



Delivering the Mayor's Transport Strategy 2023/24

July 2024 (Draft)

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Summary

This is the seventh annual progress report summarising the delivery of the Mayor's Transport Strategy and relevant elements of the London Environment Strategy. The report provides an analysis of key travel trends in the financial year 2023/24 and our progress in achieving the aims of the Mayor's Transport Strategy. It outlines what we have delivered in the three key areas of the Mayor's Transport Strategy – Healthy Streets and healthy people; A good public transport experience; and New homes and jobs.

During 2023/24, travel demand steadily recovered across all modes following the impact of the coronavirus pandemic, with public transport demand returning to around 90 per cent of pre-pandemic levels. There is still some variation in demand recovery by day of the week, particularly on London Underground, with weekend demand largely recovering but weekday demand recovering slower, particularly on Fridays.

Overall, public transport ridership is nine per cent higher than in 2022/23. This has no doubt been helped by the opening of the Elizabeth line, which was used for more than 200m journeys in the last year compared to 128.5m in 2022/23. On the bus network, the most significant change was the launch of the Superloop, which added more than six million scheduled bus kilometres of additional limited stop express bus services to the capital's network per annum. The latest data shows increasing demand for Superloop services, with average growth on all Superloop routes since June 2023 nine per cent higher than the network average. We have also seen an encouraging increase in levels of cycling in 2023, with weekday cycling kilometres 6.3 per cent higher than the previous year.

Early estimates show that in 2023 the proportion of Londoners using active, efficient and sustainable ways of travel - walking, cycling or by public transport – was 64.2 per cent. This is an increase from 62.3 per cent in 2022 as we work towards our 2041 target of 80 per cent.

In 2023/24, we continued spending on the TfL-led Healthy Streets programme, along with allocating over £86m to London boroughs, including over £50m in outer London. Delivery in 2023/24 shows that we, working with the London boroughs, have more than quadrupled the size of the strategic cycle network, from 90km in 2016 to 390km by June 2024. We also introduced 10km of new bus lanes to help reduce bus journey times.

To improve the safety of all Londoners we have taken significant action including by further rolling out 20mph speed limits on the Transport for London Road Network, launching our Bus Safety Strategy and gaining formal approval for the new Progressive Safe System (PSS) for our Direct Vision Standard.

To improve our environment and tackle toxic air pollution, we expanded the Ultra Low Emission Zone (ULEZ) across all London boroughs in August 2023 making it the largest zone of its kind anywhere in the world. Alongside this we launched a Mayoral funded £210m scrappage scheme to help eligible vehicle owners switch to cleaner forms of transport. We now have more than 1,400 zero emission buses, meaning we have the largest zero emission bus fleet in Western Europe. We launched our first Green Infrastructure and

Biodiversity Plan which will help us protect, connect and enhance our green infrastructure and biodiversity while maintaining our safety standards and service reliability.

Our property company, Places for London, will soon reach the milestone of 1,000 new homes with a further 4,300 under construction. To date, 47 per cent of these homes are affordable against a target of 50 per cent. We also announced a new major strategic partnership with Network Rail which aims to accelerate the delivery of regeneration and development activity across London, particularly areas owned by us or other public sector landowners.

The policies embedded in the Mayor's Transport Strategy provide strong direction and as this report shows, we are making good progress in delivering these policies. An increased pace of delivery is required, with an enhanced focus on ensuring those living and working in outer London have the same transport opportunities as those in inner London. Integral to achieving this will be further funding to secure longer-term financial stability. In December 2023, we welcomed £250m of Government funding, which enables us to continue to deliver our major rolling stock and signalling programmes in 2024/25. However, our finances remain constrained and we need longer-term capital funding certainty in order to deliver vital improvements to our transport network. All of the Mayor's Transport Strategy outcomes we report on here are inter-linked and progress on one will benefit the others. In the immediate future securing this investment, improving bus journey times and improving safety are our three main priorities for unlocking the Mayor's Transport Strategy vision.

1. Purpose and scope

This is the seventh annual progress report summarising the delivery of the Mayor's Transport Strategy.

This report details changes in travel over the last year, the progress we have made in delivering the key outcomes in the Mayor's Transport Strategy and the issues we need to consider as we seek to accelerate the delivery of this strategy.

1.1. The Mayor's Transport Strategy

The Mayor's Transport Strategy looks to reduce Londoners' dependency on cars and increase the proportion of trips that are active, efficient and sustainable - walking, cycling and public transport - to an ambitious 80 per cent by 2041.

In addition to the 80 per cent target, the Mayor's Transport Strategy is focused on achieving nine outcomes under three themes:

1.1.1 Healthy Streets and healthy people

- **Active:** London's streets will be healthy and more Londoners will travel actively
- **Safe:** London's streets will be safe and secure
- **Efficient:** London's streets will be used more efficiently and have less traffic on them
- **Green:** London's streets will be clean and green

1.1.2 A good public transport experience

- **Connected:** The public transport network will meet the needs of a growing London
- **Accessible:** Public transport will be safe, affordable and accessible to all
- **Quality:** Journeys by public transport will be pleasant, fast and reliable

1.1.3 New homes and jobs

- **Sustainable:** Active, efficient and sustainable travel will be the best option in new developments
- **Unlocking:** Transport investment will unlock the delivery of new homes and jobs

1.2. The London Environment Strategy

We have a pivotal role in delivering the London Environment Strategy, published in May 2018. In addition to measures set out in the Mayor's Transport Strategy for environmental improvements to the transport system, including the Ultra Low Emission Zone (ULEZ), we are largely responsible for addressing key elements outlined in the London Environment Strategy. These include responsible procurement, reducing waste, our energy strategy, climate change adaptation, work to accelerate the reduction in carbon dioxide (CO₂) emissions and delivering an increase in green infrastructure and a net gain in biodiversity.

