Programme milestones forecast

Milestone	Current plan date	Actual/forecast date	RAG	Commentary	Forecast change from Q3 (days)
Finish on site – South Kensington	30-May-16	22-Feb-16	Complete		52

### Programme financial forecast

Spend to end Quarter 4, 2015/16 £m	Estimated final cost (EFC) £m	Full life			In year		
		Authority £m	Variance to authority £m/%	EFC movement in quarter £m/%	Year-end actual £m	Year budget £m	Variance to budget £m/%
117.2	333.1	333.1	-	-	22.4	26.0	3.6 ▼ 13.8%

## London Underground lifts and escalators

### Quarterly progress

We re-opened Tufnell Park station to customers on 4 March 2016 after completing works earlier than scheduled. We replaced two lifts with more energy efficient ones, contributing towards TfL's commitment to reduce the carbon footprint of Tube stations. The new lifts take customers to the Northern line more quickly than the old lifts. We used the station closure to refurbish the ticket hall with an extra ticket gate, automatic wider gate and an improved customer information area.

The refurbishment of the two Walthamstow escalators was successfully completed, on time and below budget. The impact of the consecutive escalator closures at this major terminus was substantially reduced by making use of the station closure for track works, working longer and additional shifts, and a major change in operating practice, allowing the single 'running' escalator to be reversed and used in the 'down' direction during the morning peak.

The first two 'Mod2+' escalator refurbishments at Bermondsey and Canary Wharf were completed under the new contract strategy covering the fleet of escalators built for the Jubilee line extension. The strategy was developed during 2015 to increase the residual life of the fleet at the end of the contract in December 2018, while reducing levels of both planned and unplanned service disruption.

Other escalator refurbishments were successfully completed at Angel (the last of the three long escalators), King’s Cross and Canada Water. We started the refurbishment of four individual escalators (Canary Wharf, Bermondsey, Green Park and West Ham), two step-free lifts at London Bridge and the two primary lifts at Holland Park. At Holland Park, the station was closed for the lift and station upgrade works to be delivered together, making considerable savings.

We have listened to our stakeholders and will be carrying out the repair of two lifts at Caledonian Road station one after another to ensure the station remains open to customers throughout the works.



The new lifts at Tufnell Park station

### Programme milestones forecast

Milestone	Current plan date	Actual/forecast date	RAG	Commentary	Forecast change from Q3 (days)
Angel station – bring into use escalator 4	22-Feb-16	16-Feb-16	Complete		-7
Tufnell Park station – bring into use lift 2	22-Mar-16	04-Mar-16	Complete		-21
Elephant & Castle station – bring into use lift 6	30-Mar-16	07-Mar-16	Complete		-52
Walthamstow station – return to service escalator 3	01-Apr-16	11-Mar-16	Complete		-
Tufnell Park station – bring into use lift 1	05-Apr-16	04-Mar-16	Complete		-21
Canada Water station – bring into use escalator 8	07-Apr-16	12-Mar-16	Complete		3
King’s Cross station – return to service escalator 7	30-May-16	23-Feb-16	Complete		7
Completion and consent to operate report approved – Elephant & Castle lift 1 return to service	05-Jul-16	04-May-16	●		34

## Programme financial forecast

Full life					In year		
Spend to end Quarter 4, 2015/16 £m	Estimated final cost (EFC) £m	Authority £m	Variance to authority £m/%	EFC movement in quarter £m/%	Year-end actual £m	Year budget £m	Variance to budget £m/%
325.3	1,053.4	772.9	-280.5 ▲ -36.3%	-98.4 ▲ -10.3%	44.3	55.3	11.0 ▼ 19.8%
<p>Partial authority has been granted for the current stages of the programme and is therefore lower than the EFC, which represents the total estimate through to completion. Authority for future stages will be sought when required.</p>					<p>The reduction against budget is mainly due to the review of the lifts and escalators workbank, resulting in postponing some works to meet operational requirements.</p>		

## London Underground Crossrail works

### Overview

The Crossrail network (renamed the Elizabeth line during Quarter 4) will be operational from 2018, connecting Reading and Heathrow in the west to Shenfield and Abbey Wood in the east. We are supporting Crossrail by facilitating the design and build to ensure successful handover into operations and maintenance of the five stations of Bond Street, Tottenham Court Road, Farringdon, Liverpool Street and Whitechapel.

### Quarterly progress

We completed the Bond Street station operations room (SOR) ticket hall enabling works and interim SOR on schedule. We also completed enabling works ahead of schedule on the Griffiths House to Royal Oak Crossrail cable project.

The Crossrail handover strategy and plan document, incorporating LUs requirements, was approved by Crossrail Limited (CRL) and LU, with sign-off by the CRL Chief Executive. This key document sets out the framework for CRL's handover of the central section stations to LU.



Bond Street station interim station operations room

### Programme milestones forecast

Milestone	Current plan date	Actual/forecast date	RAG	Commentary	Forecast change from Q3 (days)
LU support complete for Crossrail trial running stations (central section)	28-Feb-19	31-Dec-18	●		-

**Programme financial forecast**

Full life					In year		
Spend to end Quarter 4, 2015/16 £m	Estimated final cost (EFC) £m	Authority £m	Variance to authority £m/%	EFC movement in quarter £m/%	Year-end actual £m	Year budget £m	Variance to budget £m/%
248.7	290.1	272.5	-17.5 ▲ -6.4%	-5.1 ▲ -1.8%	18.4	25.5	7.1 ▼ 28.0%
<p>Partial authority has been granted for the current stages of the programme and is therefore lower than the EFC, which represents the total estimate through to completion. Authority for future stages will be sought when required.</p>					<p>The variance reflects the reprofiling of programme and associated risks due to delays at Whitechapel.</p>		

# London Rail capacity and growth

## Overview

The London Rail (LR) capacity and growth programme will help boost capacity, ease overcrowding and grow the network while improving customer service and reliability. Projects include a series of works that consist of lengthening trains across the London Overground network to increase capacity by 25 per cent and improve accessibility at key stations. Following commencement of the West Anglia inner service in 2015, work to improve the stations along this route is underway. The Gospel Oak to Barking line will be electrified with the current two-car diesel trains replaced by four-car electric trains, boosting capacity by 90 per cent. This will allow the line to reach the Barking Riverside Opportunity Area.

Other deliverables include double-tracking of the remaining single-tracked section of the DLR network, improvements to DLR vehicles to maximise use of space, and the procurement of additional DLR trains to meet demand in the Royal Docks. Added to this will be double-tracking key sections of the Tramlink network between Croydon and Wimbledon, and the procurement of six extra trams.

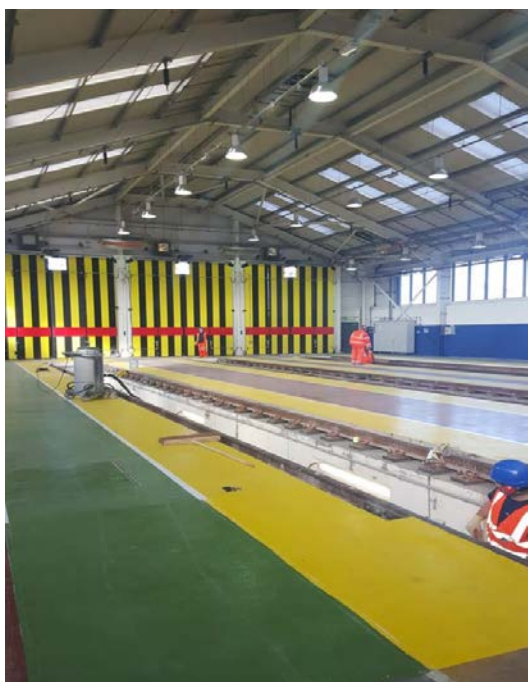
## London Overground capacity improvement

### Quarterly progress

We continue working towards finalising the planned improvements to the Willesden train maintenance depot and associated sidings, along with other important infrastructure changes that are required to support the additional capacity on the network and completion.

We achieved the final signalling commissioning stage at the 'C' sidings at the Wembley European Freight Operations Centre, allowing full hand back of the infrastructure to Network Rail.

At the New Cross Gate depot we completed the security fencing at the rear of the maintenance building. Pending lighting installation, we also completed the drivers' walkway between Silwood sidings and the depot.



Work is nearing completion at Willesden train depot

### Programme financial forecast

Spend to end Quarter 4, 2015/16 £m	Estimated final cost (EFC) £m	Full life			In year		
		Authority £m	Variance to authority £m/%	EFC movement in quarter £m/%	Year-end actual £m	Year budget £m	Variance to budget £m/%
166.4	182.8	174.7	-8.1 ▲ -4.6%	0.1 ▲ 0.1%	31.0	32.9	1.9 ▼ 5.8%

The EFC increase is a result of commercial issues on a number of contracts. Commercial discussions with the suppliers are being held and one of the contracts is in adjudication.

## London Overground Station Capacity Programme (LOSTAT)

### Quarterly progress

We are making significant progress to the transformation of the entrance to South Tottenham station, which includes the installation of two new lifts and improvements to the staff accommodation facility. We installed a new gateline and canopy and the station re-opened to customers post quarter end in April 2016.



New gateline at South Tottenham station

### Programme milestones forecast

Milestone	Current plan date	Actual/forecast date	RAG	Commentary	Forecast change from Q3 (days)
Start on site at West Hampstead station	07-Jan-17	07-Jan-17	●		-
Start on site at Hackney Central station	31-Mar-17	31-Mar-17	●		-

## Programme financial forecast

Spend to end Quarter 4, 2015/16 £m	Estimated final cost (EFC) £m	Full life			In year		
		Authority £m	Variance to authority £m/%	EFC movement in quarter £m/%	Year-end actual £m	Year budget £m	Variance to budget £m/%
17.4	38.9	29.3	-9.6 ▲ -32.9%	-4.7 ▲ -13.7%	5.0	16.5	11.5 ▼ 69.5%
<p>Partial authority has been granted for the current stages of the project and is therefore lower than the EFC, which represents the total estimate through to completion. Authority for future stages will be sought when required.</p> <p>The EFC increase in Quarter 4 represents increased costs for West Hampstead and Hackney Central schemes following market condition changes since partial authority was approved. Full authority submission will be sought once final positions on accounts are known.</p>					<p>Revised programme of work at West Hampstead, Dalston Kingsland and other stations resulted in spend being reallocated to 2016/17.</p>		

## Trams Wimbledon line enhancement

### Overview

The tram enhancement work at Wimbledon is vital to increase the capacity of London's tram network on this busy service. When complete in 2016, our customers will benefit from a more frequent service with four new trams across the Wimbledon to West Croydon branch. The tram network has experienced rapid growth in customer numbers since it opened in 2000 – from 18.5 million customers in its first year of operation to more than 32 million in 2014/15 – and demand on the tram network is forecast to increase to around 60 million by 2030.

