

TRANSPORT FOR LONDON

SAFETY, HEALTH AND ENVIRONMENT ASSURANCE COMMITTEE

**SUBJECT: QUARTERLY HEALTH, SAFETY AND ENVIRONMENT
PERFORMANCE REPORTS QUARTER 4 2010/11**

DATE: 2 AUGUST 2011

1 PURPOSE AND DECISION REQUIRED

- 1.1 To inform the Committee of the key Health, Safety and Environment matters during Quarter 4 2010/11. The Committee is asked to note the report.

2 BACKGROUND

- 2.1 Full reports on Health, Safety and Environmental performance are produced annually. These quarterly reports are to update the Committee on any significant matters from the previous quarter.

3 INFORMATION

- 3.1 The Quarter 4 2010/11 Health, Safety and Environment Performance Reports for each business area are attached as follows:

Appendix 1	London Underground
Appendix 2	Surface Transport
Appendix 3	London Rail
Appendix 4	Crossrail
Appendix 5	Corporate Directorates
Appendix 6	Health and Safety performance data summary

- 3.2 It should be noted that London Underground's report covers three periods during Quarter 4 while other business areas' reports cover four periods.

4 RECOMMENDATION

- 4.1 The Committee is asked to NOTE the report.

5 CONTACT

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LONDON UNDERGROUND

QUARTERLY HEALTH, SAFETY AND ENVIRONMENT REPORT

1 SUMMARY

What went well

- 1.1 Projects in the Safety, Environmental and Health Improvement Plans continue to progress to target.
- 1.2 The last major incident occurred over 588 days ago measured at 31 March 2011. The last in service derailment was 46 months ago, which exceeds the previous record of 37 months. The risk of in service derailments is now around 16 times lower than it was a decade ago.
- 1.3 All Safety, Health and Environment performance indicators remained stable or improving, except as noted in 'areas for improvement' below.
- 1.4 Physiotherapy provision for maintenance personnel was expanded in the quarter to encompass a greater role in prevention. Initial data indicates 50 per cent less absence for back pain in periods 11 to 13 compared to periods 3 to 10.
- 1.5 The recycling targets for commercial and industrial waste (60 per cent) and construction and demolition waste (75 per cent) were again exceeded. 81 per cent of all commercial and industrial waste collected and 96 per cent of construction and demolition waste collected were recycled.

Areas for improvement

- 1.6 Lost time injury frequency rates (LTIFR) rose in the Asset Performance and Capital Programmes Directorates. Incidents continue to be investigated to minimise chances of reoccurrence. Key issues are around manual handling, lack of compliance with procedures and housekeeping. While the LTIFR continues to reduce in Operations, unfortunately the recent rise in staff assaults continues. Work continues to understand the causes of these adverse trends, so that action to reverse them is appropriately focused.
- 1.7 The target for the number of Noise and Vibration complaints in Operations (135) in 2010/11 was exceeded (234). It is considered a number of complaints relating to noise within stations have incorrectly been included in these figures. A review of the data is in progress and will be completed and reported in the Quarter 1 2011/12 report.

Significant plans for next quarter

- 1.8 The Low Carbon Stations initiative to source low carbon technologies will be implemented at Leicester Square station.
- 1.9 Giant hogweed eradication actions on the Central Line are complete. Resurveying

will be completed to confirm its successful eradication.

2 PROGRESS AGAINST HSE PLAN

- 2.1 The Rail and Underground Board monitors progress every four weeks (until 27 June 2011 this progress was monitored by the London Underground Executive Committee). A change was authorised last quarter for starting the low carbon stations trial sites six months later than originally planned due to complications with procurement as a result of Tube Lines transferring to the public sector. The trial is progressing to the revised target. All other aspects of the plan continue to be delivered to target.

3 STATUS OF HSE MANAGEMENT SYSTEM

- 3.1 The audit team monitors compliance with London Underground's Health, Safety and Environmental Management System (HSEMS), which is part of London Underground's overall management system. The 2010/11 audit programme was achieved, with no critical issues identified.

4 HEALTH AND SAFETY PERFORMANCE

Health

- 4.1 There were 36,347 working days lost to sickness absence in Quarter 4, representing an average of 2.1 days per employee. For comparison, in the previous quarter and in the same quarter last year there were 3.5 and 2.3 days absence per employee respectively. (The 2009/10 data set excludes the Asset Performance directorate.) The top three categories of sickness absence in Quarter 4 were the same as in Quarter 3, coughs and colds, gastrointestinal, and musculoskeletal.

Days lost	Q4 2010/11	Q3 2010/11	Q4 2009/10
Sickness absence	36,347	60,913	29,981
Average/employee	2.14	3.50	2.33

- 4.2 There was an average of 933 working days lost (0.34 per cent) per period as a result of back pain this quarter compared to 832 days lost (0.38 per cent) in Quarter 4 2009/10. The increase in days lost is as a result of Asset Performance Directorate staff being included in the 2010/11 figures. On average, 129 employees (0.76 per cent of staff) were absent as a result of back pain in Quarter 4.
- 4.3 There was an average of 1,655 working days lost (0.58 per cent of working days) per period due to stress, anxiety and depression this quarter. This compares to an average of 1,471 days per period lost (0.67 per cent of working days) in Quarter 4 2009/10.

Safety

- 4.4 There were 25 customer major injuries in Quarter 4 (0.10 per million customer journeys). For comparison, there were 46 customer major injuries in the previous quarter (0.13 per million customer journeys) and 31 (0.12 per million customer journeys) in the same quarter last year.

The overall trend remains statistically stable.

	Q4 2010/11	Q3 2010/11	Q4 2009/10
Customer major injuries	25	46	31
Rate/million customer journeys	0.10	0.13	0.12

- 4.5 There was one employee major injury in Quarter 4. For comparison, there were nine employee major injuries in the previous quarter and none in the same quarter last year.

	Q4 2010/11	Q3 2010/11	Q4 2009/10
Employee major injuries	1	9	0
Rate/1000 employees	0.06	0.56	0.00

- 4.6 There were 130 physical assaults on employees in Quarter 4. For comparison, there were 162 physical assaults on employees in the previous quarter and 120 physical assaults on employees in the same quarter last year.

- 4.7 There were 284 verbal assaults on employees in Quarter 4. This compares to 300 in the previous quarter and 228 verbal assaults in the same period last year.

	Q4 2010/11	Q3 2010/11	Q4 2009/10
Employee physical assaults	130	162	120
Employee verbal abuse	284	300	228
Total	414	462	348
Rate/1000 employees*	39.96	44.56	31.55
Physical assault rate/1000 employees	12.48	15.62	10.88
Physical assault rate/million customer journeys	0.51	0.47	0.48

*number of employees only includes Chief Operating Officer's employees

- 4.8 Progress of actions in the 2010/11 work related violence action plan continues to programme. This includes enhanced communications to the public to reinforce London Underground's commitment to preventing work related violence, follow up with enforcement action when an incident takes place and a revised training and briefing programme for London Underground's employees. It is anticipated that these actions will reverse the recent adverse trend and restore the ten year downward trend achieved until last year.