1.3. The London Plan

The London Plan 2021 is the Spatial Development Strategy for Greater London. It sets out a framework for how London will develop over the next 20-25 years and the Mayor's vision for Good Growth. The London Plan is part of the statutory development plan for London and directly informs decisions on planning applications across the capital. Borough Local Plans should conform with the London Plan to ensure that the planning system for London is consistent with strategic objectives.

The current London Plan includes the highest housing target London has ever had, at 52,000 new homes a year. It embeds active, efficient and sustainable travel in London through promoting high-density, mixed-use sustainable development with associated public transport investment and a restrictive approach to car parking provision.

We will provide advice and support to the Greater London Authority in the future review of the London Plan.

1.4. Our strategy

Our strategy was published in 2023 and is structured around five key themes: customers, safety and security, our green future, colleagues and finance. These bring everything together, outlining how we'll deliver against the Mayor's Transport Strategy outcomes. This approach guides our planning processes, from our individual objectives and local plans to our Business Plan. This then cascades to our annual scorecard, which tracks our progress over each year on our priorities.

1.5. Mayor's Transport Strategy Tracker

We report progress on delivering each Mayor's Transport Strategy outcome via Travel in London reports and this annual update to the Board. We have also embedded many of the outcomes in the TfL Annual Scorecard and vision and values. However, we recognise many of the outcomes are not suitable for tracking in an annual scorecard. Having a detailed, technical, evidence-based assessment of the progress being made towards the outcomes improves transparency and to support this we have developed a separate data-led Mayor's Transport Strategy tracker. The purpose of this tracker is two-fold: to act as an in-year performance management tool and to provide strategic context for the reporting of projects, initiatives, and programmes across the nine Mayor's Transport Strategy outcomes.

The 12 measures within the Mayor's Transport Strategy Tracker are shown in Table 1. Further contextual data relating to these outcomes can be found in our [Travel in London reports](#).

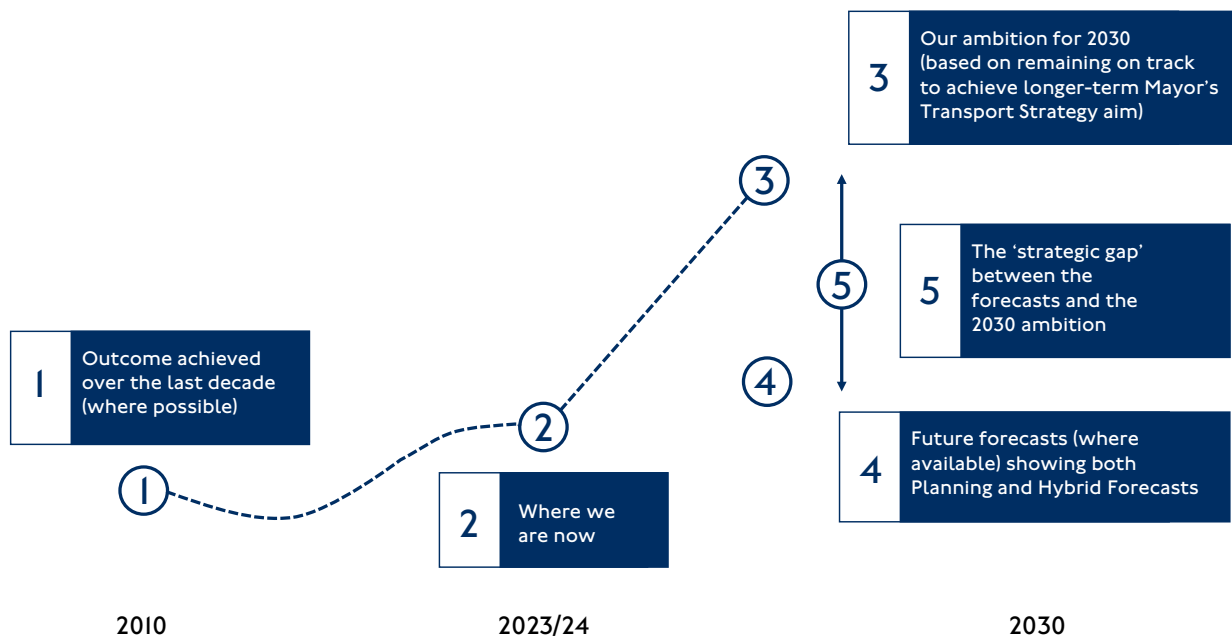
This is the third annual update where we have reported on the tracker outcomes. For each metric, data is provided to show the historical trend, where we are currently and the straight-line trajectory to the Mayor's Transport Strategy aim (Figure 1).

The Mayor's Transport Strategy Tracker metrics for each of the outcome areas are provided in chapters three, four and five, together with narrative on how activities across the previous year have supported our longer-term ambitions. Where a 'strategic gap' has been identified, we discuss future challenges in chapter six and how updated policies or new services, schemes or infrastructure may accelerate delivery of the Mayor's Transport Strategy.

