

Safety, Health and Environment Quarterly report

Quarter 2 2022/23

Contents	
Introduction and Executive Summary	4
About this report	5
Reporting period	6
Mayor’s Transport Strategy and Scorecard	7
Scorecard.....	7
Road safety measure	7
Bus safety measure.....	7
Public transport safety measure	8
Workforce safety measure	8
Safety	9
Road safety performance.....	9
Quarterly performance	9
Road safety updates	14
Vision Zero action plan progress report.....	14
Safe Speeds.....	14
Safe Streets	14
Safe Vehicles	15
Safe Behaviours.....	17
Post Collision and Criminal Justice	18
Public transport safety performance	19
Quarterly performance	19
Customers killed or seriously injured per week in Quarter 2 (by mode)	19
Customers killed or seriously injured per quarter this year.....	20
Scorecard measure: Customer all injuries rate (per million passenger journeys).....	21
Workforce killed or seriously injured per week in Quarter 2 (by mode)	22
Scorecard measure: All Workforce injuries	22
Long term trend.....	23
Public transport safety updates.....	24
Bond Street Elizabeth line station opening.....	Error! Bookmark not defined.
Suicide Prevention Programme.....	24
Fatigue and Dial a Ride.....	25
Rail and Sponsored Services Wellbeing Expo	25
Cycle Hire.....	25
London Cable Car	Error! Bookmark not defined.

Capital safety performance	27
Quarterly performance	27
Long-term injury trend	30
SHE Performance in Capital Projects.....	30
SHE in Capital.....	32
Work-related violence and aggression.....	32
Triggers of WVA incidents.....	32
Volume of incidents in Quarter 2	33
Police recorded work-related violence with injury offence from 2020 to 2022	34
Solved rate for WVA offences investigated by the police from January 2020 to February 2022.....	35
Percentage of Staff Willing to Support from January 2020 to December 2021 (all violence and public order offences).....	36
Progress against the 2021/22 annual action plan	37
Examples of Successful Prosecutions in Quarter 2.....	38
Significant incidents	40
Fatal accident at Waterloo London Underground station – 26 May 2020.....	40
Fatal high-speed loss of control at Park Royal – 22 August 2022	40
Fatal e-scooter and tram collision – 22 August 2022	40
Health	41
COVID-19.....	41
Deaths in service.....	41
Face coverings on public transport	41
Reusable masks for our staff.....	42
COVID-19 testing schemes.....	42
Findings from Imperial College London’s study.....	42
Sickness absence data	42
Health updates.....	44
Health Surveillance	44
Well@TfL	44
Roczen (previously called RESET Health).....	45
Environment	47
Air Quality	47
Expanded Ultra Low Emission Zone six month on report.....	47
Climate Emergency.....	48

Energy consumption and carbon emissions from our operations.....	49
Electricity consumption – provisional – Quarter 2 2022/23 (Gigawatt hours)	49
CO ₂ emissions (excluding buses) Quarter 2 2022/23 (tonnes CO ₂ equivalent).....	50
Sustainability training, engagement and embedding.....	50
Executive Sustainability Training and Sustainability Summit.....	50
Green Bond.....	51
Carbon Literacy Training Programme	52
Sustainable Resources	52
Devices for schools initiative	52

Introduction and Executive Summary

This report summarises our performance in Quarter 2 of 2022/23 and identifies strategic trends covering 26 June to 17 September 2022, unless specified.

The report sets out ways in which we have continued to keep our customers and workforce safe as we have transitioned to living with coronavirus. In January 2022, the Government removed the mandate to wear a face covering in public spaces, meaning that they were no longer enforceable on our services. In June 2022, we changed our customer and staff messaging, which now encourages people to take appropriate action to keep themselves safe, including wearing a face covering if this helps them to travel and work with confidence.

We also received the final report from Imperial College London on their sampling of our public transport network's surfaces. Between September 2020 and June 2022, only one positive sample was found and as a low-level result, it would not be expected to result in a transmissible level of viral load. The testing of samples was based on frequently touched surfaces at three London Underground stations (London Waterloo, London Euston and London Paddington) There were also some air samples that were taken on a Northern line train and on the route 205 bus.

During Quarter 2, we saw customer numbers decrease slightly across the TfL network, ending the quarter at 0.72 billion customer journeys, representing a 0.01 billion decrease from the end of Quarter 1 2022/23. Overall, we still have some way to go before reaching the pre-pandemic customer journey figures of 0.9 billion (Quarter 2 2019/20). This means many of our key safety, staff and environmental performance indicators remain at different levels than they might have been previously. The data available shows that although weekend demand has almost recovered to pre-pandemic levels, the weekday demand is lower which may be as a result of new hybrid working arrangements since the pandemic.

We have continued to implement measures to improve our short- and long-term safety, health and environmental performance. We have continued to perform well on most of our safety metrics. In Quarter 2, we met our targets for reducing injuries to people in road traffic collisions and injuries to people on or in collision with a bus. The data behind these scores is explained in the road safety section of this report. Conversely, we did not meet our targets for customer injuries and workforce injuries and the reasons behind this are discussed in the public transport safety section of this report.

COVID-19 remained the top cause of short-term staff absence but significantly increased as a proportion of total staff absence, from 30 per cent in Quarter 1 to 44 per cent in Quarter 2. Mental health and musculoskeletal-related health remained the top two causes of long-term absence, which is in line with the national average. Our Occupational Health team continues to run events aimed at giving staff the tools to better look after their mental health.

In Quarter 1, the Government confirmed continued short-term rollovers in funding support whilst discussions continued about a longer-term arrangement. This quarter, we reached a longer-term agreement with the Government on a funding settlement until 31 March 2024. This guarantees our passenger revenue and confirms our ability to deliver investment, including on the Piccadilly line and Docklands Light Railway (DLR). We can also now increase infrastructure renewals, invest in London's streets, invest in improving bus priority, as well as work in partnership with the Department for Transport (DfT) and the London Borough of Hammersmith & Fulham to reopen Hammersmith Bridge.

About this report

This report explores and highlights the performance, trends and measures we are implementing to improve safety, health and environment performance.

Throughout this report, our 'customers' refers to direct users of our services, and our 'workforce' includes our directly employed staff as well as people working in our supply chain. For both groups, we use data collected directly from our operational businesses. Some assault data comes from both our own internal reporting systems and the police.

When referring to people killed or seriously injured, the following causes of injury are excluded: an injury which results from an incident arising from a pre-existing medical condition; intentional self-harm resulting in a physical injury or death; criminal activities perpetrated by customers or members of the public on other customers or members of the public.

Unless otherwise stated, 'streets' refers to all of London's roads, including those managed by London's boroughs which make up the majority (95 per cent) of London's roads. Where we report safety data for streets, we use data collected by the Metropolitan Police Service (MPS) and the City of London Police (CoLP), in line with Government requirements. All road safety data is provisional and subject to review and assurance, with the final data published annually in line with DfT requirements.

Reporting period

Most data covers the quarter from 26 June to 17 September 2022, except for some work-related violence and aggression data which is reported six months in arrears. Some data is provisional and is subject to change.

Mayor's Transport Strategy and Scorecard

Our role is to enable London to move safely and sustainably, in line with the goals of the Mayor's Transport Strategy (MTS). This includes increasing the attractiveness of public transport and making cycling and walking safer, easier and more convenient. One of the central tenets of the MTS is Vision Zero, aiming to eradicate all loss of life and serious injuries from London's streets by 2041. We are also striving to achieve Vision Zero on our public transport network and amongst our workforce.

Scorecard

Figure 1: Quarter 2 2022/23 Scorecard

Measure	Unit	Q2 Target	Q2 Actual
People killed or seriously injured in road traffic collisions per million journey stages	Killed or seriously injured per million journey stages	0.33	0.24
People killed or seriously injured in road traffic collisions in or by a London bus (per million surface journey stages)	Killed or seriously injured per million journey stages	0.020	0.020
Customer all injuries per million passenger journeys	All injuries per million journeys	2.58	2.69
Workforce all injuries	Number of workforce injuries	311	341

The table sets out the relevant scorecard metrics, accompanying targets and actual performance. Below are brief explanations of the performance of each measure. More detailed explanations, with accompanying graphs, are set out in the relevant sections of this report.

Road safety measure

Our aim in Quarter 2 2022/23 was to reduce the number to fewer than 0.33 people killed or seriously injured on the roads per million journeys. In Quarter 2, there were 0.24 people killed or seriously injured on the roads per million journeys.

Bus safety measure

Our ambition is for no one to be killed in, or by, a London bus by 2030. In Quarter 2, our aim was to have no more than 0.020 deaths or serious injuries per million journey

stages. During Quarter 2 there were 0.020 deaths or serious injuries per million surface journey stages.

Public transport safety measure

Our aim in Quarter 2 2022/23 was to have fewer than 2.58 injuries to our customers per million journeys.

During Quarter 2, there was a rate of 2.69 injuries per million journeys, unfortunately missing this target, but a marginal improvement on the previous quarter, which had a rate of 2.73.

Across the quarter, our customer injury rate is lower than the 2.91 recorded in Quarter 2 of 2021/22.

Workforce safety measure

In Quarter 2 our aim was to have fewer than 311 workforce injuries. During Quarter 2 there were 341 injuries sustained by our workforce. This total reflects a return to pre-pandemic levels of some workforce injury causes, such as assaults. Workforce injuries on the Elizabeth line are currently excluded from this target and measure due to it being a new operation lacking the historical data necessary to understand of trends and set meaningful targets. We will continue to monitor the available Elizabeth line data and include within scorecard measures when we have more comprehensive data.

Safety

This section summarises our safety performance across London's roads, public transport, capital delivery activities and work-related violence. It provides an overview of key trends for the year and the areas we are targeting for improvement.

Road safety performance

In Quarter 2, the trend towards pre-pandemic levels of road use continued, with journeys reaching the highest levels since the pandemic. We have seen an increase in walking, cycling, and motorised journeys compared to the same quarter in 2020/21 and 2021/22. Customer journeys on buses are also at the highest levels since the pandemic began but remain below pre-pandemic levels.

Fewer people were killed or seriously injured on London's roads in this quarter (781) compared to last quarter (899), with a corresponding drop in the risk rate of death or serious injury.

Quarterly performance

Figure 2: Number of people killed on London's roads*

Transport Mode	Q2 2019/20	Q2 2020/21	Q2 2021/22	Q2 2022/23
Pedestrian	17	12	9	8
Pedal cycle	2	1	2	1
Powered two-wheeler**	10	11	2	3
Car	4	1	5	7
Bus or coach	0	1	1	0
Taxi	0	0	0	0
Private hire	0	0	0	0
Goods vehicle	0	0	0	2
Other vehicle	1	0	2	2
Total	34	26	21	23

*Quarter 2 2022/23 figures are provisional and subject to change.

**Powered two-wheeler refers to motorcycles, mopeds and scooters.

It is useful to compare Quarter 2 2022/23 to Quarter 2 in 2019/20 because of the significant changes seen in the number of people using the road network over the last few years of the pandemic. A total of 23 people were killed on London's roads in Quarter 2 2022/23, which is broadly similar to the same quarter in 2020/21 and 2021/22. However, the number of people killed in this quarter is significantly less than the equivalent pre-pandemic quarter (Quarter 2 2019/20).

Notably, the number of people killed while walking in Quarter 2 2022/23 was just under half of the 2019/20 pre-pandemic figure, and approximately a third for powered two-

wheelers. This is similar to the trend seen last quarter (Quarter 1 2022/23), which also observed a significant decrease in pedestrian and powered two-wheeler fatalities.

Over the last three quarters, we have seen an increase in the number of car occupants killed on the roads, when compared to the equivalent pre-pandemic quarters. In this quarter there were seven car occupants killed, compared to five in the same quarter last year and four in Quarter 2 2019/20 (pre-pandemic). Provisional analysis of the available raw casualty data suggests that excessive speed is a key factor, with loss of control of the vehicle leading to a collision. The trend has been particularly prevalent on A-roads and our roads policing teams are factoring this into their operations.

Figure 3: Number of people seriously injured on London’s roads

Transport Mode	Q2 2019/20	Q2 2020/21	Q2 2021/22	Q2 2022/23
Pedestrian	263	162	204	193
Pedal cycle	216	306	253	209
Powered two-wheeler	273	199	250	186
Car	140	97	128	124
Bus or coach	25	6	22	1
Taxi	3	1	0	22
Private hire	3	0	2	4
Goods vehicle	8	2	3	17
Other vehicle	9	22	33	2
Total	940	795	895	758

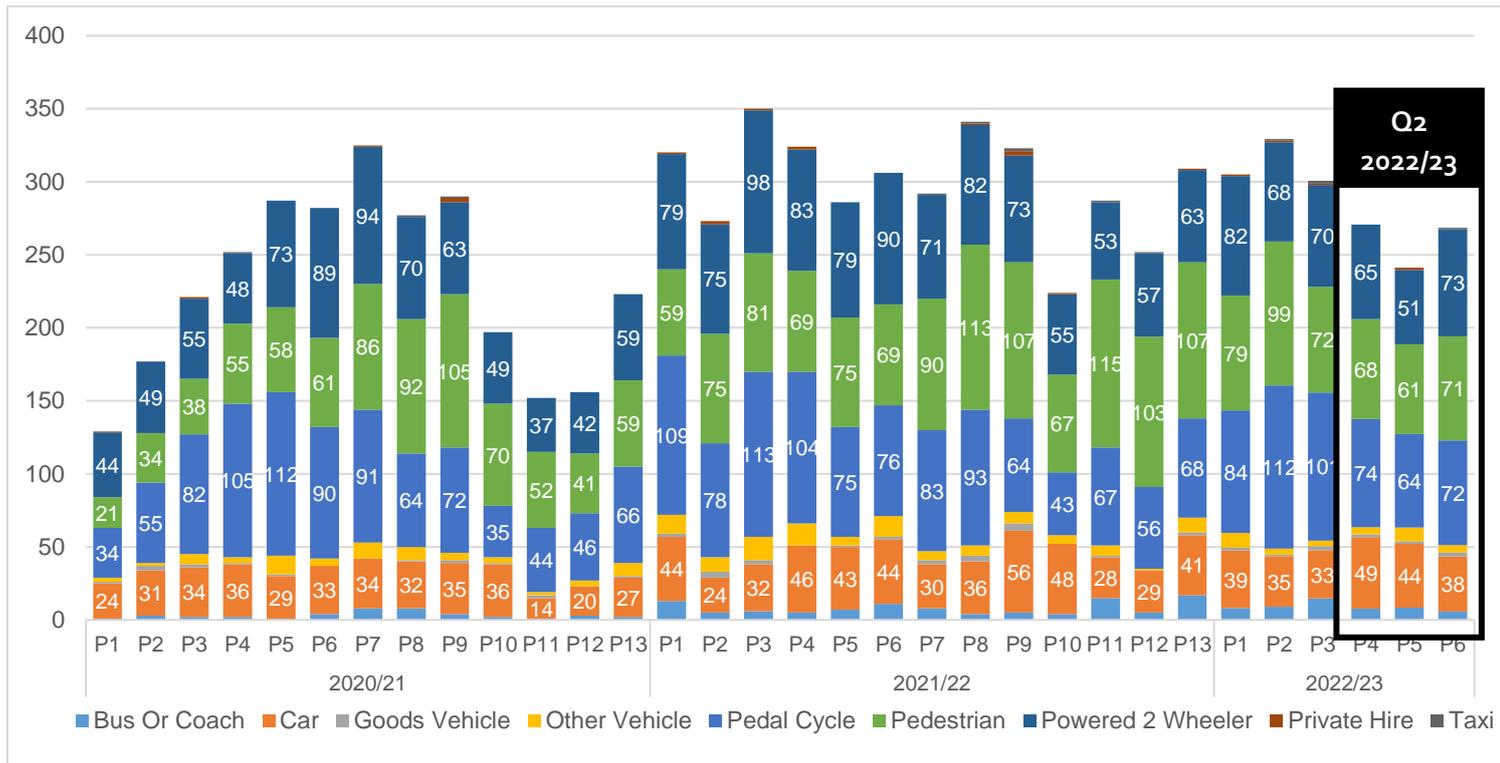
**Quarter 2 2022/23 figures are provisional and subject to change.*

The number of people seriously injured has decreased compared to the same period last year (758 serious injuries compared to 895 in Quarter 2 - 2021/22) and is also lower than the equivalent period in 2019/20 (pre-pandemic). Against this trend, the number of people seriously injured in a taxi was greater in Quarter 2 - 2022/23 compared to the equivalent pre-pandemic quarter, as well as Quarter 2 - 2020/21 and Quarter 2 - 2021/22. This is also in contrast with the trend seen in previous quarters this calendar year, and where serious injuries for taxi occupants have all been in single digit figures. We will continue to monitor this trend as this is a cause for concern.