- 4.9 The trend in the number of signals passed at danger (SPADs) for all categories remains stable with an average of 51 occurring per period, the lowest for five years. There were 147 SPADs in total (all categories) during Quarter 4, of which 114 (78 per cent) were Category A (Train operator error) and 32 (20 per cent) were Category B (29 due to either signal equipment malfunction or train equipment and three were attributable to service control). One Category 'D' SPAD was also recorded where a train rolled forward and was tripped in Parsons Green sidings. This was as a result of a train maintainer rapidly shutting down the train without adequately exhausting the train air line.

The 2010/11 SPAD target of 670 was achieved with a total of 661 SPADs occurring in the year. This is a five per cent reduction compared to last year (695 SPADs)

- 4.10 There were 102 Platform Train Interface (PTI) incidents reported during Quarter 4. Sixty seven incidents (66 per cent) were persons caught in/struck by doors, 25 (25 per cent) were persons falling between the train and platform gap, six (six per cent) were contact between person and train and there were four (four per cent) falls from platforms. There were 543 PTI incidents in 2010/11, a reduction of 3.5 per cent compared to the 562 incidents in 2009/10.
- 4.11 There were 209 tests for drugs and alcohol in the quarter, 150 unannounced, 11 for cause, 37 routine monitoring and 11 post incident tests. There was one positive 'for cause' test for drugs in the Asset Performance Directorate.

5 ENVIRONMENT PERFORMANCE

Carbon and energy management

	Q4 2010/11	Q3 2010/11	Q4 2009/10
Total electricity consumption (MWh)	284,759*	358,368	278,900
Total Traction Electricity (MWh)	238,131	299,852	228,591
Traction Energy Efficiency (MWh/million passenger journeys)	931	885	920
Total CO ₂ (tonnes)	153,912	193,698	150,748
Normalised CO ₂ (g/passenger km)	74.00	71.30	76.40

*includes an estimate for non-traction electricity consumption as final data not available.

- 5.1 Energy and carbon efficiency continued to improve as shown above. Normalised CO₂ performance decreased from Quarter 3 due to the running of more train km in Quarter 4 and lower passenger km.
- 5.2 A number of energy related actions were delivered in Quarter 4 including:
- (a) Energy, CO₂ and financial savings were achieved at stations and depots through delivery of the Energy Steering Group's one year plan. Initiatives delivered over the year included the third escalator switch off campaign, delivery of Energy Efficiency Plans at stations, the 10:10 campaign at 10 stations and installation of smart meters at depots. These initiatives are projected to have delivered around £700,000 of savings and 9,000 tonnes of CO₂. They will be further enhanced by the roll out of smart meters at 150 stations by the end of Quarter 2 2011/12.
 - (b) A 60 per cent recycling rate was achieved on the Bakerloo, Central and Victoria lines and the subsurface railway stations and depots.
 - (c) Action to eradicate giant hogweed on the Central Line was completed. Confirmation of the success of this will not be known until re-surveying has been completed with the results reported in Quarter 2 2011/12. Ongoing

management actions relating to Giant Hogweed are now included in the London Underground Biodiversity Action Plan.

Recycling and waste management

	Q4 2010/11	Q3 2010/11	Q4 2009/10
Commercial and Industrial Waste (tonnes)	3,057	3,751	3,171
Commercial and Industrial Waste Recycled (tonnes)	2,480	2,927	1,484
Commercial and Industrial Waste Recycled (per cent)	81	78	47
Construction and Demolition Waste (tonnes)	47,348	39,503	29,080
Construction and Demolition Waste Recycled (tonnes)	45,439	37,067	22,839
Construction and Demolition Waste Recycled (per cent)	96	94	79

- 5.3 The amount of Commercial and Industrial (station and depot) waste collected in Quarter 4, 3,057 tonnes, was lower than that collected in Quarter 3 2010/11, 3,751 tonnes. The recycling rate for Commercial and Industrial waste was 81 per cent. This exceeded the 2010/11 recycling target for Commercial and Industrial waste (60 per cent). The overall recycling performance during 2010/11 was 74 per cent, which has improved significantly compared to 2009/10 (46 per cent). This has been achieved through implementation of the Total Package Services contract, where mixed waste collected from stations and depots is separated into recyclable and non recyclable material at the recycling centre.
- 5.5 The amount of Construction and Demolition (C&D) waste generated in Quarter 4 (47,348 tonnes) was higher than the previous quarter (39,503 tonnes). The proportion of C&D waste recycled in Quarter 4 was 96 per cent. This exceeded the 2010/11 recycling target for C&D waste (75 per cent). This excellent performance was delivered by many of London Underground's projects, including ballast track replacement and station capacity projects such as Tottenham Court Road.

6 MAJOR INCIDENTS

- 6.1 There were no major incidents in the quarter.

Update on incidents from previous reports

Runaway Rail Grinder Unit incident

- 6.2 The incident occurred in August 2010. The combined London Underground and Tube Lines investigation report was published in December 2010 with recommendations that are being managed by London Underground. All recommendations are on target.
- 6.3 In July 2011, the Rail Accident Investigation Branch, (RAIB), published its report with similar recommendations to the combined London Underground and Tube Lines investigation report with three additional areas, which London Underground and Tube Lines are currently addressing. These cover:

- (a) The investigation process for allegations of defective equipment;
- (b) London Underground audit of Tube Lines supplier quality assurance system; and
- (c) Review of the assurance provided by the London Underground regime.

Plaistow signalling irregularity incident

- 6.4 The incident occurred in September 2010. The formal incident investigation report was reviewed and approved by the Rail and Underground Board. The investigation made seven recommendations. These cover:
- (a) Review of the processes by which products and materials used for projects, upgrades and maintenance activities are introduced onto the London Underground system;
 - (b) Undertaking an 'end to end' review of the signal design and installation process;
 - (c) Undertaking a comprehensive review and update of the installation handbook including implementing an appropriate process to ensure it remains current, accurate and subject to change control;
 - (d) Providing installation and testing guidance and instruction for plate racks and communicating this to those involved with design, installation and testing of signalling systems;
 - (e) Researching alternative plate rack products that design out the risks identified by the report into the Plaistow signal irregularity (the 'slider');
 - (f) Developing and implementing a formal design product approval process for managing the controlled change of signalling components; and
 - (g) Reviewing the Project Manager's Framework to incorporate the findings of this investigation, with particular regard to managing programme delays effectively.
- 6.5 Progress with implementation will be tracked to completion through the HSE Plan.

SURFACE TRANSPORT**QUARTERLY HEALTH, SAFETY AND ENVIRONMENT REPORT****1 SUMMARY****What went well**

- 1.1 An ongoing initiative aimed at tackling unlicensed 'minicabs' has resulted in 1,300 arrests over the last twelve months in a crackdown on touting and other cab-related offences during 2010/11. Cab-related sexual offences fell to 111 incidents, a 20 per cent year on year reduction.
- 1.2 London has been successful in reducing road casualties and has exceeded the targets set in the London Road Safety Plan 2001-2010, except those for pedal cyclists and powered two-wheelers. In both these cases, there has been a steady reduction in the number of Killed or Seriously Injured (KSI) while there has been a significant increase in modal use.
- 1.3 The final road casualty figures for the twelve months to December 2010 show that overall KSIs fell to 2,886 and were 57 per cent below the baseline (1994-1998 average), and this compares favourably with the target of 50 per cent reduction by the end of 2010.
- 1.4 The DfT has provided £5m as part of the Clean Air Fund to TfL to extend the air quality local measures programme in central London, including:
 - (a) Targeted cleaning at priority locations;
 - (b) Increased application of dust suppressants at priority locations;
 - (c) Reducing idling at priority locations through the provision of taxi marshals at central London stations and other locations;
 - (d) Reducing idling through improved signage and infrastructure, targeted interventions with specific vehicles such as taxis and coaches, awareness raising activities and enforcement;
 - (e) Installing Diesel Particulate Filters (DPFs) on buses travelling along Upper Thames Street, Marylebone Road and Park Lane;
 - (f) Installing green infrastructure, such as trees, green walls and green screens at priority locations; and
 - (g) Working with businesses to reduce their air quality footprint to meet agreed targets at priority locations.
- 1.5 A further £3m was secured from DfT's Green Bus Fund, bringing the total allocated to TfL to £13m and enabling the introduction of 140 hybrid buses. Through the Green Bus Fund and tender awards, TfL will have a total of 268 hybrid buses in the fleet by March 2012. The buses will operate on routes that pass through the air quality priority areas.