### Quarterly progress

All of the four new trams are in full passenger service, which allowed an increased service from eight to 12 trams per hour along the busy route from Wimbledon to Croydon to start on 4 April 2016.



Platform 10b at Wimbledon station

### Significant quarterly milestones movement

Milestone description	Current plan date	Q4 forecast date	RAG	Movement commentary	Forecast change from Q3 (days)
Wimbledon platform 10b in service	31-Mar-16	26-Jan-16	Complete	Platform 10b was successfully brought into passenger service on 26 January 2016, following early commissioning of the Thales signalling system.	65



**Programme financial forecast**

Spend to end Quarter 4, 2015/16 £m	Estimated final cost (EFC) £m	Full life			In year		
		Authority £m	Variance to authority £m/%	EFC movement in quarter £m/%	Year-end actual £m	Year budget £m	Variance to budget £m/%
30.0	30.0	30.0	-	-	11.1	9.4	-1.7 ▲ -18.6%

**Barking Riverside extension**

**Overview**

The Barking Riverside extension project, funded by TfL and Barking Riverside Ltd (BRL), will deliver a new rail line and station to serve the development site. Services from Barking will run along the existing London/Tilbury/Southend Railway line for three kilometres and then branch off on a new extension for 1.5km from Renwick Road overbridge to the new terminus station.

**Quarterly progress**

We entered into a funding agreement and a land and works agreement with BRL, which were signed in early March 2016. BRL is a new joint venture between the Greater London Authority (GLA) and London & Quadrant (L&Q) New Homes.

We submitted our application for a Transport and Works Act Order (TWAO) to the Secretary of State for Transport on 31 March 2016. If approved, construction of the 4.5km extension of the Gospel Oak to Barking line could start in late 2017, with train services starting in 2021.

The decision to apply for the TWAO follows a public consultation in December 2015. This was the third consultation on the scheme, providing detailed land use, location of site compounds and construction traffic. Previous consultations in autumn 2014 and spring 2015 looked at support for the principle of the scheme and possible route alignments respectively. Responses to both consultations showed overwhelming support.



Indicative image of the proposed new Barking Riverside station

## Programme milestones forecast

Milestone	Current plan date	Actual/forecast date	RAG	Commentary	Forecast change from Q3 (days)
Submission of Transport and Works Act Order (TWAO) application	15-Mar-16	31-Mar-16	●	There was a delay in completion of the Land and Works Agreements following the need to reflect clauses added at a late date in the Environmental Statement.	-16

## Significant quarterly milestones movement

Milestone description	Current plan date	Q4 forecast date	RAG	Movement commentary	Forecast change from Q3 (days)
Issue of main works ITT for all construction works	30-Nov-17	30-Nov-17	●	The plan dates have been re-baselined in accordance with the dates agreed in the Funding Agreement with Barking Riverside Ltd.	-213
Approval of TWAO	30-Oct-17	30-Oct-17	●		-153
Award of main works contract and commencement of delivery on site	30-Mar-18	30-Mar-18	●		-166
Commencement of passenger services to Barking Riverside	31-Mar-21	31-Mar-21	●		-105

## Programme financial forecast

Full life					In year		
Spend to end Quarter 4, 2015/16 £m	Estimated final cost (EFC) £m	Authority £m	Variance to authority £m/%	EFC movement in quarter £m/%	Year-end actual £m	Year budget £m	Variance to budget £m/%
4.5	263.2	263.2	-	-	4.5	1.5	-3.0 ▲ -202.9%

Full authority of £263.2m was approved by the Finance and Policy Committee on 16 February 2016 and noted by the Board on 2 March 2016.

## On Network Stations Improvement Programme

### Overview

The Rail for London On Network Stations Improvement Programme (RfL ONSIP) covers works at 22 stations to be served by Crossrail services, which are outside the scope of the Network Rail delivered Crossrail Anglia project functional enhancements. This programme ensures step-free access is provided across the entire route and reduces variances in appearance between these existing stations and the new central London stations to generate a 'family of stations' and improve the customer experience.

### Quarterly progress

Improvement works at the 11 stations on the eastern section have started in a phased approach and will conclude in 2017. The works include significant external station renovations, new architectural internal fit-out and installation of gatelines to also increase station security. The extent of works varies at each location and is complementary with the Crossrail Anglia works that Network Rail will complete.

While refurbishing the ticket halls to improve the customer experience, we are also seeking to create a unified identity for stations along the route. Furthermore, much improved station entrances will be provided at Ilford and Romford to improve access for the increasing number of customers who will use the Crossrail route. We will also provide refreshed platform furniture, including benches, waiting shelters, windscreens and bike stores where required, at each station.

Buckingham Group Ltd completed intrusive surveys to assess the condition of station buildings and substantially completed development of detailed designs at Manor Park, Seven Kings and Ilford. We issued the invitation to tender for the second package of station improvement works at Chadwell Heath, Brentwood and Gidea Park on schedule on 18 March 2016. Together with the Chief Executive Officer of Crossrail, Andrew Wolstenholme OBE, we delivered a successful briefing to the London Borough of Havering on the proposals for Romford which will tie into the borough’s urban realm scheme. The proposal was agreed, creating an opportunity to make a real impact at Romford station for customers and residents.

In addition to station refurbishments, we will install 17 lifts at the seven stations that otherwise would not have step-free access along the Crossrail route, ensuring all Crossrail stations are accessible from street to platform. In the eastern section these stations include Seven Kings, Maryland and Manor Park; the contract for the Guide to Rail Investment Process (GRIP) Stages 5-8 of these works (detailed design, construction test and commission, hand back and close-out) was awarded to Hochtief in March 2016, with works to complete by late 2017. The works will be undertaken in a series of possessions during the next 18 months, and with critical demolition and temporary footbridge possessions identified for September 2016.



The proposed improvements to the Romford southern entrance will improve accessibility, safety for customers and residents, aesthetic appearance, and facilitate ease of transition between transport modes

### Programme milestones forecast

Milestone	Current plan date	Actual/forecast date	RAG	Commentary	Forecast change from Q3 (days)
Great Eastern – station improvement commence on site	04-Jan-16	04-Jan-16	Complete		-
Great Eastern – step-free access lift scheme commence on site	28-May-16	28-May-16	●		-
Great Eastern – step-free access lift scheme finish on site	21-May-17	21-May-17	●		-
Great Eastern – station improvement finish on site	31-May-17	31-May-17	●		-
Great Western – station improvement commence on site	31-Jan-18	31-Jan-18	●		-

Milestone	Current plan date	Actual/ forecast date	RAG	Commentary	Forecast change from Q3 (days)
Great Western – step-free access lift scheme commence on site	31-Jan-18	31-Jan-18	●		-
Great Western – station improvement finish on site	30-Nov-19	30-Nov-19	●		-
Great Western – step-free access lift scheme finish on site	30-Nov-19	30-Nov-19	●		-

### Programme financial forecast

Spend to end Quarter 4, 2015/16 £m	Estimated final cost (EFC) £m	Full life			In year		
		Authority £m	Variance to authority £m/%	EFC movement in quarter £m/%	Year-end actual £m	Year budget £m	Variance to budget £m/%
7.5	93.6	93.6	-	-	5.6	8.0	2.4 ▼ 29.9%

## Crossrail rolling stock programme

### Overview

This programme will deliver the design and construction of 65 Class 345 rolling stock and a dedicated depot and stabling facilities at Old Oak Common.

### Quarterly progress

The production programme for the new Class 345 rolling stock has stabilised and the first train is scheduled to complete and start type testing in Derby at the end of May 2016, Old Dalby testing in August 2016, and on network testing from November 2016. Components for the second train are on the assembly line.

Bombardier Transportation (BT) has declared a delay to the on-train European Train Control System (ETCS) signalling equipment, which it attributes to the 2015 European Commission (EC) Directive to fit updated ETCS to trains entering service after 31 December 2017. ETCS is required to operate Crossrail Stage 2 services (Heathrow to Paddington) from May 2018. Although not delaying the start of Crossrail Stage 2 services, BT's ETCS development, test and passenger-service approvals programme now runs to April 2018 and activities are focused on reintroducing contingency to the schedule, focusing on the testing and approvals process. Stage 2 Crossrail services (from April 2017) and Stage 3 Crossrail services (from December 2018) are not affected.

Construction of the main operations, maintenance and control building at Old Oak Common (OOC) is progressing well with roofing and cladding complete, floor slabs and pits well advanced and mechanical and electrical fit-out underway. Completion of the first section of the depot remains on schedule for May 2017.

BT took occupation of the Network Rail land at the eastern end of the depot (where it connects to the network) as planned in January 2016 and started advance drainage works in that area in preparation for constructing the automatic train inspection and washing plant. As required by the DfT, part of that land will be used until February 2018 to provide a contingent second rail exit from the adjacent First Great Western depot while NR undertakes track remodelling in the area. Construction work at the OOC depot is being restaged as necessary to accommodate this and mitigate delay to depot completion dates.



Fit-out of driving cab sub-assemblies prior to bolting to car



First assembled carriage mounted on its bogies

### Programme milestones forecast

Milestone	Current plan date	Actual/forecast date	RAG	Commentary	Forecast change from Q3 (days)
Commence unit testing at Derby	27-May-16	27-May-16	●	The plan date has been revised from 9 March 2016 following re-baselining of the first unit programme to address incorrect material scheduling in some areas. This is not expected to impact on train deliveries.	-32
Complete operations, maintenance and control building ground floor concrete slab	31-Jul-16	06-Jul-16	●		-
Reduced length unit (RLU) eight-car trains available for Stage 1 Crossrail services	01-May-17	25-Apr-17	●		-
Sectional completion (contractual) – depot Section A	21-May-17	21-May-17	●		-
Sectional completion (contractual) – depot Section B	13-Oct-17	13-Oct-17	●		-
Full length unit (FLU) 12-car trains available for Stage 1 Crossrail services	15-Apr-18	30-Mar-18	●		-
Sectional completion (contractual) – depot Section C	20-May-18	20-May-18	●		-

**Programme financial forecast**

Full life					In year		
Spend to end Quarter 4, 2015/16 £m	Estimated final cost (EFC) £m	Authority £m	Variance to authority £m/%	EFC movement in quarter £m/%	Year-end actual £m	Year budget £m	Variance to budget £m/%
215.4	1,090.5	1,090.5	-	3.3 ▲ 0.3%	122.3	154.0	31.7 ▼ 20.6%
<p>The EFC and authority, which were previously reported as £1,093.8m, have both decreased to £1,090.5m as a result of the separation of the Liverpool Street platform works project from the Crossrail rolling stock programme owing to the discrete nature of the activities, timelines and procurement of each.</p>					<p>The in year variance relates to the production reprofiling of the 'mock-up train' and body car(s) due to design changes.</p>		

# Crossrail

## Crossrail Limited (CRL)

### Quarterly progress

Crossrail remains on time and within the funding envelope of £14.8bn. Overall, the project is approaching 75 per cent complete. Circa £300m was spent in Quarter 4, at the end of which there is more than a 30 per cent chance that some of the £600m TfL contingency funding may be needed.