Serious pedal cycle injuries remained broadly similar in Quarter 2 - 2022/23 when compared with the pre-pandemic figure. This is an improvement on last quarter (Quarter 1 - 2022/23) which showed an increase on the pre-pandemic serious injury figure for people cycling.

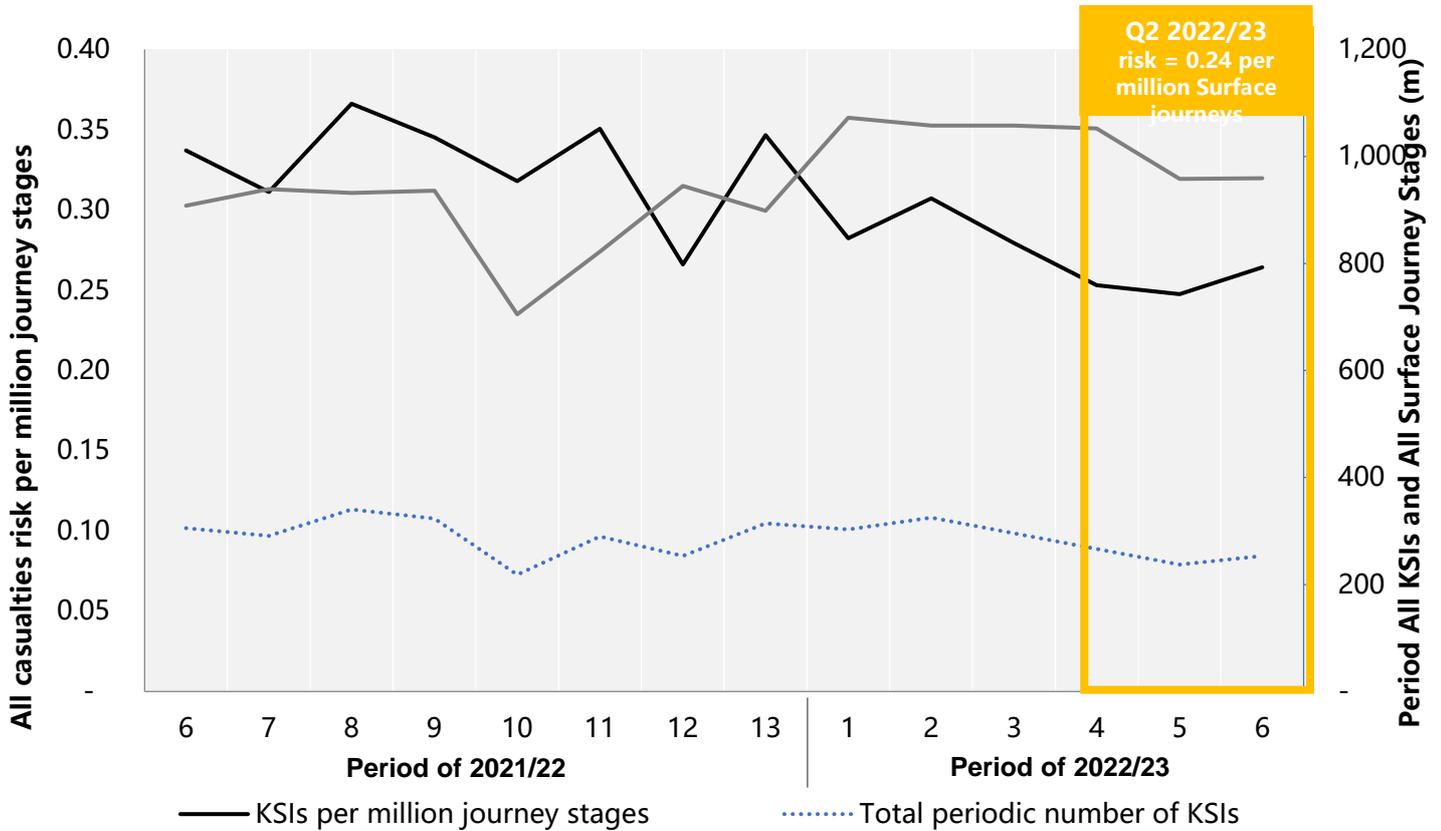
The number of people seriously injured on or by a bus or coach decreased in Quarter 2 - 2022/23 compared to the equivalent quarter for the last two years and the pre-pandemic year (2019/20). This is significant because we had been seeing an increase in serious injuries on or by a bus or coach over the last year when compared to 2019/20.

People killed or seriously injured on London's roads (by mode travelled)



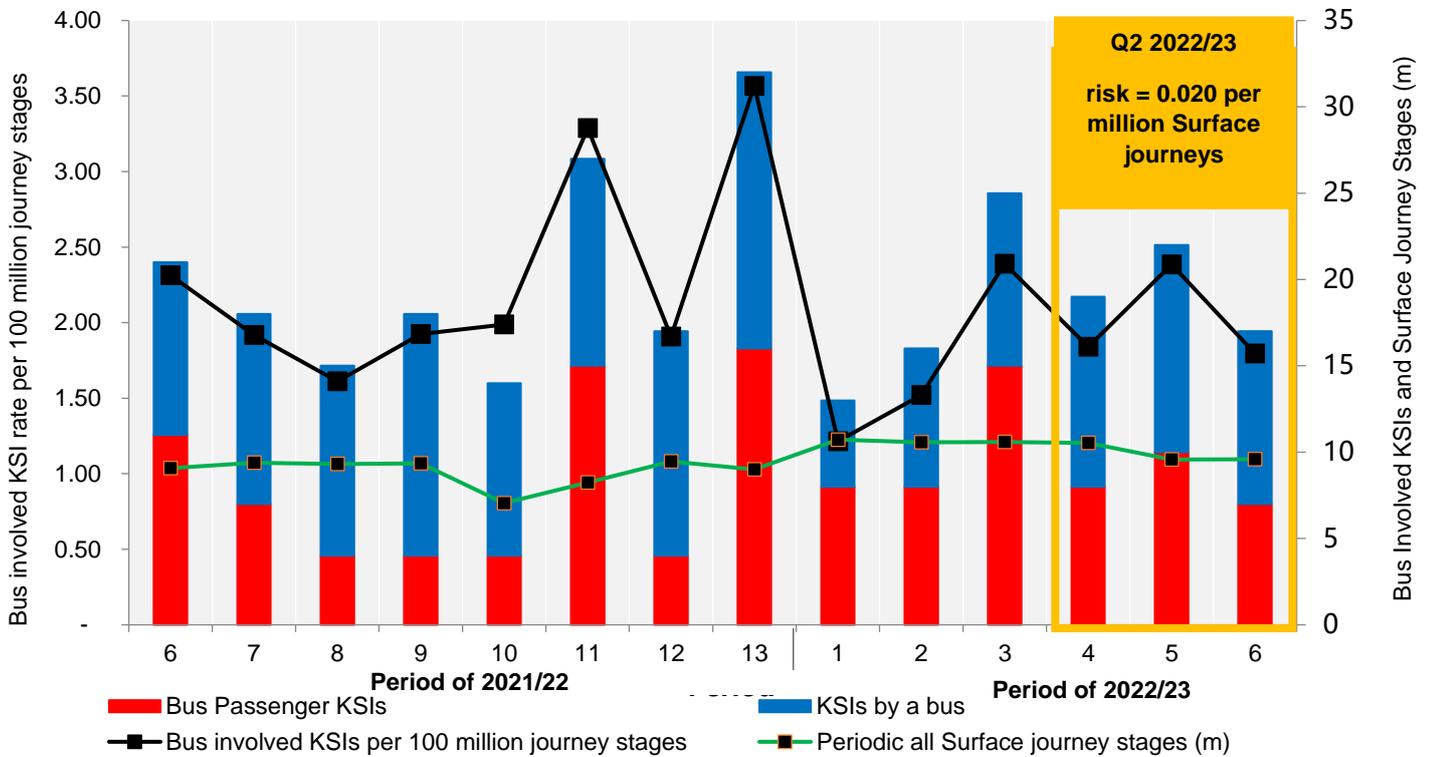
In Quarter 2 - 2022/23, 781 people were killed or seriously injured on London's roads. People walking, cycling and motorcycling accounted for 77 per cent of those killed or seriously injured. This proportion is slightly lower than the past few quarters as a result of fewer motorcycle and cycle injuries. Since the pandemic and a return of motorised traffic, the longer-term trend appears to be roughly 300 people killed or seriously injured each period, which is similar to the 2017-19 average, albeit with changes in the composition of who is injured. This highlights the challenges London faces in making continual progress towards its Vision Zero goal.

Scorecard measure: All casualties in road traffic collisions (per million journeys)



During Quarter 2, there were 0.24 people killed or seriously injured on the roads per million journeys, which meets our scorecard target and forms part of a continuing downward trend, but shows that there is still much more to be done.

Scorecard measure: Rates of fatal or serious injury experienced by people in collision with buses



Our ambition is that no one is killed or seriously injured on, or by, a London bus by 2030. The risk of a bus being involved in a collision that kills or seriously injures either a bus passenger or someone else on the roads remains extremely low.

In Quarter 2, our aim was to have no greater than 0.020 deaths or serious injuries per million journey stages. Our aim for bus safety is more stretching than the general road safety aim, to reflect our ability to directly influence bus services. In Quarter 2 there were 0.020 deaths or serious injuries per million surface journey stages. We have met our target this quarter, and we have also seen a decrease in the number of deaths or serious injuries on or by a bus for the first time this calendar year as COVID 19 pandemic recovery continues.

Road safety updates

Vision Zero action plan progress report

The [Vision Zero action plan progress report](#), published in November 2021, reiterates our focus on actions that contribute to creating a safe road network.

Safe Speeds

Lowering Speed Limits Programme

The second phase of the programme is underway to reduce speeds by 10mph on a further 140km of our roads. Currently 108km of the TfL Road Network (TLRN) has a 20mph speed limit, against a target of 220km by May 2024. We remain on target to achieve this. We will shortly be engaging with local residents and businesses on proposals to lower a further 28km of the TLRN in north London. This will see a consistent 20mph speed limit across the majority of roads in Camden, Islington, Hackney, Tower Hamlets and Haringey.

Raised pedestrian crossings will soon be introduced in eight locations to further reduce danger to people walking and increase compliance with the new speed limit, as well as introducing accessibility benefits for mobility impaired customers. This work is currently in detailed design and construction will commence in early 2023.

Works to extend the 30mph speed limit at Gants Hill town centre are imminent and underway for the planned 20mph speed limit on 1.5km of the A205 in Wandsworth. Detailed design work is in progress to lower the speed limit on a total of 35km of the TLRN including the introduction of a 40mph speed limit on the A4 Bath Road which will also support planned pedestrian safety improvements at this location.

Concept design work has also started to lower the posted speed limit on a further 73km of our roads, which comprises the third wave of delivery of this programme. Phase 2 of the Lowering Speed Limits programme is due to complete in May 2024.

Safe Streets

Safer Junctions

Design work continues on 30 junctions, including detailed design of York Road roundabout and Holloway Road/Drayton Park, where we are delivering safety measures for motorcycle riders and people walking respectively. Subject to funding, we aim to commence construction of these projects in early 2023.

After having done work on the detailed design, works have commenced on site for a new 20mph speed limit through the junction of A205 Upper Richmond Road with

Putney Hill/Putney High Street. This marks the first phase of a three-stage approach to improve road danger at this location.

In November 2021 a new pedestrian crossing was introduced over Battersea Bridge, where a person walking was tragically killed at the beginning of 2021. The second phase of this project is planned for public engagement in Autumn 2022. We are currently developing plans to address safety issues at Battersea Bridge by introducing brand new crossings and better facilities for people cycling.

Safe Vehicles

Direct Vision Standard

The Direct Vision Standard (DVS) scheme requires owners of heavy goods vehicles (HGVs) weighing more than 12 tonnes to apply for a free permit. Vehicles are assigned a star rating based on how much the driver can see directly through their cab windows to be able to drive safely in London. Those with the largest blind spots, rated as zero-star vehicles, must be fitted with enhanced safety features, known as the safe system, as a condition of the permit.

Since its introduction we have issued more than 220,874 permits. Over 131,586 of these were issued for zero-star rated HGVs that have now had safe systems fitted, addressing blind spots and warning other road users of the danger. A total of 104,365 penalty charge notices were issued where HGVs entered London without a permit up to the end of Quarter 2 2022/23.

Electric Scooters

The e-scooter rental trial¹ has expanded significantly since its launch on 7 June 2021., Up to 25 September 2022, approximately 1,770,000 hire trips were made across the three operators taking part in London's trial – Dott Lime and TIER. These journeys have averaged a distance of 2.6km per trip and have covered more than 4.6m kilometres in total, with June and July 2022 the busiest months for the trial so far. Operators have reported no fatalities, and a total of 21 serious injuries have been reported based on the STATS19 injury classification definitions.

Transport for London (TfL) and London Councils have extended the capital's trial of rental e-scooters from 6 June 2022 until 31 May 2024.

London's trial launched in June 2021 and has expanded significantly since then, with 10 boroughs, more than 500 designated parking locations and 4,425 e-scooter vehicles now involved. Updated DfT guidance allows existing trials in the UK to be

¹ <https://tfl.gov.uk/modes/driving/electric-scooter-rental-trial>

extended until May 2024, enabling local authorities to continue to test the vehicles in a safe and legal way.

Thousands of users have benefitted from the operators' discount schemes, which make the rental vehicles more affordable for people on low incomes and with disabilities.

The e-scooter operators involved in the trial collaborated well during Operation London Bridge by updating geo-fencing to exclude their use in key areas. They deployed additional resources during this period to ensure that devices were suitably parked and to minimise obstructions.

Bus Safety Standard

We are continuing to roll out the Bus Safety Standard (BSS) to new vehicles joining the fleet. The number of new buses meeting the BSS specification continues to climb, with approximately 837 buses now in the fleet. The safety measures include Intelligent Speed Assistance (ISA) technology which limits buses speed to the posted speed limit.

Around 25 per cent of London's bus fleet now has ISA, including buses which have been retrofitted. Other measures in the BSS include an Acoustic Vehicle Alerting System (AVAS) which is now on 697 quiet-running buses, and 743 buses fitted with Camera Monitoring Systems (CMS), which aim to reduce blind spots.

The next milestone for the BSS is 2024, when a range of further safety measures will be required. We have also included two additional new safety measures for implementation in 2024 within our latest New Bus Vehicle Specification and will publish a revised Roadmap later this year to reflect these changes.

Pedal Confusion

Research commissioned from AECOM has now been completed and this study has been published on [our website](#).

The report sets out several recommendations which are being incorporated into the work overseen by the joint TfL and bus operator Working Group and Steering Group for pedal confusion. The Steering Group is attended by Senior Managers representing some of our Bus Operators and Senior TfL representatives across Bus Operations and Engineering.

Managing Bus Driver Fatigue

In July 2021, we commissioned the University of Surrey to undertake research to support TfL and bus operators in understanding the suitability, limitations and potential for using existing fatigue and/or risk assessment scheduling and rostering tools. As part of Stage 1 of this work, an additional validation exercise was undertaken to

validate existing tools that have been explored during this project against real world data from a trial of Fatigue Detection Technology. The University of Surrey has submitted the draft report for end of Stage One which is being reviewed by TfL.

