

Date: 10 December 2015

Item: Quarterly Health, Safety and Environment Performance Reports - Quarter 2 2015/16

1 Purpose

- 1.1 To inform the Safety, Accessibility and Sustainability Panel of the key health, safety and environment matters during Quarter 2, 2015/16.

2 Recommendation

- 2.1 **The Panel is asked to note the report.**

3 Background

- 3.1 Full reports on Health, Safety and Environmental performance are produced annually. Quarterly reports are produced to update the Panel on any significant matters from the previous quarter. Transport for London (TfL) has three main delivery businesses, Rail and Underground, Surface Transport and Crossrail, with support from the Specialist Service Directorates. Any key activities related to the specialist directorates are highlighted on an exception basis, in this cover page.

4 Information

- 4.1 The Quarter 2 2015/16 Health, Safety and Environment Performance Reports for each business area are attached as appendices.

List of appendices to this report:

Appendix 1: Rail and London Underground
Appendix 2: Surface Transport
Appendix 3: Crossrail
Appendix 4: Statistical Data

List of Background Papers:

None.

Contact Officer: Jill Collis, Director Health Safety Environment
Number: 020 3054 8158
Email: jill.collis@tube.tfl.gov.uk

London Rail and Underground

Quarterly Health, Safety and Environment Report

1 Summary

What went well

- 1.1 The London Rail (LR) 10 year strategy was launched. This includes the continuous improvement of HSE performance. Activities have been aligned to the nine areas of the 10 year HSE strategy which are:
- Improving operational safety;
 - Improving asset safety;
 - Improving construction safety;
 - Developing leadership and management capability;
 - Strengthening the management system;
 - Influencing behaviours;
 - Learning from incidents and sharing best practice;
 - Promoting the health and well-being of our workforce and customers; and
 - Protecting the environment.
- 1.2 The “Improving construction safety” area is aligned to the LR Construction Improvement programme to ensure consistency across the two programmes. The top five priorities for this year are:
- Review requirements of Construction Design and Management Regulations 2015 assuring legal compliance;
 - Develop and implement a HSE Charter with suppliers setting out minimum supplier construction safety standards;
 - Implement measures to ensure intelligence on supplier HSE performance is captured systematically;
 - Improving Safety alerts and bulletins – sharing lessons learnt and improvement measures; and
 - Reduce environmental impacts of project delivery activities.
- 1.3 The London Underground (LU) safety, environment and health performance indicators are made up from a suite of leading and lagging indicators. Some of these are simple outcomes measures and others precursors in the major accident risk models. During the quarter, these have remained stable or are improving, with the exceptions of those noted below. In particular, the LU/LR Significant Injury Rate continues to fall. (This measures the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations (RIDDOR) reportable injuries, where LU is held as playing a contributory factor in the injury and which result in the customer being taken to hospital for treatment of that injury. The severity of the injury is not taken into consideration). The overall number of accidental customer injuries across LU is also lower than in 2014/15. (Around 275 per a 4-weekly period to circa 265 per 4-weekly period).

- 1.4 In the first two quarters of the year, around 75 per cent of all accidental injuries to customers are as a result of slips/trips/falls. Of these most occur on escalators (45 per cent of incidents), stairs (19 per cent of incidents) or at the platform train interface (14 percent of incidents). The current focus on improving Customer Safety is the trial involving looking at incidents on escalators which started in August. Results from these trials will be available in quarter 4.
- 1.5 Following a series of successful pilots, LU has launched a new behavioural safety training programme. This further promotes and embeds a culture where we all take a personal responsibility for safety. The aim is to help our people understand that all of our actions whether in the office or out on site can have direct and indirect impacts on our own or others safety and wellbeing. The training will give practical experience and techniques on how to manage situations to achieve a positive safety outcome.
- 1.6 There were no 'in service' derailments of passenger trains during the quarter. It is now 100 months since the last 'in service' passenger train became de-railed on a running line (at Mile End on the Central line.) The track renewal programme and improvements in track monitoring; (including enhanced techniques to find and rectify broken and crack rails) are the main contributors to this.
- 1.7 There were zero environmental incidents across LU and LR businesses.
- 1.8 London Tramlink (LT) received the Safer Tram Stop Award. This is awarded by the British Transport Police (BTP) Secure By Design initiative and the Department for Transport (DfT). BTP examined all 39 stops served by LT to ensure they were all bright and welcoming, with Help Points and CCTV installed to reduce crime and discourage anti-social behaviour.
- 1.9 An independent safety audit was carried out on LT fleet maintenance. This was a follow up audit to the one carried out in November 2014. It was to check that LT had suitable arrangements in place to manage the new fleet maintenance arrangements. The audit concluded that satisfactory arrangements were in place.
- 1.10 Docklands Light Railway (DLRL) achieved an exemption order from the DfT on compliance with the Rail Vehicle Accessibility Regulations (RVAR) for DLRL's B2007 vehicles regarding gaps and steps.
- 1.11 KeolisAmey Docklands launched a new safety initiative 'Your Time for Safety', which aims to further develop the culture of personal responsibility for safety.
- 1.12 Twenty nine staff from corporate buildings have been trained in Mental Health First Aid training. This is a pilot group and all volunteers are under in-house supervision which focuses on:
 - guidelines for delivery;
 - skills practice; and
 - input from group members on development of the programme.Feedback from this trial will help inform the longer term (five year) plan.
- 1.13 Thirty eight health fairs have been delivered, including one on London Overground (LO). A total of 1,325 employees have attended the health fairs to date, with positive feedback continuing to be given.

1.14 As part of TfL's Step it Up campaign, which is aimed at encouraging employees to take more physical activity, the Global Corporate Challenge (GCC) 2015 was completed. 1,001 employees took part. This year the GCC was also extended to the District line as a trial for the operational business. A GCC award ceremony for the highest performing and improving teams took place during a TfL public health event. Other Step it Up activities included:

- Step it Up review fairs at Pier Walk, Palestra and Westferry;
- Step it Up fairs on the District line during the London Health and Wellbeing week;
- Further physical activity champions trained, including District line champions; and
- Various events were also delivered at head offices:
 - World Cancer Research Fund – 3 moves for Health Challenge;
 - Sport and social club fair;
 - Walk to work week;
 - TfL cycle challenge;
 - London by bike seminar;
 - Cycle confident training; and
 - Take the stairs.

1.15 As part of the campaign to tackle obesity in TfL, a twelve week online weight loss programme came to completion; 500 employees took part and the results are being evaluated.

1.16 In support of promoting the health of the workforce, LO entered two teams in the Diamond Relay in the Olympic Park; and one of the two LO teams in the GCC came 5th out of 143 teams, averaging over 19,000 steps per day.

1.17 The overall lost time injury (LTI) frequency rate across LU capital programmes remains stable at 0.29 LTIs per 100,000 hours worked. The main type of incident is as a result of slips, trips and falls, partially as a result of the season. Together with its supply chain, LU is increasing its focus during routine site visits of potential hazards, supported by tool box talks to raise awareness. The incident frequency rate continues to improve across LU capital programmes. The main causes of incidents remains as a result of weakness in processes and procedures and lack of hazard identification, joint work streams with our suppliers are helping to address these causes.

1.18 DLRL's Safety Performance Index (SPI) was good for the second quarter. The SPI has been above target for the first six periods of the financial year. LT's SPI strengthened during the quarter (from 76 to 78.7) with improvement seen in the number of late work requests; the number of rails defects and an increase in the number of planned preventative maintenance activities for both the fleet and infrastructure areas. Following the inclusion of West Anglia Inner (WAI) services in the LO network, the SPI is presented separately for the original LO network and the whole network. This is so that any changes to safety performance in the original network are not masked by the inclusion of WAI data. The SPI for the original LO network has remained steady over the quarter. The SPI including WAI is lower due to the higher number of assaults, both passenger on passenger and passenger on staff. There were no operational incidents on WAI in the Period.

- 1.19 The improving project safety performance across LR continued. It is more than 18 periods since the last reportable injury or lost time injury (LTI) on LO projects, in excess of 2,000,000 hours worked; there were no contractor major injuries on LTIs in nearly 600,000 hours of construction work. This is a significant achievement during LT's busiest period of such work since the network was built; Project safety on DLRL remained positive, with no incidents of note occurring in the quarter.
- 1.20 The strong safety performance on DLRL continues. There were no major injuries to either customers or staff on DLRL and no customer RIDDOR injuries across DLR. There have been no Dangerous Occurrences for 21 consecutive periods. The number of RIDDOR reportable customer incidents on LU infrastructure continues to fall (improve). There were 50 per cent fewer incidents reported (50 compared to 101) in the first half of the year compared to last year.