Table 1: Mayor's Transport Strategy outcomes and Tracker measures. Source: TfL

Outcome	Measure	Mayor's Transport Strategy 2041 aim
Mode share	Percentage of trips by active, efficient and sustainable modes	80% of trips
Active	Percentage of Londoners doing 20 min active travel per day	70% of Londoners
Safe	Number of people killed or seriously injured on London's roads	Zero
Safe	Number of people killed or seriously injured on or by a London bus	Zero
Safe	Number of customers and workforce killed or seriously injured	Zero
Efficient	Number of car trips crossing strategic cordons	3 million fewer trips
Green	Average roadside NO ₂ concentration in central, inner and outer London	60-70% reduction, equivalent to 94% emissions drop
Green	All CO ₂ emissions from London's transport network	72% reduction – potential for more ambitious aim
Connected	Percentage of Londoners living within 400 metres of a bus stop	Not directly in Mayor's Transport Strategy, but assumes it is maintained at current high level
Accessible	Percentage reduction in additional journey time by step-free routes	50% reduction (accelerated target by 2030)
Quality	Percentage of rail travelled km in crowding above two persons per square metre	10-20% reduction
Quality	Average bus speed	5-15% improvement
Sustainable & Unlocking	Proportion of population living in PTAL 4 or higher, in Greater London and Opportunity Areas	36% for Greater London 56% for Opportunity Areas (2030)

Figure 1: The five elements of the Mayor’s Transport Strategy Tracker measures.
Source: TfL



Planning and Hybrid Forecasts have been provided where available to demonstrate uncertainty over the period to 2030. Both these Forecasts contain the same portfolio of investment limited to only those schemes that are funded and committed. The Planning Forecast includes a modest increase in working from home compared to pre-pandemic forecasts, with levels of online shopping remaining as forecast before the pandemic and London getting back on track for achieving pre-pandemic projections of population growth by 2041. The Hybrid Forecast, however, incorporates evidence on how London is changing. This includes the latest population and employment projections, more working from home for office workers, a greater shift towards online shopping, greater flexibility to undertake leisure trips as part of the working day and slightly higher relative car ownership.

2. Recent patterns of travel demand

2.1. Summary

During 2023/24, London saw a steady and continuing recovery of travel demand from the unprecedented lows of the coronavirus pandemic. By March 2024, overall public transport demand across all modes stood at around 90 per cent of the pre-pandemic baseline. Road traffic was also at 90 per cent. It is now clear, however, that the pandemic and the adaptations that went with it have left some important legacies for transport in London, particularly changes to public transport demand as a result of more hybrid working.

Across the whole of 2023, the proportion of all trips in London made by active, efficient and sustainable modes was 64.2 per cent, an increase from 62.3 per cent in 2022. This increase is linked to the recovery in ridership on the public transport network. In addition there are also signs of encouraging post pandemic legacies for walking and cycling, with daily cycling stages in 2023 up by 20 per cent against 2019.

2.2. Recent travel demand trends

Figure 2 shows demand on the main transport networks by financial year, from 2019/20 to 2023/24. Bus demand saw a four per cent increase, from 1,789 million trips in 2022/23 to 1,863 million trips in 2023/24. Average Tube demand in 2023/24 recovered to 88 per cent of the pre pandemic baseline, a 10 per cent increase in journeys compared to 2022/23. Bus demand is more stable across the days of the week compared to the Tube.

For other modes, the position at the end of 2023/24 financial year can be summarised:

- DLR and London Overground saw seven per cent and 15 per cent increases in demand over the 2023/24 financial year and as of March 2024, were typically seeing about 77 and 95 per cent of pre-pandemic demand
- London Trams demand in 2023/24 was five per cent lower than in 2022/23, and was around 70 per cent of pre-pandemic levels

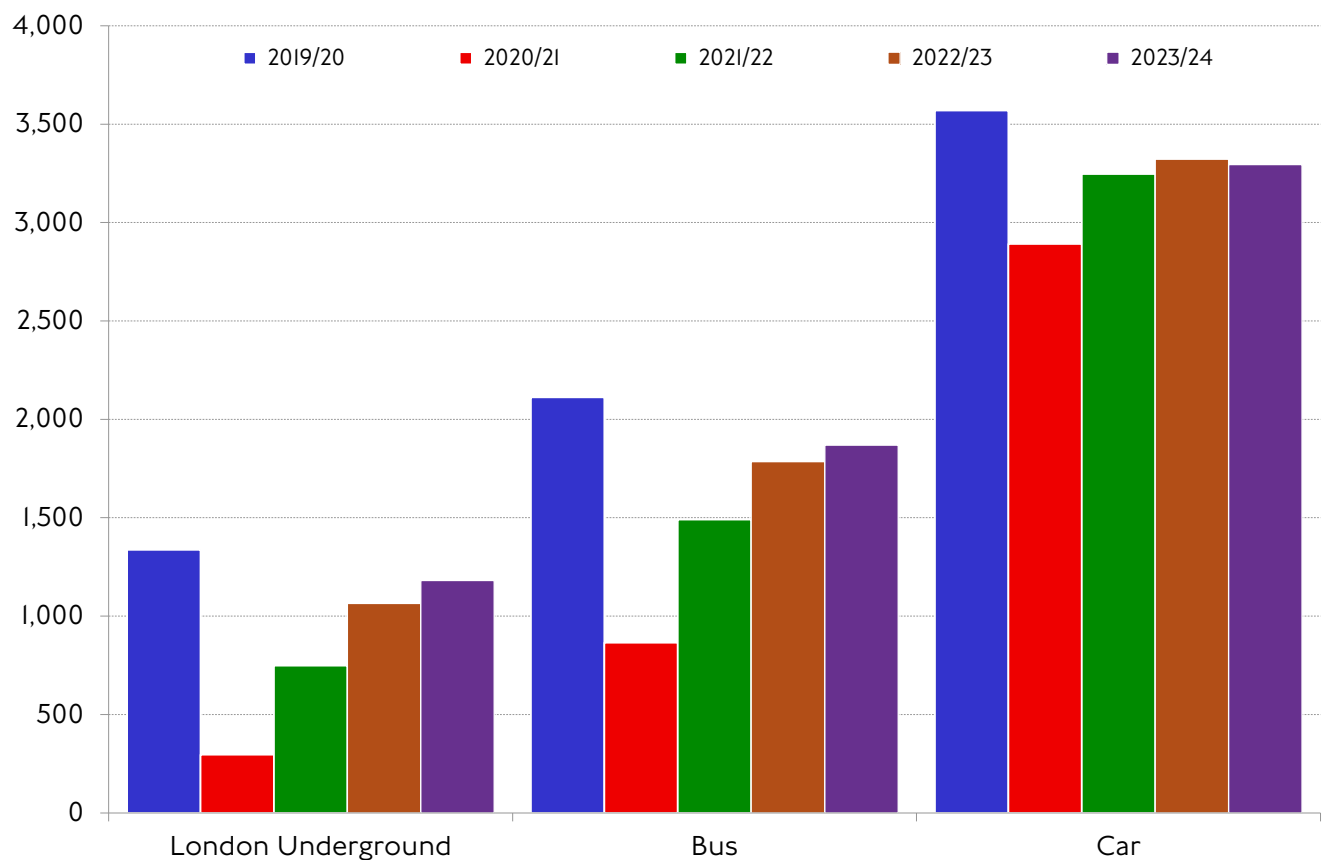
The Elizabeth line opened in phases through 2022/23 and in May 2023 a full timetable was introduced, providing direct services between the outer branches and increased peak frequencies through the central section. In 2023/24, 210 million journeys were made on the Elizabeth line. Demand in period 13 2023/24 was up 24 per cent compared to the same period in 2022/23. The observed level of demand is broadly in line with what was set out in the original business case.

