

Date: 17 November 2016

Item: Quarterly Health, Safety and Environment Performance Reports 2016/17

1 Summary

- 1.1 The TfL Health, Safety and Environment (HSE) Performance report describes the HSE performance across London Underground, Surface Transport and London Rail for Quarter 2 2016/17, 26 June – 17 September inclusive and performance across Crossrail for Quarter 1 2016/17 1 April – 25 June.
- 1.2 The Panel's input on the development of the content of the report and identification of any topics for more in depth discussion at future meetings for inclusion of the forward planner is also sought.

2 Recommendation

- 2.1 **The Panel is asked to note this paper.**

3 Background

- 3.1 There were no accidental customer fatalities on the TfL public transport network. A total of 13 fatalities are attributed to; suicide (nine) and pre existing medical issues (four). There were no employee or contractor fatalities in the quarter.
- 3.2 Slips, trips and falls continue to be the main cause of customer injury across the network, with incidents continuing to occur on escalators, stairs, the platform train interface (PTI), and on buses. Programmes to militate against customer injury remain on target and within budget.
- 3.3 For London Underground, PTI performance continues as modelled. This is as a result of a change in the PTI profile due to the introduction of new rolling stock and increase in customers. The majority of incidents result in minor injury. Our mitigation programmes continue on plan and within budget.
- 3.4 The overall figure for employee injury continues to improve, however, slips, trips and falls resulting in musculoskeletal injury remain as the main cause of injury. We continue to reinforce safe behaviours through on site briefings, revised risk assessments and lessons learned from the 'Go Look See' programme.
- 3.5 Workplace violence and trauma from witnessing incidents continue to be the main causes of Lost Time Injuries (LTIs) across the business. Employees and suppliers absent for more than seven days with minor injuries in our projects / construction areas is a rising trend. Sharing industry leading practice across all the TfL modes including our work with suppliers to bring people back to work, and roll out of our programmes to mitigate against LTI incidents continues on plan.

- 3.6 Quarter one provisional figures show vulnerable road users killed or seriously injured (KSI) on London's road rose by 3 per cent. However, all HGV related KSIs were halved in quarter one of 2016 compared with quarter one of 2015.
- 3.7 There have been no significant incidents within the quarter that meet the criteria to report to the Safety, Sustainability, and Human Resources Panel.

4 Information

- 4.1 The 2016/17 Quarter 2 Health, Safety and Environment Performance Reports for London Rail, London Underground, and Surface Transport are attached as Appendix 1.
- 4.2 The 2016/17 Quarter 1 Health, Safety and Environment Performance Report for Crossrail is attached as Appendix 2.

List of appendices to this report:

Appendix 1 - Health, Safety and Environmental Performance – Quarter Two 2016/17
London Underground, London Rail and Surface Transport

Appendix 2 - Health, Safety and Environmental Performance – Quarter One 2016/17
Crossrail

List of Background Papers:

None.

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**Health, Safety & Environmental Performance
Quarter 2 Report
26 June – 17 September 2016**

Performance Summary

This quarterly health safety and environment (HSE) report provides an overview of the HSE performance for London Underground, Surface Transport and London Rail services for quarter two 2016/17.

There were no accidental customer fatalities on the TfL public transport network. A total of 13 fatalities are attributed to; suicide (9) and pre existing medical issues (4). There were no employee or contractor fatalities in the quarter.

Slips, trips and falls continue to be the main cause of customer injury across the network, with incidents continuing to occur on escalators, stairs, the platform train interface (PTI), and on buses.

Programmes to mitigate against customer injury remain on target and within budget.

For London Underground, platform train interface performance continues as modelled. This is as a result of a change in the PTI profile due to the introduction of new rolling stock and increase in customers. The majority of incidents result in minor injury. Our mitigation programmes continue on plan and within budget.

The overall figure for employee injury continues to improve, however, slips, trips and falls resulting in musculoskeletal

injury remain as the main cause of injury. We continue to reinforce safe behaviours through on site briefings, revised risk assessments and lessons learned from the 'Go Look See' programme.

Workplace violence and trauma from witnessing incidents continue to be the main causes of Lost Time Injuries (LTIs) across the business. Employees and suppliers absent for more than seven days with minor injuries in our projects / construction areas is a rising trend. Sharing industry leading practice across all the TfL modes including our work with suppliers to bring people back to work, and roll out of our programmes to mitigate against LTI incidents continues on plan.

Quarter one provisional figures show vulnerable road users killed or seriously injured (KSI) on London's road rose by 3 per cent. However, all HGV related KSIs were halved in quarter one of 2016 compared with quarter one of 2015.

There have been no significant incidents within the quarter that meet the criteria to report to the Safety, Sustainability, and Human Resources Panel.



TfL workforce safety and wellbeing

Workforce statutory reportable injuries

There were no workforce and supplier fatalities in the quarter or year to date. The main cause of workforce and supplier employees requiring time off work are slips, trips and falls resulting in musculoskeletal injury. Of the 45 injuries in quarter two the majority met the criteria for submission of a statutory report due to the injured person taking more than seven days absence, rather than the nature of the injury.

Workforce Lost Time Injuries

For London Underground, the main causes of workforce LTIs: 41 trauma (27 per cent), 47 workplace violence (31 per cent), and 40 slips trips, falls (26 per cent). For Surface Transport eight of the 18 LTIs in the quarter resulted from workplace violence with stress as the predominate outcome.

Work related violence

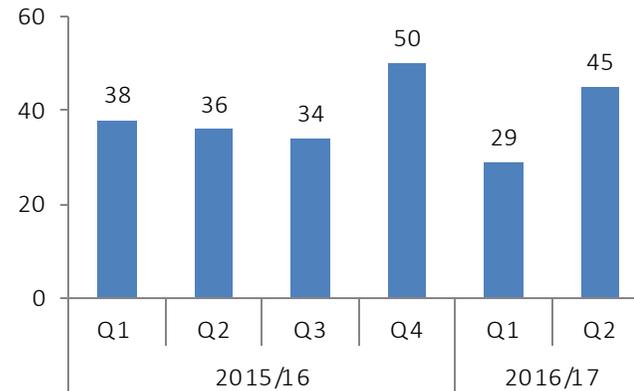
In London Underground, the customer facing operational workforce are most affected by work-related violence. These incidents are broken down into verbal assaults (50 per cent), physical assault (25 per cent), and threats (25 per cent). In Surface Transport revenue protection accounted for 83 per cent of the incidents.

Partnerships with the British Transport Police and Metropolitan Police Service continue to focus on targeting hotspots. Additionally, we have rolled out refreshed training to frontline employees and trials for the use of body worn video cameras to deter attacks are still underway.

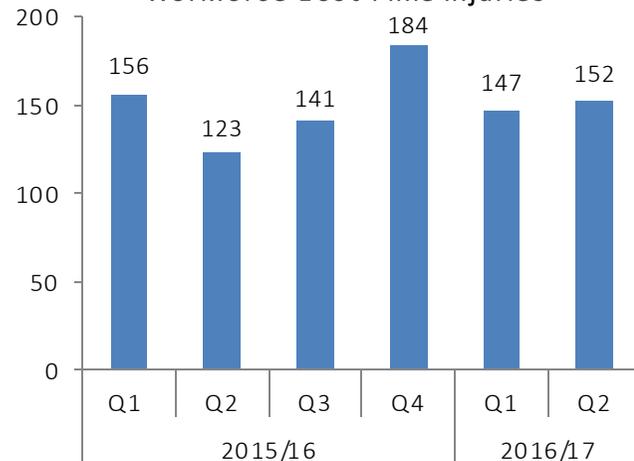
Workforce safety improvement programmes – LU only

Under the Safe Working Environment Steering Group there are currently six projects being actively pursued; electricity at work, manual handling, working at height, lifting operations, track access and objects falling from height. The outcomes of the programmes are to achieve a 10 percent reduction in incidents by 2018, compared to 2015/16 performance.

Workforce statutory reportable injuries



Workforce Lost Time Injuries



TfL workforce safety and wellbeing

LTI incident mitigations

All current mitigations are progressing on plan, and within budget, with an expected sustained reduction of incidents on completion. To further support this, best practice sharing between all modes within London Rail, Surface Transport and London Underground continues.

Current mitigations in place include;

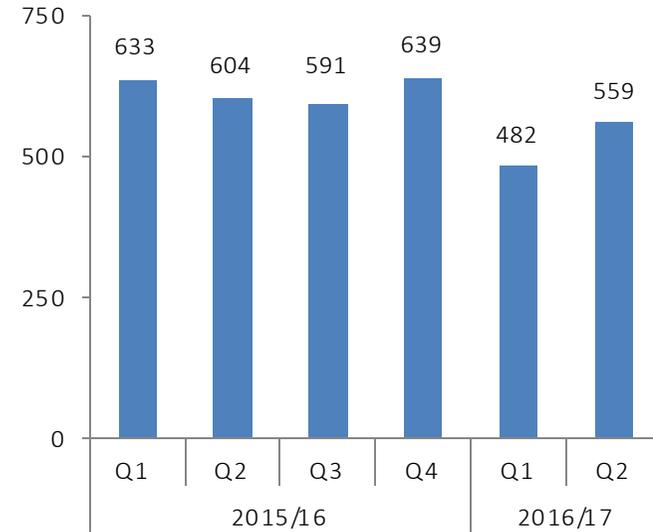
- Partnership working with the Police continues. Relunched in June 2016, Operation Spearhead targets repeat revenue offenders minimising the potential of a staff assault.
- A refreshed conflict management training package is now in place for front line employees. The primary focus includes conflict avoidance, de-escalation and reporting of incidents.
- HSE coaching workshops are being rolled out in quarter three. This cascade communication tool will be used to coach operational personnel and result in local HSE improvement plans.

In Surface Transport, an employee injury occurs every 2.5 days on average. To ensure the achievement of the Everyone Home Safe and Healthy Everyday strategic goal, a new working group comprising operational management teams from across the different areas of Surface Transport has been created to collectively;

- Study the trends and patterns in causes of injuries to employees
- Identify cross learning opportunities
- Examining existing local safety work programmes
- Share best practice and provide peer support.

The group will have an interface with other key committee groups to ensure full dissemination of information and/or escalation of issues and concerns.

TfL workforce work related violence



TfL workforce safety and wellbeing

Drug and alcohol testing

The total number of safety critical employees tested in quarter two: Unannounced (198), For Cause (18), Monitoring (21) and Post incident (12).

The total number of safety critical employees for the financial year in LU Operations is 14,077 with a minimum 5 per cent target of 710. A total of 337 safety critical employees have been tested to date. LU major construction projects have a total of 274 safety critical employees with a minimum 5 per cent target of 14. A total of 5 safety critical employees have been tested to date. Further details of the Surface Transport drug and alcohol testing will be provided in quarter three.