Safe Behaviours

Enforcement

The Metropolitan Police Service (MPS) have dealt with 321,825 road traffic offences through enforcement action in 2022/23 (April – August 2022). This is 49 per cent higher than April – August 2021 (an additional 105,848 offences).

Enforcement action includes Traffic Offence Reports which are issued by police at the roadside, arrests or Notices of Intended Prosecution for offences enforced through safety cameras or evidence provided members of the public (for example, through headcam or dashcam footage).

The MPS prioritises its enforcement on the offences that cause the greatest risk and harm on London's roads. This includes speeding, mobile phone offences, driving under the influence of drugs and alcohol, red light offences, careless or dangerous driving, driving without a licence or in an uninsured vehicle or driving while disqualified. During 2022/23 (April – August 2022), 89 per cent of all road traffic enforcement action taken by the MPS was for priority offences, six per cent lower than 95 per cent during April – August 2021. Speed enforcement accounted for 80 per cent of all traffic enforcement, reflecting the risk and harm this causes.

In 2022/23 (April – August 2022), the MPS enforced 257,590 speeding offences. This was 46 per cent higher than April – August 2021 (an additional 81,626 offences). This is due to the planned uplift in safety camera enforcement, as part of the shared collaborative programme between the MPS and TfL, to improve the MPS's capability to enforce greater volumes of offences captured by safety cameras. This is not an indication that speeding is worsening but that the MPS's capacity to issue more penalties has improved.

The above traffic enforcement results are provisional and are subject to change as more offences are processed.

At the end of January 2022, we introduced a new mobile safety camera capability (five lasercam devices) operated by Roads Policing Police Community Support Officers. This capability complements police roadside enforcement activity and the fixed safety camera network and will enable us to deal with more offences. The MPS has enforced

over 28,000 speeding offences through mobile safety cameras since they were introduced.

Mandatory Cycle Lane Enforcement

In June 2022, we announced we will begin issuing fines to vehicles that drive within, or cross, the white lines of cycle lanes that are marked by a solid white line and cycle tracks on the TLRN.

We have carried out civil enforcement of vehicles entering cycle lanes using our existing CCTV network, with drivers failing to comply being subject to a fine of £160. There is also a six-month warning notice in place for first-time offences to educate motorists, with the aim of increasing compliance.

Between 27 June and 3 August 2022, 235 warning notices were issued to drivers and we are closely monitoring how successful the warning notice campaign has been and the compliance levels at these locations. To support this, we launched an advertising campaign in July 2022, targeting private and commercial drivers, to raise awareness of the new fine and direct drivers to the red route section of our website to find out more. This campaign included adverts in the Metro newspaper and on buses.

Powered two-wheeler (P2W) Training Courses

Demand and attendance on both TfL's motorcycle safety training courses remains strong. Year-to-date (January to September 2022), 464 riders have completed one-to-one Motorcycle Skills and 320 riders have completed Beyond CBT (Compulsory Basic Training), the training course aimed specifically at those who ride for work.

Since the inception of TfL's P2W courses, 4,708 individuals have been trained across the two courses.

Information on all TfL's motorcycle training courses can be found [here](#).

Post Collision and Criminal Justice

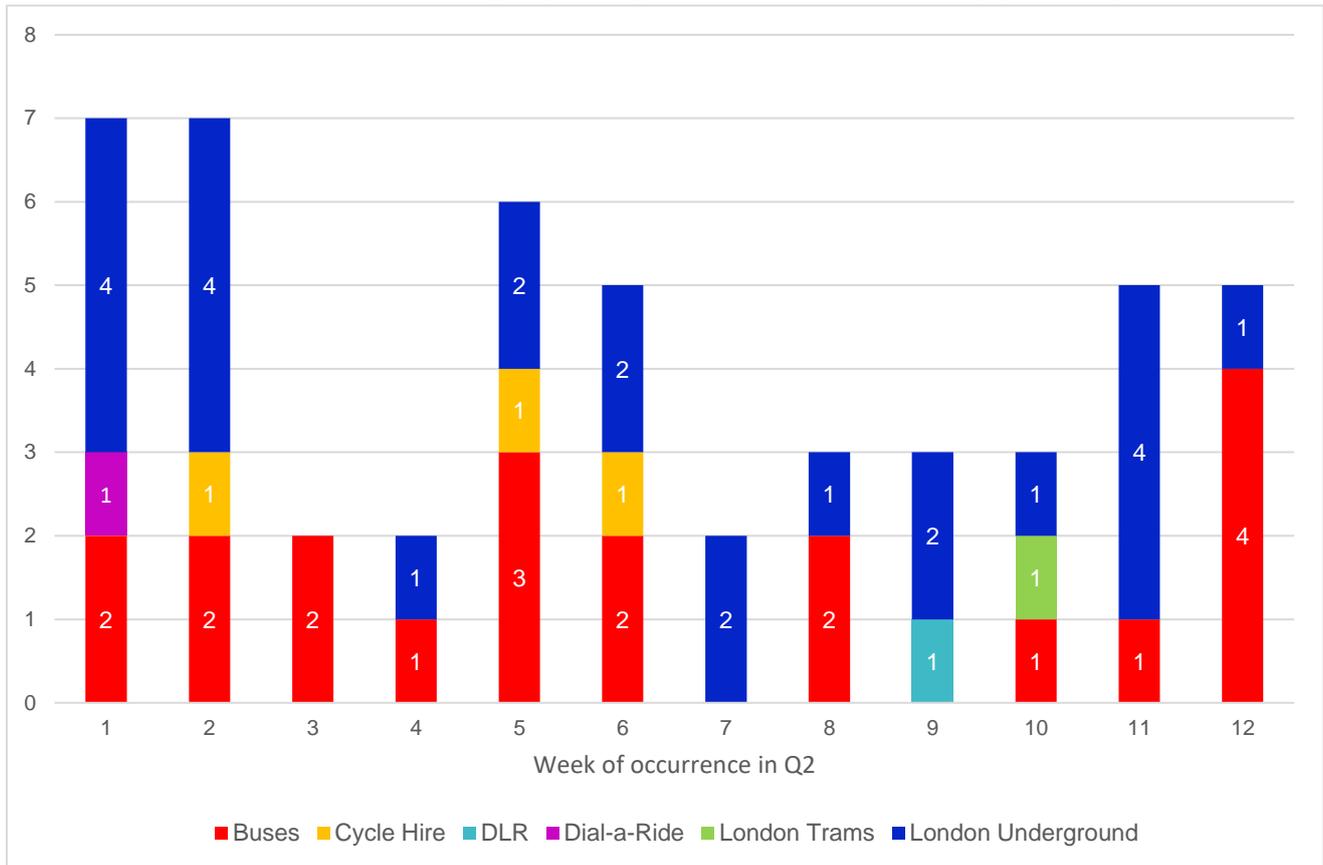
We are carrying out analysis of inequalities in London's road casualties and plan to publish initial findings by the end of this year.

On 21 September 2022, we held a listening session with victims of road trauma with the Mayor of London, TfL Commissioner, the MPS and London Councils. The session gave victims of road trauma in London the opportunity to share their stories with key decision makers, setting out what needs to improve across the system to enhance victim support after a collision. We are grateful to Roadpeace for their role in facilitating the organisation of this session. We will look to continue these sessions to ensure the voices of victims are at the centre of decision making and policy development.

Public transport safety performance

Quarterly performance

Customers killed or seriously injured per week in Quarter 2 (by mode)



No customers were killed on our public transport network during Quarter 2, but sadly, 50 customers were seriously injured. In the previous quarter, one customer was tragically killed on our public transport network and 43 customers were seriously injured.

The serious injuries occurred across the following public transport modes: on London Underground (LU) 24 injuries (48 per cent), 20 on buses (40 per cent), three on Cycle Hire and one each on Dial-a-Ride, London Trams and the DLR. There were no serious injuries on the newly opened Elizabeth line or London Overground services in Quarter 2.

Slips, trips and falls remain the most common incident type, with 68 per cent of serious injuries on public transport involving a form of slip, trip and fall.

On LU, 66 per cent of serious injuries involved a slip, trip or fall, with eight occurring on an escalator and six on stairs. Intoxication was a factor in five of the incidents. Not

holding on and being overburdened by luggage were further potential factors. A number of workshops with station colleagues and the Customer Experience Team have taken place to undertake data deep dives to understand the most common customer behaviours that contribute to incidents occurring at these stations. The outcomes of these workshops have been used to identify actions, such as improved signage to encourage customers carrying luggage to use lifts.

On buses, 90 per cent of serious injuries involved a slip, trip or fall. Those over 65 years old, made up one third of those seriously injured on buses. There were also three serious incidents on buses involving infants in prams or buggies. In line with the previous quarter one of the main factors cited was the bus braking in response to other road users. This was a factor in two of the serious injuries involving an older person and all of the serious injuries involving infants.

In collaboration with TfL, a number of the bus operating companies are trialling technology that scans for hazards in the road ahead to help with the anticipation of potential collisions and maximising the time available for safely braking. Following on from the successful Destination Zero driver training course, we are now developing an Equality, Diversity and Inclusion course for bus drivers. Delivery will commence in 2023 and will increase driver awareness and empathy with customers, including the elderly and vulnerable, and reinforce the need for correct stop alignment, lowering the height of the bus and allowing sufficient time for customers to settle.

The three serious Cycle Hire injuries in Quarter 2 all involved collisions with motorised vehicles. One customer collided with a taxi, another with a car while exiting side roads and another was involved in a collision with a motorcycle. A person walking was injured in a collision at the front of a London Tram.

A Dial-a-Ride passenger was seriously injured when using their mobility scooter to exit the vehicle. On the DLR, an intoxicated customer fell between the train and the platform when the train was stationary.

There is no significant change in trends in the serious injury data between quarters, but in looking at the circumstances and people involved, there continues to be a need to consider more vulnerable people and modes and ensure a joined-up approach across road and public transport safety interventions.

Customers killed or seriously injured per quarter this year

Compared to Quarter 1, 10 more customers were seriously injured this quarter, despite passenger numbers being similar (0.73bn in Quarter 1 and 0.72bn in Quarter 2). There

is no obvious reason for the increase, though it is possible that the summer period influenced travel patterns and behaviour differently to Quarter 1.

There were also 10 more customer serious injuries than in Quarter 2 - 2021/22, when there were three deaths and 40 serious injuries. Although this is a 25 per cent increase in customers seriously injured from the same quarter in the previous year, it has not been proportionated to the 100 per cent increase in passenger numbers, doubling from 0.36bn in Quarter 2 - 2021/22 to 0.72bn Quarter 2 - 2022/23.

Scorecard measure: Customer all injuries rate (per million passenger journeys)

The number of customer injuries per million passenger journeys this quarter is 2.69. Unfortunately, the Quarter 2 customer injury rate is above our 2022/23 target of 2.58 injuries per million passenger journeys.

This target customer injury rate represents a five per cent reduction in our customer injury rate performance last financial year. This rate of improvement, if sustained year-on-year, is equivalent to the elimination of all customer injuries by 2041.

While we are not yet meeting our scorecard target, our customer injury rate this quarter is lower than our customer injury rate of 2.91 in Quarter 2 2021/22, suggesting we are progressing in the right direction.

As with the previous quarter, this quarter there has been an overall reduction in the rate of customer injuries per million passenger journeys resulting from slips, trips, or falls compared to Quarter 2 2021/22. The rate of customer injuries mentioning a slip, trip, or fall reduced by 23 per cent on LU, with buses showing no significant change.

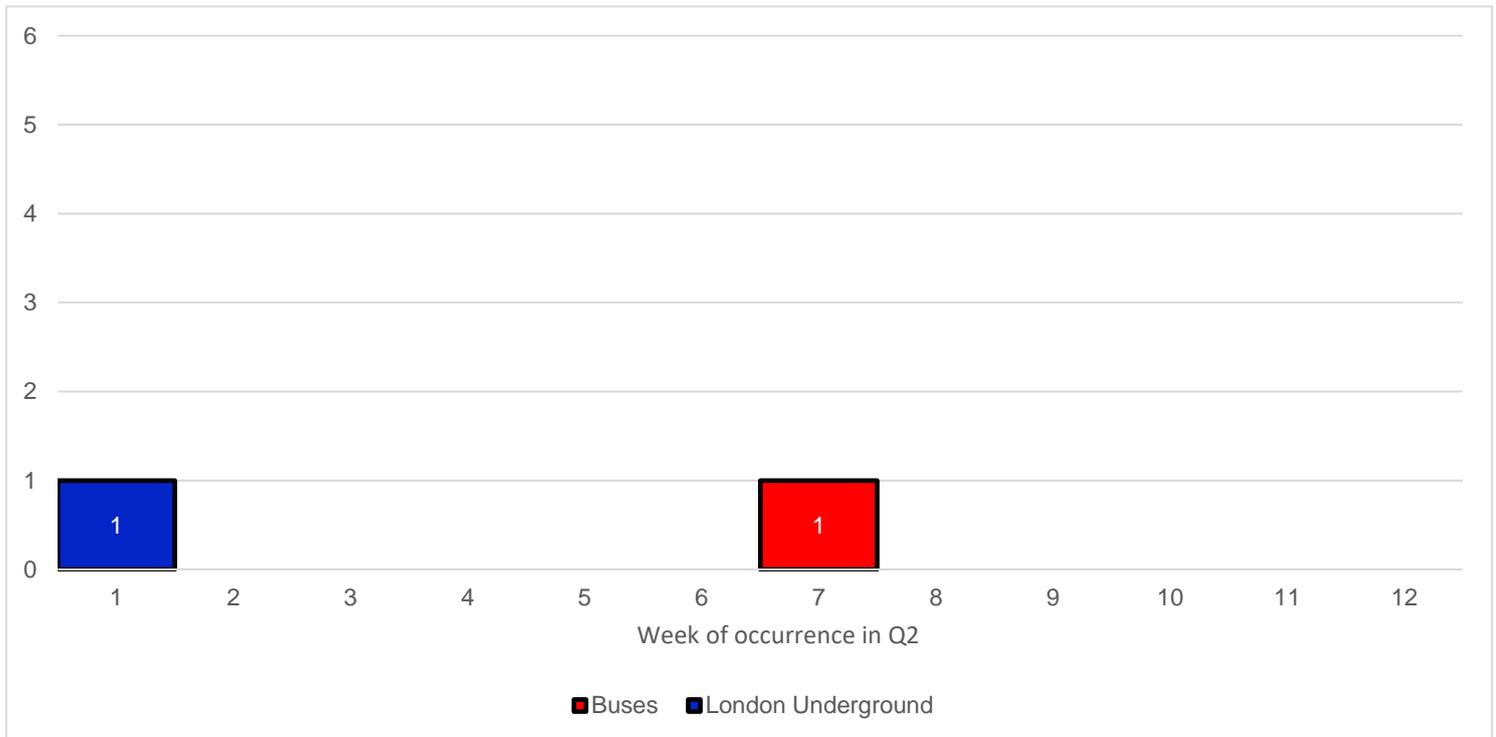
As detailed in the Quarter 1 2022/23 report, often slips, trips and falls occur on specific station or vehicle infrastructure such as stairs and escalators. We are currently seeing different trends in relation to risk on stairs and escalators. For slips, trips and falls on the bus network, we've recently started a pilot with several bus operators of gathering additional information by reviewing the available CCTV of these incidents. This will help to create a more comprehensive dataset of the contributory factors which can often come together leading to an incident.

While the risk of injury on escalators remains the same in Quarter 2 in both 2021/22 and 2022/23, there is an encouraging trend in reduced risk of injury on stairs in LU. Reduction in risk of injury on stairs has been seen across both Quarter 1 and 2 2021/22. Stair-related customer injury risk this quarter is 32 per cent lower than in 2021/22. It was 39 per cent lower in Quarter 1 2022/23 than Quarter 1 2021/22.

On buses, the rate of customer injuries mentioning a collision or sudden braking has remained the same as Quarter 2 2021/22. Tackling this issue remains a priority and is

something we continue to work on through our Bus Safety Standard, bus driver training and road safety interventions.