Areas for improvement

- 1.21 The number of Category A1 Signals Passed at Danger (SPAD) on LU remains above target. Action plans are in place to improve the SPAD rates, with Trades Union Health and Safety representatives and the relevant line management teams meeting to discuss the issue.
- 1.22 DLRL received 18 noise complaints. The majority were related to track noise, but complaints were also made about night works, and tannoy announcements. All are being investigated. LO has received no noise complaints since the track damping and noise barriers were installed at Holywell Curve.
- 1.23 There were seven failed Drugs and Alcohol tests on the LT Wimbledon Platform 10 project at the beginning of the quarter. (Four positive tests and three operatives refused to take the test and left site, these are counted as failures.) Six of the seven instances involved a sub-contractor. Since the first positive test, the Principal Contractors testing regime was increased. There have been no other failures since. There were five positive tests on LU, and two employees who booked off duty without permission. Two resignations were received; the other incidents are under investigation.
- 1.24 The number of working days lost to employee sickness on LU fell slightly from 42,475 in quarter 1 to 42,359. This gives an average of 2.44 working days lost per employee in quarter 2 which is a slight improvement on the previous quarter (2.49). Gastrointestinal, musculoskeletal, and coughs and colds were the top three causes of sickness absence. Sickness absence is monitored locally and through the TfL Health Improvement Plan meeting.
- 1.25 The number of working days lost to employee sickness on LR rose slightly from 126 in quarter 1 to 144. This gives an average of 0.60 working days lost per employee in quarter 2 which is the same as the previous quarter (0.56). Gastrointestinal, Musculoskeletal/Coughs and colds/respiratory complaints were the main causes of sickness absence. Sickness absence is monitored locally and through the TfL Health Improvement Plan meeting.
- 1.26 Emirates Airline's (EAL) Safety Performance Index fell from the high 80's to 71 at the beginning of the quarter. This was as a result of protesters accessing the airline and a number of unrelated minor customer and staff accidents. A higher than normal number of CCTV failures also affected the SPI. EAL, working with the supplier, has resolved most of the CCTV issues, which in turn has seen reliability improve. The server and control system will also be replaced which will produce further improvements. After two recent trespass incidents, a review of tower

security has been conducted. Some immediate measures have been implemented and longer term options are being evaluated. At the end of the quarter the SPI returned to its good performance levels and is at its highest level this year (90).

1.27 The level of assaults on LOROL staff and passengers on the WAI line continued at a higher level in at the beginning of the quarter but improved towards the end of the quarter. The main issues continue to be ticket related and general anti-social behaviour, where such behaviour was not challenged previously.

Key Deliverables in the next quarter (quarter 3 – 2015/16)

1.28 LU/LR are continuing to work closely with project managers to ensure full compliance with the revised Construction, Design and Management Regulations 2015 following the transition period.

1.29 LU capital programmes directorate is currently undertaking a Health, Safety and Environment (HSE) leading indicator and data analysis review to improve the forward looking insight into its HSE performance. The design work will be complete next quarter.

1.30 LU's Occupational Health team completed the development of the stress reduction workshops for managers. The first group will start in October. The first set of workshops also gives a learning opportunity for future improvement of the programme.

1.31 Work continues with the musculoskeletal risk assessment of train cabs. Cab measurements will be completed on the Bakerloo and Central lines. Cab measurements on other lines are complete. This information is assisting in the development of cab posture section within the competence management system.

1.32 TfL helped develop and took part in a new event to raise the profile of employee health and wellbeing, The London Health and Wellbeing Week (19-23 October 2015). The week is organised through the collaboration of several major London employers and national employers with a large presence in London. There were various opportunities for employees to join in with different activities running throughout the week. Key activities promoted by Occupational Health during the week were:

- Flu jabs;
- Stoptober;
- Health fair;
- Step it Up fairs;
- Directors activities; and
- Local health initiative competition.

1.33 Within LR, a Benchmarking study on competency management systems will be completed.

1.34 The annual audit of the DLRL Safety Management System will be completed.

1.35 LT will be trialling the use of Fhoss Personal Protective Equipment (PPE). This is battery powered self-illuminating PPE safety vests, jackets and trousers which will increase the visibility of staff working in the road and rail environment.

1.36 LT will be submitting an application to the Light Rail Awards in the category for Significant Safety Initiatives. This will be for the work done to improve crossing safety on the network and to understand the risk profile at each pedestrian foot crossing.

2 Major Incidents

2.1 There was one incident at London Bridge underground station, which resulted in fatal injuries to a customer who lost their balance and fell down 10 steps.

Surface Transport

Quarterly Health, Safety and Environment Report

1 Summary

What went well

Road Safety

- 1.1 Provisional data for quarter 2 of 2015 shows the lowest level of killed or seriously injured (KSI) people on record for quarter 2. In the quarter, there were 510 people KSI on London's roads, 45 per cent below the 2005-2009 baseline for quarter 2 and five per cent lower than the same quarter last year. The figure was also better than the target for quarter 2 by seven per cent.
- 1.2 TfL launched the Capital's first interactive digital collision map, which is part of a continued drive to improve road safety awareness to reduce the number of casualties in the Capital. The London Collision Map – which can be viewed at www.collisionmap.london – uses extensive data, collected by the Metropolitan Police Service (MPS) and held by TfL, to highlight road collisions in local areas. This creates a useful new way to inform road users about junctions with high collision histories and aids improvement work, in line with TfL's commitment to improve transparency for customers and stakeholders.
- 1.3 The map allows anyone to easily search for collisions anywhere within London, providing information about when, where and how severe incidents were, dating back to 2005. The aim is to help raise awareness of road conditions and encourage road users to take extra care at junctions. Academics, researchers and TfL will also be able to blend the data with other sources to look for wider, long-term trends across London and the South East. Further changes to the TfL webpage are also planned in the future to help all Londoners make the best use of this data.
- 1.4 TfL's 2014 Road Safety Annual Report was also published in September, providing an update on the 2014 casualty figures, as well as a summary of all the road safety activity delivered over the course of the year.
- 1.5 In partnership with the MPS, TfL ran a motorcycle safety workshop in September for the seven boroughs identified as a priority for road safety. As part of the session, boroughs were updated on how TfL is tackling the recent increase in motorcycle fatalities and were given the opportunity to discuss the most effective interventions for reducing speeding and risky manoeuvres by motorcycle riders.
- 1.6 The target to upgrade 400 crossings (10 per cent of crossings in London) with pedestrian countdown by April 2016 has already been surpassed with more than 470 sites upgraded the target has now been increased by 200 sites – meaning that 600 crossings will have pedestrian countdown by Summer 2016. This technology replaces the 'blackout' period on traffic signals with a numerical counter to show how long pedestrians have to safely cross the road once the green man is extinguished.

- 1.7 The annualised TfL Road Network (TLRN) Regional Improvement Programme implemented two safety focused schemes in the quarter at Waggoner's Roundabout and Bricklayers Arms (as part of the Capital Renewals Programme). In addition, new 20mph speed limits at Commercial Street and Kingsland High Street were also successfully delivered in the quarter. The programme is contributing to a number of strategic outcomes including Reliable Roads, More and Safer Cycling, Better Places to Walk, and Reduced Casualties.
- 1.8 As part of the Better Junctions programme, the first of the four junctions forming part of the Kennington Oval cycle safety improvements was opened in July. These junctions have been designed to address safety issues for cyclists. To achieve this, the designs incorporate fully segregated cycle facilities which include a "hold the left" facility to eliminate the left turn hook conflict between cyclists and traffic. The layout comprises a "stepped" segregated cycle track on the approach to the junction, which also includes a bus stop bypass. Changes at the junction result in cyclists receiving the same amount of green time as the vehicular traffic for each direction.
- 1.9 Through the Upgrades programme, TfL opened an improved cycle route at Horseferry Road on Cycle Superhighway 3 and on the Cycle Superhighway 8 it commissioned a new cycle friendly roundabout at Queens Circus, which also includes four new pedestrian crossings. The programme is on schedule to deliver ten junction improvements by summer 2016, including at Oval, with works to remove the gyratory system at Stockwell beginning in quarter 3.
- 1.10 The first section of East-West Cycle Superhighway opened to the public on the 27 August. This section forms the first part of a two-way fully segregated cycle lane as illustrated on the cover of the Mayors 'Cycle Vision for London'. However, this section will be operating as a one-way route until the construction of the remainder of the route along Victoria Embankment has been completed. A cycle only phase has been implemented to aid cyclist progression across Victoria Embankment, in and out of the two way track, completely separating them from all traffic movement.
- 1.11 As part of our wider work to make London's roads safer for cyclists, TfL is carrying out a trial of Blaze Lazerlights that alert drivers to an approaching Cycle Hire cyclist in their blind spot at night time. This is the first time this technology has been built directly into the frame of a hire bike and involves trialling the technology on 250 bikes.
- 1.12 Cycling Grants London is a new programme funded by TfL and managed by the environmental regeneration charity, Groundwork. The programme offers funding to community groups, such as residents' associations, charities and youth groups, for projects that encourage people of all ages and backgrounds to cycle safely. Through the programme, new cycling projects have been invited to apply for up to £10,000 in funding over a three year period. Projects that have previously received cycling grants from TfL will be eligible for top-up grants up to £3,000 to help them continue delivering existing initiatives. As London is experiencing phenomenal growth in cycling, TfL is committed to helping everyone learn how to cycle safely through the Cycling Grants London programme. It is anticipated that community groups will take up the challenge and develop projects that will hone skills of infrequent riders and those new to cycling.
- 1.13 The Construction Logistics and Cycle Safety Programme has been recognised for its outstanding contribution to road safety, winning a Prince Michael International Road Safety Award. The award was presented to the Commissioner, Mike Brown, at the Freight Forum on 6 November 2015.