The impact of the Elizabeth line on Tube and DLR demand is still being evaluated. Elizabeth line demand data across the week for the first weeks of 2024 suggests a similar picture to the Tube, with average Monday demand around 17 per cent below the Tuesday to Thursday average and around 10 per cent below on Fridays. The Elizabeth line will also

have affected overall demand for the Tube, with one of its objectives being to relieve crowding on the Tube network. The full effects of this will be understood in time but the provisional data estimates (for September 2023) are that around 16 per cent of the Elizabeth line passenger kilometres have transferred from the Tube. More importantly it is estimated that 38 per cent of Elizabeth line demand can be attributed to new trips being made and a shift from non-public transport modes. Where capacity on the Tube network has been freed up by customers shifting to the Elizabeth line, it is likely that other trips will transfer to the Tube network due to lower crowding levels, though this is so far unquantified.

Figure 2: Journeys (millions) on the main transport networks (Underground, bus and car) by financial year 2019/20 to 2023/24. Source: TfL

Note: Car journey data for 2023/24 is provisional



Across all the above public transport modes, ridership for 2023/24, which accounts for the proportional volume of journeys by mode, was up by eight per cent on 2022/23. The weighted recovery across all these modes in 2022/23 was around 90 per cent of the pre-pandemic baseline. This can be regarded as encouraging given the various challenges that affected post-pandemic recovery during 2023/24. However, it should be recognised that 2023/24 was some three years after the baseline (2019/20), when previous forecasts would have expected some growth in demand from that level and demand levels are therefore falling behind the trajectory implied in the Mayor’s Transport Strategy.

Our latest cycling volume estimates, based on area-based counts across central, inner and outer London, showed an increase of 22 per cent in weekday cycle kilometres in 2023

compared to the 2019 pre-pandemic baseline, and a 20 per cent increase in the number of daily cycle journeys. This was a 6.3 per cent increase against 2022 and suggests a positive ongoing pandemic legacy for cycling in London.

While encouraging progress has been made, the extent to which other factors such as cost-of-living pressures are continuing to impact demand is not clear. It is however apparent that there are important legacies from the pandemic that will continue to affect travel demand in London for some time. More hybrid working, both within and outside London, is key among these, particularly affecting commuter and business travel demand on public transport, and also having other consequences for the nature of trips made, such as trip purpose, trip length and travel demand on different days of the week.