Workforce killed or seriously injured per week in Quarter 2 (by mode)



This section does not include injuries to our construction and projects workforce, which are covered in the Capital safety section below.

No one was killed whilst working on our public transport network in Quarter 2. Unfortunately, two members of our workforce were seriously injured, one on buses and one on LU. Both incidents involved a slip, trip or fall.

This compares to four serious injuries sustained by people working on our public transport network in Quarter 2 2021/22 (three on London Underground and one on buses).

Scorecard measure: All Workforce injuries

Our target across this financial year is to reduce workforce injuries by five per cent compared to the previous financial year, 2021/22.

In Quarter 2, 317 members of our public transport workforce were injured (not including colleagues involved in construction and projects). This is an increase of 12 per cent compared to 296 workforce injuries in Quarter 2 2021/22.

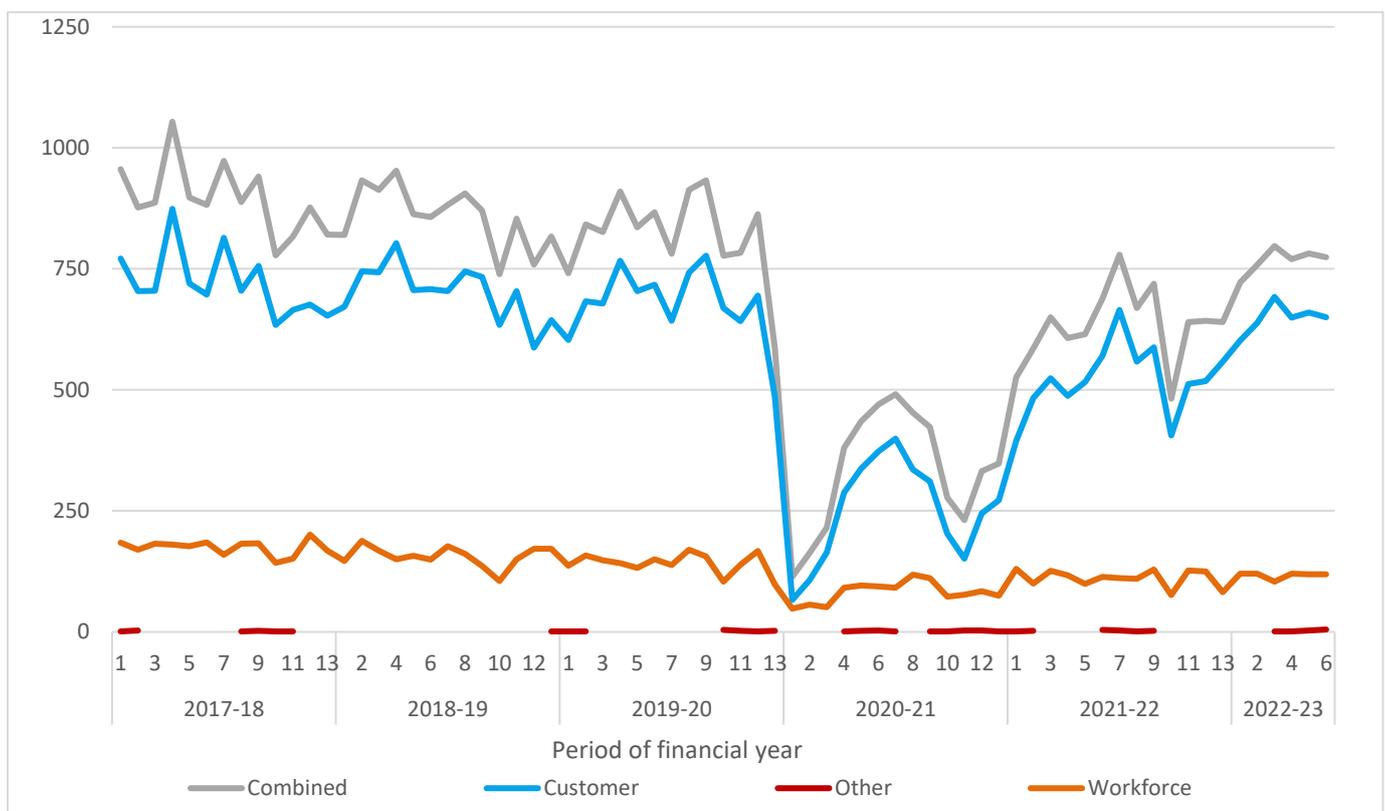
As with customer injuries, although there has been an increase in workforce injuries, this has not been proportional to the increase in passenger numbers which increased by 100 per cent between Quarter 2 2021/22 and Quarter 2 2022/23.

In line with the previous quarter, the most prominent incident types and contributory factors include assaults and crime-related incidents, slips, trips and falls and collisions.

The greatest increase in workforce injuries was within LU, with 184 injuries in Quarter 2 2022/23 compared to 122 in Quarter 2 2021/22. This could in part be explained by both an increase in reporting with the introduction of body-worn cameras and the rollout of the Workplace Violence and Aggression programme, along with the increase in customer numbers.

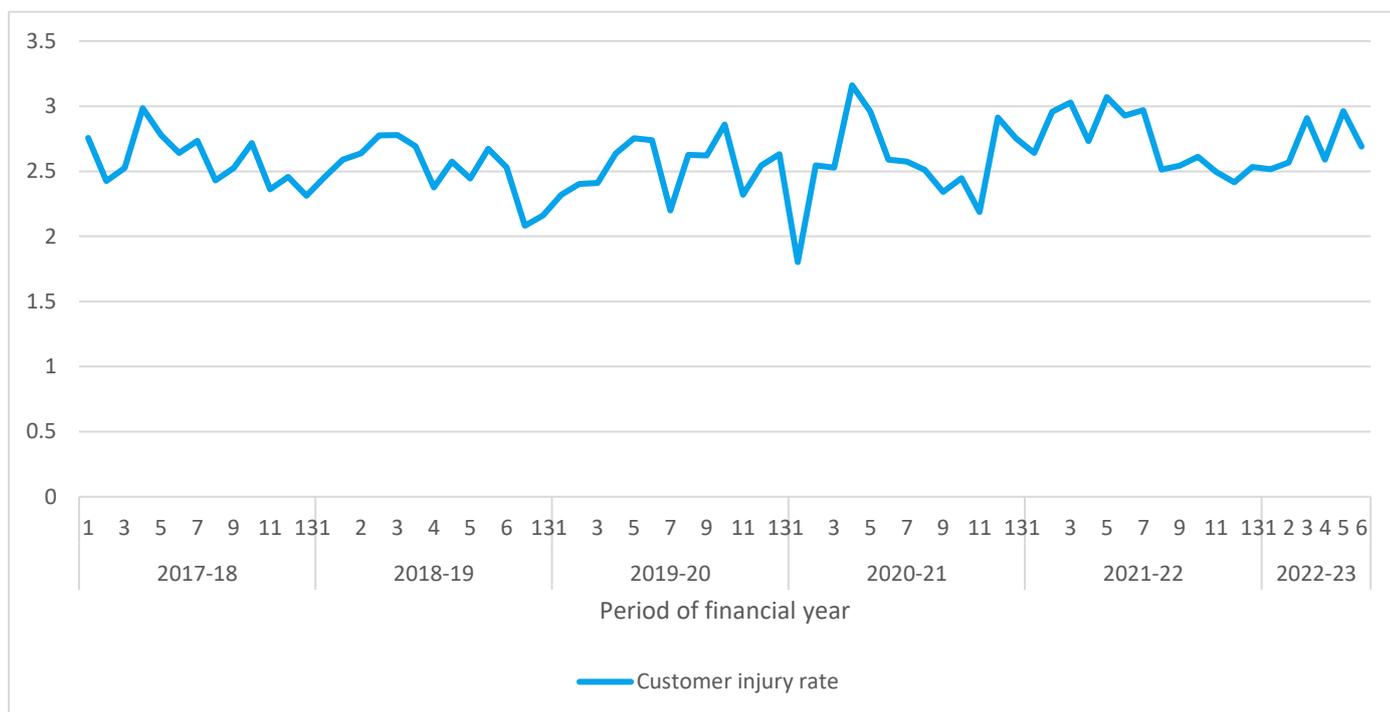
Long term trend

Customer and workforce injury numbers per period since 2017-18 (total)



As our customer numbers have begun to recover towards pre-pandemic levels, we have seen corresponding increases in both customer and workforce injuries. The number of customer injuries this quarter is at a level equivalent to some of the lower periodic customer injury totals pre-pandemic. This has remained stable in both Quarter 1 and Quarter 2 2022/23. Workforce injury numbers remain lower than pre-pandemic.

Customer injury rates per period since 2017/18 (total)



Despite this recent increase in periodic customer injury totals, we have seen relatively stable injury rates compared to the spikes seen during periods of the pandemic. These rates have more closely resembled pre-pandemic levels than the heightened customer injury rates experienced during much of the pandemic.

Public transport safety updates

Suicide Prevention Programme

Year-on-year data comparison tells us that since 2018, our Suicide Prevention Programme has helped reduce the number of suicides by 45 per cent across the LU network.

We have trained 90 per cent of the 6,000 LU station staff in suicide prevention so far and we continue to train all new starters as part of their induction. The training is open to all TfL staff, and we have recently opened the course to some of our stakeholders, including the British Transport Police (BTP) and the London Fire Brigade (LFB).

In Quarter 2, we made 163 life-saving interventions, bringing the total over the last few years up to 2,515. Our current intervention rate is 95.6 per cent for the 2022/23 financial year so far, which is the highest in the programme's history.

In Quarter 2 we trained a further 26 Safeguarding Officers. The total number of accredited Level 3 LU Safeguarding Officers is now 64.

We are working towards accreditation in the DfT's Safeguarding on Rail Scheme and hope to gain full accreditation by November 2022.

We delivered the Thrive LDN Grab Bags (or Mental Health First Aid Kits) to 161 LU stations so far and we are aiming to deliver the remaining bags to all LU stations by the end of 2022.

Fatigue and Dial-a-Ride

As part of rolling out our pan-TfL Fatigue Management Programme, this quarter we carried out screening to understand and manage fatigue and wider wellbeing in our Dial-a-Ride (DaR) team.

Office-based staff, management, drivers, attendants, mechanics and other operational staff were all included in the screening.

The screening looks at objective information such as the types and lengths of shifts, working environment and other practices which may increase the potential of fatigue. It also looks at what is in place to raise awareness and reduce the impact of fatigue such as training and management conversations.

Across all seven DaR locations and 283 staff, we identified relevant fatigue factors present for staff and the existing mitigation activities. Using this information, we are developing a bespoke plan to further strengthen our management of fatigue, reduce fatigue factors and improving staff wellbeing.

Rail and Sponsored Services Wellbeing Expo

The second annual Rail and Sponsored Services Wellbeing Expo was held from 12 to 14 September 2022. The first day saw in-person events, with the TfL Wellbeing Bus at Croydon offering 15-minute health checks, whilst at Poplar Depot there was a programme of breathwork, meditation and sound healing with The Zen Project.

A packed virtual programme was offered on days two and three with sessions run by TfL staff as well as external speakers. Sessions ranged from Mindfulness to Fatigue, Stress Management Techniques to Yoga, Self-care to Avoiding Distractions. It was also an opportunity to raise awareness on wellbeing support within TfL and the role of our Independent Disability Advisory Group in helping customer wellbeing. All the sessions were recorded so colleagues across the business can catch up on any they missed.

Cycle Hire

Cycle Hire continued to perform well, with a total of 3,248,920 hires in Quarter 2. August 2022 marked the 12th successive month of record hires. Added to this, we have continued to provide a 50 per cent discount for NHS staff (those with an NHS email address) with a total of 168,427 rides redeemed via the promotional code since

the NHS discount came into operation in the pandemic to September 2022. We continue to work closely with the police to retrieve lost or stolen bicycles.

New electronic vehicles (five vans and six cargo bikes) are in operational deployment with new livery. This complements the launch of 500 e-bikes on Monday 12 September 2022, opening the possibility of cycling to more of our customers.

Capital safety performance

Capital works cover a broad range of activities across our former Major Projects, Project and Programme Delivery and LU Capital Delivery areas. Some are essential asset renewals and maintenance to keep our frontline service operating efficiently. Other activities represent new and significant investments to improve existing infrastructure. Within the Capital area, teams comprise employees from both TfL and supplier organisations. Likewise, work sites may be managed by TfL or by suppliers acting as our Principal Contractor. We do not distinguish between TfL or supplier hours worked or incidents within this section of the report.

During Quarter 2, on 1 September 2022, a new director structure was implemented within TfL. The changes will see the majority of capital works fall under TfL Capital, the area overseen by the Chief Capital Officer. However, more detailed assessments to determine which teams sit within each director area are still ongoing and so for consistency with Quarter 1, there has been no change to how safety performance data is displayed in this report. Looking ahead, the most notable changes for Capital will include the incorporation of the TfL Engineering and Asset Strategy teams, and the separation of the former LU Capital Delivery teams between the Capital and the Operations areas. It is important to note that none of this will have any noticeable adverse impact on the day-to-day safety performance of our projects.

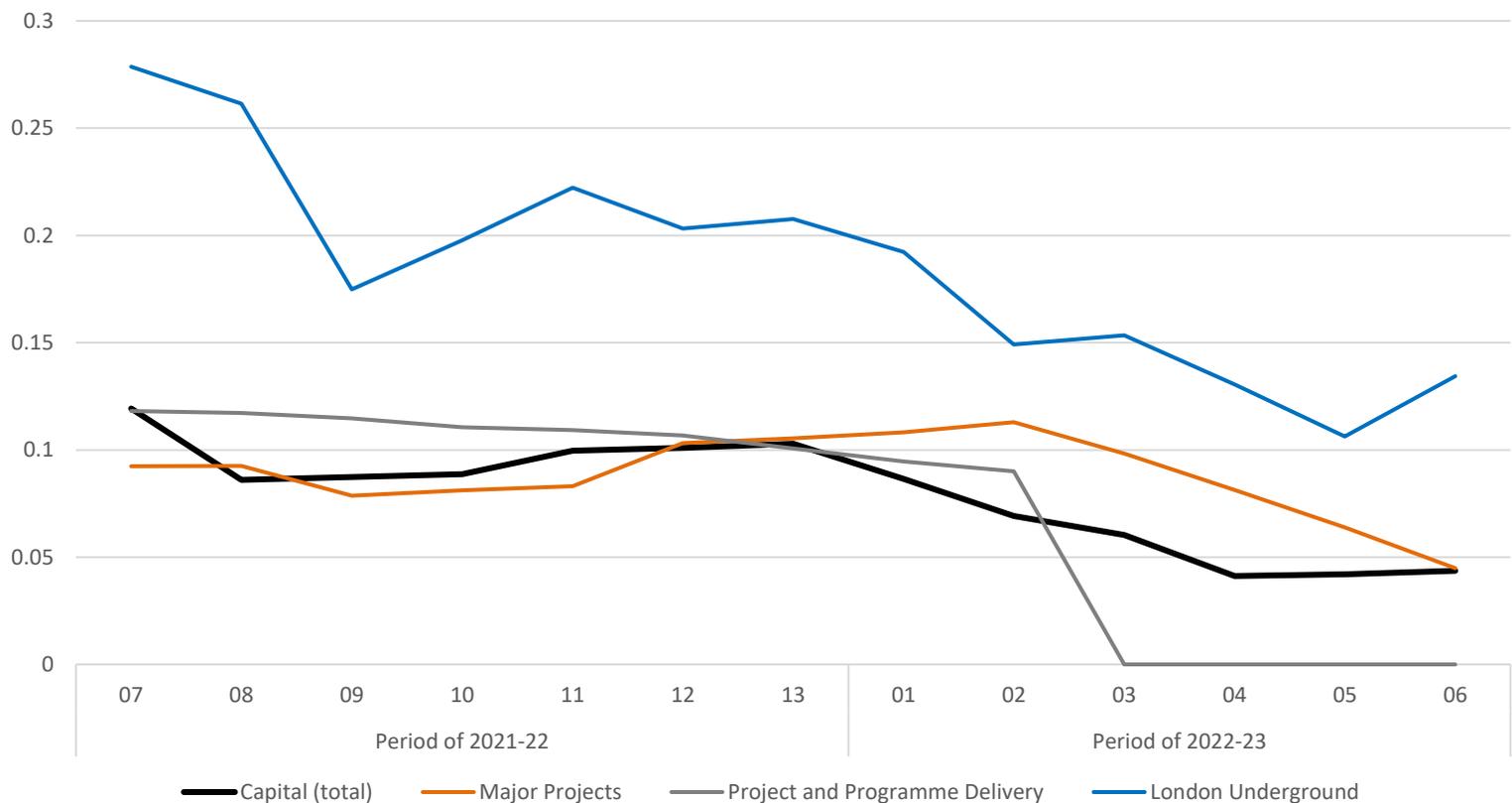
During Quarter 2 the Capital area workforce completed 2 million hours worked, just below the 2.1 million hours worked during the previous quarter. Compared with Quarter 2 of 2021/22, there has been a 25 per cent reduction in the number of hours worked, predominantly as a result of some of our major projects, such as the Northern Line Extension, Bank Station Capacity Upgrade and Barking Riverside Extension, reaching or nearing their conclusion. However, with a new Capital funding agreement now in place with the Government, we hope to be able to make some increased capital investment in key areas. This is likely to lead to an increase in hours worked in the longer term.