There were 5 positive drug and alcohol tests in the quarter. Appropriate disciplinary action up to and including dismissal is taken against anyone who is found to be in breach of our drugs and alcohol policy.

Due to a recent increase in positive test results a communication programme is under development to reinforce our drug and alcohol policy. This will be rolled out from Quarter 3.

Sickness Absence

Average days absence per employee across TfL for quarter two is 2.50 days.

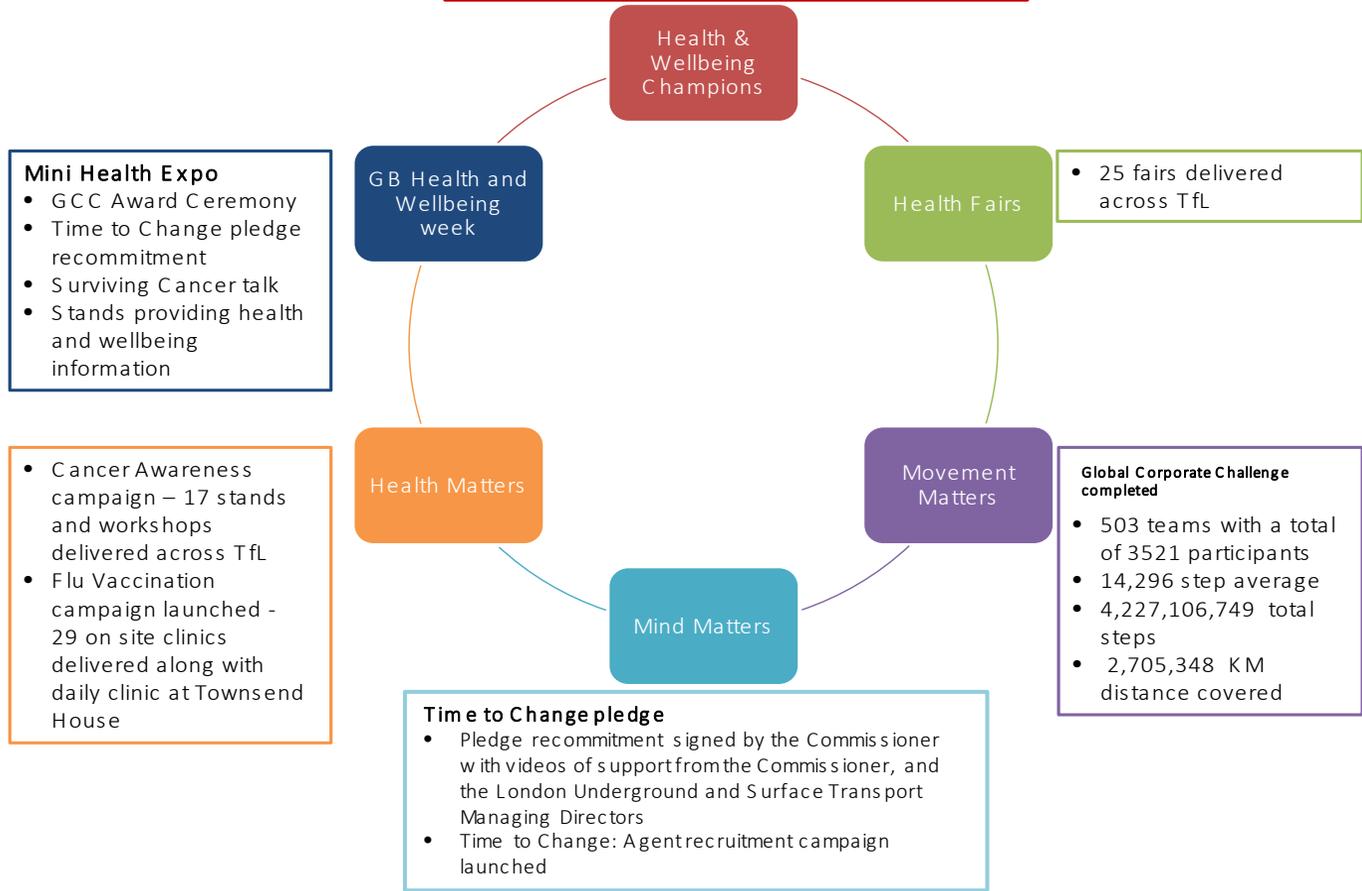
Musculoskeletal injury and mental health continue to be the top causes of absence.

Reason for absence	No employees absent	Working days lost	% of working days lost	Days lost per employee
Musculo Skeletal	1,230	14,143.0	23.4	0.59
Mental Health	637	12,477.6	20.7	0.52
Gastrointestinal	1,360	6,310.4	10.5	0.26
Accidents/Assaults	448	5,727.4	9.5	0.24
Other	542	4,834.6	8.0	0.20
Neurological Inc Eye and Ear	598	3,826.5	6.3	0.16
Coughs and Colds	845	3,609.9	6.0	0.15
Respiratory	288	2,275.0	3.8	0.09
Heart Diseases Including Blood Pressure	117	2,207.6	3.7	0.09
Genitourinary/Renal	150	1,495.9	2.5	0.06
Cancers/Carcinoma/Tumour/Neoplasms	51	1,389.0	2.3	0.06
Infections	153	964.9	1.6	0.04
Pregnancy/Childbirth	70	761.1	1.3	0.03
Endocrine and Metabolic Disorders Inc Diabetes	22	317.0	0.5	0.01
Total:	6,511	60,340		
Headcount full time equivalent (not including agency / contractors):	24,138.70			
Average sickness days per employee:	2.50			

TfL Occupational health and wellbeing improvement programme

Occupational Health have now completed the quarter two activities of the health and wellbeing improvement programme for 2016/17, these include;

- Further 26 champions trained in quarter two. The role of the champion is to: motivate and support colleagues to achieve their health and wellbeing goals so they can realise the benefits and enjoyment this brings.



Occupational Health activities planned ahead for the next quarter of 2016/17 include:

- Ongoing Cancer Awareness campaign, workshops and stands across TfL
- Time to Change agents will be recruited in October to support the mental health awareness campaign.
- Ongoing Flu vaccination campaign – launched in October
- The Wellbeing at Work Index has been implemented into the employee survey, Viewpoint. Results are due out in November.
- Launch of Mind Matters – Mental health initiatives and sleep awareness campaign
- Launch of 4 Steps to Health – Health and Wellbeing intranet pages in December
- Health fair programmes continue.

Supplier workforce safety: Surface Transport

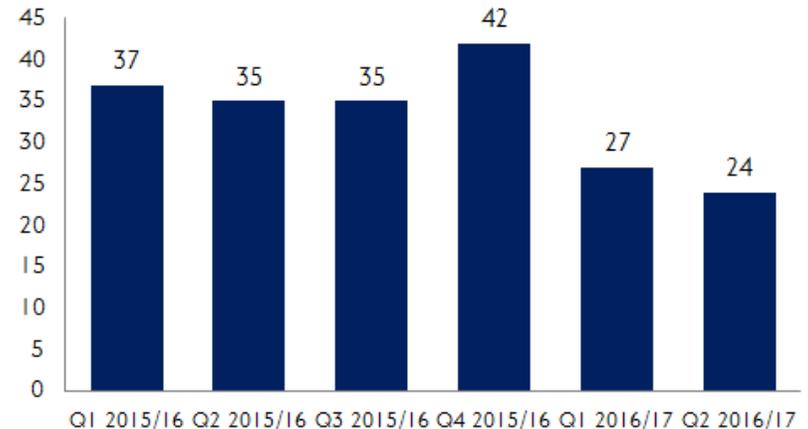
Supplier major injuries

There were no fatal incidents within the quarter or year to date. Contractor injuries improved by 2 per cent on the previous quarter. Collisions (23 per cent), assaults (22 per cent) and strain / sprain (15 per cent) were the main causes of injuries.

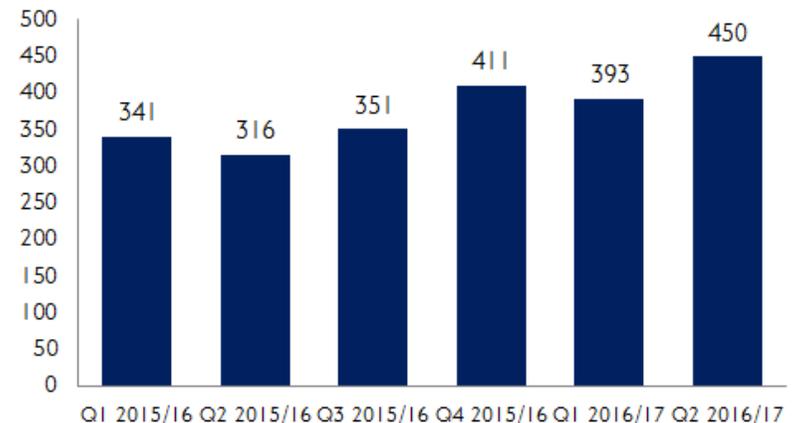
Supplier work related violence

Of 450 incidents in quarter two, 29 per cent were physical. 31 of the attacks led to injuries, 2 of which required treatment at hospital. All injuries were to bus drivers and conductors. In quarter two, 128 incidents involving bus drivers were reported to Police for follow up investigation and potential prosecution.

Supplier Major Injuries



Supplier Work Related Violence



Customer safety: London Underground and TfL Rail

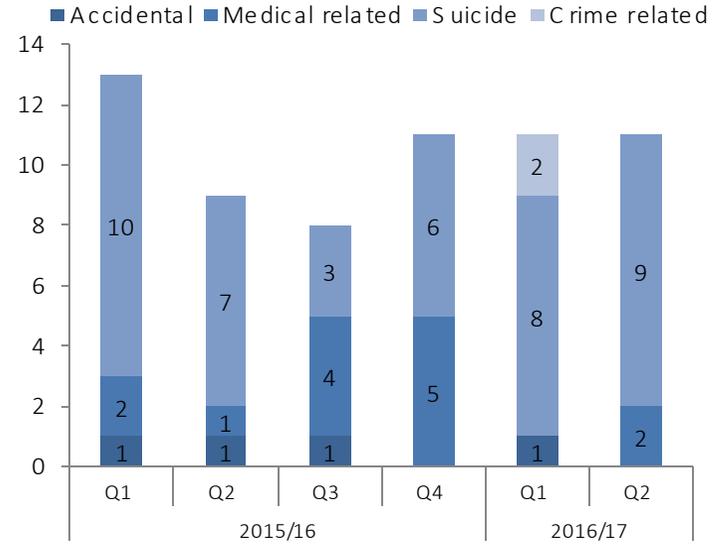
Customer fatalities

There were nine suicides on the TfL transport network and two medical related fatalities in quarter two. Both medical related fatalities were due to pre existing cardiac conditions. There were no employee or contractor fatalities during the quarter, and none in the year to date for London Underground or TfL Rail.