Operational and Asset Safety

- 1.14 A review of the health and safety scorecard with the intention of re-validating individual metrics and to prepare the organisation for setting stretching targets was concluded. In the interim, the scorecard has been amended with five new metrics added and a further five were changed to ensure they provided the right measurement of our health and safety performance. The ongoing work will see health and safety metrics fully integrated into formal business performance review processes both at strategic and functional levels.
- 1.15 Progress was made on the 2015/16 assurance activity programme, which has 458 activities identified for completion. Of the 39 per cent of activities already completed, no major concerns were identified internally or within the Surface Transport supply chain. The completed activities include senior manager safety tours, workplace inspections, management system audits (contractors) and site inspections.
- 1.16 Quarter 2 saw a 27 per cent reduction in physical assaults on employees and contractors compared with quarter 1 (from 124 to 98). The majority of the attacks were on contractors but 14 were directed at frontline Surface Transport employees. Reported verbal attacks and threats went up marginally from 259 in quarter 1 to 260 in quarter 2. In the quarter, a refreshed conflict management training package was rolled out to targeted frontline employees, the primary focus of which includes avoidance, reporting and de-escalation. As part of efforts to deter attacks on Revenue Protection Inspectors, a trial of Body Worn Video Cameras was commenced in the quarter.
- 1.17 Twelve health and safety training courses were delivered in quarter 2, mostly in the area of Construction Design and Management Regulations 2015. The courses were attended by 242 employees, bringing the total so far this year to 406. These courses are benefitting staff identified through training needs analysis as part of risk management arrangements.
- 1.18 TfL announced a new measure to help manage bus safety with the introduction of the Confidential Incident Reporting and Analysis System (CIRAS). This will make the London bus network first in the UK to adopt a scheme allowing bus operator employees to confidentially report any health and safety concerns to a third party. CIRAS is standard across the rail industry and is currently used on the London Underground network. Its introduction early next year to the bus network in London will give employees an extra way of reporting any concerns, complementing the proven methods for reporting and investigating incidents that are already in place.
- 1.19 Strengthening of the Hammersmith Flyover was substantially completed in September 2015. In July, the last of 34 bearings underneath the flyover were replaced, allowing it to adapt to weather conditions and expand in the summer and shrink in the winter by up to 180mm. Last year, the entire flyover was resurfaced and waterproofed with a new concrete central reservation installed. A total of 6.5km of tensioning cables have now been attached and threaded through 'the structure – when fully tensioned they will strengthen the flyover and ensure it remains safe to use for many decades. The restoration has been primarily carried out overnight to reduce disruption to road users and residents.
- 1.20 Work to upgrade the Fore Street Tunnel in north London was completed in August 2015. The work will help to keep the structure safe and fully functional for the 60,000 vehicles that travel through it every day. Planned resurfacing works will follow the tunnel works and was completed in October 2015.

1.21 A new concrete retaining structure incorporating a green wall has been installed along the A406 North Circular Road. By replacing the old retaining wall along the A406 in Golders Green with a new permanent structure, TfL has been able to reopen the footpath, improving access and safety for the public. A new 200m green wall has also been installed to help improve the local environment. More than ten plant species have been specially chosen for the green wall, which include a mixture of flowers and evergreen plants. The wall forms part of TfL's continuing work to introduce new trees and plants, especially along major road corridors, to help improve air quality across the Capital.

Occupational Health and Safety

1.22 In the quarter, the number of working days lost to employee sickness fell slightly from 6,209 in quarter 1 to 6,114. This gives an average of 1.84 working days lost per employee in quarter 2, which is a slight improvement on the previous quarter when it was 1.90 and corresponding quarter of 2014/15 when the average was 2.04. Musculoskeletal, mental health and gastrointestinal were the top three causes of sickness absence. Surface Transport monitors sickness absence trends through the pan-TfL Health Improvement Plan meeting.

Environment

1.23 The London Low Emission Zone (LEZ) Phase 4 sees 97 per cent of HGVs, buses and coaches compliant, compared with a target of 95 per cent and for Phase 3, 99 per cent of larger vans and minibuses compliant, compared against a target of 98 per cent. The LEZ applies maximum emission standards, which if not complied result in a financial penalty. The targets have been revised upward to reflect the high levels of compliance that the scheme currently achieving.

1.24 A new Low Emission Commercial Vehicle programme was launched in July. Following this, TfL has been raising awareness internally and externally on its aims over the next five years. As part of this, a joint stakeholder event was held with LowCVP in November with 60 representatives from industry, academia and the public sector with a view to updating stakeholders on the programme. The event will also facilitate discussions with key organisations including the Department for Transport, the Freight Transport Association, Centre for Sustainable Road Freight and LowCVP on their work towards promoting the uptake of cleaner commercial vehicles and refuelling infrastructure.

1.25 The Ultra Low Emission Vehicle (ULEV) Delivery Plan was launched in July 2015 at a high level summit attended by key stakeholders from across government, industry and automotive manufacturers. The Delivery Plan sets out how TfL and its partners will deliver the Mayor's ambition for London to be the 'ULEV Capital of Europe'. This means London grows as a sustainable city where ULEVs are the preferred option for all vehicle travel, not only across public transport, but also in other fleets and for private vehicle owners.

1.26 Increasing ULEV uptake will be an important component of tackling London's air quality and CO2 challenges, as well as providing the opportunity for London to be at the forefront of a technological revolution in the motor industry. The Delivery Plan sets out an action plan of 15 key actions to address the specific challenges currently limiting ULEV uptake in London. The actions include those needed now; those required to prepare London for the predicted uptake in ULEVs in the next 5-10 years; and longer term actions that will prepare us for ULEVs becoming the mainstream vehicle option in London.

- 1.27 The existing two Optare Metro City vehicles were joined by seven other battery-powered buses to give route 312 the capacity to become the Capital's first entirely electric route. Later this year, TfL plans to launch the Capital's first all-electric double deck vehicles. The first are expected to arrive in the UK in late autumn for testing, UK approval requirements and driver training.
- 1.28 TfL undertook a second consultation on proposals to change taxi and private hire vehicle (PHV) licensing requirements to reduce exhaust emissions and accelerate the uptake of zero emission capable (ZEC) vehicles in these fleets as part of the Ultra Low Emission Zone (ULEZ). The consultation ran from 1 July to 25 August 2015.
- 1.29 After considering feedback from the consultation and further engagement with the taxi and PHV trades, the Mayor endorsed the changes to licensing requirements on 30 September 2015. TfL, as the licensing authority for these vehicles, has now confirmed the changes to the licensing requirements.
- 1.30 The taxi trade was broadly satisfied with the revised taxi licensing proposals which have been adopted without change. TfL recommended minor modifications to the PHV proposals to take account of concerns from the PHV trade. The changed proposals will have a negligible impact on the ULEZ emissions benefits.
- 1.31 For taxis, the ZEC licensing requirement will be introduced on 1 January 2018. From this date, all taxis new to licensing in London will need to be ZEC, defined as having CO₂ emissions up to 50g/km and a minimum zero emission range of 30 miles. In addition, any internal combustion engine must be petrol. A voluntary decommissioning scheme for taxis over 10 years old will be introduced and purchasing grants to assist in the purchase of new ZEC taxis will be available.
- 1.32 The modified proposals for PHVs includes:
- (a) from 1 January 2020, all "new" PHVs – defined as those under 18 months old – licensed for the first time will have to be ZEC. The ZEC criteria for PHVs aligns with categories for the Office for Low Emission Vehicles' plug-in car grant; and
 - (b) to clean-up the PHV fleet in readiness for this change, all PHVs licensed for the first time between 1 January 2018 and 31 December 2019 (regardless of age) must be either Euro 6 (diesel / petrol) or a Euro 4 petrol-hybrid. From 1 January 2020, older PHVs (over 18 months) will need to be Euro 6 (petrol / diesel) when licensed for the first time. From 1 January 2023, all vehicles granted a PHV licence for the first time must be ZEC, regardless of age.
- 1.33 TfL recognises that the continued development of charging infrastructure is an essential process in maintaining the growth of ULEVs in the Capital.