Crossrail's central section construction programme is focused on fitting out the tunnels, shafts and portals. Crucial milestones were met during Quarter 4 including the first stage of a sequence of staged handovers at Whitechapel and Liverpool Street stations, which will allow the systemwide main works team to start installing track in the Whitechapel tunnels later in 2016.

Progress is being made against all our production targets with platform secondary lining more than 80 per cent complete, first stage concrete in the running tunnels approaching 100 per cent complete, platform construction more than 65 per cent complete, more than 20 per cent of track has been laid and the westbound section between Plumstead and Victoria Dock Portals is complete, and platform edge screen brackets and trusses installation to allow handover to the systemwide contract is 60 per cent complete.

The £2.3bn modernisation of the existing rail network for Crossrail being undertaken by Network Rail is more than 60 per cent complete. Following the successful completion of the Easter 2016 works, focus has turned to the works required on Crossrail's eastern route in preparation for Stage 1 services commencing in May 2017. Stage 1 is the progressive introduction of the new Crossrail rolling stock (Class 345) on the route between Shenfield and Liverpool Street.

The Office of Rail and Road has confirmed a derogation to permit use of an enhanced train protection warning system between Paddington and Heathrow Airport junction until December 2019.



Crossrail's innovative automated drilling machine

## Crossrail key milestones forecast

Milestones	Baseline early date	Baseline late date	Actual/forecast	RAG	Commentary
<b>Completed Q4 2015/2016</b>					
Handover east and westbound running tunnels Victoria Dock Portal to Stepney Green	30-Nov-15	25-Jan-16	09-Mar-16	Complete	Both running tunnels were handed over to the systemwide contractor in Q4. Handover of this section was delayed due to completion works at the Limmo site running late. There is no overall impact on the Crossrail critical path from the delayed handover dates.
<b>Scheduled 2015/2016</b>					
Nine urban realm principal station consents obtained for central section	11-Nov-15	04-Feb-16	31-Dec-16	●	The remaining consents are still being progressed. There is no impact on the critical path.
Seven over-site development agreements signed by 31 March 16	30-Mar-16	23-Jun-16	31-Aug-16	●	TfL has signed three development agreements (Bond Street eastern ticket hall, Tottenham Court Road eastern and western ticket halls). The remainder is forecast for signature in August 2016. There is no impact on the critical path caused by the delay.

RAG key used for Crossrail Master Operational Handover Schedule, version 1

Greater than or equal to 70% of float* remaining	●
Less than 70% of float remaining	●
Less than 30% of float remaining	●

\*Float is calculated as the difference between the baseline early date and the baseline late date



# **Business change and technology**

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# Business change and technology

## Fit for the Future – Stations

### Overview

The objective of the programme is to change the way that London Underground stations work to deliver improved customer service at a lower cost.

Extensive training, as well as process improvements supported by technology, is allowing staff to be more visible and available for customers.

### Quarterly progress

We are delivering the programme in three phases.

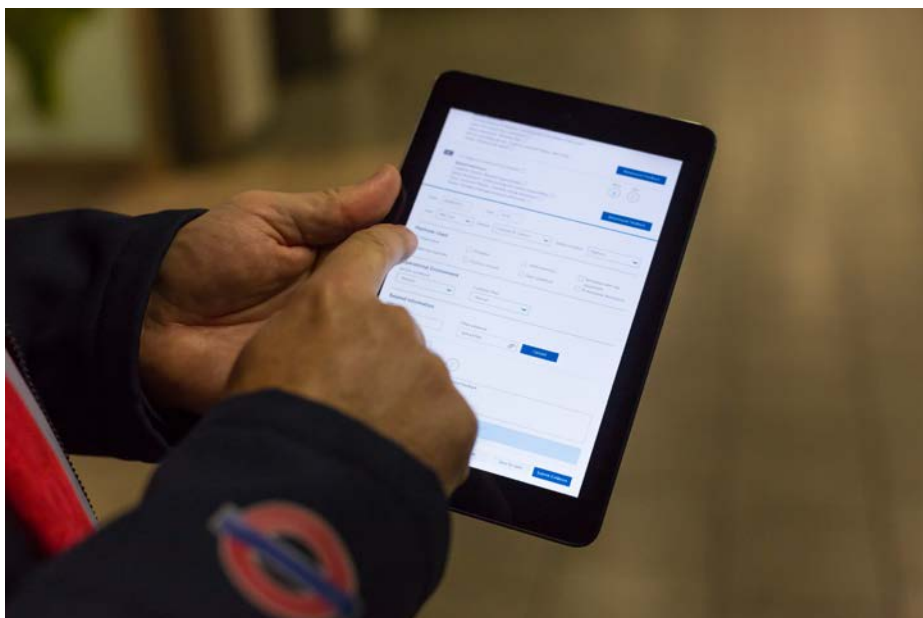
In Phase A, we appointed 97 area managers to lead the change.

Phase B addressed the customer service transformation, which included ticket hall changes, customer service training and the provision of mobile devices to all station staff. By the end of Quarter 4, approximately 4,900 staff had attended a five-day customer service training course.

In Phase C, we launched the Fit for the Future – Stations operating model on 6 February 2016 at 23 pilot stations including King's Cross. This was followed by a network-wide switchover on 3 April 2016, improving processes throughout the operational organisation across all LU stations.

Since Sunday 3 April, the network has been operated by staff working in their new roles, empowered by a range of processes and technology improvements to support both customer service and the running of the stations.

We have seen a network-wide increase in staff helpfulness scores recorded in the Staff and Information Surveys conducted following the switchover to the new operating model.



The iPad-based station logbook is part of a suite of new mobile applications available to all station staff upon switchover to the new operating model in April 2016

**Programme milestones forecast**

Milestone	Current plan date	Actual/forecast date	RAG	Commentary	Forecast change from Q3 (days)
All station staff formally contracted and notified of final working location	18-Dec-15	05-Feb-16	Complete	The distribution of letters and contracts to staff were delayed while trade union consultation on the final aspects of the operating model was concluded.	-28
All relevant ticket offices converted to passenger operated machine suites	22-Jan-16	15-Jan-16	Complete		7
New station operating model go live	07-Mar-16	06-Feb-16	Complete		1
All planned customer service training completed	08-Apr-16	31-Mar-16	Complete		-1

**Programme financial forecast**

Spend to end Quarter 4, 2015/16 £m	Estimated final cost (EFC) £m	Full life			In year		
		Authority £m	Variance to authority £m/%	EFC movement in quarter £m/%	Year-end actual £m	Year budget £m	Variance to budget £m/%
90.0	127.0	127.6	0.6▼ 0.5%	4.7▼ 3.6%	51.2	67.0	15.8▲ 23.6%
We undertook a cost and benefits review during Quarter 4, which resulted in a reduction of the implementation costs. This reduction relates to the release of programme risk, and efficiencies on enabling projects such as built environment, uniforms, communications and engagement through project delivery savings.					The forecast underspend is driven by built environment savings and rephasing of some training courses into 2016/17.		

**Information and Communication Technology Transformation (ICTT)****Overview**

This programme will ensure that information and communication technology capabilities are in place to underpin delivery of LU and LR strategic priorities. Its focus is on operationally critical and safety-related systems, as opposed to enterprise management systems. In addition, it acts as a key enabler for several other programmes, as well as delivering upgraded capability and/or reducing the cost of ownership for particular information and communications systems.

**Quarterly progress**

Our deployment of mobile devices to staff progresses as planned. We issued more than 4,900 station staff with personal devices and the deployment rate continues to meet the needs of the Fit for the Future – Stations programme and asset maintenance teams. Staff time savings from using mobile applications, instead of traditional systems, are estimated in the tens of thousands of hours each year.

Our preparations to enhance customer information provision at stations on Sub-Surface lines and to significantly increase our capability to view station CCTV images centrally progressed in accordance with plans.

We also started testing in below-ground environments, the updated radio communications technology that the Home Office plans to deploy for use by emergency services personnel.



Staff will be more visible and have the latest technology to help

### Significantly late milestones

Milestone description	Current plan date	Variance to budget (days)	Variance commentary
Stage gate 5 – business go live (stations)	07-Feb-16	-236	Delivery timescales for the workforce planning project have been affected by unforeseen difficulties integrating new software with existing software.

### Programme financial forecast

Spend to end Quarter 4, 2015/16 £m	Estimated final cost (EFC) £m	Full life			In year		
		Authority £m	Variance to authority £m/%	EFC movement in quarter £m/%	Year-end actual £m	Year budget £m	Variance to budget £m/%
44.3	63.0	54.0	-9.0 ▲ -16.6%	-2.1 ▲ -3.5%	5.2	8.2	3.0 ▼ 36.3%

Partial authority has been granted for the current stages of the programme and is therefore lower than the EFC, which represents the total estimate through to completion. Authority of £1.7m was granted in Quarter 4 and will be sought for future stages when required. The EFC increased in Quarter 4 with the inclusion of £2m for future application development work, for which seed funding of £130,000 was granted in Quarter 4.

## Customer experience – FTP Phase 3, 4 and 5

### Overview

The Future Ticketing Programme (FTP) identifies opportunities for TfL to make life more convenient for our customers while reducing the costs associated with collecting fares revenue. FTP is made up of the following phases:

Phases 1 and 2 developed card readers and back office systems to allow pay as you go (PAYG) travel on all services using contactless payment (credit and debit) cards (CPCs).

Phases 3, 4 and 5 will introduce a range of further benefits for Oyster and contactless customers, including a new mobile ticketing app and improved online sales and refund processes. The programme will also implement Monday to Sunday capping for Oyster customers, as an alternative to purchasing a weekly Travelcard or Bus & Tram Pass, providing the same benefits currently available to CPC users.

### Quarterly progress

On Phase 3, design and development work continues to future proof the back office system for CPC.

On Phase 4, our in-house team and contractors started design and testing of the faster delivery of travel products to all gatelines. We also started design and testing on the mobile ticketing app.



### Programme milestones forecast

Milestone	Current plan date	Actual/forecast date	RAG	Commentary	Forecast change from Q3 (days)
Launch of Phase 1 of the ticketing app	22-Dec-16	22-Dec-16	●		-
Availability of weekly capping for Oyster customers	22-Dec-17	22-Dec-17	●		-

### Programme financial forecast

Spend to end Quarter 4, 2015/16 £m	Estimated final cost (EFC) £m	Full life			In year		
		Authority £m	Variance to authority £m/%	EFC movement in quarter £m/%	Year-end actual £m	Year budget £m	Variance to budget £m/%
6.9	44.3	44.3	-	1.5 ▲ 3.3%	5.6	8.4	2.9 ▼ 34.0%

The EFC decrease in Quarter 4 relates to the Phase 3 project resources forecast, which was previously overstated and amended as part of the reforecasting process. The EFC and authority are now aligned.