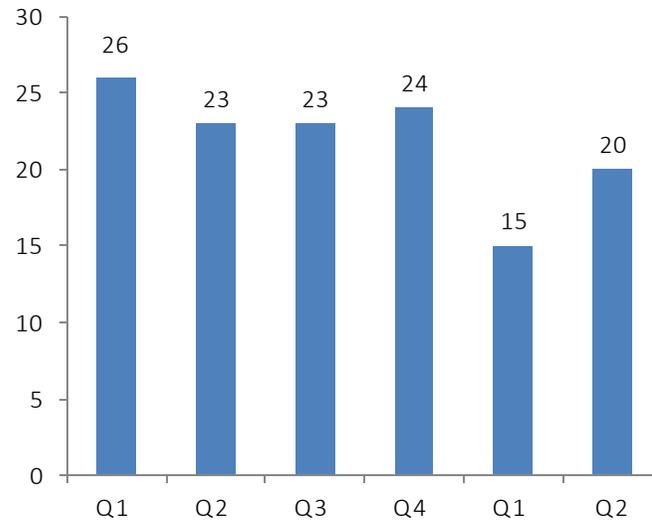
Customer statutory reportable RIDDOR incidents

Slip, trips, falls incidents remain our main cause of customer reportable incidents all of which resulted in soft tissue injuries and superficial wounds. Incidents continue to occur at the following locations; on escalators (40 per cent), on stairs (20 per cent), and the platform train interface (15 per cent).

Customer Fatalities



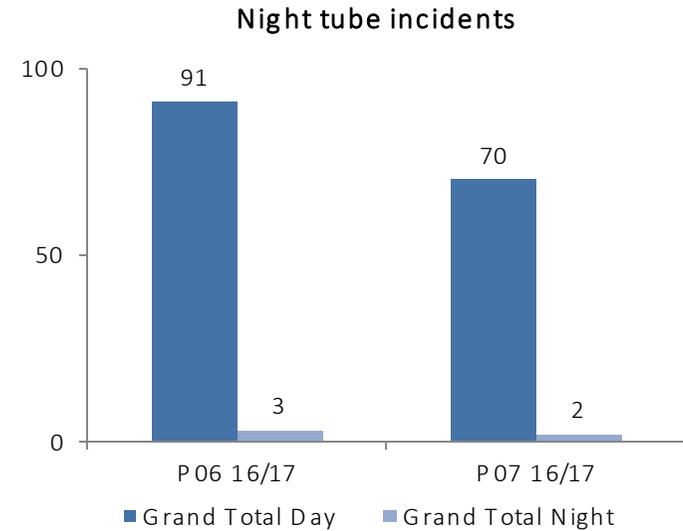
Statutory reportable injuries to customers



Customer safety: London Underground and TfL Rail

Night tube incidents

Night Tube launched on 19 August 2016. Five customer injuries to date: three as a result of falls on stairs and escalators, one due to entrapment in the gate line, and one caused by an altercation between two customers. Incidents resulted in a head injury and musculoskeletal soft tissue injuries. Three incidents involved alcohol as a contributory factor.



Safety improvement programmes: London Underground and TfL Rail

Customer injury mitigations

We have programmes in place to mitigate against injury to customers being caused by slips, trips, and falls on escalators, stairs and at the platform train interface. The programmes remain on target and within budget, with an expected 10 per cent reduction in incidents on completion in 2017.

PTI improvement programme

The highest proportion of PTI incidents continue to be falls between the train and the platform. In quarter two there were 80 reported incidents, hotspot locations continue to be Baker Street, Finchley Road and Tower Hill.

The Getting Active about PTI Safety (GAPS) programme continues to review obscured / oblique views in partnership with the Trade Unions. Realigning platform nosing stones to reduce or eliminate the gap continue on target against plan and within budget. Additionally, the programme is currently working on; different methods of highlighting the PTI to make the gap clearer and enhanced customer behavioural change initiatives.

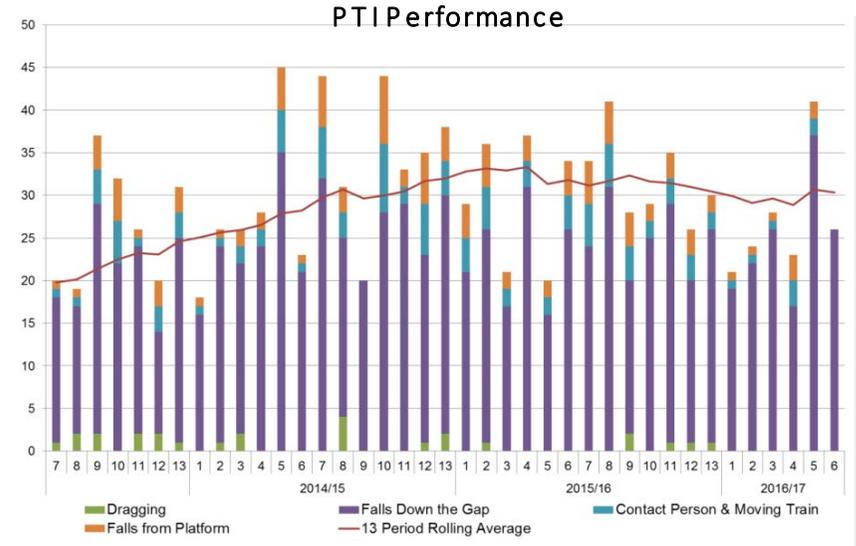
The benefits are expected to be fully realised in April 2017 and displayed through a sustained drop in incidents. We have launched a new customer safety poster campaign and supporting this with continued public address announcements and extra targeted platform staff to assist and support customers.

Escalators safety mitigations update

High impact escalator safety initiatives, aimed at changing the behaviour of our customers are due to be rolled out at the top 15 escalators at 10 stations with reoccurring incidents. Work has now been completed to agree which stations and initiatives should be applied. Some initiatives are not suitable for some sites due to the design of the escalator or heritage issues. All refurbished escalators will have the embedded safety handrail as standard and red combs will be fitted to all suitable machines as standard. Improvement works are planned for delivery throughout Winter 2016/17.

Stairs safety mitigations update

Following a survey of 261 stairs across the network a large proportion were found to be in a poor condition with worn or damaged components. All 261 stairs are currently being prioritised for remedial work, 52 of these are currently progressing.



Asset safety: London Underground

Derailments

There were two derailments in the quarter. One engineering train derailment and one empty passenger train whilst shunting around Ruislip depot. There were no injuries, only superficial damage was sustained and the train was returned to service after minor repair.

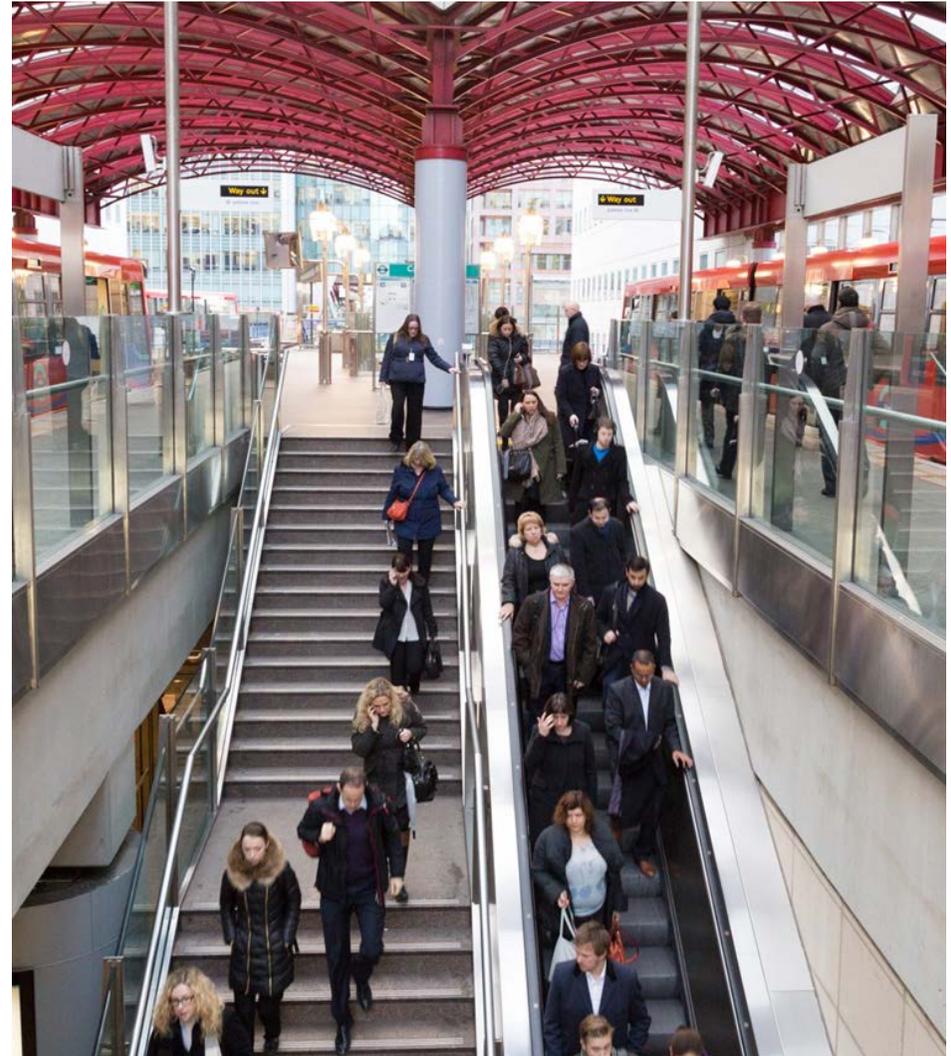
Lift and escalator defects

There were fourteen lift and escalator defects in the quarter across the network. In all cases each asset was taken out of service and repaired. The majority of these defects relate to a wear strip design issue.

Signal Passed At Danger (SPAD)

Total numbers of SPADs, all categories, shows a stable trend, with 39 occurring per period on average. There were 118 SPADs during quarter two, of which 97 were attributable to train operator error; 21 were attributable to either Service Operator, signal or alleged train equipment malfunction.

Unique to the London Underground Network, an automated train protection system is used to bring the train safely to a stop to prevent against customer or operator injury during a SPAD. Where a train operator related SPAD has occurred tailored corrective training and development plans are implemented, supported by SPAD reduction plans on relevant lines.



Customer safety: London Buses

Customer fatalities

There were two customer fatalities on London Buses, both of which were medical related.

Customer incidents resulting in being taken to hospital

Falls on buses accounted for 218 of the 295 injuries which required hospital attendance. Further analysis is being undertaken to understand what more can be done to reduce these falls as part of the bus safety programme.