Quarterly performance

To enable accurate analysis of data, some of our key measurables are quoted as a frequency rate per 100,000 hours worked. Frequency rates are calculated using a moving annual average based on performance over the previous 13 periods.

In addition to reporting on performance across the three Capital teams individually, we also report on our overall Capital performance. Over the coming quarters, the composition of the Capital area and the data we report on within this section will continue to evolve in line with changes to TfL's organisational structure.

RIDDOR accident frequency rate (per 100,000 hours worked)

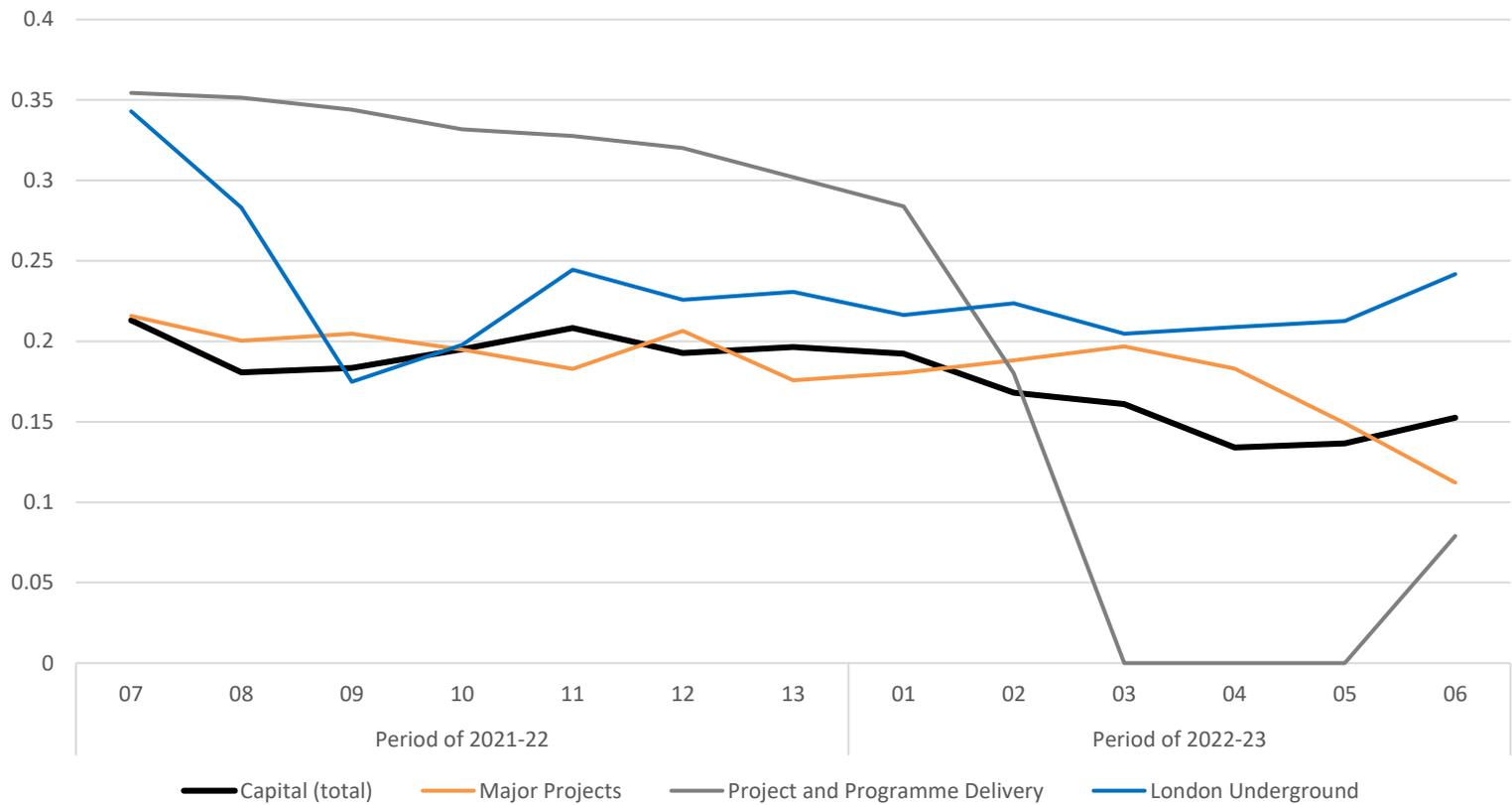


In Quarter 2, there was only one incident reported under the Reporting of Injuries Diseases and Dangerous Occurrences Regulations (RIDDOR) within the Capital area. As a result, the accident frequency rates continued to decrease across the Capital area of the business, with the overall rate ending the quarter at 0.04, below the 2022/23 annual target of 0.10. Our Major Projects and Project and Programme delivery areas have now gone two consecutive quarters without a RIDDOR being reported, demonstrating significantly improved performance from the same period last year.

The RIDDOR this quarter occurred in LU, where a member of the rolling stock team was hit in the eye by a piece of debris from a sanding belt. The injury required hospital treatment but was classified as minor, with the debris removed from the eye. The injured person remained off work for more than seven days.

In addition, there was a RIDDOR reported in TfL Engineering where a surveyor on the Piccadilly Line Upgrade programme slipped on track ballast at night, sustaining a chipped bone and remained off work for over seven days. Whilst Engineering data is not currently featured within the Capital section of this report, we work closely with the team to identify root causes and share learnings so that we can continue to work together to reduce harm to our workforce.

Lost time injury frequency rate (per 100,000 hours worked)

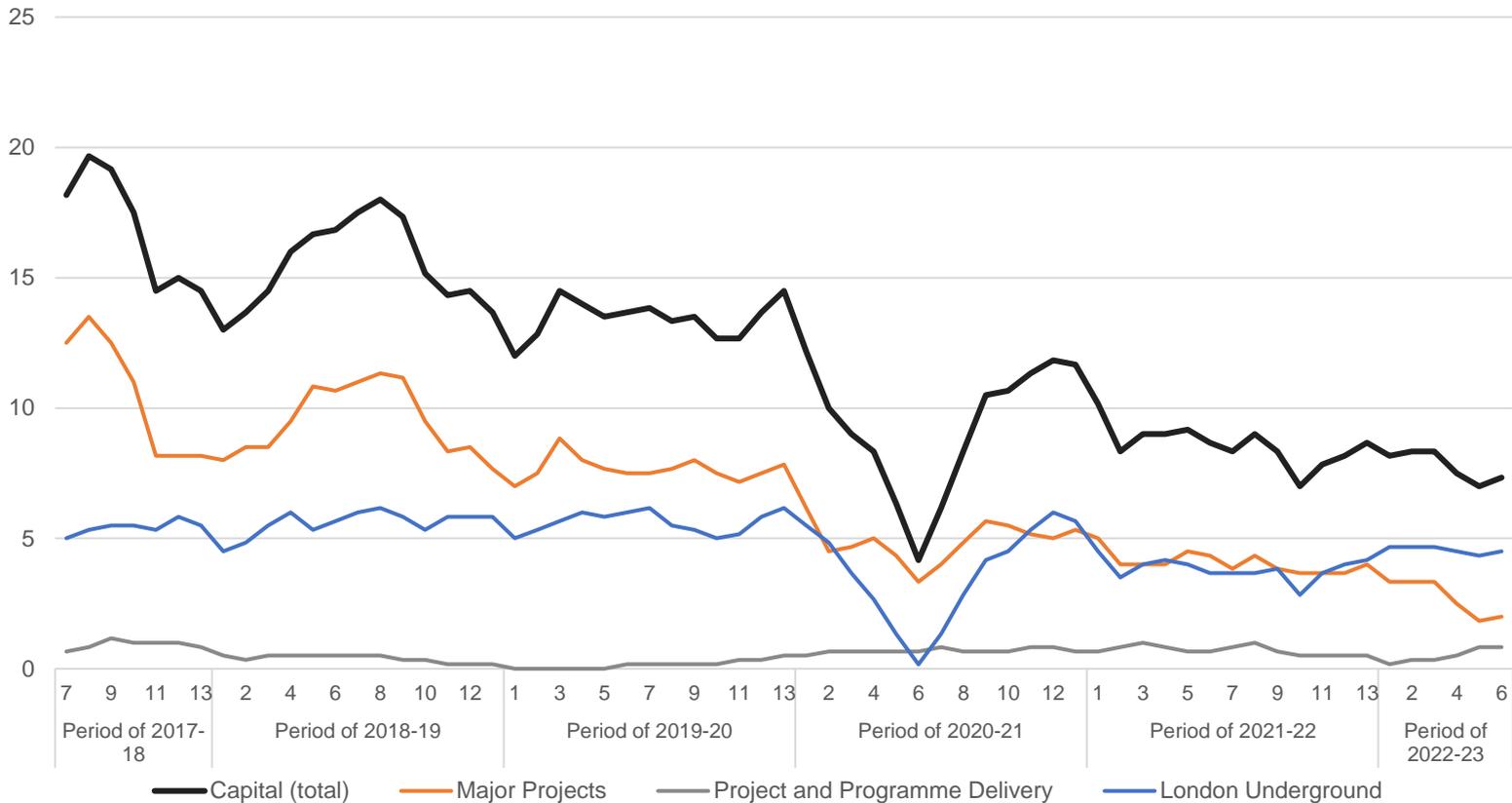


Lost time injuries (LTIs) are injuries which cause an employee to be absent for one or more shifts. There were five LTIs reported in our Capital teams during Quarter 2, an increase of two compared with Quarter 1. However, due to an overall reduction in the number of LTIs reported over the past 12 months, the lost time frequency rate for Capital ended the quarter at 0.15, below the target of 0.25.

All five LTIs in Quarter 2 were classified as minor injuries, with four occurring in our LU teams and one in Project and Programme Delivery. The use of machinery and equipment were a factor in three of the incidents, resulting in teams receiving additional briefings on how to safely conduct activities to avoid future injury. At Old Street Roundabout, an operative was injured when the lid of a generator he was refuelling closed on his hand. Whilst issues were identified with the communication between the operatives, subsequent investigation found that the risk assessment did not sufficiently consider how such a hazard should be effectively controlled and safety mechanisms put in place to prevent the lid from shutting. This resulted in a review of all relevant risks assessments, operatives being re-briefed on the refuelling of generators and the team investigating the procurement of alternative models of generators with enhanced safety features.

Long-term injury trend

Total Capital workforce injuries (six-period average since 2017/18)



There were 24 injuries reported in the Capital area during Quarter 2, which is an increase of four on the previous quarter. All were classified as minor injuries, which, given the range of activities and working environments our teams operate in, demonstrates a satisfactory degree of risk management. Manual handling was the top immediate cause of injury, with lack of communication and lack of physical controls identified as among the most common root causes. The number of injuries falls well within our “stretch targets” in Major Projects and Project and Programme Delivery of five injuries or fewer per four-week period, which is in line with our drive for improvement from last year.

SHE Performance in Capital Projects

As illustrated by the data above, Quarter 2 can be characterised as one of good performance. There have been no major injuries, or serious environmental impacts. However, when analysing the details, we can identify a variety of incidents which had the potential for something worse, or to provide us with a warning that failure to improve will lead to a more undesirable outcome.

A brief selection of such incidents (in no order of significance):

Four Lines Modernisation

The Quarter 1 report outlined concerns raised about the new train control system when it was introduced into Signal Migration Area five on the sub-surface part of the LU network. There were a number of Operational Restrictions required which have been the subject of several meetings with the Office of Rail and Road (ORR) and their inspectors.

There is very close involvement with the project from operational colleagues, and a desire to minimise the number of operational restrictions that service controllers have to be aware of. Action has been taken to try and eliminate these, and an independent review is also in progress, due to report its findings early in Quarter 3. Although the ORR has indicated that they will not be considering enforcement action in relation to this, they are maintaining their interest, and will look at how the train control software is developed by the supplier, and human factors issues for service controllers.

Bank Station Capacity Upgrade

Construction works for the new parts of Bank station and the new escalators are controlled by the Principal Contractor. One of the newly installed escalators not yet in service to the public was activated by one contractor, whilst workers from another contractor were in the machine chamber close to the dangerous moving parts of the machine. There was no injury, but the near miss was reported and investigated by the Principal Contractor. Failures were evident in the permit process, control of keys/access, and communication. These have now been addressed on site and learnings shared.

A102M Traffic Management

Whilst a worker for one of our suppliers was installing cones for temporary traffic management, a car breached the cones into the worksite and ran over the worker's toecap (no injury) before speeding off and going through a red traffic light. It was found that the Traffic Management (TM) operatives had not followed the safe working procedure to install the closure with the correct coning spaces when the incident occurred, which would have closed the slip road quicker as live traffic was still travelling in the adjacent lane. A side road was also open when they deployed the TM, which should have been closed in advance or an Impact Protection Vehicle used to protect the operatives. Local CCTV did pick up the incident. However, there was an issue with the recording meaning the driver could not be identified.

SHE in Capital

SHE Capital Delivery & Maintenance Strategy

This quarter, the main strategic focus for safety, health and environment (SHE) within Capital was the continued integration of safety, health and environment requirements within our procurement and supplier management processes. At the beginning of September 2022, a new internal Management Framework for TfL's Procurement & Commercial (P&C) activities was launched, accompanied by training, which provides teams across the business with best-in-class guides, tools and templates to support them through each stage of the P&C Lifecycle. Significantly, SHE is now fully embedded within the management framework, providing colleagues with increased support for managing SHE and creating a more consistent approach across TfL. This will be of particular benefit to the Capital area, where suppliers are regularly appointed to deliver project activity on our behalf.

Work-related violence and aggression

Work-related violence and aggression (WVA) towards our people and those of our operators and contractors is unacceptable. Concerted action is underway to tackle it.

Triggers of WVA incidents

Fare evasion continues to be the most common trigger for WVA accounting for 30 per cent of all incidents. During Quarter 2 2022/23, 423 WVA incidents were triggered by fare evasion on the London Underground (LU) Network, and 295 across the other travel modes (buses, roads, Elizabeth line (formerly known as TfL Rail), London Overground (LO), DLR and London Trams). Despite fare evasion remaining the most common trigger of WVA, the proportion of incidents decreased in Quarter 2 by two per cent on the LU Network and by seven per cent across other travel modes.

In Quarter 1, analysis of WVA had shown a link between youth offending and fare evasion. The proportion of WVA incidents allegedly involving a young person (with the appearance of under 20 years) decreased slightly in Quarter 2 by one and a half per cent on other travel modes and by almost two per cent on the LU Network from the previous Quarter. This is most likely due to schools, colleges and academies being closed for six of the twelve weeks that made up Quarter 2.