# Surface Transport

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# Surface Transport

## Assets Portfolio

The coordinated asset maintenance, renewal and improvement activities we deliver to maximise customer satisfaction, minimise whole life costs and enable our 10 principal transport outcomes to be delivered.

### Asset Capital Programme (ACP)

#### Overview

The ACP is a business-as-usual rolling programme of planned works that maintains, renews and improves Surface Transport's assets. The ACP covers a range of assets including carriageways, footways, bridges, tunnels, lighting, traffic signals and technology, bus shelters and bus stations.

#### Quarterly progress

We have delivered broadly in line with targets, with variances on some asset outputs reflecting in year pressures and opportunities, for example, carriageway output was increased to offset some lighting under-delivery. These variances have been used to adjust the 2016/17 and 2017/18 programmes to maintain levels of service and 'state of good repair' targets.

Our delivery in Quarter 4 included more than 201,000 square metres of carriageway resurfacing. Locations treated included the A24 Clapham Common South, A10 Great Cambridge Road, A21 Farnborough Common and A41 Watford Way. In addition, we re-laid more than 46,000 square metres of footway at various locations including at A30 Staines Road, A23 Streatham High Road and A201 Blackfriars Road to Union Street. We completed tunnel refurbishment works on Blackwall Tunnel (northbound and southbound) and structural repairs on Marylebone Road subway, A102 Westcombe Hill footbridge and Dog Lane retaining wall. Other improvements included the replacement of more than 900 conventional luminaires with energy efficient LEDs and the replacement of 6.1 km of vehicle restraint barriers.



Replaced lighting luminaires and columns in Trinity Road

## Programme volume delivery

Output	Unit	Annual target	Full year actual	Commentary
Carriageway resurfacing	m <sup>2</sup>	475,000	607,255	128% of annual target achieved.
Footway resurfacing	m <sup>2</sup>	55,000	75,932	138% of annual target achieved.
Lighting columns	No.	550	668	121% of annual target achieved.
Luminaires renewed	No.	6,000	5,243	87% of annual target achieved.
Vehicle restraint barriers	km	17	12.6	74% of annual target achieved.
Structure renewals	No.	15	32	213% of annual target achieved.
Tunnel refurbishment	No.	10	9	90% of annual target achieved.

## Programme financial forecast

Spend to end Quarter 4, 2015/16 £m	Estimated final cost (EFC) £m	Annual			In year		
		Authority £m	Variance to authority £m/%	EFC movement in quarter £m/%	Year-end actual £m	Year budget £m	Variance to budget £m/%
105.4	105.4	110.0	4.6▼ 4.2%	2.0▼ 1.9%	105.4	93.6	-11.8▲ -12.6%

Additional authority of £10.9m was approved by the Finance and Policy Committee on 2 March as part of 2016/17 funding request to bring forward and deliver more works in 2015/16. The variance to authority and EFC movement are mainly due to the release of accruals following final accounting and rescheduling of some works into 2016/17.

The continued focus on data, process improvement and collaborative forward planning with our suppliers has improved delivery and allowed additional works, assessed as necessary and providing value for money, to be brought forward and delivered in the 2015/16 financial year.

## Hammersmith Flyover strengthening

### Overview

The A4 Hammersmith Flyover Phase 2 (final phase) works involve strengthening of the whole structure, renewal of the deck waterproofing, modification and renewal of the drainage system, and replacement of the bearings and expansion joints.

### Quarterly progress

Following the successful completion of all snagging works and demobilisation in December 2015, we handed back the flyover into maintenance. A subsequent defect, where a small amount of surface water is migrating through the structure and emerging at the soffit, was identified. It does not affect the operation of the flyover and we have agreed additional investigations, which will be implemented within the next quarter, to identify the cause. We remain on schedule to achieve full closeout by the end of December 2016.





The Hammersmith Flyover

### Programme milestones forecast

Milestone	Current plan date	Actual/forecast date	RAG	Commentary	Forecast change from Q3 (days)
Finish on site	31-Mar-16	08-Mar-16	Complete		-37
Project close completed	31-Mar-17	31-Dec-16	●		-

### Programme financial forecast

Spend to end Quarter 4, 2015/16 £m	Estimated final cost (EFC) £m	Full life			In year		
		Authority £m	Variance to authority £m/%	EFC movement in quarter £m/%	Year-end actual £m	Year budget £m	Variance to budget £m/%
89.7	91.1	101.1	10.0 ▼ 9.9%	-	20.3	30.4	10.1 ▼ 33.2%

The target price was agreed with the contractor in March 2016, resulting in additional savings being realised after the 2016/17 budget and the EFC was set and a lower full life spend to end at Quarter 4 than at Quarter 3.

The variance is driven by a change in risk profile as key risks did not fully materialise. Additionally, savings have arisen from a reduction in resource levels sooner than forecast and an agreement of a lower than expected target price.

## Safety Camera Replacement Programme

### Overview

The programme's core objective is to maintain the existing road safety benefits provided by cameras by replacing life-expired wet film with digital units. Research shows that cameras can help to reduce the number of people killed or seriously injured (KSI) by as much as 58 per cent. The digital cameras will provide additional benefits over wet film, such as supporting the enforcement of speed limits through green traffic lights, helping to further improve safety at junctions.

## Quarterly progress

We replaced 361 of 403 spot speed cameras and 217 of 243 red light wet film cameras with digital units. The plan remains on target to replace the remaining cameras by October 2016.

The first of four average speed corridor trials on the A40 went live on 26 October 2015 and is now being enforced by the Metropolitan Police Service. The A316 is planned to go live in late spring 2016. The A406 corridor works, which we are progressing in collaboration with several other major TfL schemes, is expected to go live in summer 2016. The A2 will follow after a programme of road safety measures are implemented in early summer 2016, which will also help reduce KSIs, improve driver behaviour and improve journey time reliability on these corridors.



Twin spot speed cameras enforcing both carriageways in Croydon

## Programme milestones forecast

Milestone	Current plan date	Actual/forecast date	RAG	Commentary	Forecast change from Q3 (days)
Project close approved at Surface Board	31-Mar-17	31-Mar-17	●		-

## Programme financial forecast

Spend to end Quarter 4, 2015/16 £m	Estimated final cost (EFC) £m	Full life			In year		
		Authority £m	Variance to authority £m/%	EFC movement in quarter £m/%	Year-end actual £m	Year budget £m	Variance to budget £m/%
29.7	35.4	36.6	1.2 ▼ 3.3%	1.2 ▼ 3.3%	16.0	19.7	3.7 ▼ 18.7%

## Silvertown Tunnel project

### Overview

The Silvertown Tunnel project will deliver a 1.4km twin-bore road tunnel, under the Thames, with connections to Silvertown in the north and the Greenwich Peninsula in the south. The tunnel generally follows the route of the Emirates Air Line cable car.

The tunnel will provide additional capacity and resilience to the road network in this area and relieve congestion through the Blackwall Tunnel. User charges will be introduced at both tunnels to help manage traffic demand and pay for the new one, which will provide improved connectivity and support the growth expected in east and southeast London.

### Quarterly progress

In February 2016, approval to proceed with the project was granted by the Board. This approval included the overall budget for TfL delivery costs and land acquisitions, and for the application of a Development Consent Order (DCO). The application is to provide all the necessary powers and consents to construct, operate and maintain the Silvertown Tunnel.

In early March 2016, we submitted draft documents for the DCO to the Planning Inspectorate for early review and comment. Production of the final version of the documents is complete. We submitted the DCO application post quarter end on 29 April 2016, together with a detailed consultation report, which was made available to the public on 12 May.

We are making good progress with the host London Boroughs of Greenwich, Newham and Tower Hamlets and certain landowners on the production of Statements of Common Ground (SoCG). These statements, while not required for the DCO application, will provide essential evidence to the Planning Inspectorate on the evolution of the project (taking into account issues raised during the public consultation which finished at the end of November 2015).

We continued procurement work in parallel with the DCO application. The Prior Information Notice (PIN) was published on 9 March 2016 and an Industry Day was held post quarter end on 13 May 2016. This engagement session was attended by over 130 delegates representing 80 contractors, designers and finance organisations. The publication of the Official Journal of the European Union (OJEU) contract notice and pre-qualification questionnaire (PQQ) was paused to allow for a Mayoral review and we now expect to issue the OJEU in autumn 2016 and the invitation to negotiate in spring 2017.



Silvertown Tunnel – approach to Greenwich Portal on A102

### Programme milestones forecast

Milestone	Current plan date	Actual/forecast date	RAG	Commentary	Forecast change from Q3 (days)
Development Consent Order application acceptance	24-Jun-16	31-May-16	●		-
Issue OJEU notice	08-Aug-16	13-Jun-16	●	Paused post quarter end to allow for Mayoral review. We are now planning to issue the OJEU notice in autumn 2016.	-
Invitation to negotiate issued	02-Feb-17	08-Dec-16	●	As a result of the Mayoral review, the invitation to negotiate is now expected to be issued in spring 2017.	-

### Programme financial forecast

Spend to end Quarter 4, 2015/16 £m	Estimated final cost (EFC) £m	Full life			In year		
		Authority £m	Variance to authority £m/%	EFC movement in quarter £m/%	Year-end actual £m	Year budget £m	Variance to budget £m/%
10.2	107.4	46.0	-61.4 ▲ -133.5%	-	10.1	5.0	-5.1 ▲ -102.0%
<p>The construction will be privately financed therefore these costs cover only expenditure TfL will directly incur. The EFC variance to authority results from increases in land costs, unbudgeted costs for user charging infrastructure and back office, and increases in consultancy costs for procurement, planning and project management.</p>					<p>Spend is ahead of budget, as the spend details were not defined when the budget was set.</p>		

# Major Highway Enhancements Portfolio

Unlocking developments creating homes and jobs, improving urban realm, protecting vulnerable road users, tackling congestion, and delivering the Mayor's Vision for Cycling by getting more people cycling, more safely, more often.

## Transforming streets and places

As part of the Road Modernisation Plan, substantial investment will continue in transformational projects designed to radically improve living and travelling conditions. Londoners can look forward to safer, greener and more attractive streets and town centres, as well as safer conditions for cyclists and pedestrians.

## Elephant and Castle northern roundabout

### Overview

The main focus of the Elephant and Castle northern roundabout project is to improve safety for road users and create a new and accessible public space. The £25m overhaul of the roundabout has been designed to significantly upgrade the facilities for pedestrians, cyclists and drivers by converting the roundabout into a peninsula and the road network around it into a two-way traffic system.