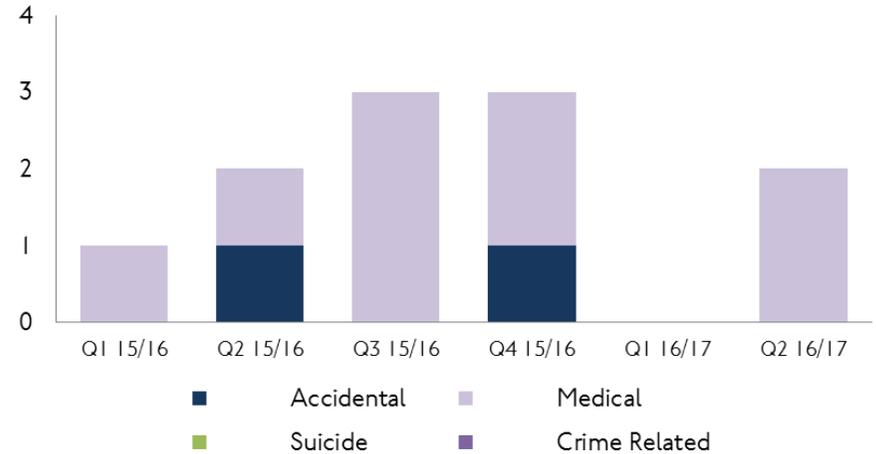
Tackling Anti-Social Behaviours on London's Buses

The work to tackle low-level anti-social behaviour and improve customer experience will see the trial of a new reporting system in Q3. The trial which will involve bus operator Tower Transit will include the introduction of a new incident form to capture issues such as rough sleepers, schools issues, begging, littering and graffiti to further strengthen efforts to deal with them. Agencies involved comprise:

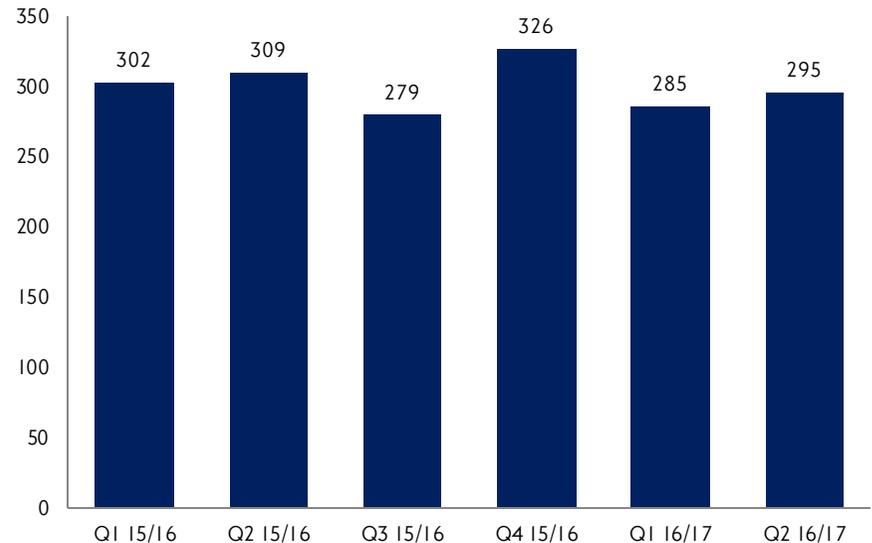
- The Roads and Transport Policing Command
- Local authorities
- Local Safer Transport Policing Teams
- Homeless charities

The longer-term goal is to introduce an electronic recording system via iBus 2.

London Bus Customer Fatalities



London Bus Customers Taken to Hospital



Customer safety: London Buses

Falls on buses

Falls on buses have remained the main cause of injuries to passengers. Thirteen per cent of the falls on buses were on the stairs and 24 per cent were during boarding/alighting. A detailed analysis of falls is underway to target further interventions.

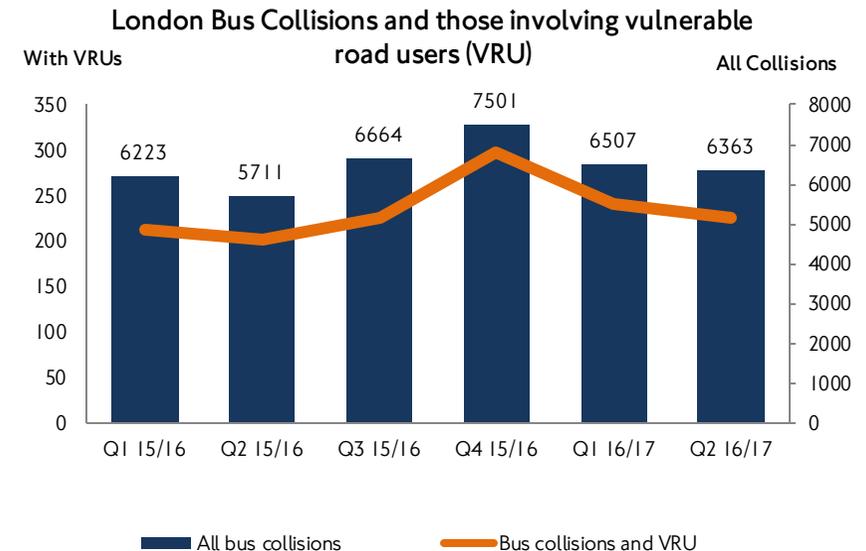
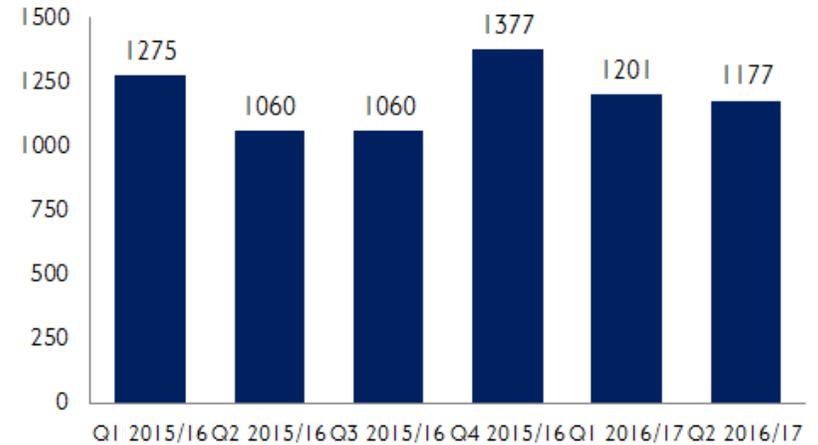
All bus collisions and those involving Vulnerable Road Users

There was a slight improvement on the number of road traffic collisions involving buses. Four per cent of the 6,363 collisions resulted in injuries, one which was a fatality to a pedestrian.

Intelligence Based Risk Assessments

IRIS, the central incident database, has been reconfigured to enable managers within bus companies and TfL to access incident data relating to the whole bus network, not just their own incidents. The expectation is that managers undertaking bus route risk assessments will have a greater level of intelligence which will enhance their ability to evaluate hazards and decide on suitable controls.

Falls on Buses



Safety improvement programmes: London Buses

A full supplementary paper has been submitted to Safety, Sustainability and Human Resources Panel on the 17 November 2016, that outlines the progress of the full Bus Safety Programme. Below are some additional items.

Bus Safety Data

A bus safety dashboard has been developed to provide an easy to access information on TfL's quarterly performance. This will supplement the full dataset which has been published for the past two years.

Work on publishing investigation summary into fatalities on the London bus network was progressed. Once completed, the summary will be published as part of TfL's greater commitment to transparency.

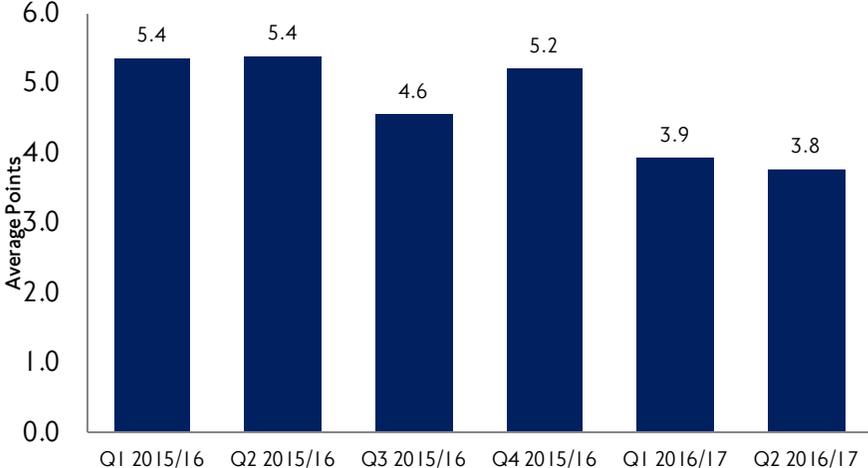


Asset safety: London Buses

Bus Engineering Quality Monitoring (EQM)

Bus companies have continued to work towards improving their EQM performance. The improvement in the quarter is partly being attributed to TfL's closer monitoring of the worst performing bus garages.

Bus Engineering Quality:
Average Defect Points Per Bus



Safety performance: London Rail

Docklands Light Railway (DLR), London Trams (LT), Emirates Airline (EAL) and London Overground (LO)

Customer fatalities

There have been no customer fatalities in Quarter Two. However, there was one customer fatality in Quarter One. A passenger fell onto the track at Star Lane station and was hit by a train. At the inquest, the Coroner concluded the incident to be an accident. The DLR and KAD teams are reviewing how they can further manage vulnerable people on platforms. Revised control measures are expected in quarter three 2016/17.

Customer RIDDOR incidents

There have been three statutory reportable customer incidents in Quarter Two, all at DLR. One incident occurred at the Passenger Train Interface (PTI), resulting in two customers taken to hospital following falls down the gap due to overcrowding. One customer was taken to hospital with a suspected broken arm after a fall on stairs.

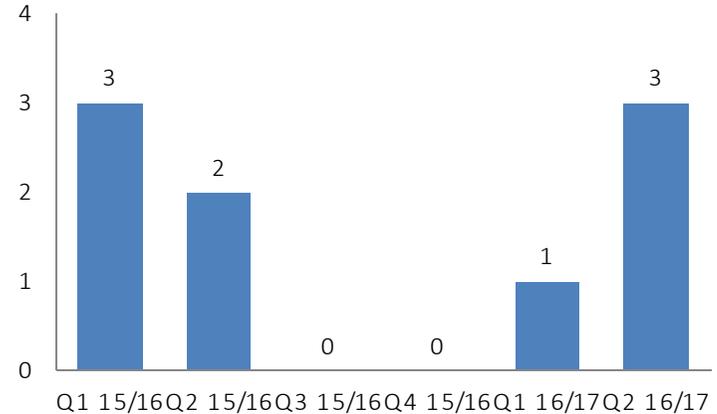
Operational supplier assaults

Most supplier work-related violence incidents in London Rail are towards employees in frontline customer service connected with revenue protection, and occur while fares are being checked.