- 1.6 Five zero emission hydrogen buses are now in service on route RV1 and the maintenance and refuelling facilities at Lea Interchange are fully operational.
- 1.7 Contracts for Electric Vehicles and infrastructure are now in place. The Infrastructure Procurement Framework contract can be used by Plugged-in-Places partners, public bodies and boroughs to purchase infrastructure provision, including installation and maintenance services, without undertaking a full EU procurement exercise. The Vehicle Procurement Framework contract for the provision of Electric Vehicles has also been completed. Call-offs will allow the boroughs and public bodies in London and beyond to purchase these vehicles without undertaking a full EU procurement exercise.
- 1.8 The Low Emission Zone (LEZ) Operator Information Campaign went live as planned in January 2011 and was supported with a media campaign. TfL's accrediting bodies have approved 13 companies to supply approved exhaust filters to meet the 2012 standards. TfL continues work with industry to encourage supply and incentives for operators to take early action. The DVLA mailed 105,000 letter and leaflet packs to owners of non compliant vehicles seen in the zone informing them of the forthcoming LEZ changes.
- 1.9 Good progress was made against the environmental policy and targets for the support fleet, which were approved by the Surface Strategy Board in March 2009. In addition to a 12 per cent reduction in support fleet size (from 185 to 163 vehicles), other performance included:
- (a) A 43 per cent reduction in staff owned vehicle mileage (grey fleet) against a target of 27 per cent by 2012. This is being achieved by using a dedicated fleet of hybrid pool vehicles in areas with higher grey fleet mileage.
 - (b) A 30 per cent reduction in support fleet average CO₂ emissions compared with a target of 15 per cent by March 2011. Setting a maximum CO₂ threshold for all new vehicles purchased/leased and reducing this by 5 g/km per annum contributed to this performance.
 - (c) The target to help accelerate market introduction of lower carbon, less polluting fuels and technologies by participating in trials of these technologies is being met through participation in DfT's Low Carbon Vehicle Procurement Programme.

Areas for improvement

- 1.10 Despite the existing overheight vehicle detection (OVD) system and advance warning signs at Blackwall tunnel, around 132 inappropriate vehicles are still entering the tunnel entrance ramp monthly before being stopped. A new arrangement that combines standard OVDs, variable message signs and automatic number plate reader cameras was commissioned to address the issue further. This arrangement is believed to be first of its kind in the UK. Initial indications are positive, but a more objective assessment after more operational experience is planned.

- 1.11 Surface Transport received a formal warning notice from the Environment Agency (EA) for works carried out concerning Victoria Embankment Drainage Works by one of the highway maintenance and works contractors without flood defence consent. Further environmental training is being arranged for Roads Directorate staff and their highway contractors to remind them of the legal requirements and the need to follow Surface Transport's internal procedures. In addition, Surface Transport and EA propose a Memorandum of Understanding to establish a better way of working between both parties in respect of minor works near to watercourses.

Significant plans for next quarter

- 1.12 A study commissioned by London Buses looking into 'pedal confusion' (where the wrong pedal is pressed accidentally resulting in unintended acceleration) among bus drivers was concluded. The recommendations will be shared with bus manufacturers. Bus operators have agreed to incorporate key lessons into their training and bus driver awareness materials.
- 1.13 Planning for the 2011/12 programme of audits by the London Underground Safety, Quality and Environment (SQE) team at Bus Stations, Victoria Coach Station, London River Service piers and the Woolwich Ferry is underway. The audits provide assurance against the management of safety and environmental risks within operational environments.
- 1.14 The draft Road Safety Plan for London will be taken forward to public consultation, with engagement with all relevant delivery partners (DfT, boroughs, police) and wider stakeholders (such as road safety groups). Building partnerships with other delivery agencies for road safety in London is fundamental to the success of the new Plan.
- 1.15 To support the Mayor's strategic aims around safety and walking, research using police investigation files and STATS19 data (Police road casualty database) on pedestrian and motorcycle fatalities commenced. The research will review 200 files including 35 incidents involving London buses and will provide information on factors contributing to the collisions and injuries.
- 1.16 TfL is reviewing the draft Local Implementation Plans (LIPs) submitted by London boroughs, which set out boroughs' delivery plans in response to the Mayor's Transport Strategy (MTS) in areas such as casualty reduction, CO2, mode shift, Electric Vehicles and other key indicators. The final LIPs will be submitted for approval in Quarter 2 2011/12.
- 1.17 Over 90 London borough officers attended a LIP workshop facilitated by TfL aimed at sharing good practice in the delivery of LIP funded corridors and providing 'peer-to-peer' support. Feedback from attendees was positive.
- 1.18 The opening of the additional Cycle Superhighway routes 2 and 8 in July 2011 will contribute to efforts around encouraging modal shift.

2 PROGRESS AGAINST HSE PLAN

2.1 During 2010/11, Surface Transport business areas worked towards the four high level health and safety priorities set out below. Some 150 actions/targets were established across all areas and 95 per cent were either fully or partly met. Uncompleted actions have been carried forward to 2011/12.

H&S Priority 1: Road casualty reduction

2.2 The analysis of casualty data highlighted where further actions to improve road safety in London are needed. These areas will be prioritised through the proposed Road Safety Plan.

2.3 A further phase of the HGV/Cycle advertising campaign, with the strapline 'Undertaking at junctions can be fatal', was commenced. The campaign consisted of posters and "hangers" on parked bicycles. The hangers used a technology called Augmented Reality which cyclists could use at the TfL website (www.tfl.gov.uk/seetheblindspot) to see lorries' blind spots for themselves.

2.4 Between July 2010 (when the Barclays Cycle Hire (BCH) Scheme was launched) and December 2010, 16 injuries (equivalent to 7.42 per million customer journeys) were reported by cyclists using the scheme; two were serious. The general increase in cyclist injuries is thought to be accounted for by the continued growth in cycle use in the capital. From April 2011, arrangements have been put in place to log incidents arising from BCH operations through IRIS, the Surface Transport incident reporting system. Therefore, customer injury statistics for Surface Transport reported in the Quarterly HSE Performance Report will from Quarter 1, 2011/12, include BCH customers.