### Quarterly progress

Following the configuration switch from a roundabout to two-way traffic in December 2015, we completed the new highway layout, opened all segregated cycle lanes and new surface level pedestrian crossing facilities. The new public space on the new peninsula is nearly complete, with new trees, grass and benches being completed in May 2016.



The new layout at Elephant and Castle

**Programme milestones forecast**

Milestone	Current plan date	Actual/forecast date	RAG	Commentary	Forecast change from Q3 (days)
Completion of Phase 1 urban realm works	20-Jul-16	30-Apr-16	●		-
Milestone	Current plan date	Actual/forecast date	RAG	Commentary	Forecast change from Q3 (days)
Completion of highway construction works (for Phase 1)	27-Jun-17	04-Apr-16	●		-
Stage 6 project close certificate issued	31-Mar-21	31-Mar-21	●		-

**Programme financial forecast**

Spend to end Quarter 4, 2015/16 £m	Estimated final cost (EFC) £m	Full life			In year		
		Authority £m	Variance to authority £m/%	EFC movement in quarter £m/%	Year-end actual £m	Year budget £m	Variance to budget £m/%
13.7	24.4	24.4	-	-	12.4	13.5	1.1 ▼ 8.4%

## Better Junctions

### Overview

We are committed to making London's busiest junctions safer and more attractive for cyclists and other vulnerable road users. The Better Junctions programme is focused on making substantial improvements at 33 locations, including some of the most intimidating and high profile junctions and gyratories in London. Of the 33 Better Junctions sites, 13 are being treated as 'core' Better Junctions schemes, 10 are larger schemes being delivered as standalone projects, and 10 will be delivered through the Cycle Superhighways programme.

### Better Junctions core programme

#### Quarterly progress

The main works are progressing well at Stockwell Cross. We have completed around 50 per cent of the main construction works and all planned utility works are complete. We plan to complete the signal commissioning for both junctions and return them to two-way operation by mid May 2016, which will reduce disruption in and around the area. The overall scheme remains on schedule for completion by December 2016 once the urban realm works are complete.

At Oval Triangle junction, all cycle facilities are fully operational. We started construction of the urban realm on 1 March 2016 and the works were complete at the end of April 2016. The bespoke statue will be installed later in 2016.

The main construction works started as planned at Archway gyratory on 29 February 2016. The Archway urban realm detailed design is being developed by our London Highways Alliance Contract (LoHAC) contractor. High definition ground penetration surveys have been completed. Low impact works, which include the installation of temporary traffic signals and the removal of

existing trees, were completed in February 2016. Existing traffic islands have been removed at the junctions of Tollhouse Way/Archway Road and St John's Way/Archway Road. Drainage works on Highgate Hill and carriageway reconstruction and installation of the kerblines on Tollhouse Way have been undertaken. The overall scheme will complete by March 2017.

We produced the Westminster Bridge South public consultation report and published it on 18 March 2016. As well as redesigning the junction, we are planning to introduce segregated cycle lanes on Westminster Bridge. Construction is expected to start in early 2017.

For Lambeth Bridge (north) and Lambeth Bridge (south) projects, the public consultation has been postponed to later in the year to allow more time to find a solution that meets the needs of all road users. We are also further analysing a possible interim solution to make improvements that we could potentially begin later in 2016.

The public consultation for Hammersmith gyratory took place between 2 February and 15 March 2016. The consultation response report is currently being produced and we hope to publish in summer 2016 confirming a way ahead.



Cycle facilities are fully operational at Oval

### Programme milestones forecast

Milestone	Current plan date	Actual/forecast date	RAG	Commentary	Forecast change from Q3 (days)
Archway gyratory – start of works on site	15-Mar-16	01-Feb-16	Complete		14
Oval Triangle – construction complete	31-Mar-16	23-Mar-16	Complete		-20

### Programme financial forecast

Spend to end Quarter 4, 2015/16 £m	Estimated final cost (EFC) £m	Full life			In year		
		Authority £m	Variance to authority £m/%	EFC movement in quarter £m/%	Year-end actual £m	Year budget £m	Variance to budget £m/%
27.3	61.1	46.2	-14.9 ▲ -32.3%	-	10.5	20.3	9.8 ▼ 48.2%

<p>The authority covers the feasibility, concept design and detailed design costs of all projects up to the end of 2016, along with the delivery of Oval, Archway and Stockwell. Authority has increased from £30.4m at Quarter 3 for Stockwell gyratory (£5.4m authority) and Archway (£10.4m). Further authority will be sought in stages as project designs are completed.</p>	<p>Reprioritisation across the programme led to some spend being deferred to later years.</p>
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## Cycle Superhighways

### Overview

Cycle Superhighways (CS) provide safer, fast and continuous bike routes running into, and across, central London along recognised commuter routes. By the end of May 2016, the four existing Cycle Superhighways will have been upgraded and four new routes completed.

## Cycle Superhighways programme

### Quarterly progress

Construction is progressing to plan on a number of routes and construction is planned on several others.

CS1 construction works were substantially completed by Easter 2016. Post quarter end, we completed the snagging along the whole route and it is now open and being used by cyclists.

CS2 upgrade construction works continued throughout the quarter. Post quarter end, the resurfacing was completed and the full route was opened to cyclists at the end of April 2016.

At Churchyard Row we completed another site-specific upgrade to the existing CS7: Merton to the City route. The Clapham Common Southside and Clapham High Street schemes remain in concept design until late summer 2016 and we expect to start construction in spring 2017.

We started construction, which is now approximately 75 per cent complete, to upgrade the junction at Chelsea Bridge on CS8: Wandsworth to Westminster. Carriageway resurfacing of the junction is currently taking place with works to be completed in full by June 2016.

CS11: Brent Cross to Baker Street consultation (including Swiss Cottage) completed in March 2016. We are analysing the responses and hope to release results in summer 2016. We will continue further discussions with key stakeholders to find a scheme that meets the needs of all road users and stakeholders.

Consultation also completed on Phases 2 of North-South Cycle Superhighway and East-West Cycle Superhighway in March 2016. As with CS11, we are analysing the responses and expect to release the consultation response reports later in 2016.





Apex junction

### Programme milestones forecast

Milestone	Current plan date	Actual/forecast date	RAG	Commentary	Forecast change from Q3 (days)
CS11 (Phase 1) start of public consultation	01-Feb-16	01-Feb-16	Complete		-
CS5 (extension) start of detailed design	01-Mar-17	01-Mar-17	●		-
CS5 (extension) Stage 6 project close certificate issued	18-Dec-18	25-Sept-18	●		-
Stage 6 close: CS4 Phase 3 (London Bridge to Tower Bridge)	22-Jun-19	30-Mar-19	●		-

### Significant quarterly milestones movement

Milestone description	Current plan date	Q4 forecast date	RAG	Movement commentary	Forecast change from Q3 (days)
CS4 start of detailed design	21-Aug-17	01-May-17	●	CS4 Phase 1 modelling is combined with the London Borough of Southwark's Lower Road gyratory removal scheme, for which the modelling showed unacceptable bus journey times, which also impacted negatively on CS4 designs. Detailed design is delayed while mitigations are sought and the milestone plan date was revised from 23 February 2016.	-151

### Programme financial forecast

Full life					In year		
Spend to end Quarter 4, 2015/16 £m	Estimated final cost (EFC) £m	Authority £m	Variance to authority £m/%	EFC movement in quarter £m/%	Year-end actual £m	Year budget £m	Variance to budget £m/%
89.1	152.9	102.9	-50.0 ▲ -48.6%	-	43.0	47.9	4.9 ▼ 10.2%
Future routes not yet authorised (Routes 4, 5 extension and 11).					The variance is due to some rephasing across the programme. The junctions to be upgraded on CS3, CS7 and CS8 were reprioritised to ensure safety critical upgrades were undertaken.		

## North-South Cycle Superhighway

### Quarterly progress

Work proceeded well on construction of the North-South Cycle Superhighway and a large section of the route opened in April 2016. A new section of segregated cycle track opened on 24 March 2016 from Meymott Street to Upper Ground, which is just south of Blackfriars Bridge, providing open track from St George's Road to the end of Upper Ground. Works north of Blackfriars Bridge in the City of London sections completed on 28 April 2016.

Resurfacing on Blackfriars Road was completed on 22 March 2016 and on Blackfriars Bridge and Blackfriars Junction post quarter end. The westbound slip road from Blackfriars to Victoria Embankment was closed permanently to vehicles and re-opened to cyclists only at the end of April 2016. Works on the eastbound slip road, which were being closely coordinated with the East-West Cycle Superhighway works, became two-way at the end of April 2016.



Blackfriars Road following resurfacing

### Programme financial forecast

Spend to end Quarter 4, 2015/16 £m	Estimated final cost (EFC) £m	Full life			In year		
		Authority £m	Variance to authority £m/%	EFC movement in quarter £m/%	Year-end actual £m	Year budget £m	Variance to budget £m/%
14.1	17.5	17.5	-	-	11.4	11.3	-0.1 ▲ -0.5%

## East-West Cycle Superhighway

### Quarterly progress

Construction of the East-West Cycle Superhighway continued to progress well and the route between Tower Hill and Parliament Square was completed by late April 2016.

Resurfacing works are progressing on Bridge Street and Victoria Embankment (between Bridge Street and Derby Gate), and completed post quarter end in early April 2016. The continuing night closures on Upper Thames Street for resurfacing completed at the end of March 2016. We will start works at St James's Park in mid-June 2016 following the ceremonial events, and completion is expected by October 2016. Works are progressing well in Hyde Park and at Hyde Park Corner, with overall completion expected by October 2016. At Lancaster Gate, works started in mid-April 2016 and will continue through to October 2016.



The new East-West Cycle Superhighway near Temple station

### Programme milestones forecast

Milestone	Current plan date	Actual/forecast date	RAG	Commentary	Forecast change from Q3 (days)
Completion of construction Parliament Square to Tower Hill (except potential permanent scheme at Trinity Square)	22-Jul-16	29-Apr-16	●		-
Stage 6 close: East-West Cycle Superhighway Phase 2 (Westway to White City)	30-Sept-17	30-Sept-17	●		-

### Programme financial forecast

Spend to end Quarter 4, 2015/16 £m	Estimated final cost (EFC) £m	Full life			In year		
		Authority £m	Variance to authority £m/%	EFC movement in quarter £m/%	Year-end actual £m	Year budget £m	Variance to budget £m/%
26.6	47.6	43.7	-3.9 ▲ -8.9%	-	21.6	20.9	-0.7 ▼ -3.4%

EFC is greater than authority as Phase 2 is partially authorised.

# Borough Cycling Infrastructure

Key cycling programmes, carried out with support of the London boroughs, which will directly contribute towards the objectives set out in the Mayor’s Vision for Cycling.