The number of WVA incidents motivated by hate towards staff on the LU network increased from 73 in Quarter 1 to 93 in Quarter 2 2022/23. The volume of WVA incidents motivated by hate steadily increased from Period 2 to Period 5 (1 May to 20 August 2022). In Period 5 (24 July to 20 August 2022) they represented nine and a

half per cent of all recorded WVA incidents. The proportion decreased to five per cent in Quarter 2.

The number of WVA incidents recorded on the LU Network triggered by a customer using an e-scooter decreased from 31 in Quarter 1 2022/23 to 18 in Quarter 2 2022/23.

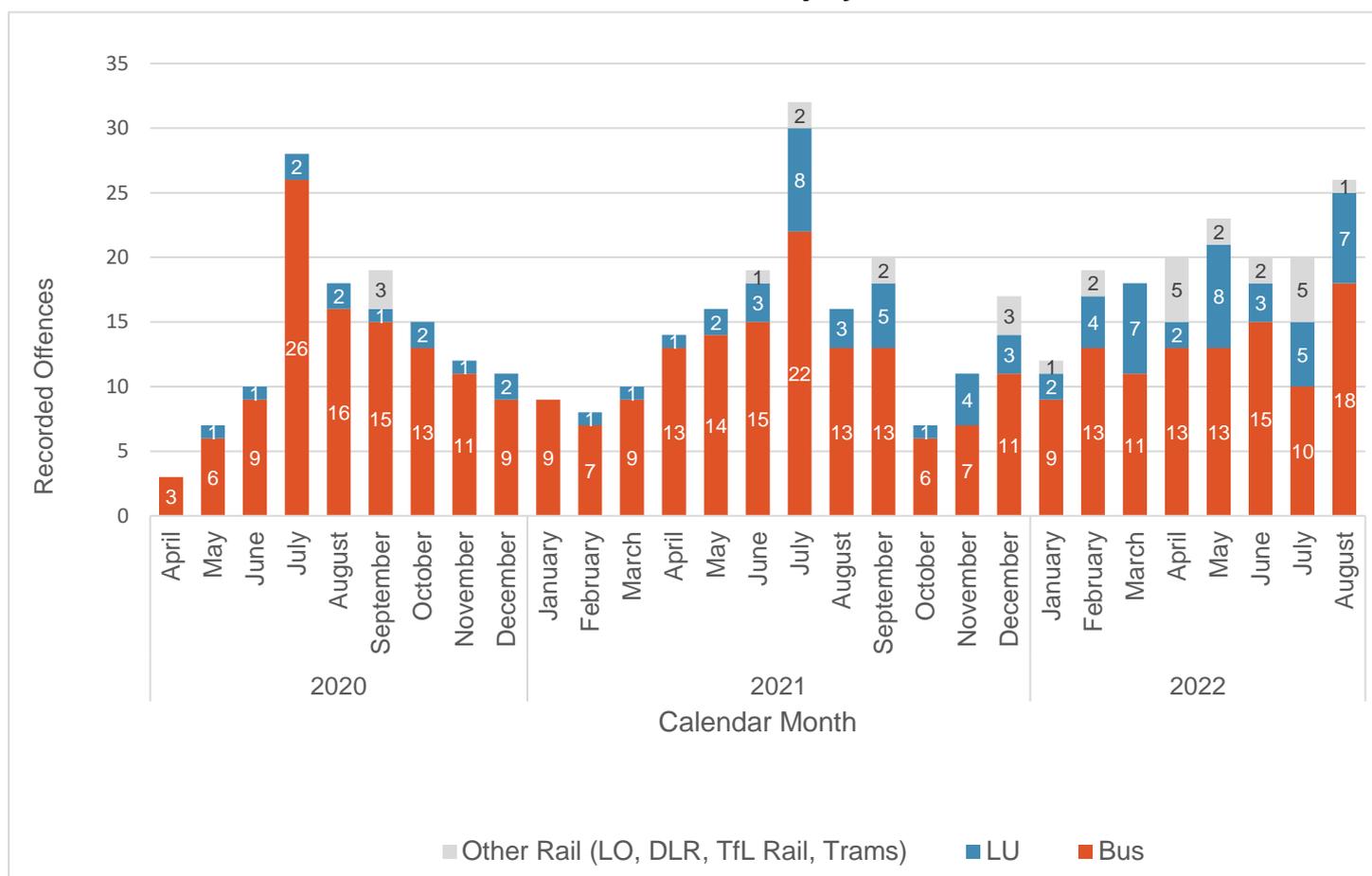
Volume of incidents in Quarter 2

During Quarter 2 2022/23, there were 2,406 incidents of WVA reported across all modes. This is an additional 101 incidents compared to Quarter 1 2022/23.

In Quarter 2 2022/23, there were 1,144 incidents of WVA reported by staff working on LU. This is 147 more than in Quarter 1 2022/23.

In Quarter 2 2022/23 there were 1,255 incidents of WVA reported on all other modes (buses, roads, Elizabeth Line, LO, DLR and London Trams. This is 106 fewer incidents than recorded during Quarter 1 2022/23.

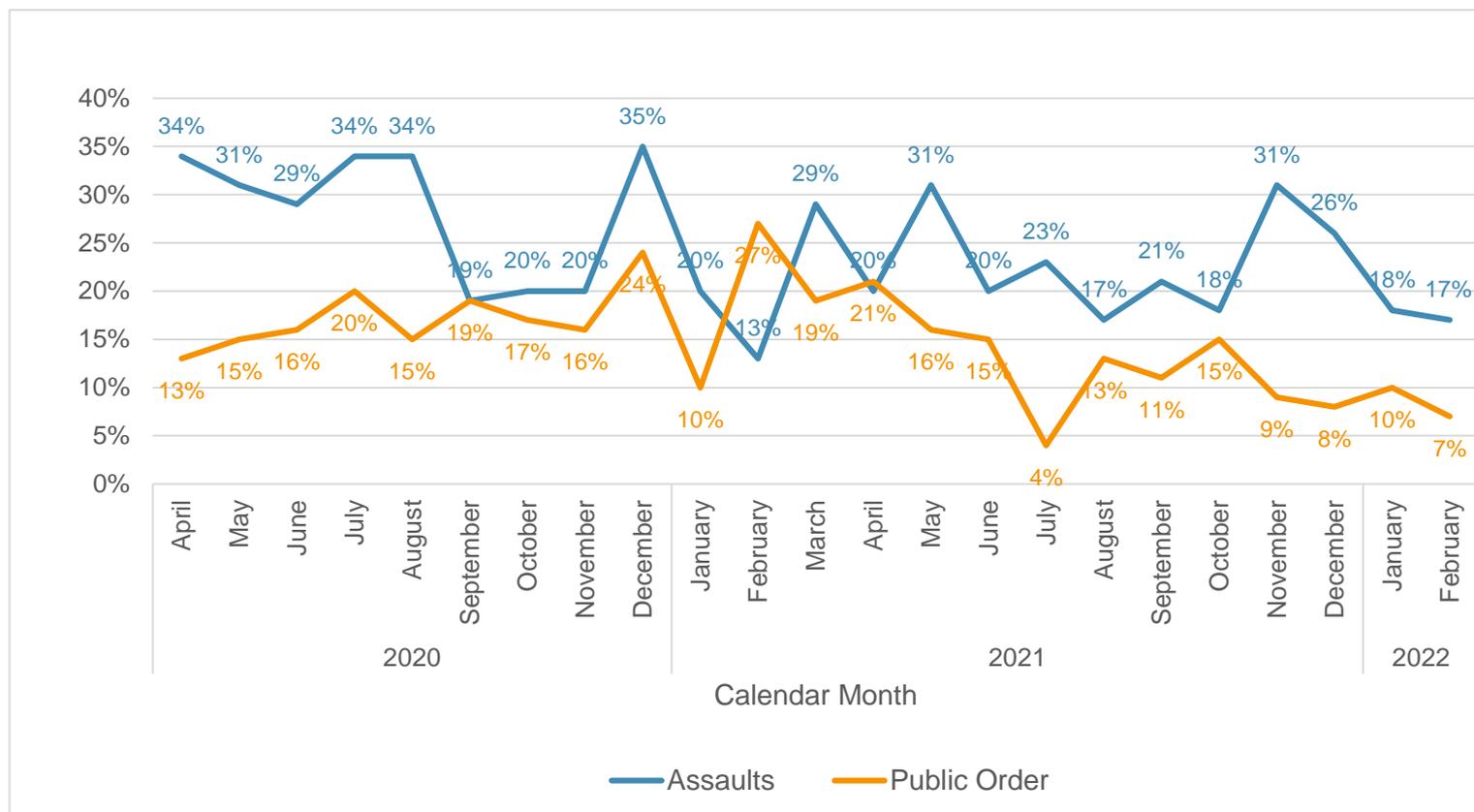
Police recorded work-related violence with injury offence from 2020 to 2022



We know from feedback from our workforce and trade unions that WVA is underreported, particularly verbal abuse. Changes in the reporting of incidents, compounded by the impact of the pandemic on overall crime levels, make it difficult to draw clear conclusions about trends in offending. Our assumption is violent offences that result in injury (actual bodily harm or grievous bodily harm) are more likely to be reported given that staff members may require support, treatment or time off. Police data for violence with injury offences is a more reliable data source for monitoring trends. Work is ongoing to improve staff confidence to report and make it easier for them to do so.

The level of bus-related violence with injury offences between April to August 2022 (69 offences) is 10 per cent lower than the same period in 2021 (77 offences). Police data for LU and other rail modes (LO, DLR, Elizabeth line and London Trams) shows there were 40 violence with injury offences between April to August 2022, compared with 20 in the same five months in 2021. The lower offence numbers on the rail network in 2021 reflect the lower levels of passenger journeys at the time.

Solved rate for WVA offences investigated by the police from January 2020 to February 2022



We are working closely with policing partners to improve the solved rate of offences. This includes prioritising the investigation of WVA incidents, providing access to body-worn video cameras, and continuing to support police investigations by providing Oyster card and CCTV information and victim and witness statements.

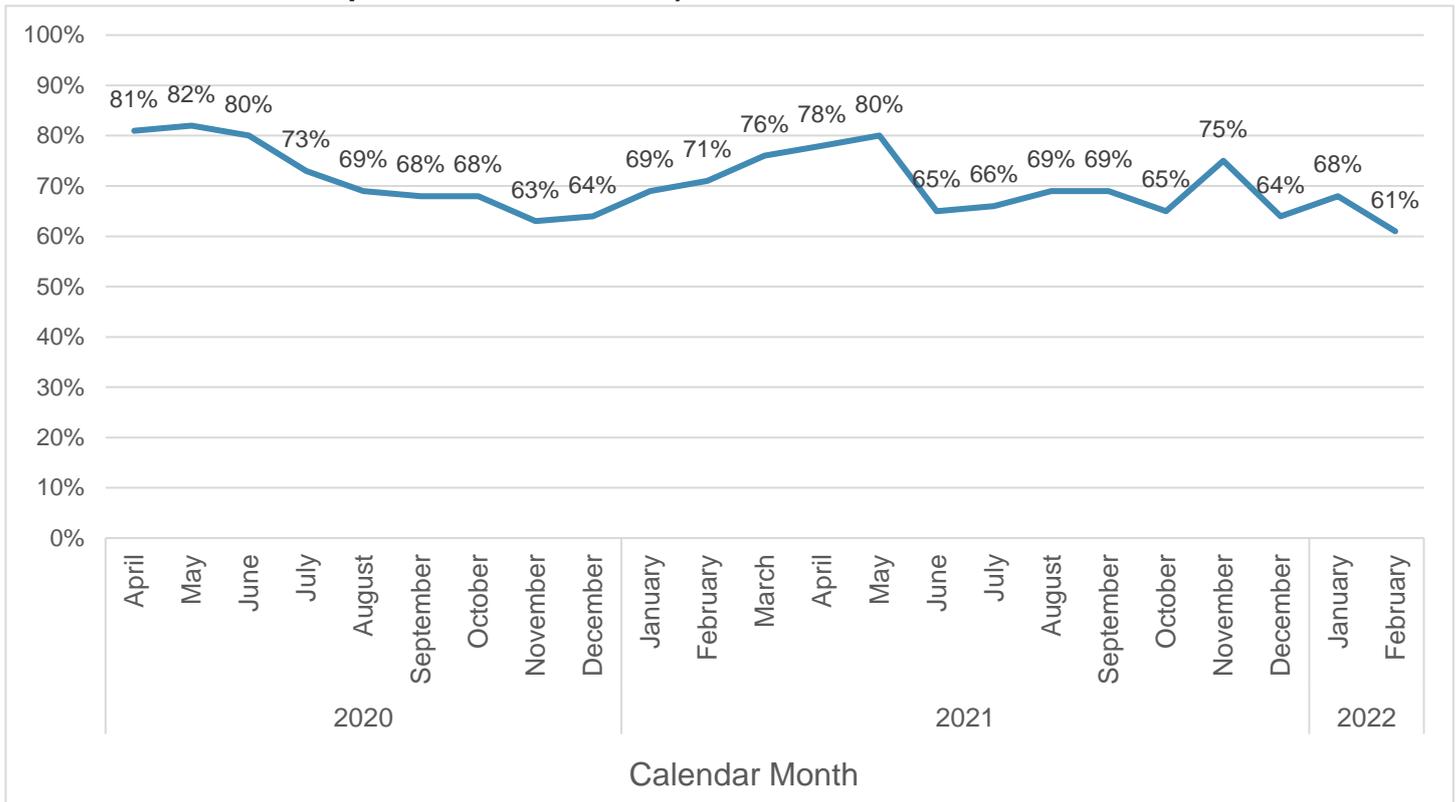
The solved rate is the percentage of offences investigated by the police that have resulted in action against the suspect, for example being charged with the offence, summonsed to attend court, or a restorative justice outcome. Figures are reported six months in arrears to allow time for the police investigation and for cases to progress through the criminal justice process. This section compares figures for the 12-month periods March 2021 to February 2022 (current), with March 2020 to February 2021 (previous).

During the current period the combined solved rate was 18 per cent for violence and public order recorded offences against our workforce – slightly lower than the previous 12-month period (21 per cent).

The solved rate varies by mode during the current period, with a solved rate of 18 per cent for bus-related offences, 21 per cent for LU, and 10 per cent for all other rail modes combined. Across all modes, the solved rates increase in line with the severity

of the incident. The solved rate is higher for violent offences (with or without injury) compared to public order (for example verbal abuse or threatening behaviour), as the police will allocate more resources to identifying and apprehending offenders for the former, with, for example, media appeals for information for violent incidents. The solved rate in the current 12-month period for violence (with/without injury) offences was 23 per cent, compared with 14 per cent for public order offences.

Percentage of Staff Willing to Support from January 2020 to February 2022 (all violence and public order offences)



A key factor in being able to bring offenders to justice is staff support for and consent to partake in the criminal justice process. As part of our strategy, we are encouraging the reporting of incidents, working closely with the police to address staff concerns and improve the support we collectively provide throughout the process.

During the current period, the percentage of staff willing to support a police investigation was 70 per cent for violence and public order recorded offences against staff, down from 73 per cent compared to the previous 12-month period. Due to changing customer numbers, bus drivers make up a greater proportion of staff victims and our data shows they are less likely to support police investigations, particularly public order offences. We are working with the police and bus operating companies to better understand the reasons for this and to address any issues.

Progress against the 2021/22 annual action plan

To deliver our work-related violence and aggression (WVA) Strategy, we committed to doubling the size of our WVA team. In September 2022, we began recruitment for five new roles within the team, with recruitment for another six planned for Quarter 3. We are aiming to have the newly expanded WVA team in place by December 2022. These new roles will work on activity to prevent WVA and provide support to colleagues who may experience it including providing investigation services to our policing partners.

Taking action at WVA hotspots (where we see a high number of incidents, or particularly harmful incidents occurring) is a core part of our prevention work. In September 2022, we launched a year-long project at Stratford LU station, a consistent WVA hotspot. We are working with the local team, specialists from across the organisation and external stakeholders, including our policing partners, to coordinate activity to tackle the causes of this behaviour and understand how we can better support staff that experience it, including understanding better the barriers staff face in reporting incidents.