2.5 The published collision data for 2010 highlight key achievements including:

- (a) All casualties declined by 37 per cent compared with the baseline (1994-98 average), although it rose by 3 per cent in 2010 compared to 2009.
- (b) Overall fatalities declined from 184 in 2009 to 126 in 2010 (32 per cent), and serious injuries also fell by 9 per cent but slight injuries rose by 5 per cent between 2009 and 2010.
- (c) Ten cyclists were killed on London's roads in 2010, three fewer than in 2009, meanwhile, cyclist KSIs rose by 8 per cent and slightly injured also rose by 9 per cent.
- (d) Powered two wheeler fatalities declined by 28 per cent, KSIs by 13 per cent and slightly injured by 2 per cent between 2009 and 2010. The overall casualties for this category were 29 per cent lower than the baseline (1994-98 average).

H&S Priority 2: Safety of highways and the TLRN (including tunnels)

2.6 A desktop exercise was undertaken with the emergency services and other internal and external stakeholders to test the Eastway Tunnel emergency response plan. A detailed report and improvement action plan will be issued.

H&S Priority 3: Health and safety of staff and contractors

- 2.7 An accredited British Safety Council Level 1 training programme developed for London Buses operational staff commenced. The 15 month programme will ensure staff involved in bus operation attain a nationally recognised qualification.

H&S Priority 4: Safety and security of the public transport network and its users

- 2.8 All fourteen bus operators and rail replacement providers have been audited and feedback provided. Action plans are being received. There has been no significant safety or environmental concerns with good evidence of continual improvement.
- 2.9 Between January 2009 and April 2011, 2,017 cases have been notified to the workplace violence unit (WVU). All of these crimes are reported to and 'owned' by local borough police but the WVU provides full support on investigations. The WVU has dealt with 675 cases with 160 cases remaining ongoing. To date, 343 WVU cases have received judicial disposals (such as charged, summonsed, cautioned etc).

Environmental priority 1: Reducing CO₂ emissions

- 2.10 The Surface Transport support fleet now includes 16 hybrid, plug-in hybrid and electric cars and vans. These vehicles were all part-funded by DfT through the Low Carbon Vehicle Procurement Programme and will be monitored for their performance in terms of reliability, range and efficiency.
- 2.11 A detailed survey of fuel efficient driving practices by London bus operators was completed in March 2011. The survey revealed that the vast majority of bus operators have already taken considerable steps to reduce fuel consumption by introducing eco-driving programmes for drivers and fitting telematic systems to vehicles that can identify inefficient driving. The survey found that 75 per cent of buses in the fleet had been fitted with telematic systems and 65 per cent of drivers had undergone eco-driver training. Bus operators have plans in place to roll out telematics and training to all vehicles and drivers. The average fuel saving per bus reported was 4.8 per cent as a result of the introduction of these measures.

Environmental priority 2: Reducing emissions to air

- 2.12 The road cleaning and dust suppressant trial (CADS) to reduce PM₁₀ re-suspension was applied to a number of PM₁₀ hotspot areas (see 5.2 below).
- 2.13 Plans to fit particulate filters on one Woolwich Ferry vessel on a three month trial basis by March 2012 are underway. This is with a view to extending the initiative to the remaining two vessels by March 2013. This is in an effort to reduce PM₁₀ from ferries by 90 per cent and by 14 per cent from river boat services. The filter also eliminates the visible black smoke that is currently emitted from the vessels.

Environmental priority 3: Ensuring legal compliance

- 2.14 Environmental awareness sessions were delivered to parts of Surface Transport, including Better Routes & Places and Taxi & Private Hire. Further sessions are planned for Roads Directorate (as described above).

Environmental priority 4: Improving environmental performance reporting

- 2.15 Clauses have been inserted into relevant contracts to ensure that reporting requirements are clearly set out and understood by contractors.

3 STATUS OF HSE MANAGEMENT SYSTEM

- 3.1 The Surface Transport Riding and Driving Procedure was updated and re-launched.
- 3.2 Work to produce a Surface Transport wide HSEMS audit process progressed well. This will ensure a common and systematic approach across all business areas.

4 HEALTH AND SAFETY PERFORMANCE

Health

- 4.1 There were 6,321 working days lost due to sickness absence in Quarter 4, representing an average of 1.8 per employee. For comparison, the previous quarter's average was 2.9 days absence per employee and the corresponding quarter of last year was 1.9. The top three categories of sickness absence were musculoskeletal, gastrointestinal and coughs/colds.

Days lost	Q4 2010/11	Q3 2010/11	Q4 2009/10
Sickness absence	6,321	10,331	6,860
Average / employee	1.8	2.9	1.9

Safety

- 4.2 There were 269 accidental customer major injuries in Quarter 4 (0.40 per million customer journeys). For comparison, there were 188 accidental customer major injuries in the previous quarter (0.34 per million customer journeys) and 192 (0.29 per million customer journeys) in the same quarter last year. An increase in falls on buses in Quarter 4 was a major contributor to the overall increase in customer injuries for the period, although the long term trend remains steady.

	Q4 2010/11	Q3 2010/11	Q4 2009/10
Customer major injuries	269	188	192
Rate/10 ⁶ customer journeys	0.40	0.34	0.29

- 4.3 There was one accidental employee major injury in Quarter 4. For comparison, there was one employee major injury in the previous quarter and none in the same quarter last year.

	Q4 2010/11	Q3 2010/11	Q4 2009/10
Employee major injuries	1	1	0
Rate/1000 employees	0.33	0.28	0

- 4.4 There were 31 physical assaults on employees in Quarter 4. For comparison, there were also 39 physical assaults on employees in the previous quarter and 30 in the same quarter last year. There were eight reported verbal assaults on employees in Quarter 4. For comparison, there were eleven verbal assaults on employees in the previous quarter and one in the same quarter last year. Increased reporting of verbal abuse in Quarter 4 was a factor in the overall rate increase in the period.

	Q4 2010/11	Q3 2010/11	Q4 2009/10
Employee physical assaults	31	39	30
Employee verbal assaults	8	11	1
Employee assaults	39	50	31
Rate/1000 employees	12.96	9.77	8.94

- 4.5 There were 150 physical assaults on contractors in Quarter 3. For comparison, there were 93 physical assaults on contractors in the previous quarter and 75 in the corresponding quarter of last year.
- 4.6 Of the 150 contractor assaults, 149 were on bus drivers (6.34 per 1,000 bus drivers). A review of driver assault statistics did not reveal a discernible reason for the rate rise in the period or current trends. The workplace violence unit continues to assist with tackling assaults on operational staff (see 2.15 above).

	Q4 2010/11	Q3 2010/11	Q4 2009/10
Contractor physical assaults	150	93	75

5 ENVIRONMENTAL PERFORMANCE

Air Quality

- 5.1 Staff numbers in the LEZ call centre have been increased to process the expected increase in enquiries as the public learn more about future LEZ changes. Potential operators will be informed of the change to the policy and the arrival of Phase 3 and 4 in January 2012 (to comply with Euro standards for particulate matter) and encourage relevant vehicle owners to take action and reduce the emissions of their vehicles.
- 5.2 A six month road cleaning and dust suppressant trial started in November 2010, the period when particulates (PM₁₀) are most likely to exceed EU limits. The trial locations are between Victoria Embankment and Tower Hill and on Marylebone Road/Euston Rd. These locations are at risk of exceeding EU limits on particulates. Air quality is being monitored constantly by road-side particulate monitors. The results will be published in autumn 2011 and, if the trial proves successful, this measure may be extended to other air quality priority locations.
- 5.3 A survey to assess measures being implemented by bus operators to improve fuel efficiency has started. The survey will assess equipment fitted to vehicles to monitor fuel consumption, driver feedback mechanisms and driver training programmes. A best practice guide will be developed for operators to highlight the best measures identified by the survey.