Enforcement, Safety and Security

- 1.34 Launched in May, Operation Neon is a high visibility, multi-agency operation involving TfL enforcement and compliance officers, TfL funded officers in the MPS Roads and Transport Policing Command and local authority parking attendants. The initiative is proving to be very effective in dealing with many of the issues identified by the trade and keeping roads and ranks clear so that the legitimate, law abiding trades can operate. Officers have made 7,177 interventions during the first 36 days the operation. These include:
- (a) 3161 PHV drivers advised and moved on to keep roads clear for taxis and booked PHVs;

- (b) 225 PHV drivers were reported for not having a badge and were stopped from working for the remainder of the evening;
 - (c) 1,968 PHV drivers were reported for not wearing their badge;
 - (d) 44 PHV drivers reported for plying for hire offences;
 - (e) 356 PHV drivers reported for parking on Taxi ranks; and
 - (f) 804 parking tickets issued.
- 1.35 Operation Neon is just one element of TfL's robust enforcement action with MPS partners, which continues to tackle illegal and non compliant cab activity in central London and other priority areas.
- 1.36 TfL has been working with the MPS Local Policing Team for Oxford, Regent and Bond Streets (the ORB Team) to deliver an enhanced pedicab enforcement activity as part of operation Vulkan. The first four days of the operation saw successes in a number of areas including:
- (a) 53 riders stopped;
 - (b) three arrests for immigration offences;
 - (c) 18 summons issued;
 - (d) six Community Protection Notices (CPN);
 - (e) three motorised pedicabs seized for falling foul of Road Traffic Regulations: No insurance or driving otherwise in accordance with a driving licence; and
 - (f) 21 written warnings.
- 1.37 In September, seven riders were summoned to attend Westminster Magistrates Court for failure to comply with a Community Protection Notice. The MPS applied for a Criminal Behaviour Order (CBO), banning them from riding any pedal enabled vehicle of more than two wheels. Four of these riders had left the jurisdiction, two attended and pleaded guilty but the CBO application and sentencing were adjourned to a later date when the terms of the CBO are to be discussed and one is now wanted for failing to attend. The Evening Standard reported that two rickshaw drivers have admitted repeatedly flouting MPS orders at Westminster Magistrate's court. They were the first pedicab drivers to be successfully prosecuted for breaching rules intended to prevent streets and pavements becoming clogged up.
- 1.38 The first phase of Operation Safer Travel at Night (STaN), coordinated by TfL and the MPS Roads and Transport Policing Command ran in September/October to coincide with the new academic term. The operation aims to detect, deter and disrupt illegal cab activity and get people home safely. The operation involved the MPS Cab Enforcement Unit, Safer Transport Teams and our Taxi and Private Hire compliance officers.
- 1.39 As part of STaN, TfL commenced a recruitment drive for Compliance Officers who will support the taxi and private hire trade by preventing, detecting, investigating and prosecuting illegal hire activities in the Capital. The role will be intelligence-led and designed specifically to ensure safer, secured and reliable journeys for Londoners.
- 1.40 The Safer Lorry Scheme was launched on 1 September. The scheme, designed to improve cyclist and pedestrian safety, requires every vehicle in London weighing more than 3.5 tonnes (with a small number of exemptions) to be fitted with:

- (a) side guards to protect cyclists from being dragged under the wheels in the event of a collision; and
- (b) Class V and VI mirrors giving the driver a better view of cyclists and pedestrians around their vehicles.

1.41 These requirements are being enforced by the MPS, City of London Police and the Driver and Vehicle Standards Agency through their role in the Industrial HGV Task Force. The scheme is the result of collaboration between TfL, London Councils and Heathrow Airport which has allowed coverage across all roads managed by these authorities. 'Safer HGV Zone' signs have been installed at the boundary.

1.42 TfL is investigating what impact further safety improvement, specifically improving drivers' vision from HGV cabs, will have on reducing the potential collisions with cyclists and pedestrians. TfL is preparing to launch a public consultation in January 2016 to seek views on a range of measures.

1.43 TfL gave a presentation on the freight work programme to the All Party Parliamentary Group (APPG). The presentation was given to Members of Parliament and other representatives from across the industry about the work that TfL is doing to develop a new long-term strategic approach to freight. The APPG also heard details of TfL's freight safety campaigns and safer, high vision, lorry cabs.

Transport Accessibility

1.44 The Bus Stop Accessibility programme sees 84 per cent of stops accessible at the end of the quarter. This means the programme is on track to ensure that at least 95 per cent of bus stops on London's roads will be accessible by the end of 2016. TfL has worked closely with local authority partners to achieve this, as a significant proportion of the Capital's 19,500 bus stops are not on the TLRN. Across the TLRN 95 per cent of stops are already accessible – with a target of 99 per cent to be achieved by 2016.

1.45 Strong progress has been made on the transformation of the Elephant and Castle Northern Roundabout to make the area safer and more welcoming for local residents and vulnerable road users. The project has passed the half-way mark with three new direct street-level pedestrian crossings in place making it easier for people to access the area. Switchover from a roundabout to two-way working is planned for 5 December 2015 allowing work to commence on the final sections of the segregated cycle tracks, street-level pedestrian crossings and closure of the final two subways. It also allows commencement of the urban realm works that will transform the former roundabout central island into a new accessible public space.

1.46 When complete, the £25m overhaul will significantly upgrade facilities for pedestrians, cyclists and drivers by converting the existing roundabout into a peninsular, creating a new, more open and accessible public space, with the road around it converted to two-way traffic.

1.47 New segregated cycle routes will be created through and around the junction to improve safety for cyclists. The project, forms part of a wider £150m package of works, which will also see improvements made to the Northern line Tube station at Elephant and Castle. The main highway works remain on course to be fully completed by summer 2016, along with an interim use (approximately four years) for the new peninsula public space. The final peninsular public space will be completed after the upgrade to the Northern line station around 2022.

Areas for improvement

Operational and Asset Safety

- 1.48 In the quarter, 318 customers across Surface Transport reported injuries which required hospital attendance therefore classified as major. This is up two per cent on the previous quarter but was fewer than the equivalent quarter of 2014/15 when there were 333 injuries. The level also represents a rate rise from 0.54 injuries per million passenger journeys in quarter 1 to 0.60 in quarter 2. To address injuries on the bus network there is a continuation of the roll out of the new "In the Zone" bus driver training, designed to further raise their awareness of human factors and behaviours related to road accidents.
- 1.49 As of September, 38 per cent of bus drivers had participated in the training programme, this is being monitored closely with bus operators to ensure all 24,500 drivers are trained by the March 2016 target. In addition, the bus passenger awareness campaign focusing on reducing injuries will be further strengthened early next year. These initiatives are designed to complement steps being taken by bus operators in areas such as driver monitoring and training.
- 1.50 On other Surface Transport networks where five per cent of the customer injuries were reported, there was a reduction in major injuries from 17 in quarter 1 to 14 in quarter 2.

Enforcement, Safety and Security

- 1.51 UK Power Network (UKPN) was fined over £17,000 in connection with safety violations across a variety of construction sites. The fine was connected with works undertaken between December 2014 and February 2015 and were carried out in Cheam, Lower Clapton and Masons Hill in Bromley. During the works, TfL Roadwork Enforcement inspectors identified a range of issues, from improper signage to disorganised traffic management. At one of the locations, Masons Hill, school children were forced into the carriageway during heavy traffic due to inadequate provision of alternative pedestrian routes – potentially putting lives at risk. The judge was quite damning in his sentencing remarks stating, *"I have seen evidence presented by TfL in support of this case and I have to say I am unimpressed with UKPN's approach to these works. It is important and vital to carry out works safely and that clearly did not happen at these locations. I am even more concerned about the risk to children and it was only fortunate that serious injury was avoided"*.
- 1.52 BT was fined nearly £6,000 in connection for streetworks offences for works undertaken on Brixton Road on 23 March 2015. The works were improperly signed with disorganised traffic management and vehicles were forced to use opposite traffic lanes, narrowly avoiding collision. BT pleaded guilty to the offence. TfL will continue to robustly monitor and pursue legal action against anyone who carries out unsafe working practices on its roads. The judge said in her summing up that the incident was of a serious nature, and that 'accidents were just a whisker away'.

