

**Transport for London  
Safety and Sustainability Panel**

**Subject : Quarterly Health, Safety and Environment Performance Reports – Quarter 3, 2013/14**

**Date : 19 March 2014**

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**1 Purpose**

- 1.1 To inform the Panel of the key health, safety and environment matters during Quarter 3, 2013/14.
- 1.2 The Panel is asked to note the report.

**2 Background**

- 2.1 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. To reflect this, the quarterly business reports have been amended to provide a combined Rail and Underground Report, with the Surface Transport and Crossrail Reports as before. Any key activities related to the specialist directorates will now be highlighted on an exception basis, which this month concludes the TfL Transport Action Plan which has been published and will be reviewed as an agenda item at this meeting of the Safety and Sustainability Panel.

**3 Information**

- 3.1 The Quarter 3 2013/14 Health, Safety and Environment Performance Reports for each business area are attached as follows:

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

**4 Recommendation**

- 4.1 The Panel is asked to note the reports.

## **5 Contact**

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## Rail and Underground

### Quarterly Health, Safety and Environment report

#### 1 Summary

##### What went well

- 1.1 The majority of London Underground (LU) and London Rail (LR) health, safety and environmental performance indicators remain stable or are improving with exceptions noted below. No regulatory enforcement notices were received. A major incident was reported on LU as noted below, which means at the end of the quarter it is 0 days since the last major incident. The mean time between such incidents is 182 days.
- 1.2 The number of accidental customer major injuries sustained on LU infrastructure was rising at the end of 2012/13. Throughout 2013/14 these have been reducing and have now returned to the levels of a year ago. This is as a result of a renewed focus on identifying mitigation measures and trying to influence customer behaviour around rushing, late boarding/alighting of trains and taking care on escalators. There were 31 incidents in the quarter, a similar number to last quarter (32). Slips, trips and falls (68 per cent) remain the main cause of incidents. There was one contractor major injury on London Overground, this compares to one customer major injury attributable to LR last quarter.
- 1.3 London Rail has adopted a customer safety awareness campaign consistent with that of LU. Following the introduction of this campaign reductions in all severities of customer accidental incidents are reducing on London Overground.
- 1.4 Work continues to improve the trend in the number of lost time injuries (LTIs) associated with LU Capital Programmes directorate. This is the second consecutive quarter that the adverse trend in the LTI frequency rate on the Stations Capacity programme was reversed. LU continues to work with its principal contractors at Tottenham Court Road, Victoria and Bond Street stations to improve safety performance at a site level, through reviewing and revising site health and safety plans, focussing on site specific topics and general topics e.g. hand injuries. This has resulted in an 11 per cent reduction in lost time injuries over the 2013 calendar year.
- 1.5 The adverse trend in the number of lost time injuries within the LU Chief Operating Officer's directorate has also reversed. A significant proportion of these incidents were related to time off as a result of witnessing traumatic events or as a result of instances of work-related violence. LU is continuing to roll out training, developed with the Samaritans, to station staff aimed at how to identify and give support to customers who appear to be in a state of distress or

who are acting in a way which would identify them as high risk in this respect. LU and LR are also continuing to work with Network Rail and other Train Operating companies to share information and approaches to managing suicide incidents. LU works closely with the British Transport Police to reduce the number of work-related violence incidents.

- 1.6 The LU supplier HSE maturity assessment benchmarks LU suppliers against a range of criteria based on the quality of their safety management systems, (using criteria developed by the Office of Rail Regulation). This is part of a drive to achieve world class HSE performance. This quarter's assessment has seen significant improvements as a result of helping suppliers to prioritise areas of focus. Management of boundaries, security and traffic, emergency planning, induction and briefings, subcontractor compliance with Principal Contractors rules and the management of the impact of incidents on the operational railway are some of the areas where improvements were seen.
- 1.7 LU and LR continue to make the railway more accessible. The overall aim is to reduce extra journey time taken by passengers with mobility problems by as much as half by 2031. Progress includes:
  - Docklands Light Railway and Croydon Tramlink are step-free and provide audio and visual announcements.
  - The new train on London Overground meet the latest accessibility specifications
  - As London Underground stations are refurbished they are fitted with accessible features including tactile strips, contrasting rails and hand pole
  - The new trains on the Victoria and sub-surface lines meet the latest accessibility requirements – including easier boarding and alighting; improved lighting; visual and audio information and more space for wheelchair users and pushchairs
  - Line information to help make journeys easier; [directenquires.com](http://directenquires.com) provides detailed access information at all stations; [describe-online.com](http://describe-online.com) provides text guides to station layouts and facilities which works with screen reader software for visually impaired people; step free access guides; audio guides; larger print guides and maps
  - LU supports the right of each customer to decide whether they are accompanied and has accompanied journeys/travel training through the TfL mentoring scheme
- 1.8 LU continued to deliver good recycling rates; the overall London Underground (LU) construction and demolition recycling rate for the quarter was 95 per cent. The year to date performance is 90 per cent which meets the 2013/14 target (90 per cent). Excellent recycling rates were achieved again by the LU Capital Programme teams, particularly in Period 9. The Sub-surface Upgrade Programme achieved over 98 per cent recycling in the quarter; the Power, Communication and Cooling project achieved a 100 per cent recycling rate throughout quarter 3.

- 1.9 The amount of commercial and industrial waste recycled and recovered by LU stations and depots was 97 per cent. This was a significant improvement on 2012/13's recycling/recovery rate of 88 per cent due to more waste going to energy recovery.
- 1.10 London Tramlink successfully trialled the use of LED lighting at two tram stops. London Tramlink is now seeking funding from the Rail and Underground Environmental Initiatives fund to replace lighting at all tram stops.
- 1.11 The Royal Borough of Greenwich and the GLA have agreed to carry out an Energy Master plan for the borough, investigating the long term opportunities for district heating and decentralised energy schemes. The outputs from this will inform the long term strategy for development of a Combined Heat and Power scheme at Greenwich Power Station.
- 1.12 The programme of LU health fairs continues, with 35 delivered in the year to date. Clinicians continue to promote NHS Health Checks and information materials cover stress and resilience, nutrition and healthy eating, health and shift work and managing conditions such as diabetes and hypertension.

#### Areas for improvement

- 1.13 The LR/LU major injury indicator which tracks customer and employee/supplier major injuries per million hours on LU and LR infrastructure exceeded the target for the quarter. The improvement seen in the number of customer major injuries noted above contributes to bringing this measure closer to target. Due to the number of injuries occurring in the first half of the year being greater than those occurring in the same period last year; it is likely this measure will remain above target.
- 1.14 The high number of LU platform train interface (PTI) incidents continued as a result of persons caught in doors across the network, and due to falls between the platform and train. The changing profile of the PTI following the introduction of new level access rolling stock on the sub-surface lines is contributing to this. A programme of additional mitigation measures such as trialling gap fillers, different methods of highlighting the platform train interface, and enhanced customer announcements continues to be implemented. The results of the trials are expected in the next two Quarters.
- 1.15 The number of work-related violence incidents continues to be a cause of concern. Mitigating action to reduce the number of alcohol related incidents is being developed. Work to increase the reliability of ticket machines is planned to help reduce revenue related incidents.
- 1.16 London Tramlink concluded a human factors study into incidents of wrongside door openings. A number of recommendations are being taken forward including enhancing training, replacement of switches and modifications to labelling of equipment within the cab.
- 1.17 Twenty one internal and four supplier audits were completed within LU and LR. Areas audited include signalling maintenance; signalling overhauls at the LU Railway engineering Workshop; the implementation of actions following a

derailment at New Cross depot; asset risk management there were no significant actions and action plans are in place against all audit findings and actions are tracked to completion.