## Cycling Mini-Hollands

### Quarterly progress

Work continues in the three outer London boroughs of Enfield, Kingston and Waltham Forest to transform the town centres into cycling friendly places to live and travel around. Of the 101 schemes (96 infrastructure and five supporting measures), 49 per cent of designs have been submitted by the boroughs, and consultation has started on 21 per cent of schemes. Eight schemes are currently on site and under construction. Waltham Forest completed two schemes in Quarter 4: a pedestrian/cycle bridge by Lea Bridge Road and a cycle hub. Construction also started on the four kilometres of segregated cycle route on Lea Bridge Road and at Blackhorse Village. Construction continues on the Meridian Water to Enfield Town Quietway in Enfield and the Portsmouth Road segregated cycle track in Kingston is due to complete in July 2016.

Maintaining bus journey times in these busy outer London town centres while delivering meaningful change in conditions for cycling and walking remains challenging. The Lea Bridge Road scheme was approved at the Road Space Performance Group post quarter end on 22 April 2016.



Completed scheme at Pembroke Road/Orford Road in the London Borough of Waltham Forest

### Programme milestones forecast

Milestone	Current plan date	Actual/forecast date	RAG	Commentary	Forecast change from Q3 (days)
Construction complete of first Mini-Holland scheme in Kingston	30-Nov-16	30-Oct-16	●		-

## Programme financial forecast

Full life					In year		
Spend to end Quarter 4, 2015/16 £m	Estimated final cost (EFC) £m	Authority £m	Variance to authority £m/%	EFC movement in quarter £m/%	Year-end actual £m	Year budget £m	Variance to budget £m/%
15.7	100.0	27.6	-72.4 ▲ -262.8%	-	12.5	25.4	12.9 ▼ 50.7%
Approval was given for £25.17m at the December 2014 Surface Board for the value of the programme in 2015/16. Further authority for the next tranche of design and construction spend will be sought in September 2016.					Expenditure reprofiling following review of programme and available resources. There was £2.6m of slippage in Kingston as no bids were received for main construction contracts.		

## Central London Grid

### Overview

The Central London Grid is a dense mesh of Quietway and Superhighway-style cycle routes in central London designed to break down barriers to cycling. It spans 11 central London boroughs and involves the Royal Parks and Canal & River Trust as delivery partners.

### Quarterly progress

Construction momentum has increased, with 44 of the 134 (increased from 125 in Quarter 3, owing to long links in Southwark being broken into smaller chunks for delivery) schemes either complete or under construction. This represents 22 per cent of the circa 85km of core grid network of Quietway links. A further 23 per cent has completed consultation.

We have received designs for 113 of the 134 schemes, and 106 schemes (circa 80 per cent) are approved for construction. We estimate that more than 60km of the core grid network will be complete by December 2016.



A completed Quietways scheme at Tower Bridge Road in the London Borough of Southwark

### Programme milestones forecast

Milestone	Current plan date	Actual/forecast date	RAG	Commentary	Forecast change from Q3 (days)
Phase 2 delivery completion	27-Feb-16	27-Feb-16	Complete		-28
Phase 3 approval to commence construction	15-Mar-16	15-Mar-16	Complete	Some Phase 3 schemes were brought forward for early delivery under Phase 2 project authority when some Phase 2 schemes started construction in 2015 later than first planned due to unforeseen complexities. To keep within funding limits the remainder of the Phase 3 schemes were delivered later than originally planned and the milestone plan date has been revised from 30 May 2015 accordingly.	-
Phase 3 delivery completion	31-Dec-16	31-Dec-16	●		-
Stage D programme close certificate issued	30-Sept-17	30-Sept-17	●		-

### Significant quarterly milestones movement

Milestone description	Current plan date	Q4 forecast date	RAG	Movement commentary	Forecast change from Q3 (days)
Phase 3 design completion	31-Mar-16	31-Mar-16	Complete	The submission of designs for the final four Grid schemes (Hackney, Islington and two in Lambeth) have been delayed due to resourcing and links/dependencies with other programmes. This does not impact the forecast delivery completion dates for these schemes.	-122

### Programme financial forecast

Spend to end Quarter 4, 2015/16 £m	Estimated final cost (EFC) £m	Full life			In year		
		Authority £m	Variance to authority £m/%	EFC movement in quarter £m/%	Year-end actual £m	Year budget £m	Variance to budget £m/%
11.7	54.4	16.7	-37.7 ▲ -225.7%	-0.4 ▲ -0.7%	8.1	26.2	18.1 ▼ 69.0%
An increase in project authority for the next stage of the programme will be sought at the July 2016 Surface Board, when updated costs will have been agreed with delivery partners.					Expenditure has been reprofiled as a result of continuing stakeholder consultation and reflects the latest delivery programme.		

## Cycling Quietways

### Overview

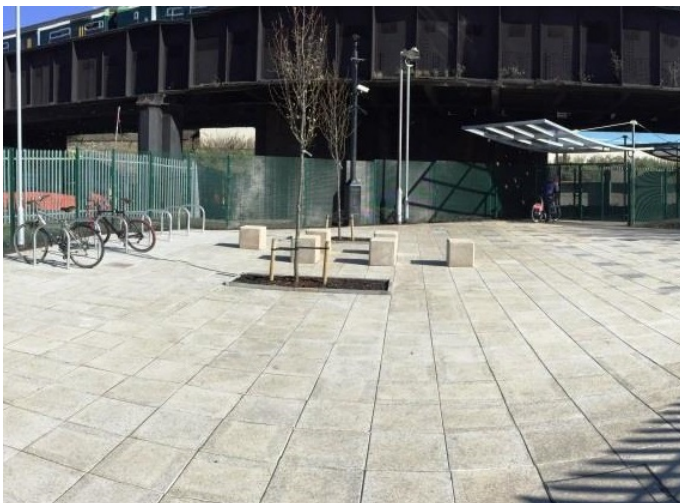
The Quietways programme will provide a pan-London network of high quality cycle routes that will be clearly signed for easy use. Linking key destinations, they will include sections through parks, along waterways and tree-lined streets and will provide an alternative to cycling on busy main roads. They are being designed to appeal to new or inexperienced cyclists or those wishing to travel at a more leisurely pace, and so are considered vital to meeting the Mayoral cycling trip targets. The Quietways are being delivered in partnership with the London boroughs, Royal Parks and the Canal & River Trust.

### Quarterly progress

Construction continues on the Quietway 1 (Q1) – Waterloo to Greenwich and Quietway 2 (Q2) – Bloomsbury to Walthamstow. Q1 is nearing completion and Q2, which was realigned at the request of the previous Cycling Commissioner, will be substantially complete in November 2016.

The flagship scheme at Millwall football ground, a new cycling and walking link using formally dormant Network Rail land, opened to the public post quarter end on 15 April 2016. The first Quietways directional signage has been installed on the Southwark section. In Brent, Quietway 3 – Regent’s Park to Gladstone Park is progressing well and is expected to complete in May 2016. Construction continues on Quietway 6 – Aldgate to Hainault in the London Boroughs of Redbridge and Newham. Construction on the remaining four Quietways in Phase 1 will continue throughout 2016.

Phase 2 of the Quietways programme, comprising 30 routes and three large interventions, has been batched into three sub-tranches to allow for timely delivery. Broadly, 2.1 schemes are located more in central London and 2.2 and 2.3 are further out so that a network is built up from the centre outwards. Phase 2 is progressing well, with designs received for schemes on three of the 13 Phase 2.1 routes. Route rides have taken place on two of the nine 2.2 routes.



Completed Q1 schemes: Millwall football ground (left) and Tabard Street in Southwark (right)

### Programme milestones forecast

Milestone	Current plan date	Actual/forecast date	RAG	Commentary	Forecast change from Q3 (days)



Completion of first two routes	31-Dec-16	30-Nov-16	●		-
Milestone	Current plan date	Actual/forecast date	RAG	Commentary	Forecast change from Q3 (days)
Stage D programme close certificate issued	31-Mar-19	31-Mar-19	●		-

### Programme financial forecast

Full life					In year		
Spend to end Quarter 4, 2015/16 £m	Estimated final cost (EFC) £m	Authority £m	Variance to authority £m/%	EFC movement in quarter £m/%	Year-end actual £m	Year budget £m	Variance to budget £m/%
12.7	121.7	42.7	-79.0 ▲ -185.0%	-	11.0	32.6	21.6 ▼ 66.4%
<p>Following a review by the Independent Investment Programme Advisory Group (IIPAG) in which no critical issues were raised, Surface Board granted approval in November 2015 for an additional £28.04m project authority to fund the construction of Q3 to Q7 plus some early work on Phase 2 routes.</p>					<p>Reprofiling of the next tranche of Quietway routes into later years, and some redesigning of current schemes, as a result of continuing stakeholder consultation.</p>		

# Network Performance and Safety Portfolio

Maximising the performance of the existing network for all users: improving safety, journey time reliability, bus reliability and supporting freight.

## Bus network performance

These schemes will improve bus journey time and reliability across London.

## Bus Priority Delivery Portfolio

### Overview

The 2015/16 programme includes implementation of 72 bus priority schemes on the Transport for London Road Network (TLRN) and borough roads. This programme prioritises the delivery (subject to consultation and feasibility outcomes) of 66 Road Modernisation Plan (RMP) bus mitigation schemes to ease, as far as possible, the permanent impacts along the bus corridors most affected by the RMP. This includes delivery of six bus priority schemes and development of future schemes for the 2016/17 programme.

### Quarterly progress

The Bus Priority Delivery Portfolio has progressed significantly in Quarter 4. The annual target of 72 schemes in the 2015/16 financial year has been exceeded, with 77 schemes completed in total. Queenstown Road scheme was delivered in January 2016 and is showing savings of up to 1.5 minutes in each direction. Camden Road scheme was delivered in March 2016.

Phase 2 construction works completed on schedule at Brentfield Road, despite encountering a number of challenging and unexpected road conditions. Remaining signal installation works continue as planned and are expected to complete by the end of May 2016. Detailed design continues for the Loampit Vale scheme, with construction starting early in the 2016/17 financial year and completion expected in August 2016.

The 2016/17 programme was endorsed at Surface Board on 15 March 2016. The baselined 138 bus priority 2016/17 schemes will be presented to Surface Board in July 2016, with a proposal for more that could be delivered in 2016/17 with additional resources.