Key Deliverables in the next quarter (quarter 3 – 2015/16)

Road Safety

- 1.53 TfL will run a 20mph conference to provide all London boroughs with an update on the 20mph trials on the TLRN and to give best practice examples of 20mph implementation, both in London and other parts of the UK.

- 1.54 TfL launched a new advertising campaign to coincide with the clocks changing and darker evenings in late October. Posters and radio adverts featured engaging imagery to highlight behaviour that causes the most road collisions. TfL also published 'Safe London Streets: our new approach', setting out how, working closely with the boroughs, it will tackle the sources of road danger and achieve the Mayor's new KSI reduction target through a wide range of activities.
- 1.55 As part of the Safer Trucks Programme, a HGV Blindspot modelling research study by Loughborough University will be published. The study measured and compared 19 leading makes and models of HGV to determine the best and worst in class for driver direct vision. The research has highlighted that vulnerable road users, such as cyclist and pedestrians, can be 2.5 metres away from some HGV cabs before they are visible through the windows, but that there are four low entry cabs on the market that offer maximum direct vision of the front blindspot area. This research will provide the basis for the development of new vision standards for HGVs to:
- (a) form the basis of the Safer Lorry Scheme 2 consultation;
 - (b) inform TfL's lobbying for regulatory change for safer lorry design in Europe; and
 - (c) stimulate the design and uptake of a brand new generation of higher vision lorry cabs with minimal blindspots.
- TRL has been commissioned to develop the HGV vision standard, by March 2016.
- 1.56 TfL will continue to investigate options that should be included in the Safer Lorry Scheme II consultation due in January.
- 1.57 The Intelligent Speed Assistance (ISA) trial on London buses launched in June 2015 will be continued. This technology limits vehicles to the speed limit of the road it's driving on. The monitoring data collected during this trial is currently being analysed, and it is hoped that the data will enable TfL to understand better the benefits of using ISA in London and the potential to expand its use on the bus fleet.
- 1.58 TfL fully supported the London Assembly Transport Committee's enquiry into Motorcycle Safety in London in late October by providing written material and giving evidence at the oral session.
- 1.59 Work will be continued on the trials of cycle detection at traffic signals at eight further locations. If successful, the initiative will enable the detection of the volume of cyclists in segregated lanes/cycle tracks. This will move TfL towards its goal of developing a system that enables the traffic signal timings to be adjusted to give more green time when there are high numbers of cyclists at key junctions. The trials include sites along Cable Street on Cycle Superhighway 3. Equipment specifications for the new detection systems have been completed and sent to external traffic signal contractors who have provided equipment for approval. The approval process and individual site design is in progress.
- 1.60 Construction on Quietways 1 (Waterloo to Greenwich) and 2 (Bloomsbury to Walthamstow) are scheduled for completion in quarter 3. The initiative which will provide a cross-London network of high-quality quiet routes will deliver seven routes designed to link key destinations in London. Quietway routes include sections through parks, along waterways and tree-lined streets and provide an alternative to cycling on busy main roads. The programme is being delivered in partnership with the London Boroughs, Royal Parks and the Canal and River Trust.

- 1.61 In October, funding of between £2m to £5m will be made available for a new pilot pedestrian town centre improvement programmes in Tooting and Peckham. The aim is to redesign junctions, streets and pavements to make them safer for pedestrians and raise awareness of safety issues among all road users. The project began in September, with TfL working in partnership with Arup consultants and Wandsworth Council in Tooting; and Atkins consultants and Southwark council for Peckham.
- 1.62 An action plan for the project will be developed by the end of 2015, which will then be delivered by the end of 2017/18. The results, successes and any other lessons learned during the trials will be provided to all boroughs across London to help improve safety across the Capital. TfL and the boroughs have already been engaging with key stakeholders, and are planning to consult with residents on designs and strategies for these areas in early 2016.

Operational and Asset Safety

- 1.63 A dedicated programme manager has been appointed within Surface Transport to continue the work on the development of a bus collision reduction programme, specifically targeting road traffic collisions involving buses. This will have the added benefit of reducing injuries whilst ensuring the quality of the bus network. In quarter 2, 5,729 collisions were reported on the network, a rate of 80 collisions per million bus miles. Of these, three per cent resulted in injuries to 263 people. TfL encourages all incidents to be centrally reported irrespective of liability, responsibility or severity.
- 1.64 Surface Transport will publish the quarter 3 (July – September) London bus safety data to support the transparency agenda. The publication will show that there were 1,491 injuries in the quarter, down from 1,506 (1.01 per cent) in the previous quarter.
- 1.65 Cycle Superhighway 5 will open to the public. The route which runs from Oval to Pimlico offers a completely segregated two-way cycle track (including over Vauxhall Bridge). This means cyclists are separated from traffic along the whole route and at all signalised junctions, with the use of low level cycle signals, bus stop bypasses and dedicated cycle crossings seen along the route.
- 1.66 The first section of North-South Cycle Superhighway will open to the public. This section runs from St Georges Road through to south of Blackfriars Road, including Lambeth Road and the St Georges Circus junction. St Georges Road and Blackfriars Road are examples of a two-way segregated track (albeit one-way on Blackfriars at present) that incorporate low level cycle signals and a bus stop bypass (Blackfrairs Road). St Georges Circus also displays low level signals for cycle only phases, alongside a ‘two stage right turn’ and an ‘early start for cyclists’ on Borough Road; these are design innovations to reduce the incidence of cycle-vehicle conflicts.

Environment

- 1.67 TfL is undertaking trials of porous asphalt that allows the movement and dissipation of rain water through the carriageway surface. In addition to reducing runoff, they reduce noise emissions due to their open structure and noise absorption capacity. Other potential safety advantages include improvement in skid resistance and a reduction in vehicle rolling resistance. These will need to be balanced against a likely shorter service life and enhanced Winter Maintenance requirements. The A127 in Havering is the trial site for porous asphalt; a 70mph dual carriageway with no severe bends and with some of the lowest levels

of traffic on the TLRN. The trials consist of 100m material panels including control panels, semi-permeable asphalt mixes ('low noise' asphalt) and fully permeable asphalt mixes. Depending on the results of the testing, TfL could look to roll these materials out on appropriate roads as part of the resurfacing programme or on new developments.

- 1.68 TfL is continuing its programme of work to support the future of electric vehicle charging across the Capital, including provision of a rapid charging network to support the electrification of taxis, PHVs and other commercial fleets. TfL expects to publish in the Official Journal of the European Union a concession contract opportunity in early 2016. A concessionaire to finance, build, operate and maintain a charge point network is expected to be appointed in summer 2016, with initial charge point installations beginning in early 2017.
- 1.69 As part of a concurrent initiative, rapid inductive-charging infrastructure is being made ready at Canning Town and Walthamstow bus stations for use by three range-extended diesel-electric hybrid buses. The Alexander Dennis E400 buses will operate on route 69 from November as part of a trial of how hybrids can operate in all-electric mode for significant periods of passenger service. The capital and maintenance costs of the project, called ZeEUS (Zero Emission Urban-Bus System), are part funded by the European Commission.
- 1.70 TfL continue to roll out an energy efficient lighting programme to help reduce the cost of lighting the TLRN, while also doing its part to reduce CO2 emissions across the Capital. This is one of the largest 'invest to save' strategic road lighting projects ever undertaken in the UK, which will see improved reliability and lower operating costs, all contributing to better and safer roads.
- 1.71 The lighting programme comprises two specific strands, firstly introducing a Central Management System for street lighting on the TLRN which will allow TfL to remotely monitor and manage street lighting and control levels of lighting depending on use. By adjusting the lighting levels to be aligned better with traffic flows and road usage at different times of night, TfL will significantly reduce its energy consumption and carbon emissions, without compromising road user safety or security. Secondly, conventional lighting will be replaced with Light Emitting Diodes luminaires.
- 1.72 The programme will reduce energy consumption by more than 40 per cent by the end of 2016, compared to the current levels. Currently over 10,000 luminaires have been replaced, over 25 per cent of the total.

Accessibility

- 1.73 Construction of the Central London Cycling Grid will continue with 23 of the 125 borough schemes now underway or complete. The initiative provides a cohesive network of cycling routes to improve accessibility of central London by bike. The Grid spans across the 10 central London boroughs and involves the Royal Parks and Canal and River Trust as Delivery Partners. Key aspects will include cycle infrastructure improvements at the junction of City Road/Colbrooke Row and Goswell Road/Owen Street. The junction is one of the busiest in London in terms of cycle flows and improvements include a widened track and bespoke signalling equipment for cyclists.