- 1.18 The Occupational Health team is continuing to work with local LU managers in areas where stress was identified as a concern from the staff Viewpoint survey results. Interventions are being developed which are tailored to meet the needs of the individual areas. Stress awareness training was delivered in LR with further training/coaching for managers being delivered in the next quarter.
- 1.19 Two fly tipping incidents occurred in LU in the quarter. These were dealt with successfully via LU's new fly tipping process and resulted in cost-recovery.
- 1.20 Once again this quarter a significant number of complaints on LU infrastructure were associated with works noise, especially people's behaviours during late night works. This issue continues to be highlighted during the safety hour and toolbox talk discussions to ensure that noise is managed more effectively.
- 1.21 Six complaints were received on London Overground relating to noise and wheel squeal. These primarily relate to Holywell Curve, where the residents have also complained to GLA members and meetings have been held to understand the issue and identify corrective action. Investigations into whether noise barriers or damped rails will reduce the noise are ongoing.

#### Key deliverables in the next quarter

- 1.22 There is an increasing trend in objects dropped onto the track by customers. Mobile phones are the most common objects. A tool to assist with removing objects such as mobile phones from the track is being developed to minimise the disruption and distress the loss of these objects can cause, this is expected to be trialled in quarter 4.
- 1.23 LU has developed a set of system safety metrics to capture and report safety indices of new and altered assets and procedures arising from engineering change. The objectives of these are to :
  - measure/monitor and report safety performance in a consistent way;
  - identify safety trends, and predict potential issues before they become critical;
  - identify where action is required to reduce likelihood or mitigate potential safety issues; and
  - enable long term planning of safety-related activity

The approach is to be applied across the Capital Programmes Directorate with the Subsurface Upgrade Programme in the lead.

- 1.24 The Safety Authorisation covering the Core route of London Overground is being updated in preparation for resubmission to the Office of Rail Regulation in May 2014. All London Overground procedures are being reviewed in preparation and coordinated with the One TfL management system work stream.

- 1.25 The strategy within LU and LR for raising physical activity levels of employees called Step It Up was launched in the quarter. Promotion of this programme continues; this will include promoting stair climbing; gym membership discounts and local walks; Local health champions are trained to signpost colleagues to activity and set up activity groups such as walking, cycling, running;
- 1.26 London Underground will see the start of the deployment of a new ramp that gives access for wheel chair users from a platform that is higher than the train floor, to compliment the development of the ramp that gives access from platforms that are lower than train floor. London Overground will see the launch of 'Turn up and Go', a scheme to improve access for mobility and visually impaired passengers using the service.

## **2 Major incidents**

- 2.1 There was one major incident in the quarter on London Underground infrastructure. An intoxicated male fell under a train at Hounslow East sustaining fatal injuries.

Other notable incidents, both outside the quarter :

- 2.2 A construction worker employed by the Principal Contractor on the Twin Tracking Project, for which Docklands Light Railway are the Client, suffered fatal injuries on 2 March 2014. At the time of writing the HSE are still in charge of the site, and we do not have details of the causes. Full and detailed investigations by the Contractor and DLR will commence once the site is released.
- 2.3 Although outside the quarter an incident occurred during a platform cleaning operation when a cleaning contractor dislodged the Overhead electric traction cables whilst lowering jet washing hoses from an over bridge onto tram platforms. There were no injuries as a result of the incident, but there was considerable damage to the Overhead cables. The incident investigation is ongoing.

### Surface Transport

#### Quarterly Health, Safety and Environment Report

## 1 Summary

### What went well

- 1.1 In quarter 3, public transport passengers (mainly buses) reporting injuries which require hospital attendance (including as a precaution) fell from 0.41 incidents per million passenger journeys to 0.35. A total of 205 incidents were recorded in the quarter.
- 1.2 Provisional data for quarter 3 shows that the number of people killed or seriously injured (KSI) on London's roads was 37.1 per cent below the 2005-2009 baseline. Year to date data shows KSIs is 34.1 per cent below the baseline. The full year forecast is a reduction in KSIs of 31.7 per cent from the baseline, in comparison to the target reduction against baseline of 21.3 per cent. This forecast is based on longer term trends in KSI casualties, towards the target of a 40 per cent reduction in KSIs from the baseline by 2020. The full year forecast is, therefore, ahead of target, with one further quarter to report.
- 1.3 The first Road Fatality Review Group was held. This meeting brings together representatives from across TfL, as well as the Metropolitan Police Service (MPS) and City of London Police (CoLP). The objective of the meeting is to investigate specific locations where casualty reductions are sought and develop a holistic approach to addressing the issues, encompassing engineering, enforcement and education solutions.
- 1.4 The TfL road safety annual conference was well attended by representatives from 23 London boroughs. The theme was promoting the link between road safety and public health. A number of practical next steps were outlined to the borough officers to enable a more collaborative approach in future between the two disciplines.
- 1.5 An event held at City Hall in December highlighted the progress made to date by the construction industry in improving road safety benefits, via keynote speeches by the Mayor of London and Sir Peter Hendy. Over 130 executive level industry representatives were in attendance to view a low-entry, high-vision concept tipper vehicle which aims to challenge manufacturers to design safer construction vehicles. The industry led 'Standard for construction logistics: Managing work related road risk' was launched. The standard is a groundbreaking approach, facilitated by TfL, that aims to ensure that construction vehicles are fitted with side guards and blind spot vision equipment and that drivers are trained to consider the safety of vulnerable road users.

- 1.6 A Vehicle Technology event was held to explain to technology providers the road safety issues where technology can be part of the solution. The event helped to broaden the issue from one of just cycle safety to vulnerable road user safety, incorporating pedestrians and motorcyclists. Developers expressed an interest in holding a demonstrator day which would be aimed at both vehicle and cycle technology providers.
- 1.7 The Exchanging Places initiative has won the 2013 Prince Michael International Road Safety Award in the Education and Training category. The initiative is run by the TfL-funded Cycle Task Force as an innovative programme addressing the most common cause of cyclist fatalities and serious injuries in collisions with large goods vehicles.