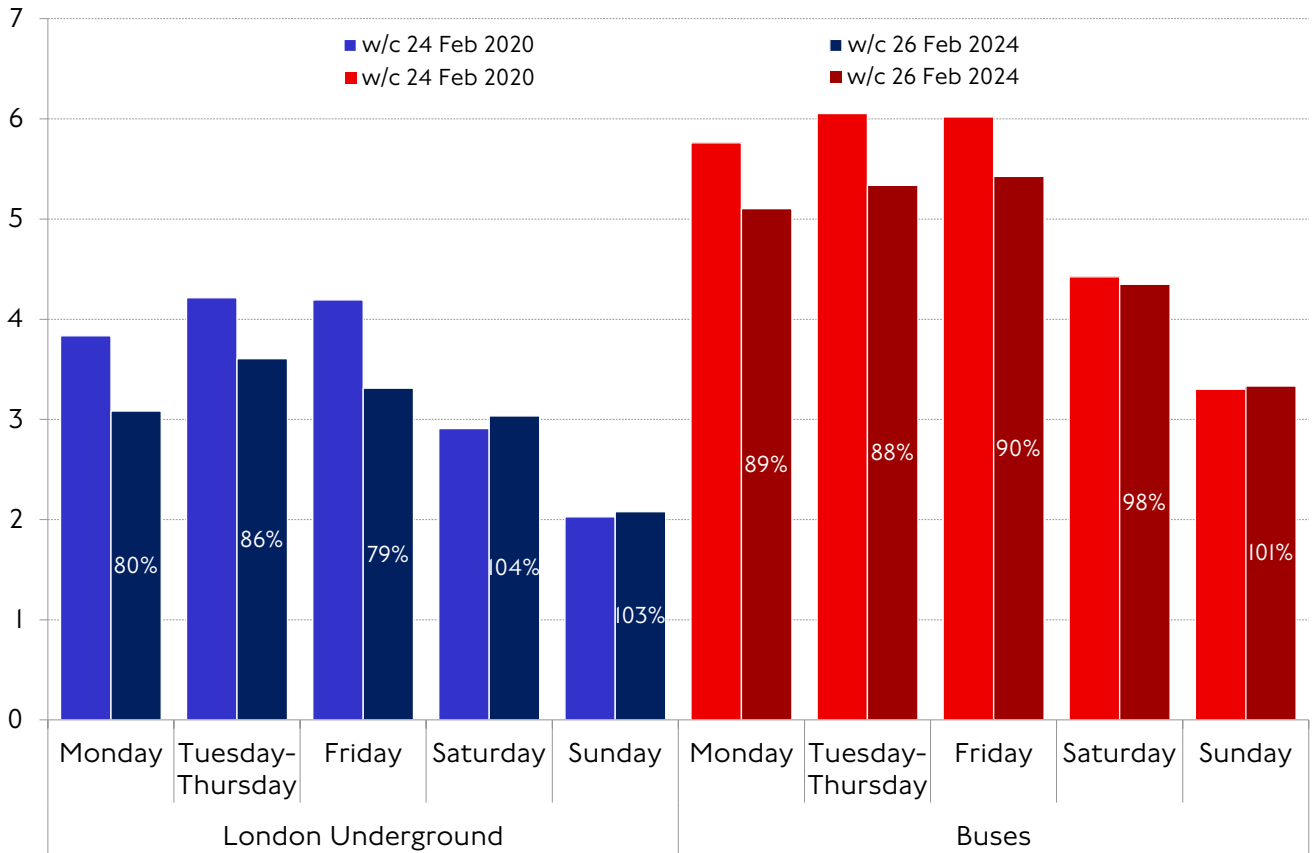
2.3. Travel behaviours and the pandemic

While there is little indication that the timing of the weekday peak on our rail modes has changed, post-pandemic working patterns are particularly affecting the level of Tube demand on days at the 'shoulder' of weekends (Mondays and Fridays), when demand is still lower than other weekdays. Relative Tube demand on Tuesdays to Thursdays was representatively estimated at 86 per cent of pre pandemic in February 2024, while Mondays saw 80 per cent and Fridays 79 per cent of pre pandemic demand respectively (Figure 3). A three-month trial, where all pay as you go single fares on Tube, DLR, London Overground, Elizabeth line, and some National Rail services across London and the southeast were made off-peak on Fridays ran from 8 March to 31 May 2024. The results of this trial will be analysed to help us better understand whether offering lower fares on a Friday could help drive ridership and boost London's wider economic recovery following the pandemic.

The profile of recent bus demand is closer to pre-pandemic patterns. The types of trips impacted by pandemic related changes to travel demand, particularly commute travel to and from central London on weekdays, are more likely to be undertaken by rail modes. Therefore, hybrid working patterns have influenced bus demand by day of the week to a lesser extent than London Underground demand. However, the recovery from the pandemic is also taking place in the context of intensified cost-of-living pressures, which may be contributing to a reduction in the expected growth across all modes, but particularly to non-work related trips made by bus, as was observed in the pre-pandemic period. Changed working patterns and cost-of-living pressures will also have been expected to affect car travel, but there has been stability in daily averages across the various days of the week. This could be due to spatial differences in the impact of home working on commute patterns, or perhaps a 'substitution' of trips, for example commute for leisure on behalf of those for whom hybrid working is an option.

Figure 3: Relative recovery to pre-pandemic demand levels by days of week, entries/boardings (millions). Source: TfL

Note: Percentage shows demand in week commencing 26 February 2024 as a proportion of demand in week commencing 24 February 2020



The coronavirus pandemic acted as a catalyst for cycling, boosting growth again in 2020 and helping many people discover this mode. The year 2022 saw a consolidation of this trend, and the most recent data on cycling journey stages for 2023 shows a net 20 per cent increase in cycling in 2023 from the 2019 pre-pandemic baseline (Figure 4). However, there have been important changes in the characteristics of those journeys (for example, shorter average length) and some pandemic legacies persist, such as relatively less demand during the morning and evening peaks and relatively higher off-peak travel than before the pandemic.