1.74 The first project which forms part of the Connecting Colliers Wood programme of improvements will be completed in October 2015. The aim of this programme is to make it easier for residents and visitors to walk from the tube station to Wandle Regional Park and other historic sites. This project is being funded by the Mayors Regeneration Fund and delivered by TfL in collaboration with Merton Council and the GLA. It aims to provide safer cycling facilities, and simpler and safer pedestrian crossing facilities on the main road.

2 Major incidents

2.1 There were three accidental fatalities arising from Surface Transport managed activities in Quarter 2, the incidents which remain under investigation include:

- (a) a pedestrian fatally injured in a collision with a route 55 bus on August 20 on Clerkenwell Road;
- (b) a bus passenger who later died from head injuries sustained in a fall on a route E3 bus on August 18 on Chiswick High Road; and
- (c) a pedestrian who later died from injuries he sustained in a collision with an out of service bus on August 25 on Finchley High Road, N12.

2.2 The investigation into two previously reported accidental fatalities were concluded in the quarter with no recommendations for TfL or the contractors involved. The incidents were:

- (a) a fatal road traffic collision between a route 137 bus and a pedestrian on 10 June 2014 on Oxford Street, W1. The investigation concluded that the driver had insufficient time to avoid colliding with the pedestrian who looked the wrong way before stepping into the road. The Coroner's hearing returned a verdict of "accidental death"; and
- (b) a fatal road traffic collision between a route 149 bus and a pedestrian on 15 January 2015 on Fore Street, Edmonton. The investigation showed there was nothing further the driver could have done to avoid the collision. The Coroner's hearing returned a verdict of "death by road traffic collision".

Crossrail

Quarterly Health, Safety and Environment Report

1 Summary

What went well

- 1.1 There was excellent progress against Health and Safety objectives for 2015/16 in this quarter. Following the introduction in Period 1 of more challenging measures for the Health and Safety Performance Index (HSPI), 15 out of 16 contracts (94 per cent) achieved a HSPI score of 2.00 (scale of 0 to 3 with 1.0 reflecting contractual compliance) or above.
- 1.2 The RIDDOR (including 3+ day lost time case) Accident Frequency Ratio (AFR) was 0.14 at the end of the quarter, a 22 per cent reduction on the end of year (2014/2015) rate of 0.18, exceeding the corporate objective (20 per cent reduction) for 2015/16.
- 1.3 The Lost Time Case AFR was 0.23 at the end of the quarter, a 29 per cent reduction on the end of year (2014/2015) rate of 0.32, exceeding the corporate objective (20 per cent reduction) for 2015/16.
- 1.4 The 'Have Your Say' survey was completed on 18 September 2015, with a total of 4139 responses received. The survey was made available in the seven most commonly spoken languages on Crossrail – English, Punjabi, Lithuanian, Romanian, French, Spanish and Polish and included questions on safety, health, wellbeing, diversity and inclusion. Results and action plans will follow in quarter 3.
- 1.5 The second cycle of Women into Construction has been completed and the third will commence in the next quarter. This activity forms part of a wider strategy to develop and promote diverse and inclusive environments on Crossrail worksites and in so doing, improve the health and safety on them.
- 1.6 The Frontline Leadership Programme (FLP) has now integrated content relating to diversity and inclusion and its impact on health and safety on site. By the end of quarter 2, 58 supervisors from the Principal Contractor population had been recruited to FLP. This is on track to achieve the target of 100 additional entrants.
- 1.7 Over 300 people from Team Crossrail have now received Behaviour Influences Behaviour training, with additional courses available in quarter 3.
- 1.8 Following the launch of Crossrail's updated Golden Rules and High Risk Activities in quarter 1, surveillance processes for monitoring contractor site conditions and behaviour have been updated in quarter 2 to reflect the change.

- 1.9 The programme of Assurance Assessments on Fire Safety for 2015/16 continued in quarter 2. The assessments were undertaken by the London Fire Brigade (LFB) Crossrail Liaison Officer, supported by the Assurance team, as necessary.
- 1.10 Compliance with site firefighting provisions, required by the LFB, has been achieved at 91 per cent of locations. Activities are underway to rectify outstanding issues at two locations.
- 1.11 A short communication on the research conducted by Institution of Occupational Medicine: "*Occupational exposure to respirable dust, respirable crystalline silica and diesel engine exhaust emissions in the London tunnelling environment*" was submitted to the Annals of Occupational Hygiene in August.
- 1.12 The last of three courses, to attain the NEBOSH certificate in the management of health and wellbeing was conducted in August.
- 1.13 The LRQA Third Party re-certification audit of the ISO 14001, 9001 and OHSAS 18001 standards took place with no major findings. The certification has been renewed for Crossrail following this audit. Update of Crossrail's health and safety management system has continued to plan, addressing all observations and minor non conformities identified in the audit.
- 1.14 The formal opening of what has been named Jubilee Marsh, at Wallasea Island, took place on 11 September 2015, and was attended by a number of notable dignitaries, including Rory Stewart, Parliamentary Under Secretary of State at the Department for Environment, Food and Rural Affairs, and Karmenu Vella, European Commissioner for the Environment, Maritime Affairs and Fisheries.
- 1.15 The annual sustainability report was published in July 2015 and the annual sustainability awards were held to mark this event.
- 1.16 The first environmental sustainability learning legacy steering group was held and work commenced to prepare the first tranche of environmental legacy documentation for publication in February 2016. Legacy material for health and safety is also being prepared.

Areas for Improvement in the quarter

- 1.17 A review of the HSPI Mandatory measures is planned for the next quarter to ensure they remain relevant to the current phase of the programme. Updated KPI measures will be integrated into HSPI and trialled in quarter 4, to be ready for launch in Period 1 of 2016/17.
- 1.18 Compliance with minimal requirements for occupational health is improving and to aid this improvement, a revised Occupational Health and Wellbeing Strategy has been developed to enhance understanding of good practice and drive targeted improvements, programme wide.
- 1.19 As reported last quarter, there will remain a continued focus on noise management, because of the use of extended hours and night time working at some locations. This will include encouraging contractors to achieve "world class" levels of noise management as defined in the supplier performance process.

1.20 The reporting tool being used by Crossrail for Recycled Content (the netwaste tool) is not currently supported by WRAP, which is affecting Crossrail's ability to report. Discussions with WRAP are underway to allow Crossrail reporting to continue.

Key Deliverables in the next quarter (quarter 3 – 2015/16)

1.21 The fifth iteration of Stepping Up Week took place 19 - 23 of October. Stepping Up Week was themed around Worker, Wider Community, Wellbeing and Workplace Safety and is set to coincide with European Health and Safety week, as well as London Health and Wellbeing week.

1.22 The Crossrail 'Have Your Say' Climate survey analysis and Project-specific reports for both the Health and Wellbeing and Safety Climate elements of the survey were distributed and communicated. Action plans for improvements were due for the middle of November and the completion of actions will be checked during the next cycle of Gateway assessments.

1.23 Analysis of the survey research being undertaken by Middlesex University Masters students which will focus on language communication and Health & Safety practices.

1.24 The final course of the year on Incident Investigation will take place on 14 of December at Crossrail's Training and Underground Construction Academy (TUCA). The course is aimed at up skilling the workforce who assist with incident investigations.

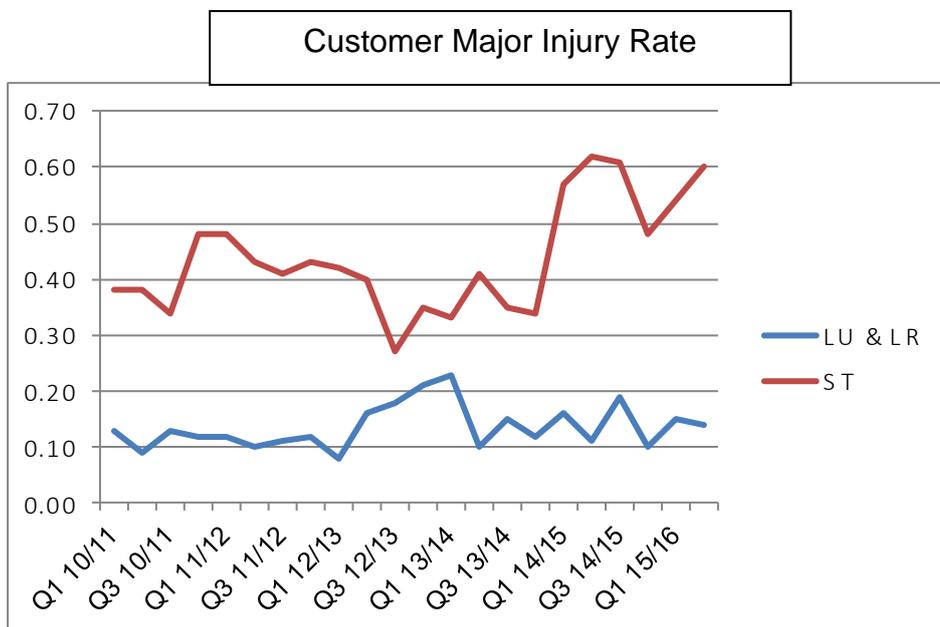
1.25 Four Fire Safety Assurance Assessments and 26 Health and Safety Assurance Audits are scheduled for quarter 3, covering 19 Contractors.