#### Enforcement, Safety and Security

- 1.8 Operation Safeway was launched in November and saw over 2500 Metropolitan Police officers, many from the TfL funded Safer Transport Command, deployed to 166 collision hotspot junctions to carry out high-visibility enforcement and education activity. The initiative has now finished with over 14,000 Fixed Penalty Notices issued to cyclists and motorists
- 1.9 TfL and the MPS are assessing the impact of the operation and looking at how it can best sustain the benefits of high visibility traffic enforcement at 'hot spots' into the day to day activities of all traffic and transport officers.
- 1.10 The new joint VOSA and Police Heavy Goods Vehicle (HGV) Task Force is working to make cycling safer by reducing the risks posed by lorries on London's roads. The team was operational on 1 October and consists of eight TfL funded police officers and eight VOSA enforcement officers funded by the DfT to increase enforcement of the regulations for construction HGVs, especially waste lorries. In the first 81 days of operation, the task force stopped 1,061 vehicles of which only 25 per cent were satisfactory stops - where no offences were detected. Officers issued 255 prohibitions and warnings for driver's hours offences.
- 1.11 The official figures from the MPS show that bus-related crime was 23.0 per cent lower (397 fewer offences) in December 2013 compared with last year. Between April and December, crime fell by 9.0 per cent (1,398 fewer offences) on the bus network. Notable reductions were seen in the number of robbery offences (down 23.7 per cent), criminal damage offences (down 19.5 per cent), violence against the person offences (down 6.7 per cent) and theft (down 5.1 per cent). The rate of bus-related crime is at its lowest levels since recording began in 2004/5.
- 1.12 The annual Safe Travel at Night (STAN) campaign during the festive period went well. The campaign's aim is to make people travelling at night, particularly women aware of the dangers of using un-booked minicabs, as well as informing them of the best ways to get home safely. The initiative consists of officers from TfL's funded police officers, CoLP and Taxi and Private Hire compliance officers.

- 1.13 Between April and November 2013, there were 23 fewer cab-related sexual offences, down from the 94 that were recorded over the same period last year. Rape offences also fell by 55 per cent over this period (from 18 to ten offences).
- 1.14 The process for managing Taxi MOT inspections was automated to help improve compliance monitoring. This initiative supports the new requirement for Taxis to undergo a six monthly MOT check and raise the standard of vehicles and the first time pass rate which currently stands at 76 per cent.

#### Operational Health and Safety

- 1.15 The review of the 2013/14 health and safety improvement plan shows good progress was made against objectives at the end of quarter 3.
- 1.16 A total of 6,484 working days were lost due to sickness, equivalent to an average 2.07 per employee in quarter three. Usually, more cold related absence are recorded in the third quarter but for this year 399 fewer staff (40 per cent) were absent compared with 2010/11. Surface Transport is increasing its collaboration with Occupational Health Services to further encourage employees to access services they need including the flu jab.
- 1.17 The third annual Surface Safety Awards designed to acknowledge employees who have gone beyond the call of duty to ensure health, safety and wellbeing went well.

#### Transport Accessibility

- 1.18 More Legible London signs, which make it easier to understand and navigate the Capital's streets, are being introduced. Brixton is the latest town centre to adopt the signs, with Bromley, Clapham Junction and Kingston set to follow. There are now more than 1,200 of these clear, consistent maps in 27 boroughs across London. As part of TfL's response to the Roads Task Force, there is a target to increase the number of signs to 3,000 by 2021. In addition, Legible London is continuing to evolve to meet new needs, with the introduction of a new 'interchange totem' at stations and river piers.
- 1.19 A Mobility Scooter Recognition Scheme has been introduced by Thames Clippers to give first time customers the opportunity to visit a pier to understand how they can use the service and find the best way to board and alight
- 1.20 More than 95 per cent of signalised pedestrian crossings now have audible signals and/or rotating cones and tactile paving. Pedestrian Countdown displays, showing how much time people have left to cross the road, are being fitted at 200 sites across London. As part of this programme, signalised pedestrian crossings, tactile and audible facilities were installed at 43 sites in the previous two quarters. 25 further sites will also benefit from these facilities in quarter three.
- 1.21 In February, TfL hit a new milestone in improvements to bus stop accessibility. Some 72 per cent of London's bus stops are now fully compliant with our accessibility criteria (compared with fewer than 30 per cent in 2008). £18m is being invested in this programme, including funding borough councils, which will enable TfL to increase this to 95 per cent of bus stops by the end of 2016.

- 1.22 Bus routes 9, 11, 24 and 390 have fully converted to the New Routemaster vehicle which offers low floor access at three doors, a large wheelchair space, a hearing aid induction loop and iBus information screens that can be viewed from the wheelchair bay.

### Environment

- 1.23 The International Association of Public Transport (UITP) launched the Zero Emission Urban Bus System (ZeEUS) project to develop the take up of electric vehicles in more European urban bus networks. The launch marks an important phase of TfL's own technology evaluation programme as Surface Transport proposes to test up to four diesel-electric hybrid double deck buses with extended electric range capability. They will be charged with grid energy supplied wirelessly by high-power induction charging units situated at bus stations at each end of the demonstration route. This builds on TfL's trials of pure electric buses such as the two BYD single deck vehicles now operating on routes 507 and 521 and the extended trial of hydrogen fuel cell buses serving route RV1.
- 1.24 The London Low Emission Zone (LEZ) Phase 4 sees 95.9 per cent of vehicles compliant compared with a target of 92 per cent.
- 1.25 A 'New Taxi for London' event took place where the Mayor announced his proposal to introduce a more challenging deadline – January 2018 - for all newly licensed taxis to be zero emissions capable. Five vehicle manufacturers intending to produce zero emissions capable taxis in advance of the Mayor's deadlines were present at the event, three of them showcasing their vehicles. The event featured a media session, a stakeholder event and a drop-in session for taxi drivers.
- 1.26 TfL started implementing an Energy Efficient Street Lighting Programme across the TLRN. This initiative will be substantially delivered over the next three years and will lead to a 40 per cent reduction in energy use and will help reduce the cost of lighting on TfL's road network.

### Areas for improvement

- 1.27 As construction-related vehicles appear to be disproportionately involved in fatal collisions with cyclists, the TfL funded Construction Logistics and Cyclists Safety project will aim to reduce the risks they pose to vulnerable road users. Consequently, TfL is working in partnership with Laing O'Rourke to trial a new construction vehicle with vastly improved driver visibility and safety equipment. This will lead to work with the industry to identify other models of vehicles with similar high-visibility cabs to help further adoption into construction fleets.
- 1.28 The London Assembly Transport Committee met in January 2014 to discuss pedestrian safety. Representatives from TfL attended to answer questions from the committee members and present evidence. The committee will be writing to the Mayor shortly with a list of recommendations to improve pedestrian safety in London. A key action they have identified is to increase the 'green man' time offered to pedestrians at busy pedestrian locations.