Waste and recycled materials

- 5.4 The Highway Maintenance and Works Contractors (HMWCs) recycled and reused 98.6 and 95.3 per cent of excavated and non-excavated materials respectively in Quarter 4, against targets of 97 and 95 per cent for 2010/11.
- 5.5 The HMWCs procured 16.9 per cent of recycled and green material in Quarter 4, against a target of 15 per cent for 2010/11. The achievement of the target is dependent on the type of works being undertaken and the availability, cost and quality of recycled/green materials against 'non-green' materials. This probably accounts for the reduction in Quarter 3, ie the materials purchased contained a lower percentage of recycled/green content. It should also be noted that the data is verified at the year-end and the target of 15 per cent is an annual target.

HMWC waste and recycled materials	Q4 2010/11	Q3 2010/11	Q4 2009/10
Excavated waste recycled and reused - percent (tonnes of total volume)	98.6 (31,794 of 32,259)	99 (20,422 of 20,625)	96.5 (34,422 of 35,677)
Non-excavated waste recycled and reused – percent (tonnes of total volume)	95.3 (815.3 of 855)	98.1 (546 of 556)	98 (935 of 955)
Recycled and green material procured – percent (tonnes of total volume)	16.9 (6,558 of 38,845)	12.6 (1,108 of 8,776)	17.5 (6,710 of 38,364)

- 5.6 In Quarter 4, the Traffic Control Equipment Maintenance and related Services (TCMS) contractors recycled 73.8 per cent of generated waste. The increase was partially due to the fact that in Quarter 3, one of the contractors was only able to supply partial data.

TCMS waste and recycled materials	Q4 2010/11	Q3 2010/11	Q4 2009/10
Waste recycled – percent (tonnes of total volume)	73.8 (103,58 of 14,028)	56.7 (9,950 of 17,548)	(monitoring not started)

- 5.7 In Quarter 4, 4.61 tonnes of office waste was recycled at bus stations and 5.35 tonnes of office waste was recycled at Dial-a-Ride depots.

Recycled waste (tonnes)	Q4 2010/11	Q3 2010/11	Q4 2009/10
London Buses office waste	4.61	2.91	1.30
Dial-a-Ride office waste	5.35	4.76	5.95

Natural Environment

- 5.8 Professional tree management on the TLRN resulted in the loss of 584 trees during 2010/11. A further 42 trees were lost due to third party claims, developer projects or projects promoted by the GLA Group. 1,347 trees were planted, including replacements in vacant tree pits.

Reasons for felling trees on the TLRN (and definitions)	2010/11	2009/10
Safety (removed for highway safety reasons (not arboricultural defect) eg hit by high sided vehicles, obstructing pedestrians or damaged by road accident)	128	431
Natural causes (removed for arboricultural safety as a result of natural causes such as disease, decay or death)	381	125
Self-set trees (weed tree removed for good management and/or to avoid damage to TLRN assets)	75	Previously reported under above categories
Third party claims (removed in response to claim for damages)	5	2
GLA schemes (removed to enable a scheme sponsored by GLA group, including TfL and LDA projects)	26	6
Developer (removed to facilitate a development, usually where the planning process has failed to give due regard to trees)	11	0
Totals	626	564

Trees planted on TLRN (and definitions)	2010/11	2009/10
Replacements (to replace trees removed for safety reasons or those which have failed due to natural causes)	994	420
Additional (new trees in new locations)	353	642
Totals	1,347	1,062

6 MAJOR INCIDENTS

- 6.1 There were three pedestrian fatalities involving buses in Quarter 4. They resulted from road traffic collisions with buses operating on Route 123 on 24 January at Forest Road, E17; Route 68 on 17 March at Herne Hill, SE24 and Route 382 on 22 March at Osidge Lane, N14. The incidents are under investigation.
- 6.2 Investigations into four previous customer major incidents involving fatalities were concluded in the quarter and no recommendations were made by the Coroners' Court for TfL or any of the bus contractors involved.

The incidents were:

- (a) A passenger died from injuries when he fell off a bus seat at a roundabout on Ramsden Road, Orpington on 1 September 2009. The bus operation was not a contributory factor in the incident. A verdict of accidental death was recorded by the Coroner.
- (b) A pedestrian died in a collision with a Route 141 bus on 9 October 2009 at Green Lanes, N4. The investigation did not attribute any blame to the bus operation. A verdict of accidental death was recorded by the Coroner.
- (c) A pedestrian suffered a heart attack prior to being struck by a 264 bus on 7 November 2009 at Mitcham Road, SW17. The investigation did not attribute any blame to the bus operation. A verdict of accidental death was recorded by the Coroner.
- (d) A pedestrian died when she came into contact with a moving bus on route 307 on 1 March 2010 at East Barnet Road, EN4. The investigation did not attribute any blame to the bus operation. A verdict of accidental death was recorded by the Coroner.

LONDON RAIL

QUARTERLY HEALTH, SAFETY AND ENVIRONMENT REPORT

1 SUMMARY**What went well**

- 1.1 Authority to commence the construction of a cable car service across the river Thames has been granted. It will connect the Greenwich Peninsula and the O2 with the Royal Victoria Docks and the ExCeL Centre. Docklands Light Railway (DLR) will be the Client for this project and Mace has been appointed as the Principal Contractor. Preparatory work including site set up and ground exploration are now underway.
- 1.2 The new London Overground link between Dalston Junction and Highbury and Islington opened during Quarter 4 2010/11. The construction works were completed ahead of schedule and with no significant safety issues.
- 1.3 The construction work on the new London Tramlink office building in Therapia Lane tram depot has been completed without any safety incidents and all staff are now located in the building for the first time.
- 1.4 Major projects on DLR, including the Stratford International Extension and the three car project have progressed well. There have been no incidents or accidents to note in the quarter.
- 1.5 Since the last SHEAC meeting in March 2011, LOROL has undertaken a full review of the driver training programme and their approach to Signal Passed At Danger (SPAD) management. The driver training programme has been assessed by the UK Accreditation Service and LOROL will soon be the first UK Train Operating Company to have an accredited system. The driver management, SPAD awareness and post SPAD activities have all been re-evaluated, and some improvements have already been implemented. LOROL is looking at links between SPADs and other driver behaviour to see if there are further human factors issues that need to be addressed. This work has not yet been completed. A full report to the Committee is planned for the 5 October 2010 meeting. These Overground signals are protected by Train Protection and Warning Systems, with trains travelling at speeds well below the maximum TPWS operating speed.

Areas for improvement

- 1.6 On London Overground, there were a number of operational incidents in the quarter including three SPADs and a number of Train Protection and Warning System activations and station overruns. London Overground addressed this by directing a significant part of their 2011 Safety and Environment Plan towards improvements in operational safety performance. The work included developing fully risk based competence management systems, improving the understanding of attitudes and behaviours in key safety critical staff and achieving the UK accreditation for the driver training scheme (the first UK Train Operating Company to do so). Much of the effort

is focused on the East London Line, recognising the developing risk of complacency with drivers as they gain experience.