2 Major Incidents

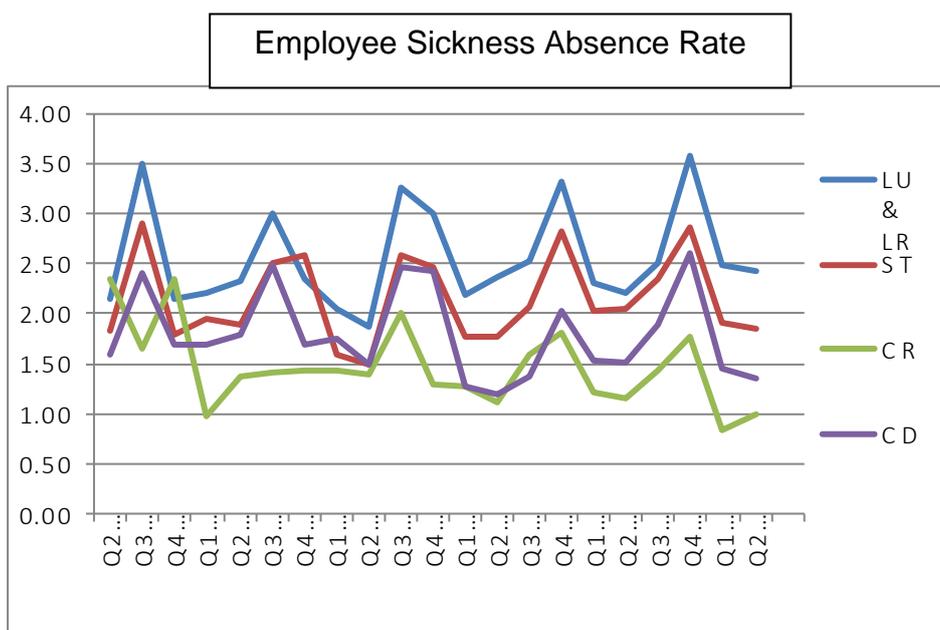
2.1 There were no major incidents in quarter 2.

Statistical Details

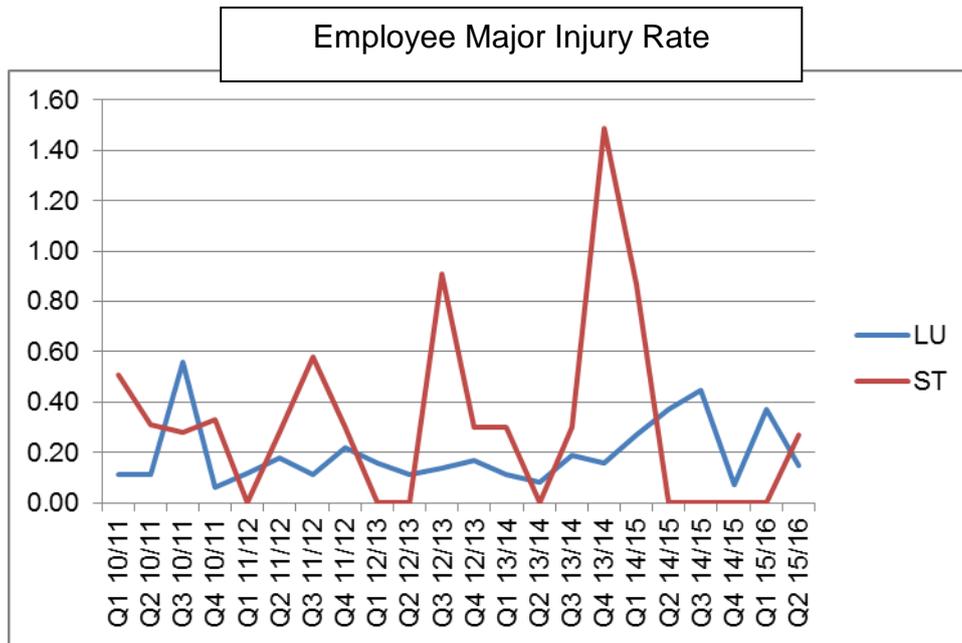
Quarterly Health, Safety and Environment Report



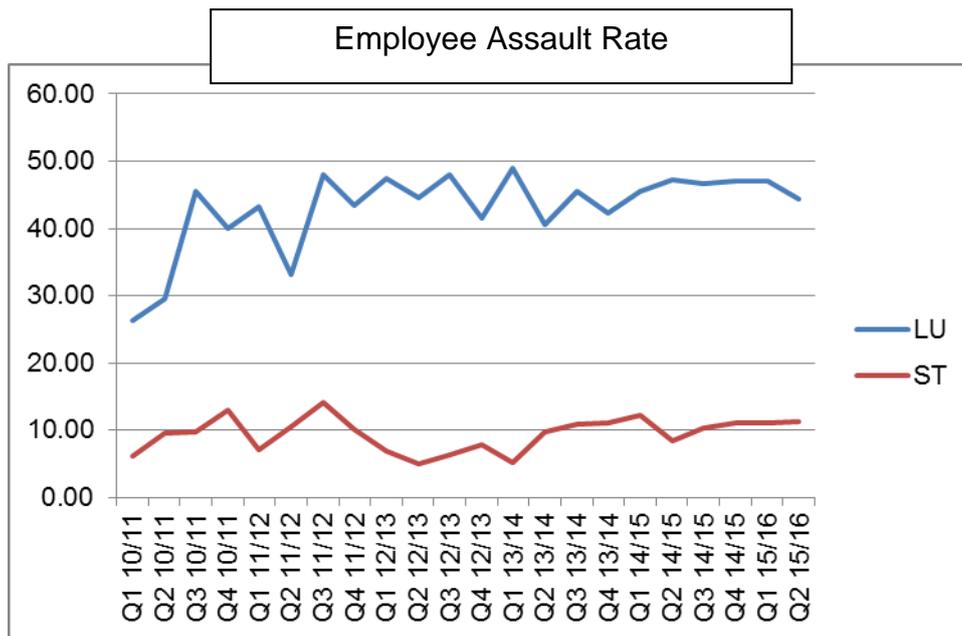
This chart provides the rates for Customer Major Injuries in London Rail and London Underground and Surface Transport, per million passenger journeys. The Surface Transport data has been revised following a review of the data going back five quarters. There is a focus on driver training (the 'In the Zone' programme) and driver behaviours across the bus network, aimed at the rise in customer incidents.



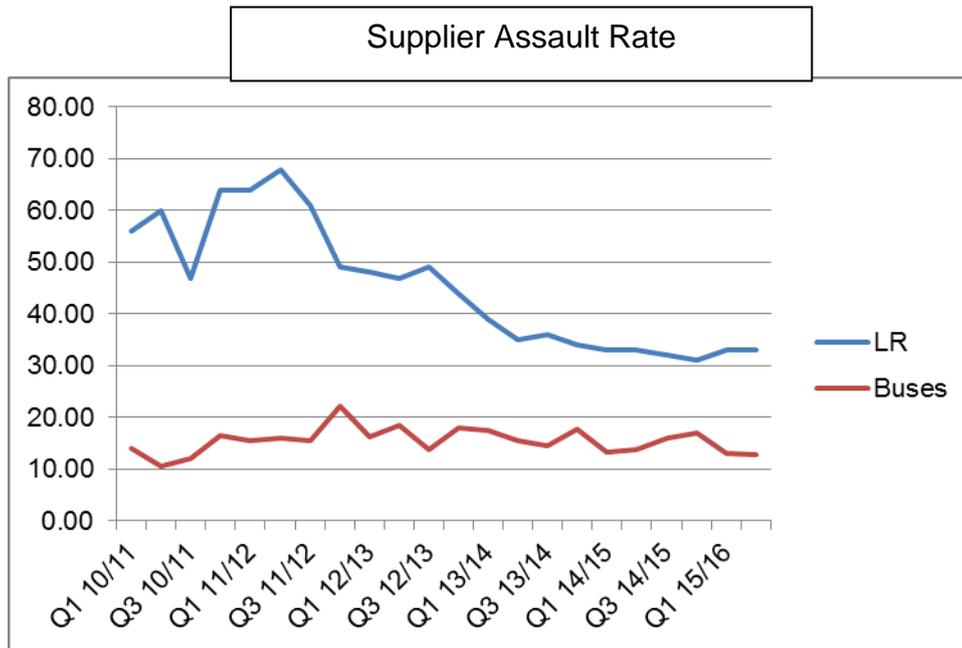
This chart provides the details of sickness absence per 1000 employees. The seasonal trend continues. There are no particular sickness trends, with Gastrointestinal, Musculoskeletal and coughs and colds remaining the major elements.