## Key deliverables in the next quarter

### Transport User Safety

- 1.29 To continue the development of the Pedestrian and Motorcycle Safety Action Plans, as well as the refresh of the existing Cycle Safety Action Plan. All three plans are due to be published in Spring 2014.
- 1.30 The City of London will be going to public consultation on 28 January on their proposal for a City of London-wide 20mph speed limit. TfL has agreed with the City of London to trial the introduction of 20mph speed limits on sections of two TLRN corridors in the borough, the A201 and the A10.
- 1.31 Following the approval of the policy supporting the use of the new technology for Average Speed Cameras (ASC), a trial of four systems will be commenced. This will provide additional experience of the operational impacts of ASCs, including their overall casualty reduction impact, their impact on traffic speeds, and flow and political reaction.
- 1.32 The Safer Lorry Scheme feasibility study will be published by the end of January. This study assessed different options for introducing a restriction on lorries entering London without basic safety equipment being fitted. This study showed that a new pan-London scheme could be delivered by TfL in co-operation with London boroughs, enforced through Penalty Charge Notices.
- 1.33 Eight boroughs (Bexley, Ealing, Enfield, Kingston, Merton, Newham, Richmond and Waltham Forest) have been shortlisted for a £100m 'Mini-Hollands' fund. The boroughs have submitted their bids which will be reviewed in panel sessions with them. This means shortlisted boroughs will present their programme proposals to a panel which consists of representatives from TfL, the Mayor's Cycling Commissioner and members of the Mayor's Design Advisory Group. It anticipated that the winners will be announced in spring 2014.
- 1.34 New low-level traffic lights designed for cyclists have been authorised for use by the DfT following off-street safety trials. More than 80 per cent of cyclists favoured the use of low-level signals during the track-based trials of the system, which work by repeating the signal displayed on the main traffic lights at the eye level of cyclists. The system will be piloted at Bow Roundabout from the end of January; this is the first time the lights have been used in the UK. TfL is working with the DfT to extend the pilot to a further eleven sites in London. The lights will give improved, clearer signals to ensure cyclists have the information they need at the junction.

### Operational Health and Safety

- 1.35 Surface Transport will complete the 2013/14 programme of assurance audits including bus operators.
- 1.36 Surface Transport will continue work with Learning and Development on the piloting of the H&S e-Learning training and assessment programme for line managers in TfL as part of the Managing Essentials initiative. This is in addition to the H&S training programme for employees

- 1.37 Surface Transport will continue a six week smoking cessation clinic in conjunction with The NHS Stop Smoking Services.

### Transport Accessibility

- 1.38 Work on the Bus Stops Accessibility programme will be continued.
- 1.39 Surface Transport will continue the wheelchair space campaign asking buggy users to make space for wheelchair users on buses. This has recently been joined by a campaign encouraging people to give up priority seats for those that need them more.
- 1.40 A new accessibility training programme for the London's bus drivers, developed in partnership with Transport for All and Age UK London will be continued. This includes a film and workbook designed to give bus drivers a greater understanding of the needs of their older and disabled customers based on the personal experience of participants. This builds on the extensive training London's bus drivers currently receive and will be delivered to all 24,500 London bus drivers by the end of this year.
- 1.41 In 2013 TfL developed and conducted an initial trial of new technology that detects groups of people at pedestrian crossings and adjusts the signal timings to make sure that queues are cleared. Building on the trial, two further on-street trials will be conducted in 2014. There is commitment to continue upgrading the remaining five per cent of pedestrian crossings to meet accessibility standards. Nineteen more sites on Transport for London Road Network and 20 on borough roads will be upgraded by March 2014 towards a target of 100 per cent across London by 2016.

## **2 Major incidents**

- 2.1 A route 410 bus was involved in a fatal road traffic collision with a cyclist on November 12 on Cherry Orchard Road, Croydon. Investigations by the police and operator continue.
- 2.2 A route 205 bus was involved in a fatal road traffic collision with a cyclist on November 13 on Whitechapel High Street, E1. Investigations by the police and operator continue.
- 2.3 A route 252 bus was involved a road traffic collision which resulted in the death of two pedestrians on November 15 on Western Road, Romford. Investigations by the police and operator continue.
- 2.4 The investigation of the previously reported fatal incident involving an unattended out-of-service bus which rolled forward, crushing its driver on August 8 on Conville Street has attributed the incident to the failure by the driver to secure the bus correctly. Additional steps are now in place to prevent similar incident from occurring again. A verdict of "impact trauma" was recorded by the coroner. There were no recommendations made by Coroner's Court for TfL or the bus contractor involved.

### Crossrail

#### Quarterly Health, Safety and Environment Report

##### 1 What went well

- 1.1 Good progress continues to be made on our H&S Objectives for 2013/14. The Crossrail Health and Safety Performance Index (HSPI) is the mechanism developed and implemented to measure performance, including against leading indicators in the six pillars of Target Zero (Leadership & Behaviour, Designing for H&S, Communication, Workplace Health, Workplace Safety and Performance Improvement). HSPI ranges from 0 to 3 with a minimum contractual compliance score equivalent to 1.0. We have achieved 88 per cent of contracts regularly achieving an HSPI greater than 2 (our objective is for more than 85 per cent to achieve HSPI >2.0), with an overall programme HSPI score achieving greater than 2.00 since September 2013, and with a final score of 2.09 recorded in Period 10 (December 2013).
- 1.2 Over the last 6 periods the lost time case (LTC) accident frequency rate (AFR) has continued to improve resulting in a 17 per cent AFR reduction against the AFR at the end of 2012/13.
- 1.3 In addition, the RIDDOR accident frequency rate (including >3 day injuries) has started to recover, after an increasing trend in Q1 and Q2, with a three per cent reduction from the end of 2012/13.
- 1.4 Following extensive planning - and with the full support of the Crossrail Safety Health and Environmental Leadership Team (SHELT) - the first 'Stepping Up Week' was rolled out across the programme, during European Week for Safety & Health, with 33 sites participating. Each contract organised a week of bespoke and innovative activities focussed on improving their health and safety performance. Feedback has been extremely positive and agreement reached that this will become a biannual event on Crossrail with the next week scheduled for week commencing 28 April 2014.
- 1.5 Following the successful roll out of the Health and Safety 'Have Your Say' Survey, approximately 5300 surveys were reviewed and analysed. Site specific reports were then prepared and distributed to each individual contract. These reports outlined key areas of success and those requiring improvement were communicated in anticipation of Stepping Up Week. Key themes included the need for improved communication and simplification/improvement of the near miss reporting process.