Figure 4: Daily cycle stages (millions) in London by area, seven-day week average, 2015-2023. Source: TfL

Note: Due to the severe disruptions and rapid changes in travel caused by the successive coronavirus pandemic travel restrictions in 2020 and 2021 the estimates for these years are tentative. Stages are defined as the component parts of trips by a single mode, for example a cycle stage to access a rail station

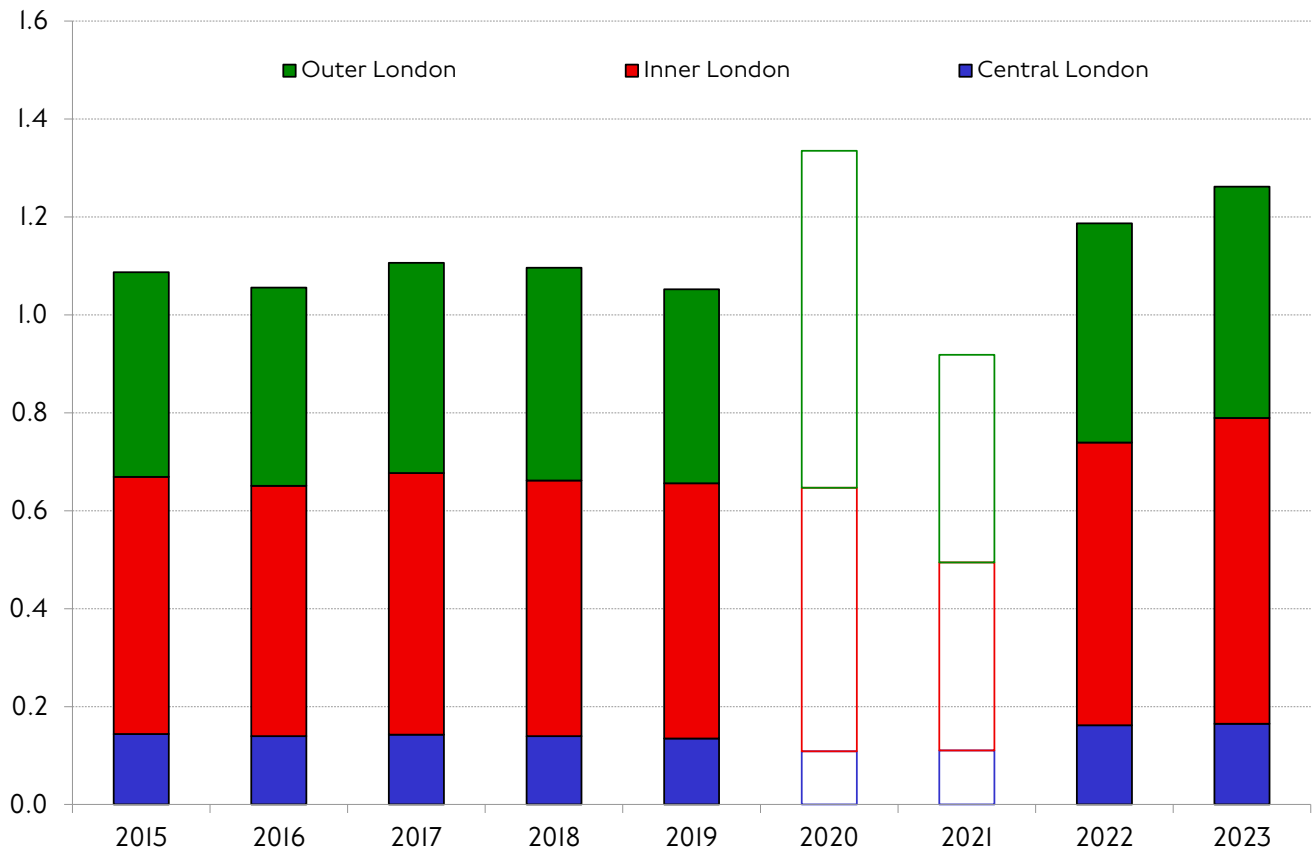
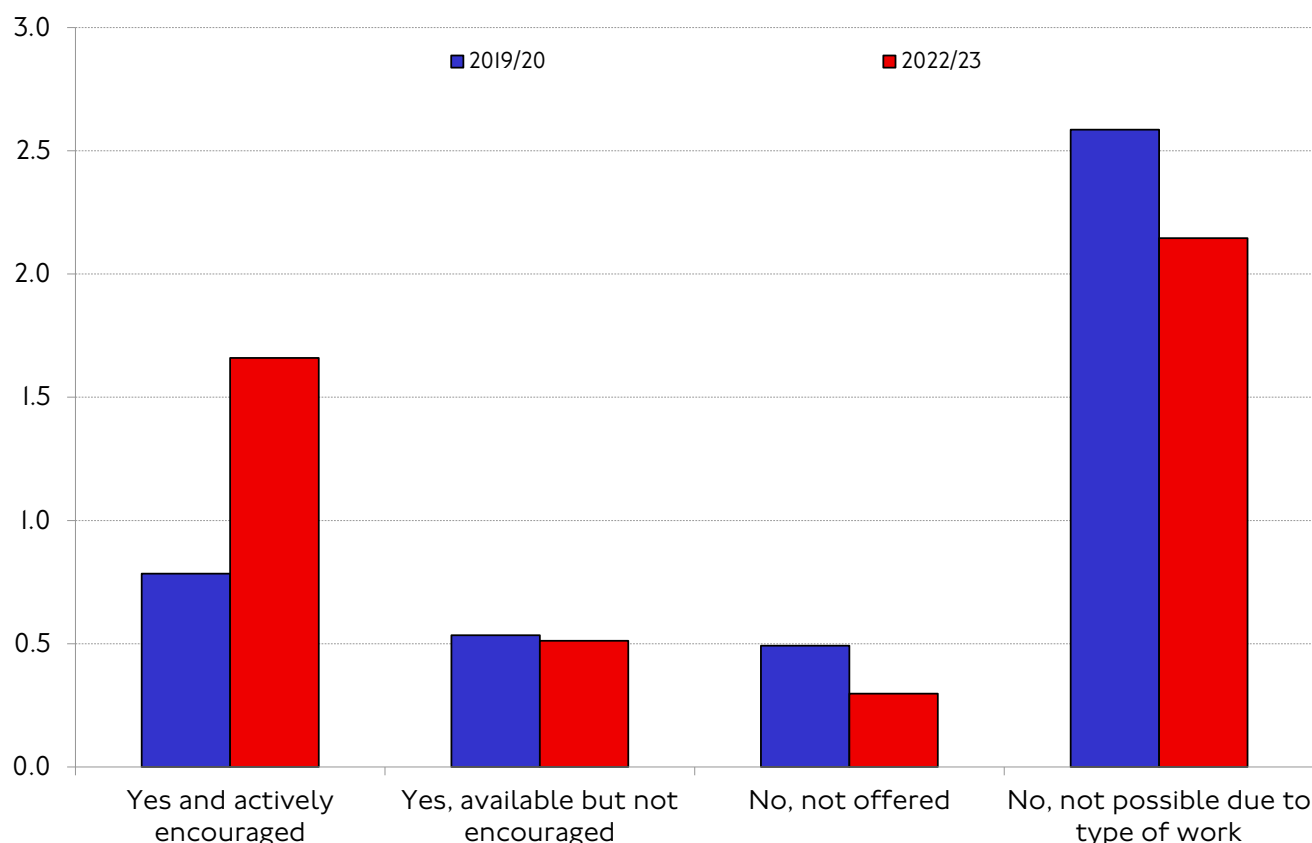