Removal of one of four redundant fuel tanks and construction activities in progress at the Brentfield Road scheme

### Programme milestones forecast

Milestone	Current plan date	Actual/forecast date	RAG	Commentary	Forecast change from Q3 (days)
2016/17 programme approved	31-Mar-16	15-Mar-16	Complete		16
Stage 5 – reliability pilot schemes on TLRN completed	31-Mar-16	27-May-16	●	The Brentfield Road scheme was due to be implemented in October 2015, however, the traffic management of the Neasden Super Scheme has taken precedence over the Brentfield Road scheme, which is in close proximity. We are working collaboratively with the London Borough of Brent in delivering its Neasden scheme to better use road space and minimise disruption to road users.	-
Stage D programme close certificate issued	31-Mar-21	31-Mar-21	●		-

### Programme financial forecast

Spend to end Quarter 4, 2015/16 £m	Estimated final cost (EFC) £m	Annual			In year		
		Authority £m	Variance to authority £m/%	EFC movement in quarter £m/%	Year-end actual £m	Year budget £m	Variance to budget £m/%
8.0	8.0	11.9	3.9 ▼ 32.8%	-0.5 ▼ -6.7%	8.0	18.1	10.1 ▼ 55.8%
Surface Board approved £8.08m of additional project authority in July 2015, giving an in year project authority of £11.9m.					Expenditure has been reprofiled due to some savings from feasibility and design being picked up by other programmes.		

## Road network performance

By investing in equipment to help us monitor and respond to traffic, we can improve the capacity of the road network.

### Road space management SCOOT

#### Quarterly progress

We continue working to achieve the next milestone for '900 sites available for enabling (cumulative)' ahead of the 28 July 2016 plan date. Enabling is a key deliverable which means the unit is ready to activate.



On-street installation of SCOOT detection equipment

#### Programme milestones forecast

Milestone	Current plan date	Actual/forecast date	RAG	Commentary	Forecast change from Q3 (days)
A total of 900 sites available for enabling (cumulative)	28-Jul-16	02-Jun-16	●		-28
A total of 900 sites enabled (cumulative)	28-Oct-16	02-Sep-16	●		-28
A total of 1,200 sites available for enabling (cumulative)	30-Jun-17	05-May-17	●		-
A total of 1,200 sites enabled (cumulative)	29-Sept-17	04-Aug-17	●		-
A total of 1,500 sites available for enabling (cumulative)	29-Jun-18	29-Mar-18	●		-
Enabling completed for 1,500 sites (cumulative) (Annex B: 2018)	30-Sept-18	31-Aug-18	●		-
Stage 3D certificate issued (portfolio close stage)	31-Dec-18	30-Nov-18	●		-

**Programme financial forecast**

Full life					In year		
Spend to end Quarter 4, 2015/16 £m	Estimated final cost (EFC) £m	Authority £m	Variance to authority £m/%	EFC movement in quarter £m/%	Year-end actual £m	Year budget £m	Variance to budget £m/%
19.7	34.2	34.2	-	-	7.9	6.0	-1.9 ▲ -31.4%

**Surface Intelligent Transport System (SITS)****Overview**

SITS, once implemented, will replace a number of existing systems in an integrated way and is expected to result in a significant reduction in traffic delays. It will release more capacity from the road network and allocate this according to policy. It will invest in new sensors to collect more information than is currently possible, provide new methods of data sharing and storage, and allow new systems to access and use information.

**Quarterly progress**

Following our work in Quarter 3 to start writing and then review the requirements, we have concluded the review. This has resulted in further updates on quality and consistency, which will complete in Quarter 1 ready for a final review ahead of the start of the procurement process.

We finalised the draft of the procurement strategy for an Integrated Assurance Review (IAR), which started in late February 2016, and started work on the skeleton contract terms and conditions and core commercial topic areas (such as intellectual property rights and contract delivery/transition positions).

**Programme milestones forecast**

Milestone	Current plan date	Actual/forecast date	RAG	Commentary	Forecast change from Q3 (days)
Roll out of LondonWorks completed	21-Oct-16	29-Jul-16	●		-
Procurement commenced	25-Feb-17	31-Dec-16	●		-

**Programme financial forecast**

Full life					In year		
Spend to end Quarter 4, 2015/16 £m	Estimated final cost (EFC) £m	Authority £m	Variance to authority £m/%	EFC movement in quarter £m/%	Year-end actual £m	Year budget £m	Variance to budget £m/%
3.7	133.6	5.8	-127.8 ▲ -2,203.4%	-	2.1	2.6	0.5 ▼ 20.0%

The project authority increase to £5.8m was approved by the Board in September 2015 to allow the programme to release an OJEU notice in July 2016. We are requesting project authority in stages.

## Operations and Environment Portfolio

This portfolio directly supports Surface Transport’s service delivery through contract re-let and business transformation, delivering improvements to air quality, the natural environment, reducing CO<sub>2</sub> and the impacts of noise.

### London Road User Charging (LRUC) and Traffic Enforcement Notice Processing (TENP) Contract Re-let Project

The re-let of contracts for Traffic Enforcement Notice Processing (TENP) (from June 2015) and London Road User Charging (LRUC) (from May 16) to consolidate and simplify the services after the expiry of the current contracts, which includes extension of the current LRUC contract to align the two service contracts.

#### Quarterly progress

Capita completed the LRUC system development and configuration and started service proving of its solution. Owing to the volume of defects identified during service proving, Capita now forecasts to complete this in mid 19 June 2016. Within this phase of testing, we need to be assured that Capita is able to meet the performance requirements for both the back office and web elements of the solution. System integration testing of the LRUC web service continues and is forecast to complete by early July 2016. Delivery of the LRUC web for the go-live remains challenging owing to the volume of defects that are being identified as the web interfaces with the Capita solution.

Owing to system performance issues and the late LRUC web delivery, the LRUC solution is forecast to go live by 1 August 2016. We have agreed a remedy programme delivery plan with Capita to achieve the revised go-live date and have extended the contracts with the existing supply chain to ensure the current LRUC service is not impacted.



Congestion Charging (CC) signage

#### Programme milestones forecast

Milestone	Current plan date	Actual/forecast date	RAG	Commentary	Forecast change from Q3 (days)
CC/Low Emission Zone system development and configuration complete	28-Aug-15	17-Mar-16	Complete	The milestone was delayed following critical system development and testing issues.	-24

Milestone	Current plan date	Actual/forecast date	RAG	Commentary	Forecast change from Q3 (days)
LRUC service go live	03-May-16	03-May-16	●	This did not achieve post quarter end on 3 May 2016 and has been reforecast to 1 August 2016.	-
LRUC operations review	31-Mar-17	06-Jan-17	●		-

### Significant quarterly milestones movement

Milestone description	Current plan date	Q4 forecast date	RAG	Movement commentary	Forecast change from Q3 (days)
LRUC service proving complete	25-Jun-16	30-Apr-16	●	Capita is still to resolve all model office and performance testing defects, which post quarter end is forecast to complete by 31 May 2016.	-94

### Significantly late milestones

Milestone description	Current plan date	Variance to budget (days)	Variance commentary
CC/Low Emission Zone system development and configuration complete	28-Aug-15	-202	As above.

### Programme financial forecast

Spend to end Quarter 4, 2015/16 £m	Estimated final cost (EFC) £m	Full life			In year		
		Authority £m	Variance to authority £m/%	EFC movement in quarter £m/%	Year-end actual £m	Year budget £m	Variance to budget £m/%
66.3	72.3	77.0	4.7 ▼ 6.1%	-	31.3	32.8	1.5 ▲ 4.7%

## Environment

This covers activities to reduce the impact of transport operations on the environment.

### Ultra Low Emission Zone

#### Overview

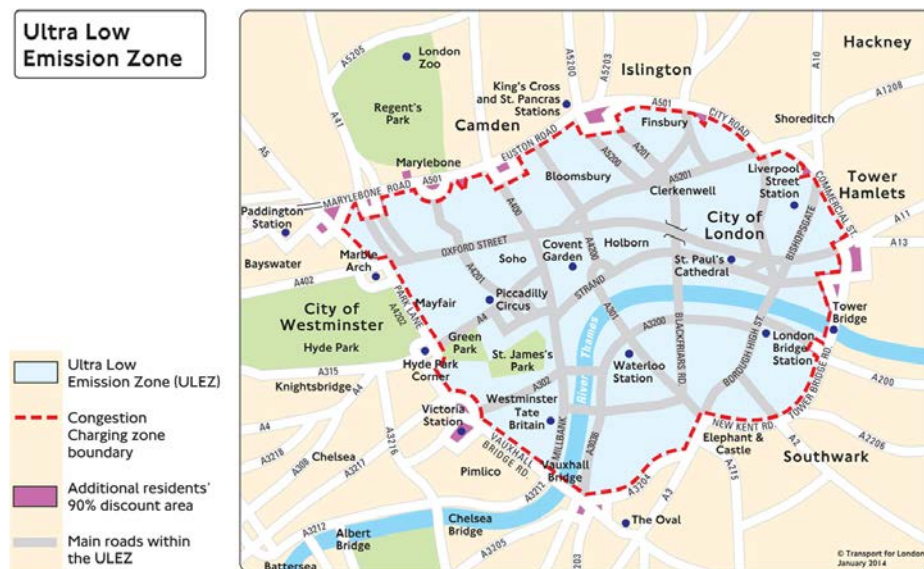
To deliver an Ultra Low Emission Zone (ULEZ) in London to cover the Congestion Charge zone area by 2020, using Road User Charging and regulation to achieve required emissions standards. Activities for the 2015/16 financial year are to initiate the programme, obtain financial authority and agree a delivery strategy.

#### Quarterly progress

The Ultra Low Emission Zone marketing campaign ran from 20 March until 21 April 2016 and targeted press, trade magazines and the radio. We continue to develop the ULEZ scope and requirements with sponsors and subject matter experts across all workstreams.

On 30 March 2016, following approval at Surface Board, we issued an OJEU invitation for applicants to tender for the installation framework to deliver a rapid charge point network in London. We held initial discussions with the DfT to begin to finalise the road signage needed to operate the scheme, which is planned to start in 2020.

The ULEZ Programme Board agreed delivery targets to develop delivery options for the introduction of the taxi 'top up' grant and delicensing scheme early in 2017.



Proposed Ultra Low Emission Zone

### Programme milestones forecast

Milestone	Current plan date	Actual/forecast date	RAG	Commentary	Forecast change from Q3 (days)
Submit application to TfL Board for project authority	17-Dec-15	17-Dec-15	Complete		-
Scheme live	07-Sept-20	07-Sept-20	●		-

### Programme financial forecast

Full life					In year		
Spend to end Quarter 4, 2015/16 £m	Estimated final cost (EFC) £m	Authority £m	Variance to authority £m/%	EFC movement in quarter £m/%	Year-end actual £m	Year budget £m	Variance to budget £m/%
2.1	422.0	12.0	-410.0 ▲ -3,416.7%	-	2.6	1.2	-1.4 ▲ -116.7%

Initial authority was granted by the Board in December 2015.

## Cycle hire

Re-letting the cycle hire contract to deliver an improved customer proposition, operating model and supply chain, ultimately leading to integration of the cycle hire back office with Oyster/contactless payment card back office systems.



## Cycle hire re-let

### Quarterly progress

Procurement authority was approved by the Board in December 2015 to integrate some of the cycle hire services into the revenue collection contract (RCC) with Cubic Transportation Systems. We also secured the rights to a perpetual licence for the intellectual property rights in the scheme hardware from Public Bike Service Company (PBSC).