- 1.6 The Crossrail Gateway assessment was completed during the quarter with overall scores averaging at 1.96 (range is 0 to 3 with 1.0 indicating contractual compliance) which shows significant improvement on previous assessments. Best practice identified was shared programme-wide.
- 1.7 The Crossrail Gateway scheme was recognised in the national 2013 Inspiring Safety Awards, winning the award for 'Most Inspiring Campaign or Initiative'.
- 1.8 An Occupational Health service provider accredited to the Safe Effective Quality Occupational Health Service (SEQOHS) standard was procured for Crossrail and commenced in late September 2013.
- 1.9 Target Zero Health Campaign – Dust “999 Health Emergency” was delivered across the programme and was well received by stressing the importance of gaining access to Occupational Hygiene services and the need to continually monitor dust.
- 1.10 Collaborative working with TfL on Fatigue has identified areas for internal research, to enable client-led specifications on shift working patterns in the future.
- 1.11 The Department of Health's 'Public Health Responsibility Deal for Construction' was launched in October 2013. Crossrail and several contractors have signed up and made pledges of support.
- 1.12 Audits continue to be carried out in accordance with the Health and Safety Assurance audit schedule; no audits were overdue. Audit topics in the past quarter included management of work equipment & Hand Arm Vibration Syndrome (HAVS), competence management & site induction arrangements and H&S communications, including site signage. A total of 18 audits were carried out in the quarter and 23 CARs raised. All 23 have been closed out.
- 1.13 The programme of monthly surveillance checks against BS6164 “Code of Practice for Health & Safety in Tunnelling in the Construction Industry” included control of fire and smoke, tunnel safety cards, machinery guarding, lifting equipment and response to emergencies. Opportunities for improvement have been shared with all TBM and SCL contractors.
- 1.14 Three emergency exercises were completed in Quarter 3. These were desk top exercises selected by the project teams to simulate significant unplanned incidents and formulate appropriate response arrangements which are subsequently available for cascade to other project teams.
- 1.15 CDM verification activities are carried out each period to confirm the accuracy of CDM returns received from the sites. Verification activities have identified an improvement in the accuracy of returns; all deficiencies identified have been closed out on time. The process has provided confidence that CDM management is being carried out effectively across the project.

- 1.16 Further CDM training has been delivered to various departments across the organisation to ensure that the principles of designing for safety and CDM compliance are well understood.
- 1.17 The Frontline Leadership Programme (FLP) continues to recruit supervisors and appropriate mentors from the Principal Contractor population. There are now 156 engaged in the programme with 24 scheduled for future courses. This exceeds the stretch target for 2013/14.
- 1.18 The next six monthly Lloyds Register Quality Assurance (LRQA) visit will take place in March 2014 with the focus on risk management process.
- 1.19 The Crossrail 2013 Sustainability report was launched at the House of Commons on 25 November 2013 and was well received by those in attendance including MPs, the media and interested stakeholders.
- 1.20 The Wallasea ecology works were completed. 8200 Common Lizards, 50 Adders and 150 water voles were relocated. In addition, 20 badger setts were closed under licence.
- 1.21 Environmental supplier performance results showed a 25 per cent improvement in environmental performance compared to the first round of assessment in 2012, and an 18per cent improvement compared to the previous round.

## **2 Areas for Improvement in the quarter**

- 2.1 The development of the second phase of Health & Safety Performance Index (HSPI) continues as contractors, in collaboration and consultation with Crossrail, have developed risk based measures for their specific contract. The next stage is to test and record the measures ready for go live in April 2014.
- 2.2 Occupational Health – Planned research on dust and particulates has been delayed due to supplier negotiations, and the procurement team are working on solutions.
- 2.3 An environmental incident workshop was held which has generated a number of ideas to improve incident identification, notification and reporting. These ideas will be shared amongst contractors and a follow up workshop will be held to take forward some of the suggested ideas.
- 2.4 Construction noise management workshops are being held with Crossrail contractors to see what more can be done to improve construction noise management.

### **3 Key Deliverables in the next Quarter (Q4 – 2013/14)**

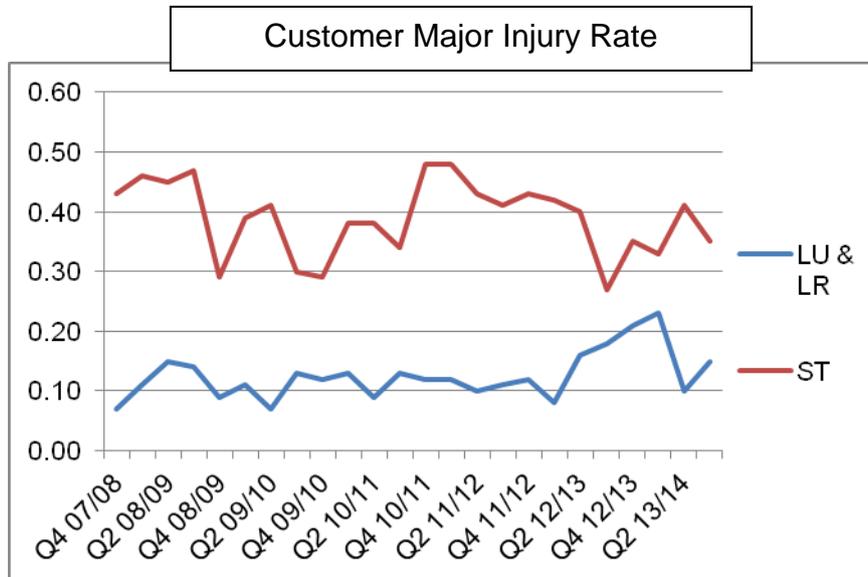
- 3.1 Cycle 5 of Gateway commences in the final quarter of 2013/2014. Assessments are due for completion in April 2014.
- 3.2 Following the success of Stepping Up Week', Crossrail will be running its second week of initiatives from 28 April-2 May.
- 3.3 Twenty four audits are scheduled for quarter 4, covering site security, provision & response of emergency response equipment, management of plant & equipment, vehicle management and working at height.
- 3.4 The programme of Surveillance Checks against BS6164 will include planning for health & safety, control of noise and vibration, electrical safety, control of risk, access and planning for tunnel railways.
- 3.5 Surveillance Checks of the management of safety, health and environment in facilities will continue in quarter 4.
- 3.6 A further three Emergency Exercises are planned for the quarter, including a crane collapse and "Project Argus" – a Metropolitan Police led emergency exercise to consider preparedness for a terrorist incident at Canary Wharf.
- 3.7 Two project wide health initiatives are planned for the next quarter; a team fitness challenge and a mental health campaign.
- 3.8 Internal Fatigue Research will commence on Tunnel Boring Machines (TBM) and Sprayed Concrete Lining (SCL) works
- 3.9 The second NEBOSH Certificate in the Management of Health and Wellbeing in Construction will be delivered.
- 3.10 Contractor quarterly environmental reports are due and consequently Crossrail's performance against the energy target and CEEQUAL and BREEAM performance will be updated. In particular, performance against the target to reduce construction energy by eight per cent will be updated, following receipt of reports from contractors.