Figure 5 shows the ability of London residents to work from home. There has been a substantial increase in the proportion of residents who are able and encouraged to work from home at least on some days of the week and a corresponding decrease in those for whom this was not possible before the pandemic. In 2019/20 around 30 per cent of London resident workers were able to work from home, this increased to 47 per cent in 2022/23. Provisional estimates for Quarter 1 to Quarter 3 2023/24 show this remains at a similar level (46 per cent).

While the post-pandemic increase in the ability to work in a hybrid manner remains a significant influence on travel patterns in London, particularly on weekdays and for trips to/from central London, it should be seen in the context that only 26 per cent of all London residents have the option to work from home.

Figure 5: Ability of London resident workers to work from home, number of residents (millions), 2019/20 versus 2022/23. Source: London Travel Demand Survey



2.4. Active, efficient and sustainable mode share

The pandemic significantly reduced overall mobility in London. In 2020/21, the first year of the pandemic, the average daily trip rate (number of trips made by all modes per individual) for London residents aged 17 or over fell by 24 per cent from 2.29 trips per person before the pandemic to 1.74. In 2022/23, this recovered to an average of 2.07 trips per person per day, some six per cent lower than 2019/20. Provisional estimates show total number of trips per day in London in 2023 rose to 25.8 million, up four per cent from 24.7 million in 2022, but still down by six per cent against 27.4 million pre-pandemic (2019).

The Mayor’s Transport Strategy mode share target is for 80 per cent of trips in London to be made by walking, cycling or public transport by 2041. As shown in Figure 6, consolidated statistics for 2023 on the overall mode share for all journeys in London estimate the active, efficient and sustainable mode share at 64.2 per cent. This compares to 63.6 per cent during pre-pandemic 2019 and to the Mayor’s aim for 80 per cent of all journeys in London to be made by walking, cycling or public transport by 2041. However, the 2023 data is encouraging as it is a substantial increase over the 62.3 per cent in 2022.

Figure 6: Mayor’s Transport Strategy Tracker for Mode Share: Active, efficient and sustainable mode share, observed 2010 – 2023, Planning and Hybrid Forecast to 2030, and Mayor’s Transport Strategy target trajectory. Source: TfL