We are also enhancing reassurance, enforcement and problem-solving capability at the station with a team of Transport Support and Enforcement (TSE) Officers. The team of officers is dedicated to Stratford station and support all TfL modes to prevent WVA and tackle antisocial behaviour. Officers have been deployed from September 2022, and a dedicated “hub team” will be in place from January 2023. The team of TSEs will continue to work very closely with our transport policing partners in the BTP and Metropolitan Police Roads and Transport Policing Command to keep customers and staff safe.

The BTP has enhanced its support for tackling WVA through the establishment of a new Workplace Violence Coordination Unit working in partnership with rail operators to tackle relevant WVA hotspots. In August 2022, we agreed to use Earl’s Court LU station as a pilot location to see how we can work with the BTP to tackle the triggers of work-related violence and aggression together. If successful, we hope to roll this out to other locations across our network.

Another part of our prevention activity is engaging with frontline staff directly, including bus drivers. The WVA team has attended engagement events at Thornton Heath bus garage, Atlanta Boulevard bus stand, Croydon bus garage and Palmers Green bus garage. All feedback from staff has been noted and discussed with our colleagues in Police Liaison and TfL’s Network Management Control Centre.

As students returned to school in September 2022, we helped them use our network safely and respectfully. We identified key locations across our bus and LU network

and coordinated engagement activity with our frontline staff, TSE Officers, and our policing partners to encourage the behaviours that are expected on the transport network. The officers were deployed to priority locations and routes and focused on engaging with students and educating them on safe and responsible travel behaviours, including using a Zip Oyster Card to make their journeys.

Our TSE Officers continue to play a key role in tackling WVA against our people by dealing with anti-social behaviour and enforcing TfL byelaws. In Quarter 2, our officers carried out over 2,000 station/network visits, offering advice and guidance to over 2,000 non-compliant individuals, directing over 400 individuals to leave our network or premises, refusing entry to 353 and physically removing 24 individuals from our service for anti-social behaviour. Officers reported 198 individuals for prosecution. Officers also dealt with 85 safeguarding incidents, providing support for vulnerable customers.

Examples of Successful Prosecutions in Quarter 2

Camden Town LU station

On 11 May 2021, station staff at Camden Town received reports of a male customer making repeated attempts to pull another customer off a train in order to fight them. Two members of staff were repeatedly pushed, and one was punched. The suspect was arrested and charged with assault, assault occasioning actual bodily harm (ABH) against a member of the public, criminal damage and an assault against an emergency services worker. On 22 August 2022, the defendant was sentenced to 17 weeks' imprisonment suspended for 18 months, alcohol abstinence and monitoring for 120 days, 80 hours unpaid work and a victim surcharge of £128.

Stratford LU station

On 3 November 2021, at Stratford station while checking if a customer was fit to travel as he appeared very drunk, a member of staff was grabbed (causing pain and bruising) and sexually harassed. On 16 August 2022, the defendant was found guilty and sentenced for assault and being drunk and disorderly. He was fined £350 and ordered to pay costs of £350, a total cost to the defendant of £700.

Farringdon LU station

On 22 February 2022, two members of staff were assaulted and racially abused at Farringdon station. Police were called and a female was arrested. During the arrest she then assaulted a police officer. On 18 August 2022 the defendant plead guilty to four charges and was ordered to pay £75 compensation to all four victims and a £75 fine for each offence, a total cost to the defendant of £600.

Route 483

On Saturday 21 May 2022 a bus driver of the route 483 bus (Metroline) was spat at by a male over a fare dispute. The bus driver used his spit kit, and the police were able to identify the suspect. He was charged with common assault and appeared at North West London Magistrates Court on 19 July 2022 and was sentenced to eight weeks imprisonment and ordered to pay an £128 victim surcharge.

Route 427

On Thursday 23 June 2022 a bus driver of the route 427 (Abellio) was racially abused by a male and threatened with stabbing (no knife was seen). The police were called, and the male was arrested at the scene. He appeared in West London Magistrates Court on 8 July 2022 and remanded on bail until 29 July 2022 when he was given a community order, an unpaid work requirement, a rehabilitation order and ordered to pay costs totalling £199.

Route 422

On Friday 8 April 2022 a bus driver of the route 422 (Stagecoach) was assaulted by a male after a fare dispute. The male was so angry and violent that the bus driver tried to restrain him for his own safety and was subsequently bitten and punched. The police were called and arrived at the scene where they arrested the male and charged him with ABH. The male appeared at South East London Magistrates court on 10 August 2022 where he received a community order, an unpaid work requirement for 100 hours, and ordered to pay a victim surcharge of £95, compensation of £100 and £85 costs.

Significant incidents

This section outlines significant incidents that have occurred during Quarter 2 and since the last report. It also provides an update to significant incidents of note.

Fatal incident at Waterloo LU station – 26 May 2020

In September 2022, the inquest touching on the tragic death of Gama Warsame at Waterloo station on 26 May 2020 took Mr Warsame boarded a northbound Bakerloo line train at Lambeth North station on the morning of 26 May 2020. When he exited the train at Waterloo, he fell into the gap between the northbound platform and the train. He was tragically struck by a train while he was trying to get back on the platform. Our thoughts and deepest condolences remain with Mr Warsame's family and friends.

Previously the Rail Accident Investigation Branch (RAIB) had made three recommendations to LU. We communicated regularly with the ORR to ensure they were satisfied we were addressing the recommendations made in the RAIB report.

T, the jury's conclusion was that Mr Warsame's death was an accident. The jury also concluded that a factor possibly underlying the accident was that LU had neither fully quantified the level of risk at the platform at Waterloo during the COVID-19 pandemic, nor considered additional measures to reduce the likelihood of a person falling down the gap and remaining at this location

The Coroner will not be issuing a prevention of future deaths report in relation to this incident. At the end of the inquest, he thanked the witnesses who gave evidence and gave a very touching tribute to Mr Warsame's family.

Fatal high-speed loss of control at Park Royal – 22 August 2022

In the early hours of Monday 22 August 2022, the driver of a sports utility vehicle (SUV) that was travelling at very high speed lost control of the vehicle as it headed west on the A40 Western Avenue. The vehicle left the carriageway and landed on the tracks of the Piccadilly line at Park Royal tube station.

Sadly, one of two female passengers in the car was killed, while the other sustained life-changing injuries. The driver was also seriously injured. The SUV also passed through a charging point for electric vehicles and in doing so injured (though not seriously) the driver of a vehicle that was being charged. As a result of the vehicle coming to rest on the Piccadilly line, the incident was reported to the ORR and the RAIB.

Fatal e-scooter and tram collision – 22 August 2022

On 22 August 2022, a tram collided with a person riding a privately owned e-scooter at an uncontrolled pedestrian crossing point between Ampere Way and the tram stops

at Waddon Marsh. The tram driver applied the emergency brake but could not prevent the collision.

Tragically, the e-scooter rider died in hospital a few days later. A full investigation is under way and both the RAIB and the ORR have been informed. Customers on board the tram at the time who may have witnessed the incident have been offered assistance through our incident support service, the [Sarah Hope Line](#).

Health

COVID-19

Since the start of the coronavirus pandemic, our focus has been to protect the safety and health of our customers and workforce. This remains our focus as we emerge out of the pandemic and transition to living with COVID-19.

Deaths in service

Our sincere condolences remain with the families and loved ones of the 105 members of our workforce who have sadly passed away from COVID-19 since the start of the pandemic. We are working on a memorial site which will provide a permanent location to remember those transport workers who lost their lives to COVID-19. We expect this to open early in 2023. Everyone at TfL pays tribute to the vital role they played in our fight against the pandemic.

Our Employee Assistance Programme continues to be available to all employees and their dependants, and provides support, guidance, and information on a range of topics, including bereavement. The safety of all our staff and customers continues to be our top priority, and we are absolutely committed to doing everything in our power to keep everyone safe on our network.

Face coverings on public transport

The Government announced that it would no longer be compulsory for people to wear a mask on public transport and in shops from 27 January 2022. From 24 February 2022, we removed the requirement set out in our Conditions of Carriage for customers to wear face coverings.

From 13 June 2022, we changed our customer and staff messaging from strongly recommending to encouraging people to take appropriate action to keep themselves safe, including wearing a face covering if this helps them to travel and work with confidence.

We are continuing to provide free Type IIR masks for those working in our operational areas.

Reusable masks for our staff

Following a huge uptake of the TfL-branded reusable face masks and the initial issue across TfL of 20,000 the masks, they have now been added to the Hayley Rail catalogue for ordering as required for each business area.

COVID-19 testing schemes

Having transitioned from COVID-19 test centres to giving out free lateral flow test kit boxes to staff, we are in a new phase of providing COVID-19 testing to our staff. Managers can now order lateral flow test kit boxes for their team through the Hayley Rail catalogue.

Findings from Imperial College London's study

We have now received the full TfL-commissioned study from Imperial College London, who carried out monthly air and surface sampling for coronavirus across the bus and Tube network from September 2020 to June 2022. The sampling and analysis techniques adopted were consistent with the latest research approaches and World Health Organisation protocols.

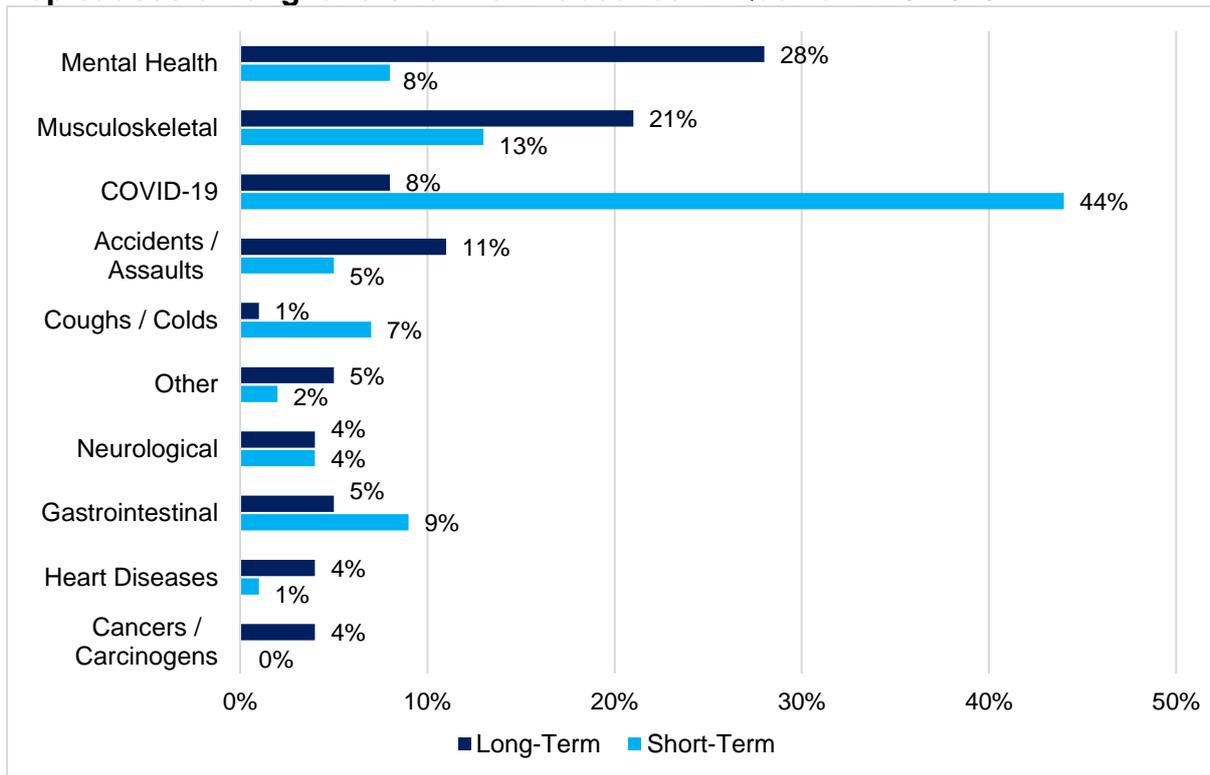
During the extensive sampling period, only one positive sample was detected, on an Oyster/contactless reader on the ticket barriers at Waterloo London Underground station in May 2022. This positive sample was not expected to result in a transmissible level of viral load, and all other samples taken during the period were negative. This is lower than any other public transport network in five different studies (Barcelona, Spain; Abruzzo, Italy; Tehran, Iran; Quito, Ecuador; and Recife, Brazil) where traces of coronavirus were found in between two to 67 per cent of samples.

Sickness absence data

When looking at our sickness absence data, short-term absence is any absence of fewer than 28 days and long-term absence is of 28 days or more.

By looking at the underlying causes of absence in detail, we gain meaningful insight into where we can best target preventative measures. Around 60 per cent of absences at any time are caused by long-term sickness.

Top causes of long- and short-term absence in Quarter 2 2022/23



In Quarter 2 2022/23, COVID-19 remained the top cause of short-term absence and has significantly increased from 30 per cent in the previous quarter to 44 per cent in Quarter 2 2022/23. This can be explained by the latest Government figures of the R rate for England increasing from 1.1 to 1.3. For the week ending 3 October 2022 in England 1,513,700 people tested positive, equating to 2.78 per cent of the population or around one in 35 people. All other absence types are holding fairly stable and the main spike in absence levels occurred in period 4 (26 June to 23 July 2022).

In Quarter 2 2022/23, the top two causes of long-term sickness absence remained at the same levels as Quarter 1. Mental health remained the top cause, accounting for 28 per cent of all long-term absences. Musculoskeletal-related absence was again the second highest cause at 21 per cent. These categories remain the top two causes typically accounting for the majority of long-term sickness absence in the UK. Our Occupational Health team has several initiatives aimed at prevention of ill health and to support those who become unwell to return to work earlier. Some of the events we hosted this quarter included a Wellbeing Roadshow and a free webinar on Mental Health First Aid Awareness.

Health updates

Health Surveillance

Earlier this year, we increased our focus on improving how we manage health risks to our workforce. We updated our approach to managing health surveillance, implementing health surveillance programmes for areas of our workforce who may need it.

Our Health Surveillance Action Plan focuses initially on potential risk to the respiratory health, dermal health and exposure to lead of our workforce. Over 430 members of staff have been trained to deliver skin checks to their teams, which allows us to ensure that anyone who needs it gets the right medical attention.

Our health surveillance plan has helped us identify where we could replace hazardous substances with safer substances, e.g. using non-lead solder instead of lead solder. Where some of our workforce still need to work with lead, because of the age of some of the assets they work with, we are ensuring their health is monitored regularly through the use of respiratory sensitisers. Over 250 staff have been referred to our Occupational Health team for assessment.

This quarter, we have started to monitor and report on health surveillance to our senior teams. This will help us identify areas where further support, action and intervention is required quickly.

Well@TfL

Well@TfL Mobile Health Bus

The Well@TfL mobile health bus continues to make its way around the network, delivering wellbeing checks, health surveillance and medical checks onsite. The mobile health bus has now visited 10 locations, staying at most for two to three weeks. The next locations are Poplar, Stratford Market and Northumberland Park depot.

- 1,200 employees have received an onsite wellbeing check
- 467 employees have visited the health bus
- 123 employees have attended a medical/health surveillance on the health bus
- The average GP referral rate via wellbeing checks is 21.3 per cent
- The clinician utilisation to available slots on the health bus is 93.4 per cent

Acton Pilot Project

The Well@TfL Acton pilot project continues to deliver health and wellbeing priorities, including the appointment of wellbeing champions, with one champion specifically for night staff, a traditionally hard-to-reach group. Other positive outcomes include changes to staff areas to provide more engaging spaces, implementing wellbeing into

projects from the design phase and working with canteen contractors to improve food choices.

Roczen (previously called RESET Health)

TfL joined forces with the health platform Roczen in December 2021 to support our employees in taking control of their health. Specifically, the programme aims to reverse the conditions of those living with diabetes or prediabetes, as well as those who are obese or overweight.