### **4 Major Incidents**

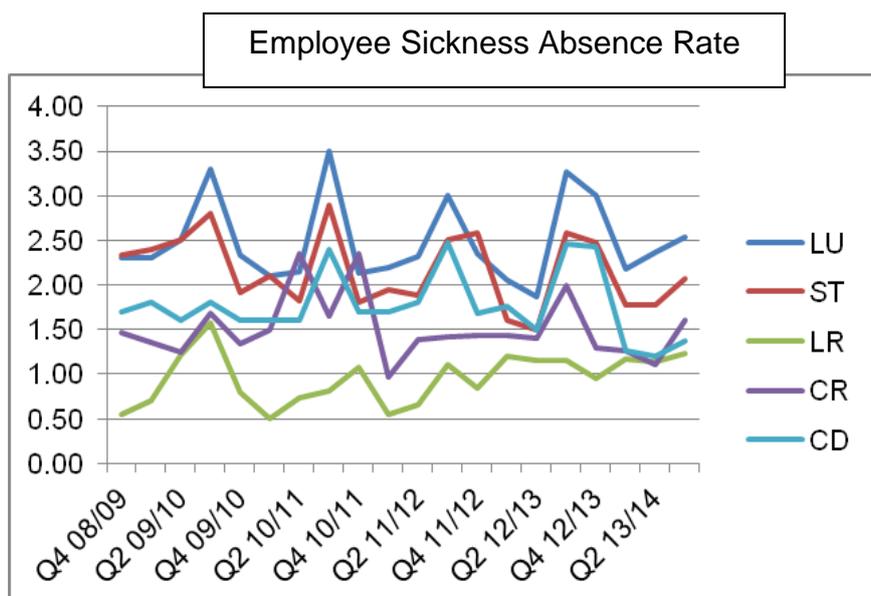
- 4.1 There were no major incidents in Q3. However, on 7 March 2014 a worker was killed at Holborn, while carrying out tunnelling operations. A full investigation by the HSE has commenced and an internal investigation will also be undertaken.

## Statistical Details

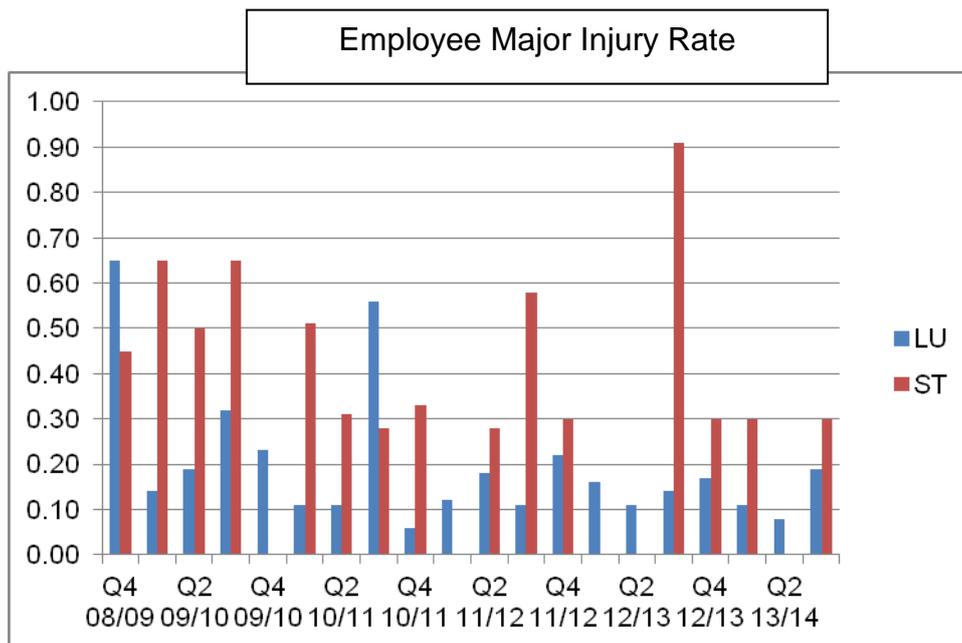
### Quarterly Health, Safety and Environment Report



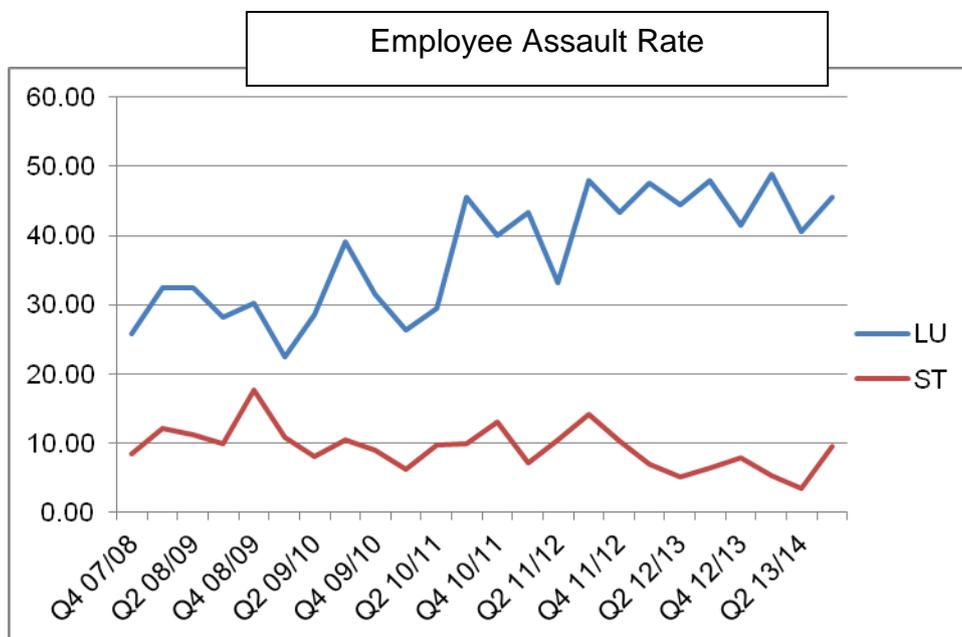
This chart provides the rates for Customer Major Injuries in Rail and Underground and Surface Transport, per million customer journeys. Customer Major Injuries on LU and Rail increased slightly in Quarter 3, with slips, trips and falls continuing to be the most significant element; improving this is a key part of the safety Improvement plan for 2013/4. ST has fallen this quarter, but with no noteworthy change in the pattern of incidents.



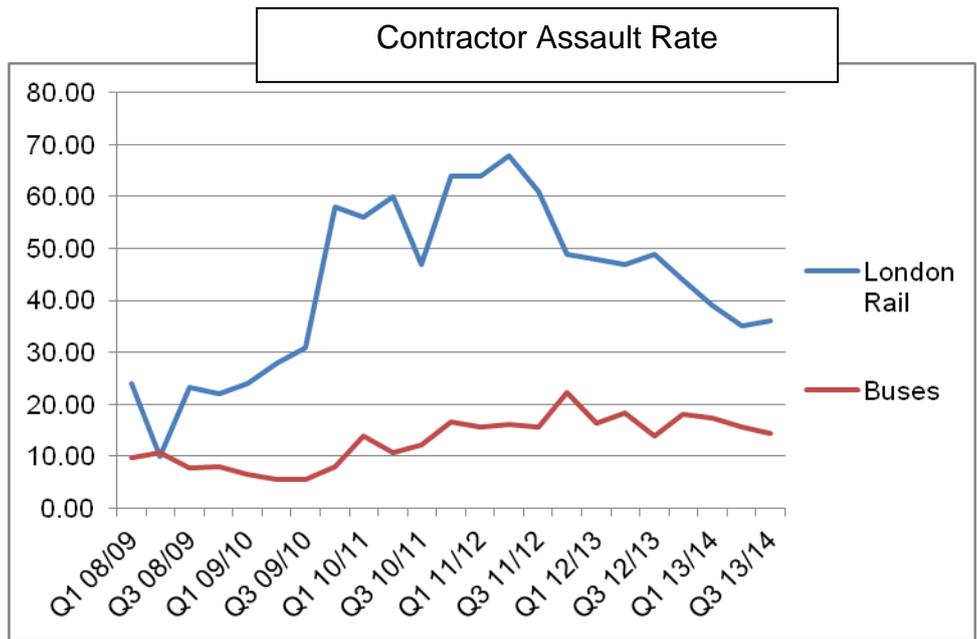
This chart provides the details of sickness absence per 1000 employees. As has been the case for a number of years there is clear seasonal pattern. The rates within the five businesses show a relatively consistent rank order too. The most common causes of staff sickness absence were Coughs and Colds, Gastrointestinal and Musculoskeletal.