- 1.7 Instances of graffiti and stone throwing on the core section of the East London Railway have continued through Quarter 4. Work streams are progressing to ensure that particular hot spots are targeted. London Overground has been working with the British Transport Police (BTP) to survey and identify a range of measures to deter trespassers. These include temporary targeted CCTV linked to the BTP, fencing improvements and increased police patrols. London Overground plan to support the development of land adjacent to railway which could reduce access opportunities.
- 1.8 There have been a number of public complaints regarding noise levels on the East London Line, in particular in the area around the depot at New Cross Gate. Further noise reduction measures have been applied to the track, and a review of other potential measures has been completed.

Significant plans for the next quarter

- 1.9 London Rail plans to carry out a Safety Management System audit of London Overground.
- 1.10 A Construction Design and Management (CDM) compliance audit has been commissioned to review how DLR complies with its role as Client and how CDM Coordinators discharge their responsibilities.
- 1.11 Work will commence on Phase 2 of the London Overground extension project. This is the final phase of the project and will see the introduction of a rail link between Surrey Quays and Clapham Junction. Preparations for the start of construction work are underway.
- 1.12 London Overground is looking into a number of initiatives to reduce the level of assaults further in 2011. These include improving the means by which staff can alert the emergency services when confronted with an assailant and a detailed root cause analysis of assaults to identify contributory factors so that mitigation measures can be put in place.
- 1.13 A risk review of tram stop foot crossings will be completed in the next quarter. This is to address the Office of Rail Regulation (ORR) recommendations to 'pave through' the tram stop crossings following a serious incident at Fieldway tram stop. Discussions are ongoing with the ORR.
- 1.14 Tramlink will be developing an Environmental Improvement Plan, with identified priorities and targets for action over one, two and five year timescales.
- 1.15 There have been a number of incidents in which trams have come into contact with member of the public. A detailed analysis of pedestrian and tram impacts has been carried out to understand better the circumstances and actual frequency of such incidents. This is to be discussed with ORR.

2 PROGRESS AGAINST HSE PLAN

- 2.1 All parts of the London Rail business reported good performance against their HSE objectives. The London Rail plans contain a number of elements that were planned

for completion over one, two and five year timescales. Progress against these HSE objectives continues.

3 STATUS OF HSE MANAGEMENT SYSTEM(S)

- 3.1 Docklands Light Rail and London Overground have established safety management systems in place. The transfer of the maintenance function from Carillion to London Tramlink has meant that certain aspects of the Management System have been revised to accommodate changes in procedures and organisation.

4 HEALTH AND SAFETY PERFORMANCE

Health

- 4.1 There were 216 working days lost due to sickness absence in Quarter 4 by employees of London Rail. This represented an average of 1.07 days per employee. For comparison, in the previous quarter there was 161 days lost equating to 0.81 days absence per employee and in the same quarter last year there was 168 days lost, equating to 0.79 days absence per employee. The top three categories of sickness absence in Quarter 4 were musculoskeletal, genitor-urinary and renal, and cough and colds. Overall absence rates remain low in London Rail.

Days lost	Q4 2010/11	Q3 2010/11	Q4 2009/10
Sickness absence	216	161	168
Average/employee	1.07	0.81	0.79

Safety

- 4.2 There were no employee major injuries this quarter in London Rail.
- 4.3 There were no customer major injuries for London Overground in Quarter 4 (in 19.7 million journeys). For comparison, there were four customer major injuries in the previous quarter and two in the same quarter last year.

London Overground	Q4 2010/11	Q3 2010/11	Q4 2009/10
Customer major injuries	0	4	2
Rate/million customer journeys	0	0.26	0.18

- 4.4 There were no TfL employee assaults this quarter on London Overground. The number of London Overground employees, who suffered workplace physical and verbal assaults in Quarter 4 was five and 24 respectively. For comparison, there were ten and 18 in the previous quarter. Analysis has revealed that most assaults are associated with service disruptions and revenue collection. London Overground is working with the BTP to target specific locations. Most of the incidents of physical assault are 'minor' i.e. pushing or spitting.

LOROL	Q4 2010/11	Q3 2010/11	Q4 2009/10
Physical assaults	5	10	6
Verbal assaults	24	18	12
Rate/1000 employees	25	24	16

- 4.5 There were no customer major injuries on DLR in Quarter 4 (23.6 million customer journeys). For comparison, there was one customer major injury in the previous quarter and two in the same quarter last year.

DLR	Q4 2010/11	Q3 2010/11	Q4 2009/10
Customer major injuries	0	1	2
Rate/million customer journeys	0	0.05	0.10

- 4.6 There were no TfL employee assaults in Quarter 4 on DLR. The number of employees of our franchisee Serco, who suffered workplace assaults in Quarter 4, was eleven for physical and 33 for verbal respectively. The overall rates are greater than the previous quarter. This can be partly attributed to an additional reporting period in this quarter otherwise the total number of assaults would almost be constant. All assaults continue to be reviewed by the assaults working group; the majority are directly related to revenue protection issues. There is continual work with BTP and Serco to address these issues.

DLR	Q4 2010/11	Q3 2010/11	Q4 2009/10
Physical assaults	11	5	0
Verbal assaults	33	27	39
Rate/1,000 employees	64	47	58

- 4.7 There were no customer major injuries for London Tramlink in Quarter 4 (8.3 million customer journeys). For comparison, there was one in the previous quarter and one in same period last year.

London Tramlink	Q4 2010/11	Q3 2010/11	Q4 2009/10
Customer major injuries	0	1	1
Rate/million customer journeys	0	0.15	0.12

- 4.8 In London Tramlink, there were no TfL employee assaults this quarter. The number of workforce physical and verbal assaults in Quarter 4 for our contractor Tram Operations Limited (TOL) on London Tramlink was seven physical and nine verbal. For comparison, there were four physical and ten verbal assaults in the previous quarter and six and seven in the same quarter last year. Tram Operations Limited is working with the BTP to target particular hotspots and times of the day. Tram Operations Limited employs a relatively small number of staff and, together with an additional reporting period, the rate per 1000 employee figures needs to be treated with caution.

TOL	Q4 2010/11	Q3 2010/11	Q4 2009/10
Physical assaults	7	4	6
Verbal assaults	9	10	7
Rate/1,000 employees	98	86	80

- 4.9 On London Overground there were no contractor RIDDOR (Reporting of Injuries, Diseases and Dangerous Occurrences Regulations) reportable accidents during the quarter. The 13 period rolling accident frequency rate is 0.20 per 100,000 hours. This

is a decrease from the last quarter. There has been a significant drop in hours since the completion of Phase 1(a) works.

- 4.10 On DLR Major Projects, there were no contractor RIDDOR accidents in Quarter 4. The 13 period rolling accident frequency rate is 0.12 per 100,000 hours at the end of the quarter. This is an improvement from the last quarter. There has been a significant drop in hours worked as projects come close to completion.

5 ENVIRONMENT PERFORMANCE

Carbon and energy management/Carbon emissions

- 5.1 Carbon dioxide emission rates have been relatively stable during recent quarters.