We worked with Serco (the incumbent) and Cubic to develop a plan to disaggregate the current services at contract transition, defining the interface specifications between the various services and identifying which services can be transferred early to reduce risk, including those which will in future be provided by us via existing service channels.

The invitation to participate (ITP) for the bike supply and maintenance contract completed in January 2016. Two bids were received, evaluated and led to a five-week period of competitive dialogue. We published the invitation to supply (ITS) as planned post quarter end on 5 April 2016.

We are undertaking a review of the cost plan against the initial project authority in preparation for a procurement authority request in July 2016 for most other elements of the project.



A Santander Cycles maintenance van

### Programme milestones forecast

Milestone	Current plan date	Actual/forecast date	RAG	Commentary	Forecast change from Q3 (days)
Invitation to submit	28-Apr-16	31-Mar-16	●		-
Transition into service	30-Aug-17	30-Aug-17	●		-
System go live	31-Dec-18	31-Dec-18	●		-
Project completion and handover certificate approved	30-Jun-19	30-Apr-19	●		-

### Programme financial forecast

Spend to end Quarter 4, 2015/16 £m	Estimated final cost (EFC) £m	Full life			In year		
		Authority £m	Variance to authority £m/%	EFC movement in quarter £m/%	Year-end actual £m	Year budget £m	Variance to budget £m/%
8.4	51.8	51.8	-	-	6.2	10.2	4.0 ▼ 39.2%

## Bus operations

Although much of the on-going renewal of the bus fleet is carried out as part of the bus contract and tendering process, there are cases where we look to deliver additional improvements, for example, investment in the New Routemaster (NRM) and making the existing fleet cleaner and greener.

### New Routemaster

#### Quarterly progress

We have delivered 743 NRM buses into service by the end of Quarter 4 following the successful conversion of routes 168, 68, 3 and 59. A total of 21 routes are using NRM buses, which increases the total number of Euro VI engine vehicles in service to 477.



A New Routemaster on Westminster Bridge

#### Programme milestones forecast

Milestone	Current plan date	Actual/forecast date	RAG	Commentary	Forecast change from Q3 (days)
Delivery of 600 buses into service	31-Oct-15	31-Oct-15	Complete		-
Delivery of 800 buses into service	31-Jul-16	31-Jul-16	●		-

#### Programme financial forecast

Spend to end Quarter 4, 2015/16 £m	Estimated final cost (EFC) £m	Full life			In year		
		Authority £m	Variance to authority £m/%	EFC movement in quarter £m/%	Year-end actual £m	Year budget £m	Variance to budget £m/%
270.0	346.7	346.7	-	-62.2 ▼ -20.6%	104.3	110.0	5.7 ▼ 5.2%

Additional authority of £62.2m was approved by the Board on 3 February 2016 for the purchase of up to 195 additional New Routemasters. The EFC, which include the cost of the prototypes, has increased accordingly.

The year-end actual is less than budget as a result of delivery schedule reprofiled to spread deliveries more evenly into London giving TfL greater ability to absorb the new buses into the fleet.

# Financial Performance

Northern line extension tunnel boring machine at the manufacturing facility in Creusot, France

# Financial performance

Over the full year, investment expenditure was £169m lower than budget, a variance of five per cent. Project costs of £552m have been rephased to future years (offset by an overprogramming provision of £384m), offset by £50m of net cost increases.

**Table 1: Investment programme financials, 2015/16**

TfL Group £m	Year to date			Full year 2015/16	
	Actual	Budget	Variance to budget	Quarter 3 forecast	Variance to budget
London Underground	(1,309)	(1,375)	66 ▲	(1,287)	(22) ▼
London Rail (including TfL Rail)	(233)	(301)	68 ▲	(284)	51 ▲
Surface Transport	(700)	(722)	22 ▲	(707)	6 ▲
Shared Services (Corporate)	(537)	(550)	13 ▲	(578)	41 ▲
<b>Total Investment Programme</b>	<b>(2,780)</b>	<b>(2,948)</b>	<b>169 ▲</b>	<b>(2,856)</b>	<b>76 ▲</b>

**Table 2: Investment Programme causal analysis, full year variance to budget, 2015/16**

TfL Group (£m)	Full year variance to budget
Acceleration	12 ▲
Cost increases	(116) ▼
Cost decreases	66 ▲
Overprogramming	(384) ▼
Rephasing	552 ▲
Contingency	21 ▲
Reclassification	(14) ▼
Other	31 ▲
<b>Total variance</b>	<b>169 ▲</b>

LU Investment Programme (IP) expenditure was £66m lower than budget for the year. This was predominantly due to £178m of project rephasing offset by cost increases of £112m. Rephasing includes:

- £113m on Four Lines Modernisation driven by the Automatic Train Control (ATC) programme reflecting the alignment to the new ATC signalling contractor's schedule post contract award, alignment of the associated enabling works and design delays which have slowed down procurement
  - £54m in non-capital programmes with rephasing across a number of projects including Fit for the Future – Stations, Predict & Prevent programme, and ICTT
  - £47m relating to infrastructure renewals including Sub-Surface line (SSL) power upgrade, LU lifts and escalators, plant strategy, and Legacy train renewals
  - £33m relating to Metropolitan line extension due to delays in the transition of delivery obligations from Hertfordshire County Council to TfL
  - £16m within stations comprising an underspend of £31m, including Vauxhall, Asset Development and the Stations Work Improvement programme, offset by £15m accelerated spend on property compensation and acquisition on Bank station where the TWAO was secured earlier than anticipated
  - £13m within World Class Capacity including minor delays on the Victoria line upgrade
  - Project rephasing was partly offset by the release of the £224m overprogramming provision
- In addition, there were cost increases of £112m including:
- £64m from the Metropolitan line extension, which we will now deliver
  - £38m for the Northern line upgrade programme due to the re-assessment of the scope required to deliver the agreed benefits

LR/TfL Rail capital expenditure was £68m lower than budget for the year. This was largely due to the following reductions:

- £35m rephased expenditure in TfL Rail mainly due to rolling stock milestone re-profiled
  - £35m delayed spend across LO including delayed station works, lower spend on renewals and enhancements, reprofiled Gospel to Barking electrification project and delay in awarding West Anglia station works contract
  - £19m DLR costs rephased due to rebranding costs, Your Railway and Customer Experience project slippage including Blackwall stairs, remotely operated vehicle canopies, Limehouse escalator and East India urban realm, plus other smaller variances across the area
  - Project rephasing was partly offset by the release an overprogramming provision of £8m
- The delayed expenditure was partly offset by £14m increase due to operating expenditure reclassified as capital.

Surface Transport gross IP expenditure was £22 million lower than budget. The £154m underspend was almost exactly offset by the level of overprogramming (£152m). Therefore the majority of the variance was the unused management contingency (£21m).

Net future year scheduling of £112million:

- Borough cycling schemes had £53m rescheduled into future years for London Cycling Grid, Quietways and Mini-Holland projects were rebaselined allowing additional time to design routes and schemes in order to ensure optimal cycling outcomes
- £15m rephasing on Surface Transport's four road-over-rail bridge renewal projects, due to Network Rail possession and design approval issues
- Bus Priority schemes – £10m variance due largely to construction plans slipping into 2016/17 on a number of schemes as a result of continuing stakeholder engagement
- £10m slippage on the Better Junctions programme, including Westminster Bridge (south) which was delayed to allow for further consultation with stakeholders, plus reprioritisation across the programme. Spend has been deferred to later years
- Other re-phasing included £6m on New Routemaster as a result of the production schedule being reprofiled to spread deliveries more evenly into London, which gives us an improved ability to absorb the new buses into the fleet. £3m was deferred on Woolwich Ferry Phase 2 upon selection of the favoured option to procure two vessels. There was also a reprofiling of £4m on the Safety Camera Replacement programme, which will complete in 2016/17

The above items were partially offset by £12m of accelerated spend on the Asset Capital Programme, bringing forward funds from 2016/17 to deliver additional works

- As well as £21m of unused management contingency, there were cost reductions of £40m across a range of different projects. The key material items being: £14m of unutilised risk budgets upon completion of major asset renewal project, namely Hammersmith Flyover, Fore Street Tunnel, Chiswick Bridge and Woodlands Retaining Wall

Shared services capital expenditure is £13m lower than budget for the full year. The main spend was for the purchase of Earls Court joint venture loan notes. Over the full year, expenditure is £13m under budget, largely a result of project rephasing including End User Computing, Stratford Hub and the Future Ticketing project. In addition, £6m of project contingency is no longer required. This rephasing and cost reduction has been partly offset by £4m for the purchase of hardware for the Data Consolidation project, supporting Oyster and Contactless ticketing systems.

# Variance definitions and key

## Programme milestones

This report details the level of movement against the milestone in days since the previous quarterly report. A negative value indicates slippage while a positive value indicates acceleration to the programme. The red, amber, green (RAG) indicates delivery forecast against the planned date in line with the key:

Status	Discrete projects
●	On time or early
●	1-89 days late
●	>=90 days late

## Significantly late milestones

This report details milestones that are forecast to deliver more than 90 days late against their planned completion date. Where there is commercial confidentiality variances are removed and marked \*. A negative value indicates slippage while a positive indicates acceleration to the programme.

## Significant quarterly milestone movements

This report shows where milestones moved by more than two periods in the quarter. Where there is commercial confidentiality variances are removed and marked \*. A negative value indicates slippage while a positive indicates acceleration to the programme.

## Programme financial forecast

This report shows full life spend to date and the variance between authority and estimated final cost (EFC), plus the in year variance between year-end forecast and budget. A negative value indicates the EFC or forecast is greater than authority or budget, while a positive value indicates the EFC or forecast is less than authority or budget. The direction of the triangle indicates whether the EFC or forecast is greater or lower than authority or budget value. Variances are removed and marked \* where there is commercial confidentiality.

RAG	Description
▲	Variance is understood and does not impact delivery
▲	Variance is understood and mitigation plans are in place to reduce the impact to delivery
▲	Variance is understood and delivery decisions are required

## EFC variance to authority (more than 2.5 per cent)

This report contains variance commentary where projects are fully authorised and the EFC exceeds authority by more than 2.5 per cent. Projects that are only partially authorised (for example, in the feasibility stage or EFC has increased with authorised additional scope) are not classified as being in excess of authority.

## Significant EFC movement (more than two per cent)

This report contains variance commentary where the project EFC has changed by more than two per cent in the quarter. A negative percentage indicates an increase in EFC.

## Year-end forecast variance to budget (+/-£5m)

This report contains variance commentary where the variance between budget and year-end forecast (or actuals in Quarter 4) is greater than £5m (+/-). Budget is the agreed level of annual expenditure for specified works. This forms part of the TfL Group budget, which is established around Period 11 of the previous financial year.