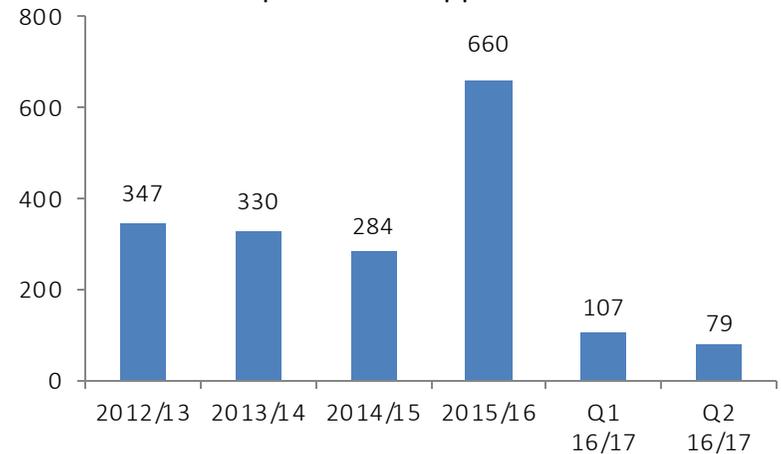
Assaults on the DLR and London Overground have further reduced despite increased ticket revenue inspections. Conflict avoidance training and partnership working with the British Transport Police (BTP) have been rolled out. This includes the introduction of a body camera trial and a launch of a new conflict avoidance training programme.

There was one workforce statutory reportable incident for London Trams in Quarter Two. A Revenue Inspector suffered head and facial injuries during an assault. Injuries resulted in hospitalisation and absence from work for over seven days. This RIDDOR reportable incident was due to the absence from work not the nature of the injury.

Customer RIDDOR reportable injuries



Operational supplier assaults



Safety performance: London Rail

Docklands Light Railway (DLR), London Trams (LT), Emirates Airline (EAL) and London Overground (LO)

Environment

London Overground - Noise impact modelling has been concluded with number of locations identified as potentially requiring additional mitigation.

Adjustment of rail head lubricators has reduced the number of wheel squeal alerts receiving by the fixed monitoring device at Holywell Curve, adjacent to Shoreditch High Street. Further assessment is underway to identify and mitigate the root causes of this intermittent problem.

A number of proposals are being assessed to improve the collection and disposal of coal tar deposits on the tunnel wall at Wapping station.

Project safety

Docklands Light Railway – there were no project accidents in the quarter, and DLR projects have now gone 303,523 hours without a lost time injury.

An unannounced drug and alcohol test resulted in a DLR project contractor testing positive for drugs. He has had his track access license withdrawn and no longer works for his employer.

London Overground- There were no reported injuries on any London Overground projects during the quarter. There have now been over 400,000 hours worked without injury.

A series of internal management coaching sessions were rolled out throughout London Overground to improve the effectiveness of safety tours conducted at construction sites.

London Trams – There were no major incidents or injuries on London Trams projects this quarter.



Asset safety: London Rail

Docklands Light Railway (DLR), London Trams (LT), Emirates Airline (EAL) and London Overground (LO)

Docklands Light Railway

There were three SPADs (signals passed at danger) in the quarter, all of which took place at depot sites. KAD have implemented an action plan to address the non-compliance by revising standard operating procedures and implementing a new competence management system.

There were several asset failures in the quarter, including an escalator step pile up at Tower Gateway and multiple lift entrapments. In all cases each asset was taken out of service and repaired. These issues are being actively managed by KAD with support from DLRL, and the number of lift entrapments has to reduced.

Emirates Airline

An incident of a cabin leaving the terminal with its doors unlatched occurred in quarter two. EAL are working closely with the manufacturers, Doppelmayr, to introduce a number of electro-mechanical modifications which will eliminate the possibility of another incident of this type.

London Overground

Quarter two has seen no activations of the Train Protection Warning System, safeguarding against SPADs. A number of actions are in progress focussing on influencing driver behaviour during safety critical activities and at known hotspots. This will continue to be monitored for effectiveness.

London Trams

The number of wrong side door openings has increased this quarter compared to quarter one. There have not been any injuries as a result of these incidents in the quarter or year to date.

The Tram Operator have had a human factors investigation carried out, and the results are expected in quarter three 2016/17. In the interim, London Trams will be introducing new automated announcements to advise customers which side the doors will open on. This is in addition to modifications of the position of door opening buttons that have already been undertaken.



Customer safety: other operational services

Dial-a-Ride (DaR), London River Services (LRS), Taxi and Private Hire (TPH), Victoria Coach Station (VCS), and Santander Cycles

Customer major incidents

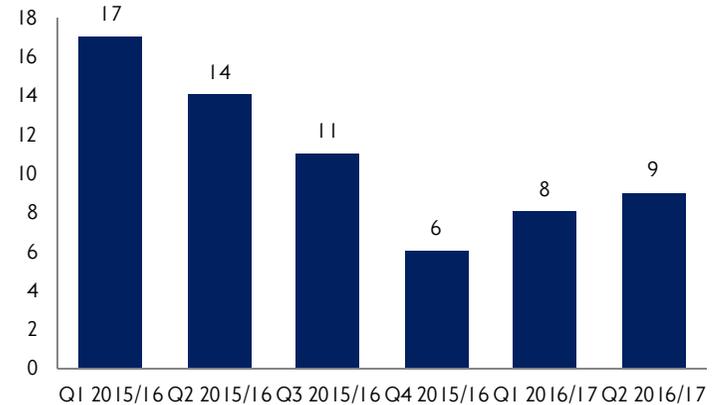
There have been no fatalities in the quarter or year to date.

Seven of the 10 customer major injuries in the quarter involved cycle hire users. In four cases, the injuries were as a result of falls while using the bikes. The three other instances were from collisions. Two DaR and a VCS passengers needed hospital treatment following two incidences of falls and a cut after being struck against a coach while boarding.

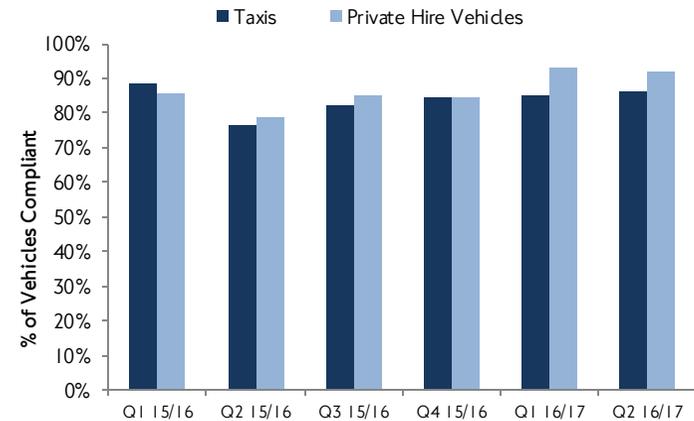
TPH Roadworthiness and compliance checks at roadside

Performance in the quarter exceeds the target of 80 per cent compliance for both taxis and private hire vehicles inspected.

Service Operations Customer Major Injuries



TPH Roadworthiness and compliance checks at roadside



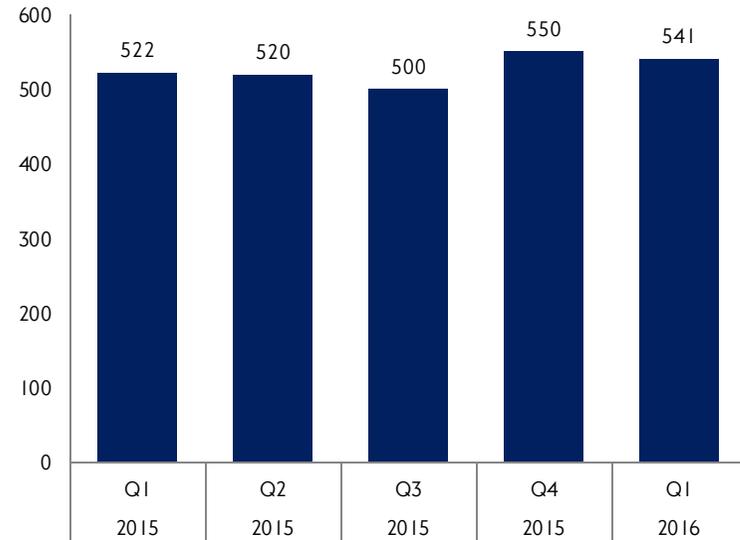
Road safety

All road safety data is provided one quarter in arrears and are provisional statistics due to our arrangement with the third party data supplier.

All KSI on London's Roads

Provisional figures shows KSIs fell by two per cent in Q1, 2016 compared with the previous quarter. The performance was however worse than Q1 of 2015.

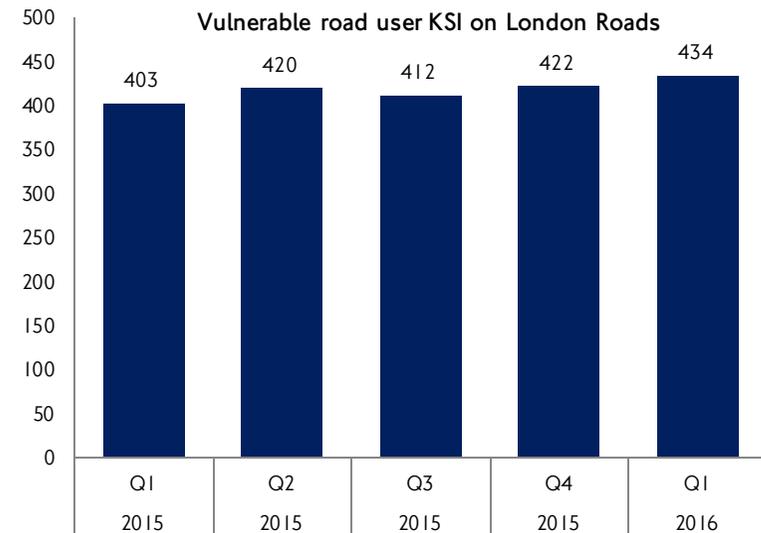
All KSI on London Roads



Vulnerable road user KSIs on London's Roads

Provisional figures shows VRU KSIs were up 3 per cent in Q1, 2016 compared with the previous quarter. The performance was also worse than Q1 of 2015.