	Q4 2010/11	Q3 2010/11	Q4 2009/10
Total CO ₂ (Tonnes)	19,563	15,373	16,562
Normalised CO ₂ (g/passenger km)	60.02	59.91	60.50

Waste Management

- 5.2 Enhanced arrangements are being put in place at the London Tramlink depot for the segregation and recycling of general depot waste, office waste and litter removed from London Tramlink.
- 5.3 On Phase 2 of the London Overground extension project, the contractor has developed an Environmental Plan and a Site Waste Management Plan. These are currently under review and will be in place when work commences.
- 5.4 On London Overground, significant efforts are being made to improve the amount of all categories of waste that are recycled. At the end of Quarter 4, the rates for commercial train waste and depot waste were 67 per cent and 87 per cent respectively. The rate for recycling station commercial station waste remains around 40 per cent.
- 5.5 At the end of Quarter 4, Serco had increased the total amount of commercial waste recycled from 31 per cent in the previous year to 39 per cent this year. The annual target was to reduce waste to landfill by five per cent and to increase the total amount of waste recycled by five per cent. These targets were met at the end of Quarter 4.

Other environmental items

- 5.6 In the last quarter, London Overground received a number of noise complaints from local residents regarding the noise from new public address systems. This has since been resolved at most of the stations by reducing the volume. Noise complaints from New Cross depot are being investigated by London Rail, the primary concern being wheel screech on the flyover entering the depot.

- 5.7 In preparation for the commencements of works on Phase 2 of the London Overground extension project, noise insulation is being installed within flats that are predicted to be adversely affected by construction noise.
- 5.8 The Phase 2 Contractor has now obtained environmental consent from the London Borough of Lewisham and is commencing monitoring of noise, vibration and dust.

6 MAJOR INCIDENTS

- 6.1 There were no major incidents in London Rail this quarter.

CROSSRAIL**QUARTERLY SAFETY, HEALTH AND ENVIRONMENT REPORT****1 SUMMARY****What went well**

- 1.1 The supervisors guide on Crossrail standards for health and safety was finalised and distributed to Principal Contractors working on the Crossrail project.
- 1.2 The eight Crossrail design contracts carried out under the Civil Engineering Environmental Quality and Assessment Award Scheme (CEEQUAL) all achieved an interim award of "Excellent".
- 1.3 To raise awareness of occupational health throughout the supply chain, seven health related posters have been developed with Constructing Better Health and have been issued to construction sites.
- 1.4 The Crossrail logistics team won the TfL Destination Green Award for work on Wallasea Island, the large wildlife reserve that will be situated eight miles north of Southend on Sea in Essex.
- 1.5 An archaeological open day was held at Stepney Green including a number of visits by school children to the site.

Areas for improvement

- 1.6 The near miss reporting processes will be reviewed to increase the reporting frequency rate.
- 1.7 Since the integration of Crossrail and its Project Delivery Partner to produce a single delivery organisation, the Environment Management System is being reviewed and, where necessary, updated to reflect the new structure and new roles and responsibilities.

Significant plans for the next quarter

- 1.8 The Contractors Occupational Health audit process has been finalised to allow for commencement of auditing in Quarter 1.
- 1.9 The Crossrail environmental vision will be launched together with supporting communications including a special edition of the site magazine.
- 1.10 The next Lloyd's Register Quality Assurance six month audit review of Crossrail will focus on the management of changes for the new operating model and the modification of the scope of the BS OHSAS 18001;2007 (Occupational health and safety management systems assessment and certification) accreditation to reflect the new organisation.

- 1.11 A review of the implementation of the Construction, Design and Management Regulations responsibilities in the new Crossrail organisation will be concluded.

2 PROGRESS AGAINST HEALTH AND SAFETY PLAN

- 2.1 All objectives for 2010/11 were completed and work has now started on the objectives set for 2011/12.

3 STATUS OF HEALTH AND SAFETY MANAGEMENT SYSTEM

- 3.1 In preparation for the implementation of the new operating model, the changes to the health and safety management system were completed and published. As part of the launch of the new and revised procedures, a presentation on the changes was issued to Directors and line managers to enable them to brief their staff.

4 HEALTH AND SAFETY PERFORMANCE

Health

- 4.1 There were 672 working days lost due to sickness absence in Quarter 4, which represents an average of 2.35 days per employee. The top two categories of sickness absence in Quarter 4 were gastrointestinal and coughs and colds.

Days lost	Q4 2010/11	Q3 2010/11	Q4 2009/10
Sickness absence	672	473	382
Average / employee	2.35	1.65	1.34

Safety

- 4.2 There were no employee major injuries in Crossrail reported in Quarter 4.

	Q4 2010/11	Q3 2010/11	Q4 2009/10
Employee major injuries	0	0	0
Rate/1,000 employees	0	0	0

- 4.3 There were no contractor major injuries reported in Quarter 4, giving an Accident Frequency Rate of 0 with 1,251,158 contractor hours. For comparison, there was one contractor major injury in the previous quarter and none in the same quarter last year.

	Q4 2010/11	Q3 2010/11	Q4 2009/10
Contractor major injuries	0	1	0
Rate/1,000 contractor employee	0	3.5	0

Note: London Underground major injuries associated with the Crossrail Programme are not included to avoid duplication.

- 4.4 There were no physical and verbal assaults to employees in Quarter 4. For comparison, there were none in the previous quarter and none in the same quarter last year.

5 ENVIRONMENT PERFORMANCE

Carbon and Energy Management

- 5.1 The electricity and fuel use on site now includes data from Canary Wharf.

Construction Activities	Q1 2010/11	Q2 2010/11	Q3 2010/11	Q4 2010/11
Site Electricity and Gas Consumption (kWh)	500,855	669,098	772,914	586,691
Site Fuel Consumption (litres)	175,447	232,413	245,102	168,530
Total CO ₂ (tonnes)	734	973	1,059	755

Office Activities	Q1 2010/11	Q2 2010/11	Q3 2010/11	Q4 2010/11
Office Electricity Consumption (kWh)	423,033	439,314	430,256	424,352
Total CO ₂ (tonnes)	227	236	231	230

Recycling and Waste Management

- 5.2 There were 9,206 tonnes of construction and demolition waste recorded in Quarter 4. 94 per cent of this waste was reused or recycled which is above the 90 per cent target but short of the 95 per cent stretch target. The cumulative recovery rate for construction and demolition waste (the amount of waste reused or recycled over the whole of the project life) is 96 per cent.
- 5.3 There was a 98 per cent recovery of excavated material during the quarter. The cumulative recovery rate for excavated material is 97 per cent, which is above the target of 95 per cent.

Construction Activities	Q1 2010/11	Q2 2010/11	Q3 2010/11	Q4 2010/11
Construction and Demolition Waste (tonnes)	5,287	25,936	17,291	9,206

Construction Activities	Q1 2010/11	Q2 2010/11	Q3 2010/11	Q4 2010/11
Construction and Demolition Waste Recovered (tonnes)	4,932	25,722	16,910	8,644
Construction and Demolition Waste Recovered this quarter (per cent)	93	99	98	94
Cumulative Construction and Demolition Waste Recovered (per cent)	93	96	96	96
Excavated Material (tonnes)	256	18,921	20,999	47,252
Excavated Material Recovered (tonnes)	251	18,629	19,284	46,425
Percentage Excavated Material Recovered this quarter (per cent)	98	98	92	98
Cumulative Excavated Material Recovered (per cent)	98	98	95	97

Site inspections

- 5.4 During the quarter, Crossrail carried out 22 environmental site inspections that identified 25 site corrective actions (SCARs), 26 observations and nine areas of good practice. There are no overdue SCARs.