The table below presents the outcomes of members at the key 24-week milestone:

Indicators	Week 24 Average (Reduction)	Percentage
Weight (Kg)	8.6kg	-8.5 per cent
BMI (kg/m ²)	3.0kg/m ²	-8.6 per cent
Waist Circumference (cm)	9.0cm	-8.5 per cent
HbA1c	1.9 mmol/mol	- 4.4 per cent

Headline Outcomes: (data from 38 employees who onboarded the programme more than 24 weeks ago)

- Of the 38 members who have reached the 24-week mark, over 45 per cent lost more than five per cent of their body weight and of these, 10 members lost more than 10 per cent of their body weight.

There has been a 17 per cent reduction in the proportion of members who are living with obesity compared with when they first joined the programme.

A second tranche has been launched and a further 50 employees have had the change to join Roczen. From those, 41 per cent are operational staff, of which 26 per cent perform safety critical roles.

Environment

Air Quality

Expanded Ultra Low Emission Zone six months on report

The report updates on the impact from six months since the Ultra Low Emission Zone (ULEZ) expanded and more than a year on from the enforcement of tighter Low Emission Zone (LEZ) standards. The data indicates that these schemes are having a significant impact on the number of older, more polluting vehicles seen driving in London and the levels of harmful pollution Londoners are exposed to.

A bigger share of vehicles in London are cleaner

Six months after the launch of the ULEZ expansion, nearly 94 per cent of vehicles seen driving in the whole zone meet the strict ULEZ standards on an average day. This is up from 87 per cent in the weeks before the zone expanded and up from 39 per cent in 2017 when impacts associated with the ULEZ began. The compliance rate on boundary roads is 90 per cent and the compliance rate in outer London is 85 per cent.

There are fewer older, more polluting vehicles in the zone

There were 67,000 fewer non-compliant vehicles in the zone on an average day in May 2022 compared with the period right before the ULEZ expanded, down from an average of 124,000 daily vehicles (based on indicative data gathered between 12 and 20 October 2021 prior to launch). This is a reduction of 54 per cent.

The Low Emission Zone continues to have an impact

Large and heavy vehicles, which fall under the London-wide LEZ, have a compliance rate of 96 per cent, up from an estimated 48 per cent in February 2017.

There has been an overall reduction in vehicles and traffic flows in the zone

Overall, the daily average number of vehicles seen in the zone in May 2022 was 21,000 fewer compared to October 2021 prior to the scheme being launched, a reduction of two per cent. Early estimates suggest traffic flows are also around two per cent lower within the expanded zone than the weeks before the expansion launched. However, many factors are currently affecting traffic trends in London and we will continue to review the data to better understand the impact of ULEZ expansion in the longer term.

Drivers are ditching diesel cars

On average there were 44,000 fewer diesel cars driving in the zone each day, a 20 per cent decrease since the weeks before the ULEZ expanded.

This means people in the zone are breathing cleaner air

The amount of pollution in the air – the concentration - is what ultimately impacts people's health. Harmful nitrous oxide (NO₂) concentrations alongside roads in inner London are estimated to be 20 per cent lower than they would have been without the ULEZ and its expansion. In central London, NO₂ concentrations are estimated to be 44 per cent lower than they would have been. This decrease in concentrations close to roads would have also led to reduced air pollution in locations away from traffic.

The air is also cleaner on the boundary

All monitoring sites on the boundary of the expanded zone have seen reductions in NO₂ concentrations, with an estimated 17 to 24 per cent reduction in pollution on the boundary compared to without the ULEZ.

Climate Emergency

Trial of cooling solutions for the deep Tube network

This summer we completed the next stage of trials of a new state-of-the-art cooling panel solution. The trial was completed on a disused platform at Holborn LU station and was undertaken to test its suitability for reducing temperatures on TfL's deep Tube network (Bakerloo, Central, Jubilee, Northern, Piccadilly, Victoria and Waterloo & City lines).

The cooling panel aims to provide cooler air to passengers waiting on platforms, as well as mitigating potential temperature increases associated with increased train frequencies introduced by in-flight and future trains and signalling upgrade programmes.

The cooling panel works by circulating cold water around pipework within a curved metal structure to chill it. It then circulates air, using an industrial-sized fan, through gaps in the panel's structure, which in turn is cooled. The panel could also have the additional benefit of halving operational and maintenance costs compared to existing technology used to manage temperatures on Tube lines.

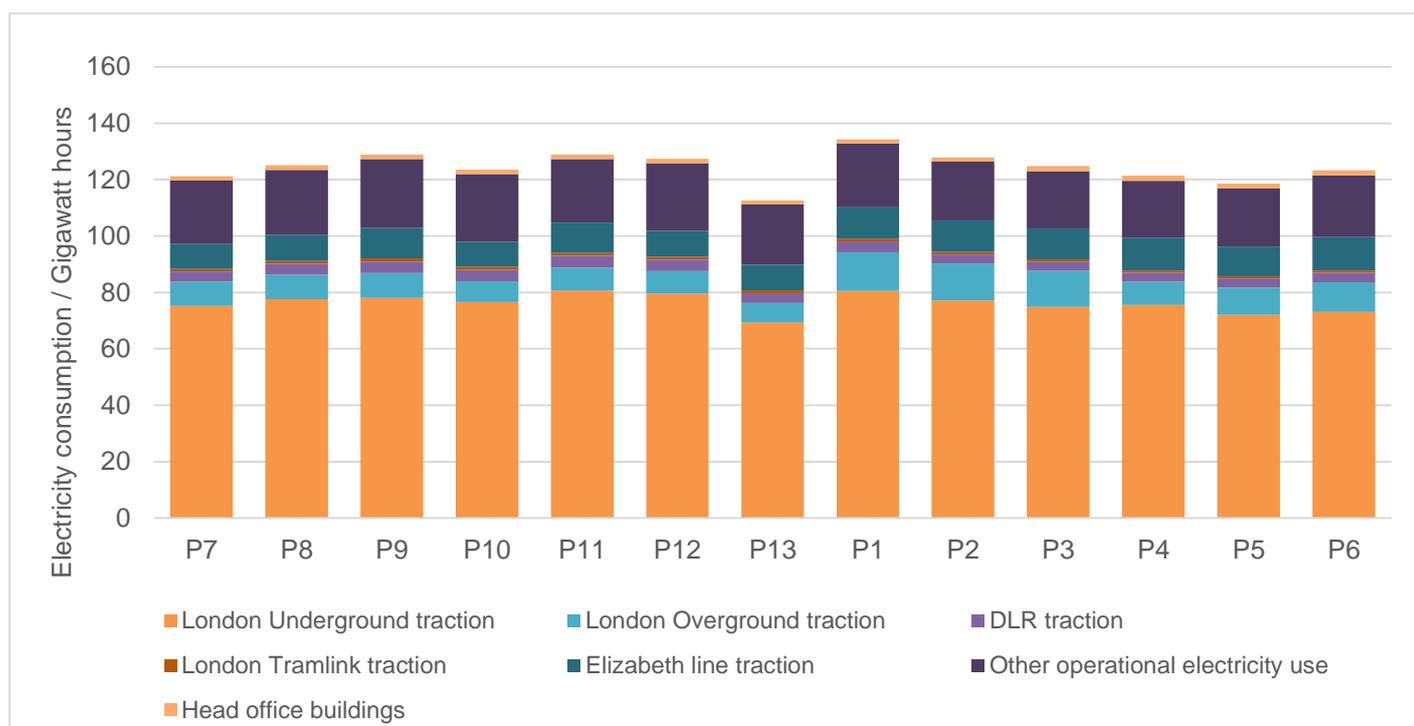
The trial was part of the Government's TIES Living Lab programme, a collaboration of 25 partners focusing on 10 infrastructure, data research and digital demonstrator projects, of which the cooling panels are one. The cooling panel project was 70 per cent funded by the Department for Transport and Innovate UK following a successful bid by the Piccadilly Line Upgrade (PLU) team. The convection cooling system has

been designed by TfL and developed by SRC Infrastructure, which also managed its build.

Following the successful trial at Holborn LU station, the intention is to complete the proof of concept with a trial in an operational platform, currently planned for Knightsbridge LU station. This will take no more than a year and will facilitate a ready-to-roll-out cooling solution to be included in plans for future upgrades, or which could be available for a future standalone scheme in response to emerging adaptation challenges.

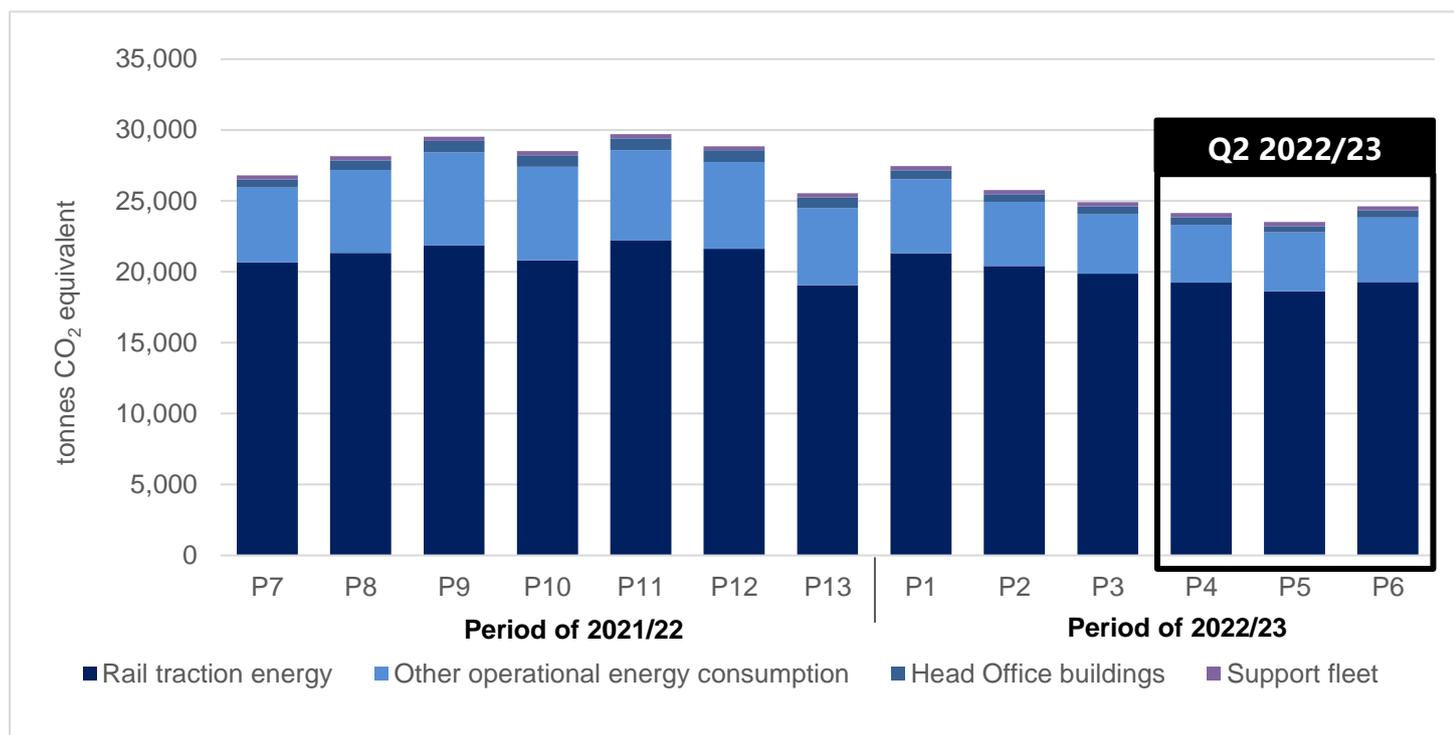
Energy consumption and carbon emissions from our operations

Electricity consumption – provisional – Quarter 2 2022/23 (Gigawatt hours)



Our electricity consumption this quarter was one percent higher than Quarter 2 2021/22. In response to the increased consumption reported during Quarter 1 2022/23 due to Network Rail traction energy billing, LO has installed new electricity meters on its trains and continues to engage with Network Rail to resolve the issue.

CO₂ emissions (excluding buses) Quarter 2 2022/23 (tonnes CO₂ equivalent)



Carbon dioxide emissions from operations, excluding buses, track closely to electricity consumption. Emissions decreased by approximately eight per cent this quarter compared to the same period in 2021/22, partly due to a reduction in emissions intensity of grid electricity.

Sustainability training, engagement and embedding

Executive Sustainability Training and Sustainability Summit

In November 2022, we will be running sustainability training for the TfL Executive Committee. The training will be hosted at a local social enterprise (to be confirmed) with a briefing and workshop sessions run by Will Day, Sustainability Advisor to PricewaterhouseCoopers UK. Will is also a fellow of the University of Cambridge Institute for Sustainability Leadership and previously sat on the UK's Sustainable Development Commission.

As result of the training, the TfL Executive Committee will have a stronger understanding of sustainability and the lens through which they see the world, their work and their lives, and a solid understanding of the issues and key information. It will enable them to engage and lead with confidence on sustainability.

Following this, we will explore how to best roll out this training to all of TfL's senior leaders, as well as making the key messages, information and tools available to everyone in TfL.

To support this, we are also planning a TfL Sustainability Summit in 2023. It will be internally focused, similar to TfL's Anti-Racism Journey event held on 9 June 2022. It will help us to continue to build momentum and strengthen our engagement and understanding amongst TfL colleagues in relation to the issues of sustainability. Importantly, it will encourage our people to have brave conversations about some of the more challenging aspects of sustainability and bring their whole selves to work.

Green Bond

The Greater London Authority (GLA) is planning to raise over £500m via green bonds to finance zero carbon projects across the GLA group and London. TfL is planning to bid for this opportunity, and as such has been developing a pipeline of projects that could be considered for funding, which we will be submitting to the GLA. The bond is expected to be issued in early 2023 and, if successful, provide funding from 2023 to 2026 and accelerate our progress to achieve net zero carbon from our operations by 2030.

Responsible Procurement Implementation Plan published

The GLA group-wide Responsible Procurement Implementation Plan (RPIP), of which TfL is a signatory, was launched in September 2022 and supports the delivery of our Corporate Environment Plan (CEP) through procurement.

As a result of the plan:

- All suppliers of contracts over £5m must provide carbon reduction plans
- New contracts from 2025 will require zero-emission deliveries to GLA Group sites
- The GLA Group will work towards purchasing 20 per cent of goods and services from small and medium-sized enterprises (SMEs), either directly or indirectly, in line with the London Anchor Institutions Charter. This ambition will involve further work to understand the constraints, deliver and effectively measure
- Suppliers are expected to be willing to have trade union recognition agreements
- Tenders above certain values will have a minimum of 10 per cent weighting applied to Social Value, which recognises bidders who will deliver community, environmental and local economic benefits

More detail on the specific targets of the RPIP will be provided under a separate paper and agenda item at the November 2022 meeting of the SSHR Panel.

Carbon Literacy Training Programme

We have successfully completed the pilot phase of our Carbon Literacy training programme, in which a total of 150 colleagues attended a one-day course on the basics of carbon and climate change.

We have now launched further courses which are available more widely and are on track to train 500 people by the end of 2022/23.

Sustainable Resources

Devices for schools initiative

As part of an employee-led 'Devices for Schools' initiative, TfL's Technology & Data teams have been working with a number of primary, secondary and specialised schools across London to supply them with redundant TfL IT equipment.

In the summer term of the 2021/22 academic year, laptops and iPads were distributed to two schools in Bromley and Muswell Hill, where they will be used in classrooms. In September 2022, two further schools in Bermondsey and Enfield benefitted.

This initiative helps reduce electronic waste through the reuse of obsolete tech (personal or corporate devices) which has a relatively low/non-existent resell value to TfL and which might otherwise have been recycled. There is a significant cost saving for the schools involved where there is a continuous demand for equipment in classrooms and new technology is increasingly expensive to purchase. TfL's obsolete tech has now contributed to 10 schools receiving over 150 perfectly usable devices as part of this initiative.