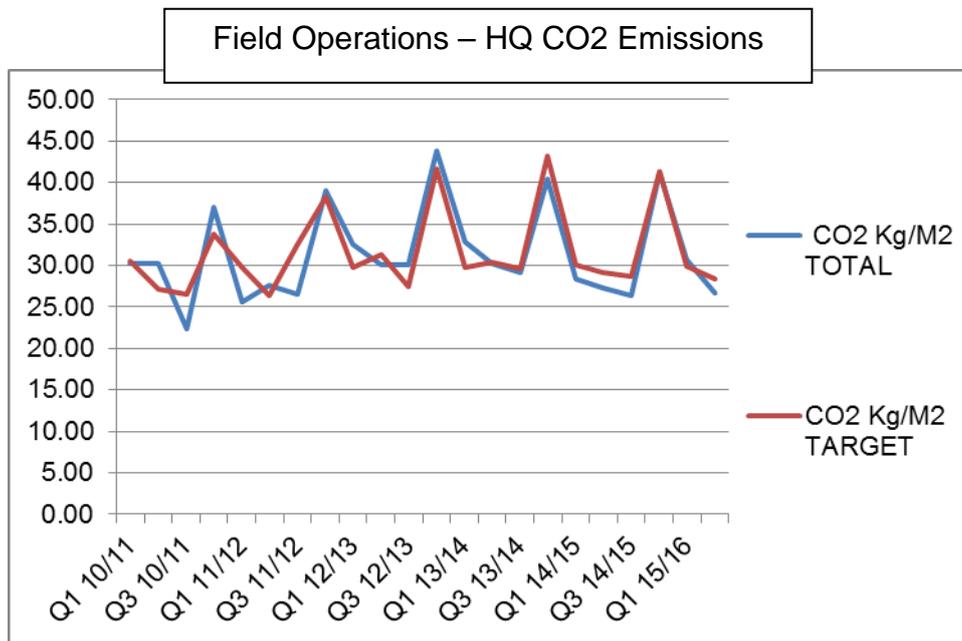
This chart provides the rate of major injuries per 1000 employees. This is a rate per quarter, and is not a moving average. The Surface Transport rate shows a much higher volatility.



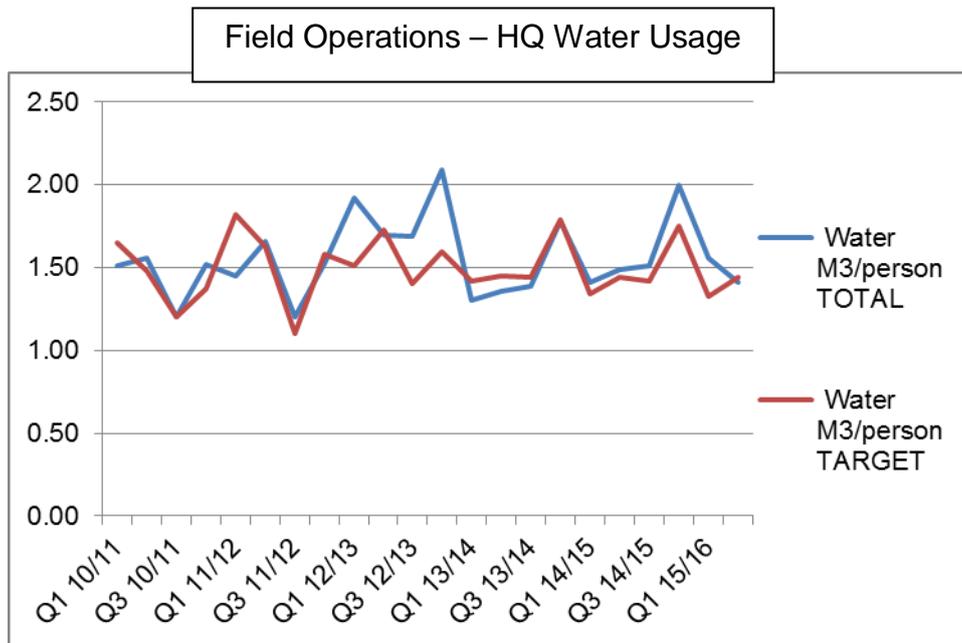
This chart shows employee assault rates per 1,000 staff, for Surface Transport and London Underground (LU). The trend is stable, although the proportions do vary, for example the figures for LU for physical and threats falling, while verbal abuse rose. The proportion involving revenue protection on LU reduced this quarter. Surface Transport has targeted front line staff on conflict avoidance management training, and are trialling a body worn video camera.



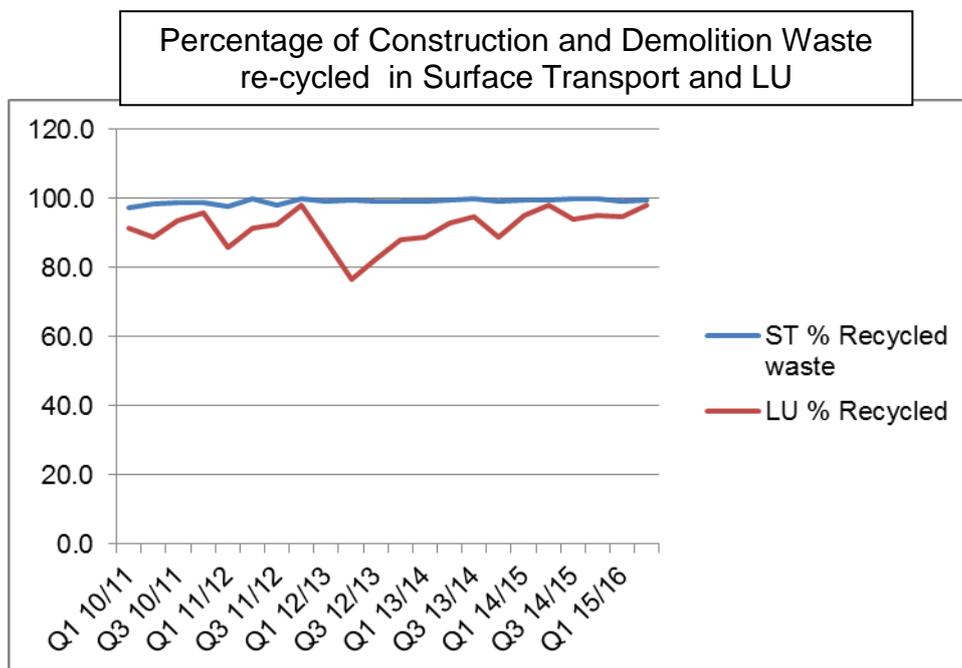
This chart shows the rates for Assaults (both physical and verbal) per 1,000 Supplier employees. These staff are primarily those in London Rail (LR) and London Buses (primarily customer facing staff). The Surface Transport position is relatively stable, but there was a slight rise in LR connected with the new West Anglia service, with greater gating and revenue protection engagement.



This chart shows the carbon emissions at the Head Quarter (HQ) buildings that make up the TfL estate, and over which we have direct control. They are measured in Kg of CO₂ per square metre. As might be expected there is a clear seasonal trend. The targets are also shown, and in this quarter the actual emissions were below target.



This chart shows the water usage measured in cubic metres measured against the numbers of persons in the various TfL HQ buildings over which we have control. The targets which have been set are also shown, and in the quarter actual water use per person was below target for the first time in over a year, though still broadly in line with previous seasonality.



This chart shows the percentage of construction and demolition waste recycled in Surface Transport. The amount can vary significantly depending on the nature of the work undertaken in the quarter, so the rate of recycling has been provided. Recycling rates remain high with the tonnage being about twice the previous quarter and approaching four times the average for the five quarters before that.