Vulnerable road user KSI on London Roads

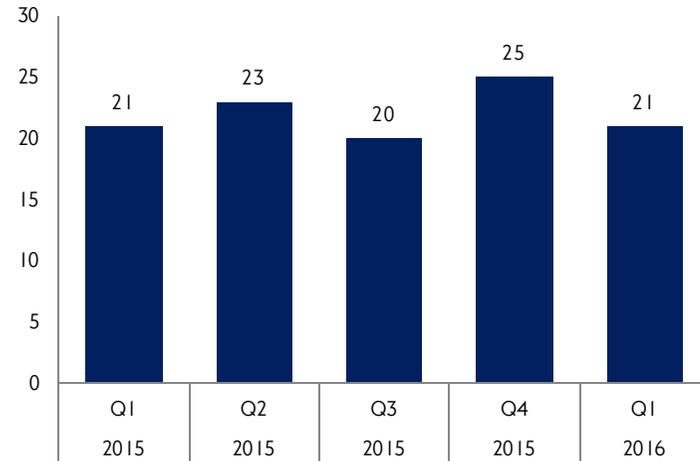


Road safety

KSI whilst using Taxi, PHV, Coach and Bus

Provisional figures shows KSIs involving occupants of buses, coaches, taxis and private hire vehicles fell by 12 per cent in Q1, 2016 compared with the previous quarter. The performance was consistent with Q1 of 2015.

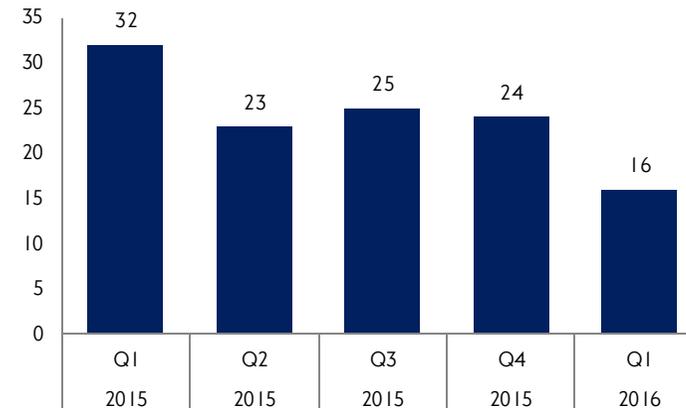
KSI whilst using Taxi, PHV, Coach and Bus



KSI by HGV

Provisional figures shows KSIs arising from collisions with HGVs fell by 33 per cent in Q1, 2016 compared with the previous quarter and were half that reported Q1 of 2015.

KSI by HGV



Safety improvement programme: Road Safety Plan

A full paper has been submitted to Safety, Sustainability and Human Resources Panel on the 17 November 2016, that outlines the progress of the full Road Safety Plan. Below are some additional items.

Quietways

London's first Quietway route, a continuous sign-posted route linking Greenwich and Waterloo by quieter backstreet roads, was opened. The Quietway programme along quieter backstreets will help open up a whole new area of London for people walking and cycling and support non-polluting and healthy travel for commuting or leisure.

20mph zones

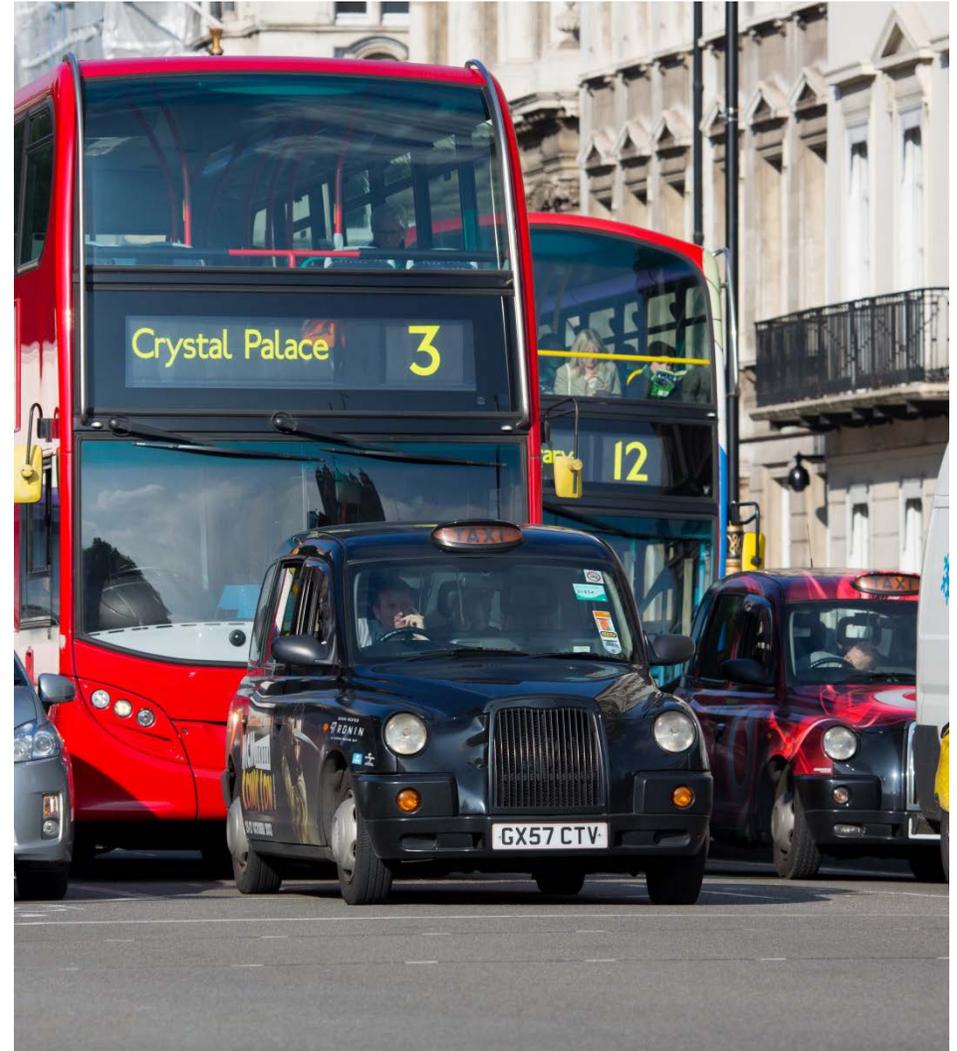
We have completed the introduction of trial 20mph speed limits on the TfL Road Network (TLRN) at four locations in Central London:

Brixton Town Centre
Clapham High Street
Southwark Street
Stamford Street

Post implementation surveys including Speed, Traffic Flows, Journey Time Reliability, Bus Journey Times, Air Quality, Pedestrian & Cycle counts and perception interviews taking place in October for Brixton Town Centre and November for Clapham High Street.

Speed Surveys, Traffic Flows, Journey Time Reliability and Bus Journey Times taking place in November for Southwark Street and Stamford Street.

In quarter three, a further four 20mph speed limit trials on the TLRN will be introduced on AI Upper Street, Kings Cross-Farringdon Road, Earls Court Road and Camden Street. For every 1mph reduction in vehicle speed, a 6 per cent saving in casualties is expected.



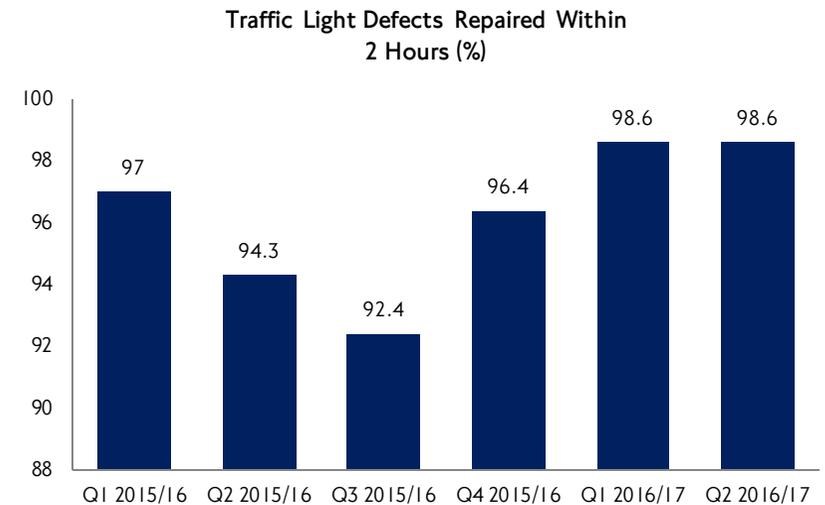
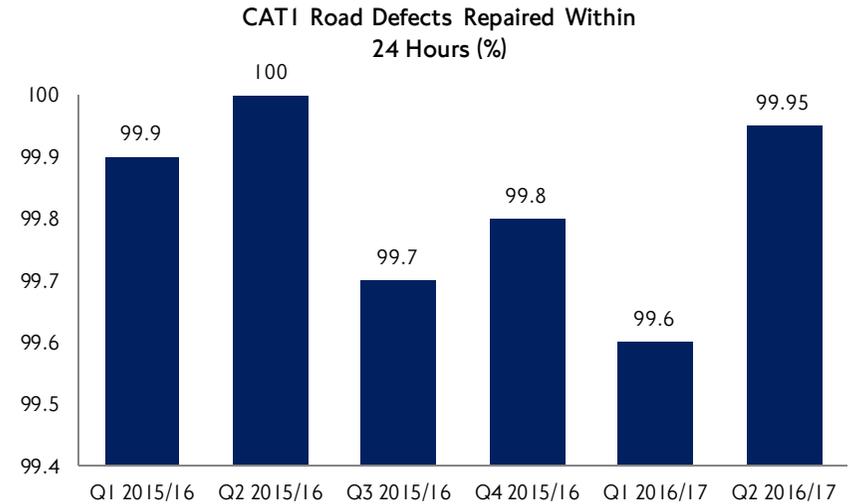
Asset safety: Roads

Category I defects repaired within 24 hours

Performance continues to exceed the target of 98 per cent of Category I road defects being repaired within 24 hours.

Traffic light defects repaired within 2 hours

Performance is maintained at a high level of 98.6 per cent defects repaired within the 2 hour service level set.



Environmental Performance

Energy use – London Underground Only

The total electricity consumption for quarter two was 293 GWh and an average of 46g of CO2 emitted per passenger km from electricity consumption.

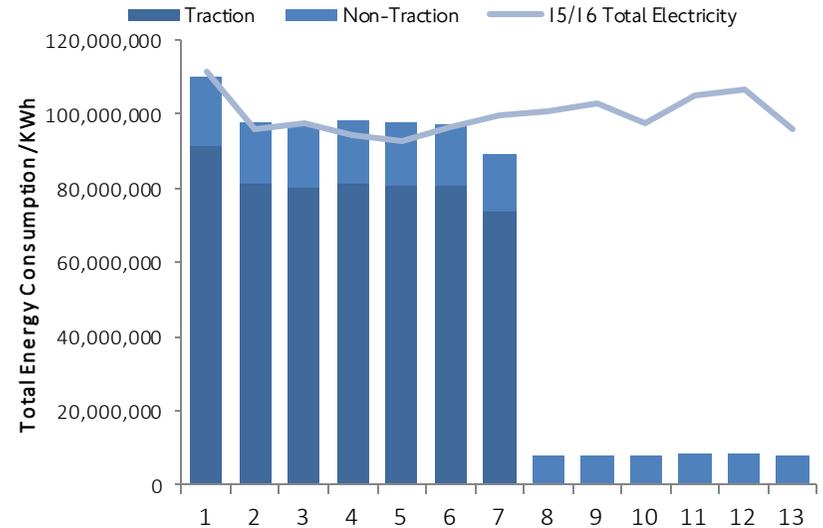
This is significantly lower than this time last year because Government values for carbon intensity of the national grid are lower for 2016 than 2015.