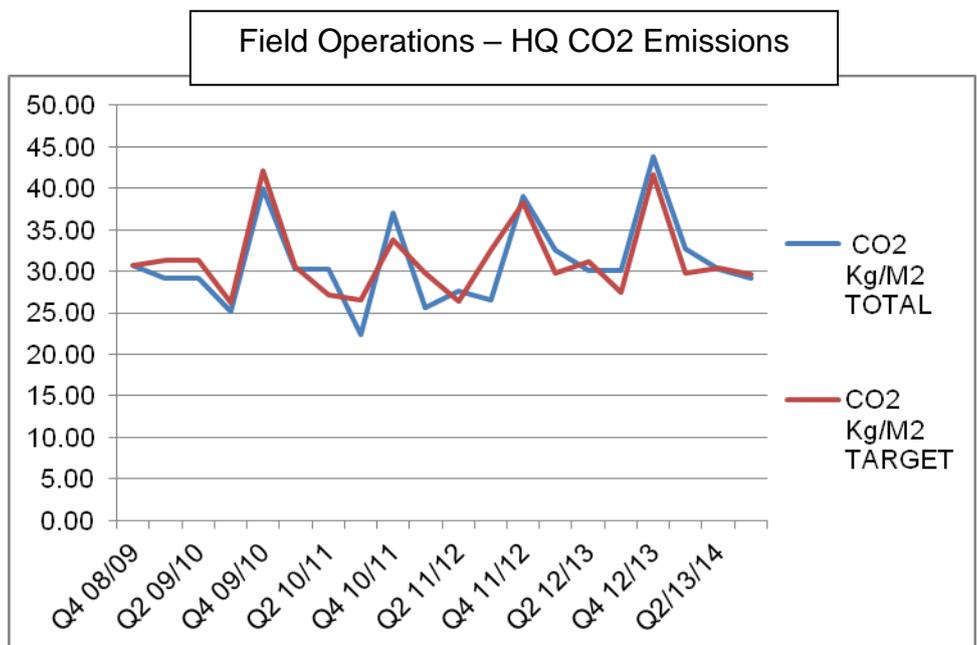
This chart provides the rate of major Injuries per 1000 employees. This is a rate per quarter, and is not a moving average. As can be seen there are some quarters were with no Major Injuries, there is a zero rate. As the employee numbers are smaller in ST, there is a slightly greater volatility. There are no particular trends in this data.



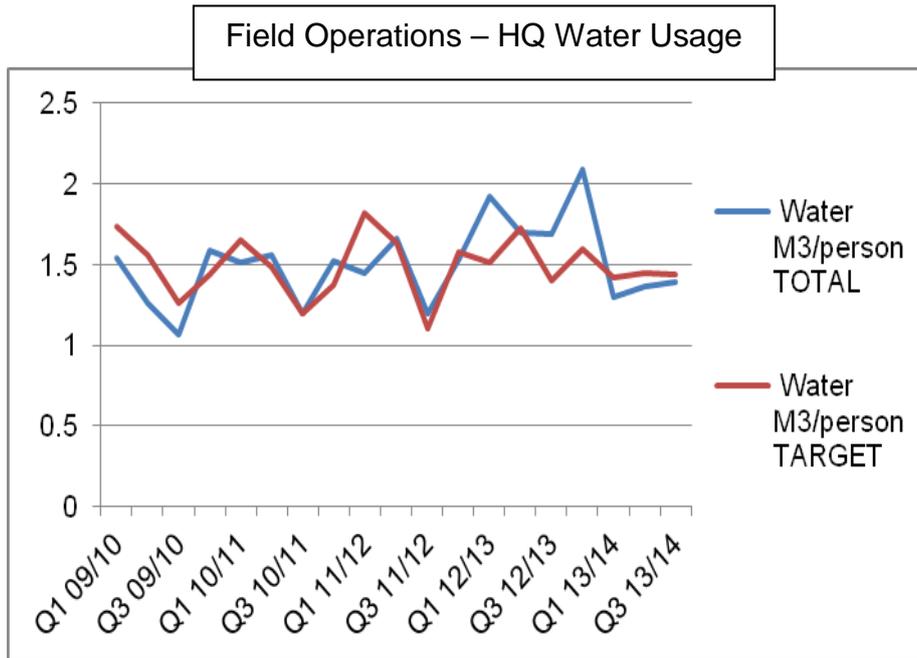
This chart shows employee assault rates per 1000 staff, for Surface Transport and London Underground. The main difference in the rates is explained by a significantly higher rate reporting of verbal assaults in LU. The more recent trend for LU has shown small rises and falls, but with a very slight falling trend, whilst ST rate is more stable, showing a broad falling trend but with a rise this quarter.



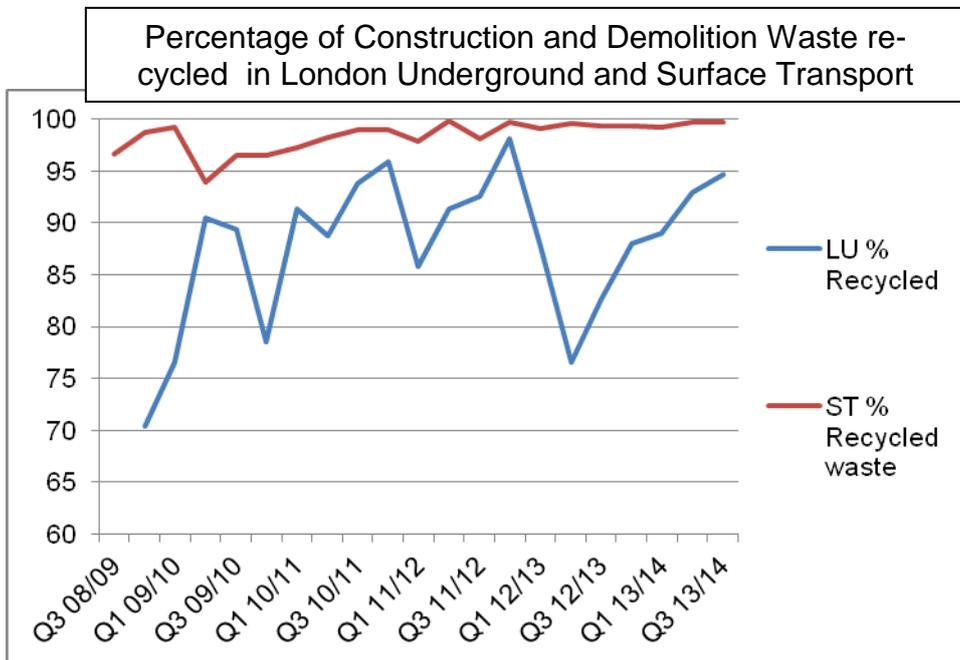
This chart shows the rates for Assaults (both physical and verbal) per 1000 Contractors. These staff are primarily those in London Rail (with those involved in revenue protection a significant proportion) and London Buses (primarily the Bus Operators), where most customer facing staff are contractor staff. The reporting of verbal assaults is known to be much higher in London Rail businesses, than it is in Surface Transport. The Buses rate continues to fall slightly, while Rail has seen a slight rise against a previous consistent falling trend, there is no particular reason.