6 MAJOR INCIDENTS

- 6.1 There were no major incidents in Quarter 4.

APPENDIX 5

CORPORATE DIRECTORATES

QUARTERLY HEALTH, SAFETY AND ENVIRONMENT REPORT

1 SUMMARY

What went well

- 1.1 TfL's Adaptation to Climate Change Report required by Defra was submitted on schedule and judged to be sound.
- 1.2 Preparations for the production of the Annual TfL Health, Safety and Environment Report 2010/11 and the completion of the HSE Assurance Letters for 2010/11 were completed. This will be the first year TfL has produced a joint health, safety and environment report, this is being done to streamline and simplify reporting.
- 1.3 The safety aspects of signage, layout and staff training for gate lines were reviewed and recommendations made are being implemented.
- 1.4 A work station survey was carried out at the Oyster Contact Centre to ensure ergonomic factors were fully addressed. A recommended work station was agreed to help minimise musculoskeletal problems and reduce sickness absence.
- 1.5 A survey of 25 key senior managers who receive services from the corporate Health, Safety and Environment (HSE) advisors was carried out. The survey had a 76 per cent response rate and was positive on the overall quality of service which was rated as 'excellent' (26 per cent); 'good' (68 per cent) and 'fair' (six per cent).

Areas for improvement

- 1.6 Work continues with Human Resource Learning and Development to deliver an improved approach to HSE training for managers in Corporate Directorates and to align this training with the requirements of the TfL Group HSE Competency Framework.

Significant plans for the next quarter

- 1.7 Group HSE and Occupational Health will continue work to improve the management of musculoskeletal disorder related sickness absence. Work will involve targeted engagement with line managers.

2 PROGRESS AGAINST HSE PLAN

- 2.1 HSE Priorities and Plans for 2011/12 are in place. Group Property and Facilities Departmental Health and Safety Procedures were revised.
- 2.2 HSEMS Standards relating to Accident and Incident Reporting were updated to incorporate changes in information required by the Health and Safety Executive related to RIDDOR (Reporting of Injuries, Diseases and Dangerous Occurrences Regulations).

2.3 Specific areas of risk.

- (a) An analysis of training and personal protective equipment needs analysis was undertaken at the Lost Property Office.
- (b) Work is underway with Occupational Health to review medical assessments for employees undertaking night and lone working.

3 STATUS OF HSE MANAGEMENT SYSTEM(S)

- 3.1 A Corporate Directorates HSEMS is in place. Amendments, arising from changes made to Group HSE Management System Standards, were completed during 2010/11.

4 HEALTH AND SAFETY PERFORMANCE

Health

- 4.1 There were 4,114 working days lost to sickness absence in Quarter 4, representing an average of 1.7 days per employee. This represents a 29 per cent decrease on the previous quarter and a six per cent increase from the same quarter last year (1.6 days).

Days lost	Q4 2010/11	Q3 2010/11	Q4 2009/10
Sickness absence	4,114	5,780	3,792
Average / employee	1.70	2.40	1.60

The top three sickness absence categories were mental health, coughs and colds and musculoskeletal.

Safety

- 4.2 There were no customer major injuries, employee major injuries or any physical assaults on employees during Quarter 4 or during the same quarter last year. The Corporate Directorates consist mainly of non-operational staff and periodic workplace assessments and the implementation of adequate controls help to maintain this low risk environment.

5 ENVIRONMENT PERFORMANCE

Carbon emissions

- 5.1 The target for CO₂ emissions in head office buildings was met for the quarter and the year 2010/11. Full year performance improved by three per cent on last year, reflecting the success of the RE:FIT project, ongoing efficiency improvements through the Environmental Improvement Programme and staff engagement through the Environmental Champions and Destination Green.

CO ₂ kg/m ²	Q4 2010/11	Q4 2009/10	2010/11 FY	2009/10 FY
Target	38.00	40.00	122.00	125.00
Emissions	37.00	42.20	122.20	122.40

Water consumption

- 5.2 The water consumption for Quarter 4 improved on last year's performance by four per cent and the target for the 2010/11 was met. Full year consumption was 5.7 m³ per person, a two per cent improvement on 2009/10 and below the practice guidelines issued by Department for Environment, Food and Rural Affairs (6.4m³/person/year).

Water use (m ³ /person)	Q4 2010/11	Q4 2009/10	2010/11 FY	2009/10 FY
Target	1.40	1.40	5.70	6.00
Performance	1.50	1.60	5.70	5.80

6 MAJOR INCIDENTS

- 6.1 There were no major incidents in the quarter.

QUARTER 4 2010/11 HEALTH AND SAFETY - DATA SUMMARY*

LU – London Underground; ST – Surface Transport; LR – London Rail;
 CD – Corporate Directorates; CRL – Crossrail; DLR – Docklands Light Railway;
 LOROL – London Overground.
 n/a - not available

Health

	Sickness absence days lost			Average days lost / employee		
	Q4 2010/11	Q3 2010/11	Q4 2009/10	Q4 2010/11	Q3 2010/11	Q4 2009/10
LU*	36,347	60,913	29,981	2.14	3.50	2.33
ST	6,321	6,436	10,331	1.80	2.90	1.92
LR	216	151	168	1.07	0.81	0.79
CRL	672	473	382	2.35	1.65	1.34
CD	4,114	5,780	3,792	1.70	2.40	1.60

*London Underground's data covers three periods during Quarter 4 while other business areas cover four periods.

Employee major injuries

	Employee major injuries			Rate / 1000 employees		
	Q4 2010/11	Q3 2010/11	Q4 2009/10	Q4 2010/11	Q3 2010/11	Q4 2009/10
LU*	1	9	0	0.06	0.56	0
ST	1	1	0	0.33	0.28	0
LR	0	0	0	0	0	0
CRL	0	0	0	0	0	0
CD	0	0	0	0	0	0

Employee assaults (Total)

	Employee assaults			Rate / 1000 employees		
	Q4 2010/11	Q3 2010/11	Q4 2009/10	Q4 2010/11	Q3 2010/11	Q4 2009/10
LU*	414	462	348	39.96	45.56	31.55
ST	39	50	31	12.96	9.77	8.94
LR	0	0	0	0	0	0
CRL	0	0	0	0	0	0
CD	0	0	0	0	0	0

Customer Major Injuries

Customer major injuries				Rate / 10 ⁶ customer journeys		
	Q4 2010/11	Q3 2010/11	Q4 2009/10	Q4 2010/11	Q3 2010/11	Q4 2009/10
LU*	25	46	31	0.10	0.13	0.12
ST	269	188	192	0.40	0.34	0.29
DLR	0	1	2	0	0.05	0.10
LOROL	0	4	2	0	0.26	0.18
TRAM	0	1	1	0	0.15	0.12

Contractor staff assaults				Rate / 1000 contractor staff		
	Q4 2010/11	Q3 2010/11	Q4 2009/10	Q4 2010/11	Q3 2010/11	Q4 2009/10
BUSES	150	93	75	n/a	n/a	n/a
LOROL	29	28	18	29	28	18
DLR	44	32	39	64	47	58
TOL	16	14	13	98	86	80

Contractor Staff Assaults (Total)