There has been negligible energy consumption increase seen so far from Night Tube. This is due to the low frequency compared to overall service.

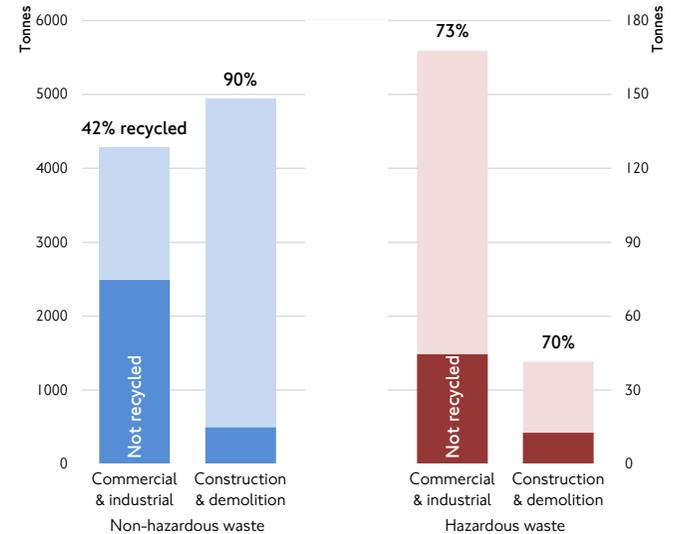
Waste management

Waste management is reported quarterly, in arrears due to the availability of data from our third party waste contractors. Quarter I results are shown.

2016 / 17 LU Electricity Consumption



How much we recycle



Environmental Performance

Compliance data is reported quarterly, in arrears due to the availability of data.

Breaches of consent – London Underground Only

There has been discharge consent breaches at four sites, within the quarter. The following actions have been agreed to manage the breaches:

- Fleet manager of relevant lines to nominate ambient managers as single point of contact for receiving sampling information
- The Professional Head of Drainage to assist in establishing an efficient monitoring and cleaning regime.

At Northumberland Park Depot there was a large increase in oil, grease and sediment which breached the consent. Initial investigations suggest that construction work may have caused this or a change in process at the depot. It is recommended that the pump chamber be cleaned out and further monitoring conducted.

Environmental complaints – London Underground Only

All environmental complaints are being managed locally by the appropriate persons following established processes, noise and vibration complaints remain the top cause for complaint.

We are working with Local Authorities across London to manage the following high potential noise complaints at the following locations:

Earls Court – PA noise

Further training of operatives is required to ensure that future use of the PA system doesn't trigger further complaints.

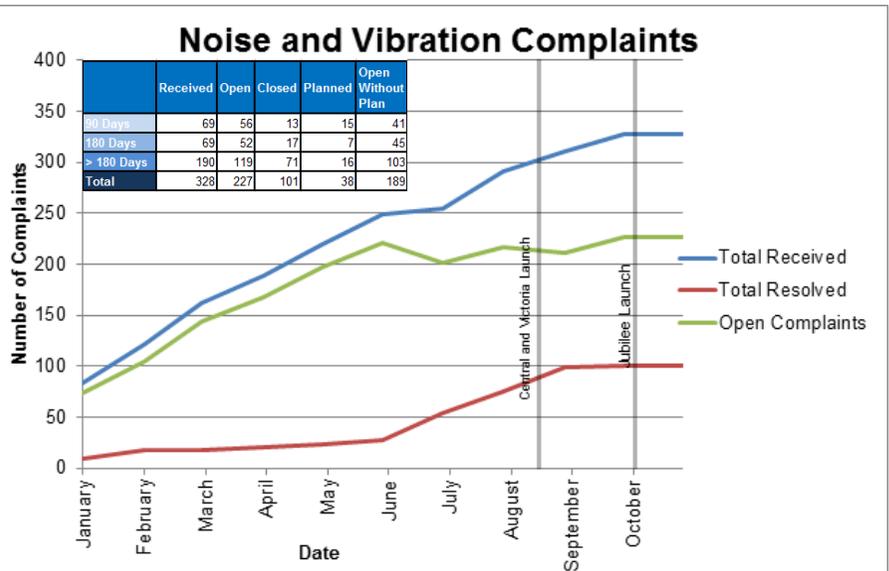
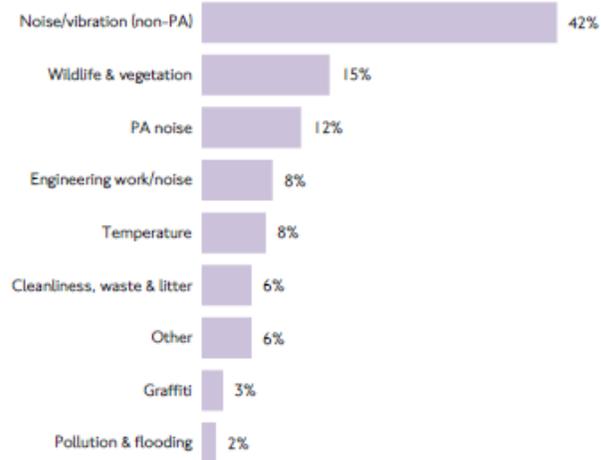
Morden Depot – track noise

A noise survey is taking place on 08 November to establish the severity of the issue. Appropriate action will then be implemented.

Barbican / Moorgate – construction and asset noise

The Environment Team and Community Relations team are working with the multiple project teams at the site to ensure remedial noise reduction measures are implemented.

Reasons for complaints



Audit performance

For quarter two, 32 two of the 53 audits were 'Adequately Controlled'. In these audits, the processes were observed to be effective and had been complied with locally. There were nineteen Requires Improvement audits.

In the ten Occupational HSE audits, the key themes identified were:

- the quality of HSE risk assessments and the absence of topic specific assessments;
- the implementation of pro-active monitoring tools to measure compliance with the HSE management system;
- local awareness of HSE management system requirements and ineffective local assurance activities to identify areas of weakness.

It is noted that the HSE transformation programme has a number of work streams underway to address the points identified above.

In the nine Technical audits, the key themes identified were:

- the suitability of project management systems to manage delivery of assets;
- consistency of compliance with existing requirements with particular regard to the use and maintaining of asset information in asset database systems

One audit on alumino-thermic welding at Maintenance Infrastructure Services (MIS) was completed in April and received 'poorly controlled' audit opinion. This was part of a series of audits involving other business units, none of which were poorly controlled. The purpose of the audit was to assess the implementation and effectiveness of the processes employed by MIS for alumino-thermic track welding. This is a process used in the rail industry for around 100 years for joining track on site.

The audit identified three Priority 1 issues.

- the first related to assurance once the welding had been completed, i.e. weld inspections had not always been completed and/or recorded in the asset management database. This could have resulted in a higher risk of sub-standard welds not being identified;

- there was poor management of the welding equipment e.g. storage, defective equipment, hazardous chemical signage, and documentation when compared to industry best practice;

- there was poor storage and calibration of other, non-welding, equipment.

All Priority 1 actions have now been satisfactorily completed. A follow-up audit has since been conducted and management processes have been found to be significantly improved.

A table of planned and completed audits can be found at the end of this report.

Audit performance

Strategic risk	Audit Q1		Audit Q2		Audit Q3		Audit Q4	
SR1: TFL Workforce and Governance structures become unfit for purpose			15 428 Payment Card Industry Data Security Standards (PCI DSS) Compliance		16 137 THORNTASK Lessons Learnt		16 124 R&U Governance	
	15 795 LU Working on Station Platforms	15 760 LU Control of Working at Height	15 706 Complied with revised CDM Regulations	15 747 Management and Disposal of High Risk Waste				
SR5: TFL does not respond to increasing Financial Challenges			15 751 Lifting Operations	16 412 London Underground Station Security Review				
SR9: TFL Fails to prepare for or deal with a catastrophic event.			15 405 Security of Power Assets in Rail & Underground		16 407 Connect Network Security	16 426 Infrastructure Control - Station WiFi Network	16 406 Engineering Network Control: Neasdon Depot Signalling	16 405 Engineering Operational Assets: Application Control Review
							16 408 Supervisory Control and Data Acquisition (SCADA) Network Security	
SR10: TFL suffers a significant IT failure or attack								
SR11: TFL fails to deliver key investment programmes or elements of key programmes	15 635 Value for money in small contracts	16 706 Management of LU Land and Property and interface with third parties	16 702 LU Project Specific Works Information Documents	16 710 LU Track Clearances	16 712 LU CPD -Load Application Process	16 711 LU 4LM Upgrade Project Signalling Assurance	16 619 LU Investment Change Programme	16 628 MTR Crossrail Commercial Management by Rail for London
	15 409 Security Assessments of LU Transport SCADA systems		16 753 Project use of Pathway and Maintenance Teams' Readiness to deliver support for new Signalling assets		16 714 LU Project Requirements		16 628 MTR Crossrail Commercial Management by Rail for London	

Audit performance

<p>SR12: TFL fails to maintain elements of the asset base resulting in asset failure or operational decline.</p>	<p>15 757 Points and Crossings (P&C) maintenance/inspections</p>	<p>15 768 72 Tube Block - Structural Repair Project</p>	<p>16 703 Supplier Assurance - Keltbray Ltd</p>	<p>16 704 Supplier Assurance - Viking Precision Ltd</p>	<p>16 729 LU Operations - Management of the LANP</p>	<p>16 735 LU Operations Communications and Information (C&I) asset maintenance regime</p>	<p>16 713 LU Plant Approval Process for Construction Sites</p>	<p>16 731 LU Operations - Obsolescence of Assets</p>
	<p>15 727a Track Alumino Thermic Welding - MIS</p>		<p>16 613 Mobilisation of the new London Overground Operator</p>	<p>16 730 LU Operations - Repeat Asset Failure Avoidance</p>	<p>16 738 LU Operations SSL Signal Maintenance</p>	<p>16 750 Wheel set Management</p>	<p>*Blank* LU Operations - Automatic Track Monitoring System</p>	<p>*Blank* LU Operations - Fleet Calibration process</p>
			<p>15 753 Maintenance of Air Handling Units for Critical Rooms</p>	<p>16 732 LU REW - Overhaul of Signal Equipment and Management of the Signalling Equipment Emergency Stores</p>	<p>*Blank* LU JNP Track Maintenance</p>	<p>*Blank* LU Operations - Fleet Management of Safety issues</p>	<p>16 745 LU Operations - Fleet Central Line HOPL</p>	
			<p>15 728 Management of Current Rail Indicator Devices (CRIDs) and Permanent CRIDs</p>	<p>16 744 LU Operations - Piccadilly Line fleet Life Extension project</p>	<p>16 736 LU Operations BCV Signal Maintenance</p>	<p>*Blank* LU SSL Track Maintenance</p>		
					<p>16 737 LU Operations JNP Signal Maintenance</p>			