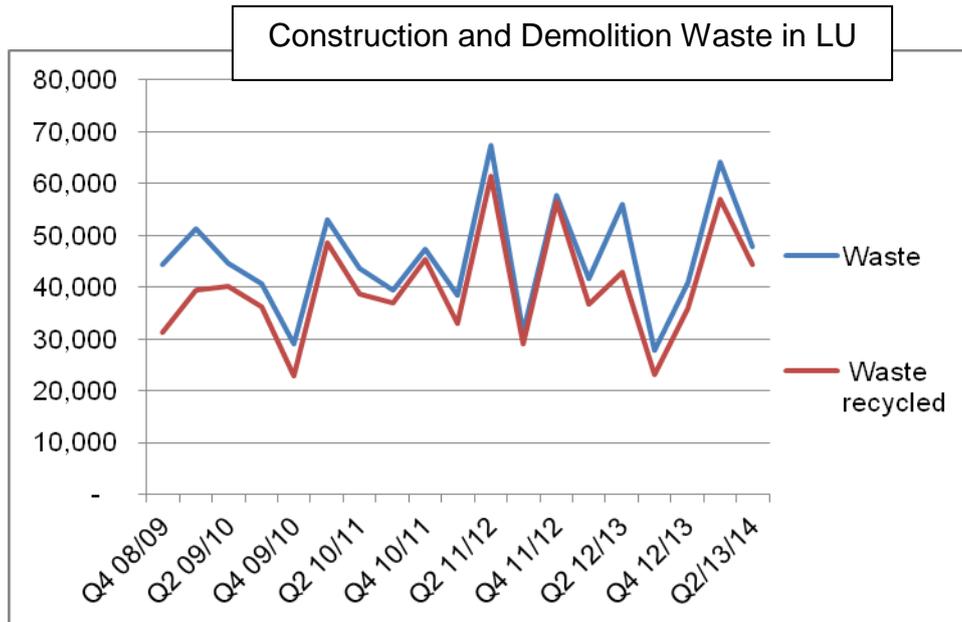
This chart shows the carbon emissions at the HQ buildings that make up the TfL estate, and over which we have direct control. They are measured in Kg of CO2 per square metre. As might be expected there is a clear seasonal trend. The targets are also shown, and for the second quarter running the actual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



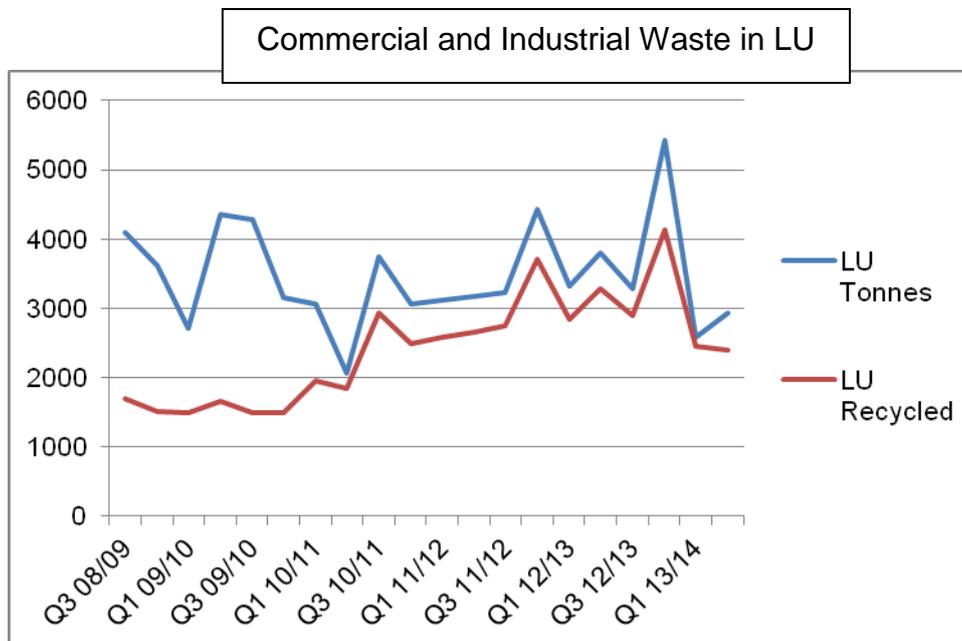
This chart shows the water usage measured in cubic metres measured against the numbers of persons in the various TfL HQ buildings over which we have control. The targets which have been set are also shown, and in the quarter actual water use per person was again below the target. For the third quarter water use per person is lower than target, but the gap is closing.



This chart shows the percentage of construction and demolition waste recycled in London Underground and 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 in LU are continuing to rise; ST rates remain high.



This chart shows the quantity of construction and demolition waste produced and the amount recycled in London Underground in Tonnes. Construction & Demolition recycling rate for quarter 3 was 95% and exceeds the 2013-14 target (90%). The rate for the same quarter 2012/13 was 83%. Excellent recycling rates were achieved by the CPD teams, particularly in Period 9. SUP achieved over 98% recycling in Periods 7-9, Stations achieved over 97% recycling for Period 7 and the P-Way team achieved over 99% recycling in Period 9. Power, Communication and Cooling has achieved 100% recycling rate throughout quarter 3.



This chart shows the tonnage of Commercial and Industrial waste produced and recycled and reused in London Underground in Tonnes. LU recycled or recovered 97% of station and depot waste in quarter 3 2013/14. This was a significant improvement on 2012/13's recycling/recovery rate of 88% due to more waste going to energy recovery. However only 67% of station and depot waste was reported as being recycled, which is lower than the 2013/13's 88%, and remedial plans are being developed. The 2013/14 recycling or recovery target is 90%. Scrap metal or dedicated paper recycling figures were not available for this quarter. Hazardous waste data was also absent which will be added to quarter 4.