Audit performance

SR14: TFL fails to meet operational safety targets.	15 766 LU HSE Incident action Tracking	16 796 LU Operations Upminster Rolling Stock Depot HSE Management	16 717 Wabtech (Brecknell Wills) Supplier Audit	16 755 Completion of Station Electrical Testing	15 803 Supplier Audit: John Bradley and Son LTD	16 733 LU Operations NR Maintenance of signals on the Wimbledon Branch	16 773 R&U HSE Transformation Project	16 749 LU Operations - Review of Change to Rolling Stock Process
	15 795 LU Working on Station Platforms	16 797 Health and Safety Assurance in Emirates Air Line	16 707 LU Access & protection assurance arrangements		16 781 LU Operations Cockfosters Rolling Stock Depot HSE Management	16 786 LU Operations Changes to Station Fire Precautions	*Blank* LU Operations - Pumps & Drainage Competence Management	*Blank* LU Operations - Training, design and Delivery
	16 782 LU Operations Signals SSL South HSE Management		16 793 Role of Principal Contractor Under CDM in L&E Projects	16 769 R&U Management and prevention of nuisance noise and vibration	*Blank* LU works Planning Lockdown Procedures	16 795 LU Environmental Audit of the Padding Bakerloo Line Tunnel Project	*Blank* LU Operations - IRSE Competence management System	*Blank* LU CDP Exclusion zones
	16 708 DAE Supplier Assurance	16 796 LU Operations Upminster Rolling Stock Depot HSE Management	16 756 TFL Management of stress	16 779 LU Operations Stonebridge Park Rolling Stock Depot HSE Management	16 701 LU CPD Working with Electricity	16 768 LU Operations Introduction of new signalling products and management of associated special conditions	16 774 R&U HSE Transformation Project	16 778 LU Operations Central Line HSE Management
	16 734 LU Operations Signal Maintenance Surveillance	16 793 Role of Principal Contractor Under CDM in L&E Projects	16 794 LU CPD Working at Height	15 756 Consultancy - Signal Design Management	16 770 LU Management of Occupational Noise Risk	16 787 LU Operations - Fit for the future Stations - transfer of Station HSE duties	*Blank* LU Operations - Track Manufacturing Division HSE Management	*Blank* LU Operations - Power Maintenance HSE Management
			16 776 LU Operations Hammersmith & City Line HSE Management	16 782 LU Operations Signals SSL South HSE Management	16 801 DK Rewinds Supplier Assurance	16 718 Supplier Audit: Sweetnam and Bradley		
			16 775 LU Competence Requirements for Undertaking civil engineering safety critical work	16 777 LU Operations Northern Line HSE Management	15 760 LU Control of Working at Height	16 719 Supplier Audit: Old Town Engineering		
			16 783 LU Operations Transplant HSE Management	16 788 LU Operations Fleet Competence Management				

Event planning

Summary

The purpose of this chapter is to update the Panel on resilience matters relevant to TfL during Quarter 1 (April to June) 2016/17.

Recommendation

The Panel is asked to note this report.

Major pre-planned events

There were a number of major events during Q1, alongside our own major highway works and third party construction taking place across the Capital.

On 24 April the London Marathon took place with a record number of competitors. The event was successfully managed from the Palestra Events Liaison Facility (PELF) and again demonstrated London's ability to deliver large, globally-recognised events. This year several extra events were held adjacent to the Marathon route on the South Bank to celebrate 400 years since William Shakespeare's birth.

In May there were a number of major events including the Hackney Half Marathon, Moonwalk and The Chelsea Flower Show.

The State Opening of Parliament on 18 May was a very high-profile ceremonial event which required considerable security and traffic management. The close working relationship between us and the agencies involved minimised the impact of the event on road and transport users.

Events in June included Royal Mail 500, the London to Brighton Cycle Ride, and Pride. The official 90th birthday of Her Majesty the Queen and the 95th birthday of Prince Phillip were celebrated on the weekend of 10-12 June. The celebrations included a service of Thanksgiving at St Paul's Cathedral, and the Queen's Birthday Parade (Trooping the Colour) culminating in the Patron's Lunch on The Mall - attended by 10,000 people. All these events received worldwide media coverage.

West Ham United Football Club took up residence in the London Stadium in the Queen Elizabeth Park, attracting significant new football and shopping crowds to the area. A large amount of planning with multiple stakeholders and agencies has been undertaken to ensure crowd control is robust throughout the park and to the transport hubs. To date the crowd control has been working successfully and we are continuing to work with the relevant agencies to continue to develop crowd management plans for the remainder of the season.

London Resilience Forum

Local Resilience Forums were introduced in 2004 under the [Civil Contingencies Act](#) to provide the means for those involved in emergency preparedness to collaborate at a local level. The forum ensures London's preparedness in the event of emergencies and coordinates the activities of a wide range of organisations to achieve this. It also provides a link between emergency preparedness and resilience at the local and national levels. More than 170 organisations make up the [London Resilience Partnership](#).

The Forum met on 13 June and received a presentation by the Department for Communities and Local Government on the preceding winter's storms, the impacts across the United Kingdom, and the lessons learnt. The Forum also considered progress against the published London Resilience Partnership strategy, as well as updates from agencies, working groups and projects.

National threat level

The national threat level was reviewed by central government following the terrorist attacks in Brussels in March. The threat level from international terrorism for the UK is assessed as **SEVERE**. The threat level for Northern Ireland-related terrorism is set separately for Northern Ireland and Great Britain (England, Wales and Scotland). In Northern Ireland it is **SEVERE** and in Great Britain it is **SUBSTANTIAL**. (*SEVERE means that a terrorist attack is highly likely; SUBSTANTIAL that an attack is a strong possibility*).

Business continuity management

A Business Recovery Plan was put into action once during the quarter as a result of water leak from a damaged gutter at a TfL office. Plans were invoked to allow engineers to test the safety of electrics within the building. This incident affected 80 members of staff who - as per their Business Recovery Plan - worked from home for the remainder of the day. The incident was resolved the following day. The pan-TfL Business Recovery Management Team was alerted of the incident, but it was managed locally by Business Continuity Managers.

Event planning

The annual Business Continuity Awareness Week (BCAW) campaign was successfully held in May focusing on preparedness actions.

Planning and preparation for the pan-TfL Business Impact Analysis (BIA) project is now in the user testing stages and will be rolled out in the next quarter. The project will provide easier access via SharePoint to Business Recovery Plans for Departmental Recovery Teams, add a layer of resilience to the overall recovery process, and further ensure integration across TfL.

Surface Transport

Events and Incident Command and Control training has continued throughout the quarter with five Bronze (Operational) courses delivered. The Silver (Tactical) Lead role in the Surface Transport Incident Response Management Framework has been reviewed as part of the ongoing continual improvement to the Surface Transport Incident Response Management process.

Table-top exercises were held on 28 April and 14 June as part of the Surface Transport's resilience programme. These exercises focused on how Surface departments work together to mitigate emergency scenarios such as major flooding.

In partnership with the Business and National Government professional association and the Institute of Civil Protection and Emergency Management (ICPEM), Surface delivered two resilience conferences during BCAW in May. This brought together multi-agency partners to address various aspects of resilience and continuity.

The first year of a three year Resilience Improvement Plan for London Rail was completed. The plan covers people, equipment and process resilience issues. Activities planned for 2016/17 include understanding lessons learnt from industrial action over the past year on London Rail and other parts of TfL, preparing for adverse weather scenarios, addressing cyber security issues and ensuring major event plans are in place.

London Rail business teams undertook the second annual assessment against the British Standard on Organisational Resilience (BS 65000:2014). The results of the assessment will be available in the next quarter.

Surface Transported Exercise Unified Response, which was an EU financed multi agency disaster management exercise led by the London Fire Brigade. The scenario was based around a building collapse close to Waterloo national rail station which caused a tunnel collapse in the Bakerloo and Northern Line tunnels. This resulted in several train carriages being trapped. The exercise focused on the four day search and rescue operation and the command post elements of such a large incident. The Palestra Event Liaison Facility (PELP) was activated as the Multi-Agency Transport Hub which led the strategic transport response to the incident with a full command structure of Gold (Strategic) Commanders, Silver (Tactical) Commanders and a Bronze Commander structure including staff on site. The exercise was the largest disaster management exercise in the EU for the last ten years and has been hailed as a success.

London Underground

The operational planning for the August bank holiday was completed to account for the significant engineering works across national rail, London Rail and London Underground infrastructure. This ensured multiple agencies works were monitored and any potential engineering overruns had a robust operational plan in place to prevent passenger disruption. The operational planning included infrastructure concourse works at London Bridge. The processes and lessons learned are being reviewed before the platform lengthening works at Waterloo commence in August 2017.

LU Station congestion control and emergency plans were fully reviewed and updated for the successful introduction of night tube on the Victoria, Central and Jubilee lines. Further work is required in quarter three to ensure plans are in place for future night tube operations on the Piccadilly and Northern lines.

Event planning

Crossrail

The 2016 Crossrail exercise and training programme includes further executive incident management training and a full simulation exercise later in the year. A large meeting room at the Crossrail head office at Canary Wharf has been enhanced for use as a control room in the event of an emergency; this room contains multiple screens and video conferencing facilities. Staff have been trained to set the room up if or when the need arises.

A London Fire Brigade (LFB) officer is seconded to the Crossrail Health and Safety Assurance team. A programme of site visits focussing on fire safety continues, as well as ongoing familiarisation visits by local LFB teams. Multi-agency work with Crossrail and the emergency services continues and regular meetings are conducted in order to advise the emergency services of the project progress and to discuss any project risk profile changes. Crossrail continue to be offered counter terrorism awareness training through attendance at Project Griffin and Project Argus events across London. Project Griffin and Project Argus are security and counter terrorism awareness training delivered by the Police Service at no cost to business.

TfL continue to provide helpful information to enable Crossrail staff and sites to plan their journeys; recent industrial action did not affect Crossrail operations. The Crossrail business continuity management system and incident response processes are being adapted to acknowledge the changing risks to the project.

List of appendices to this report

None

List of Background Papers:

None

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