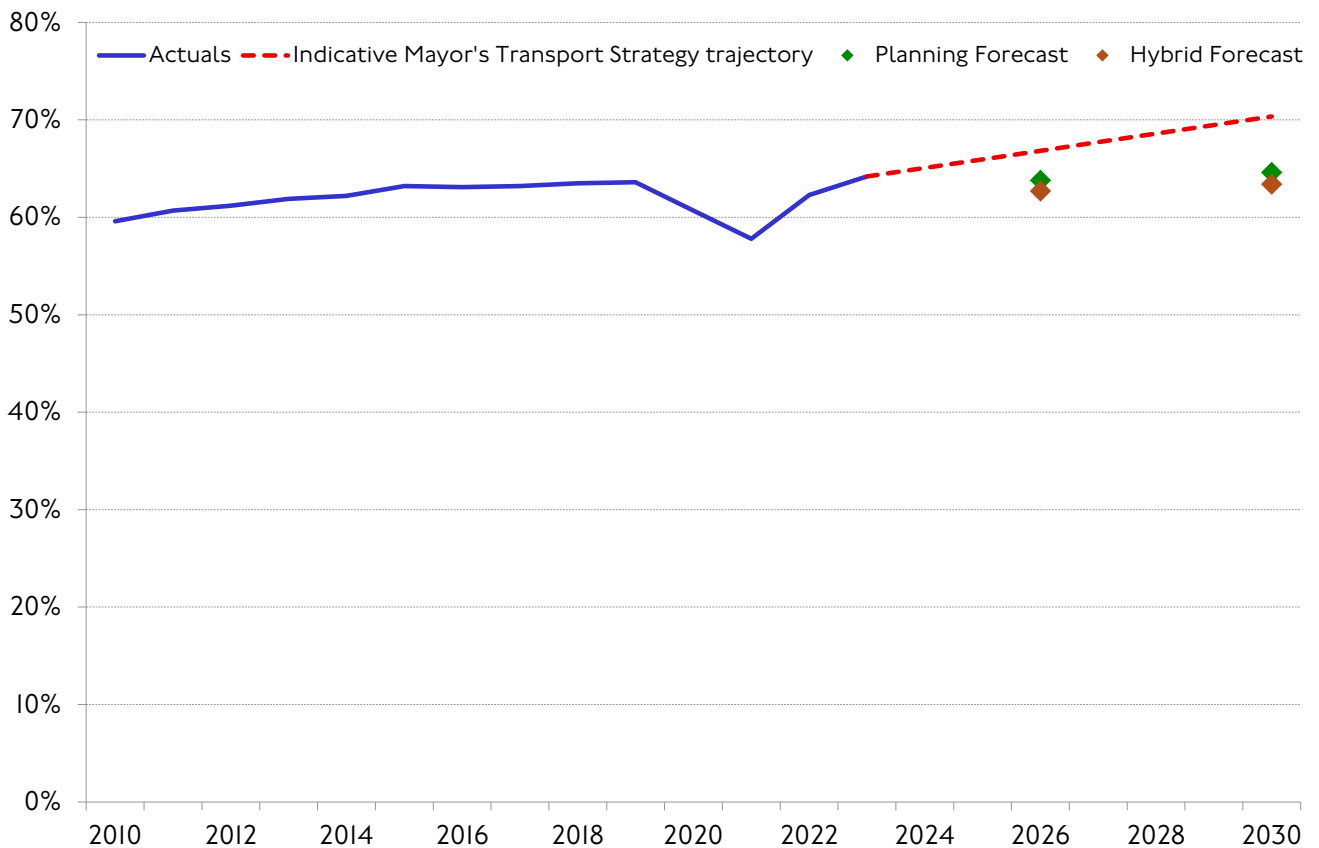
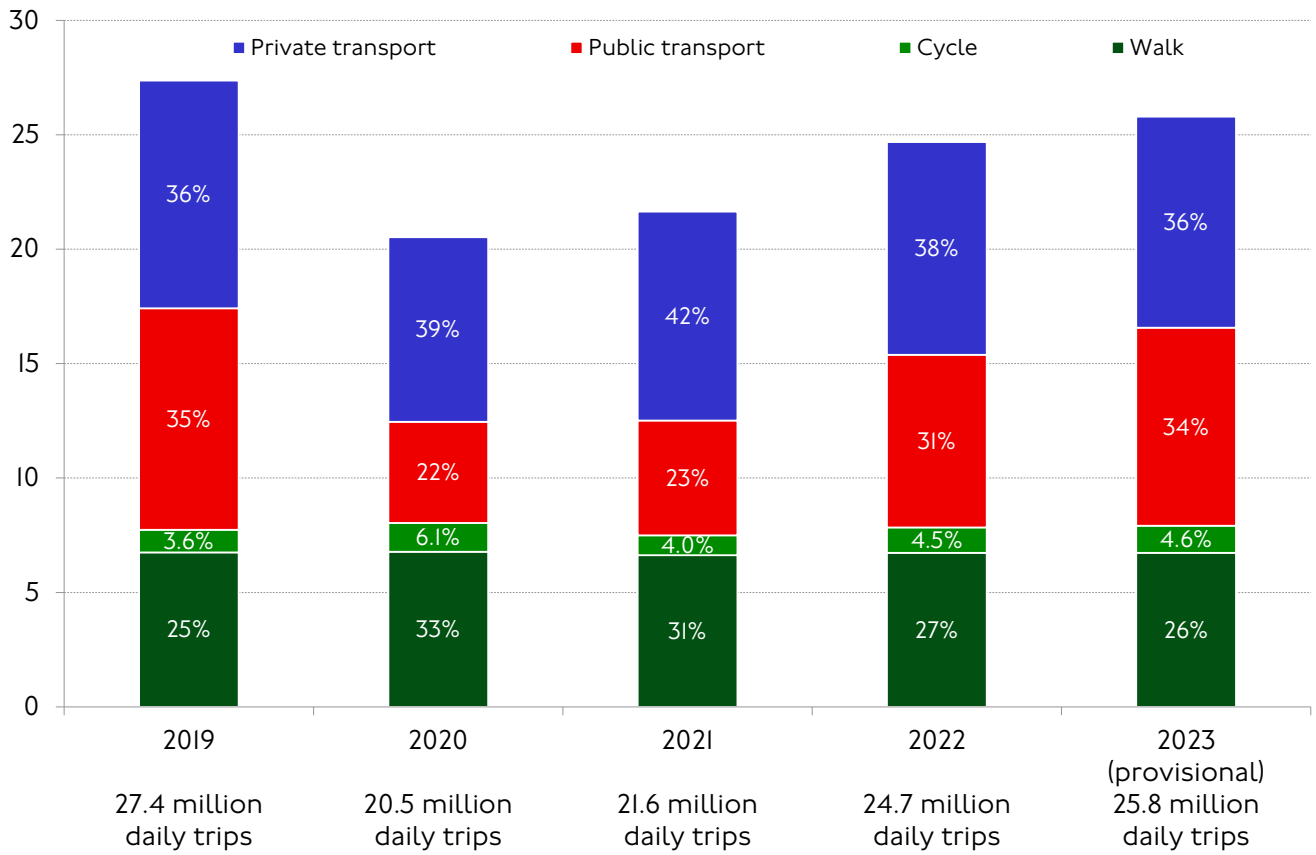


Figure 7 shows mode share in the context of overall trips split by walk, cycle, public transport and private transport. Two features stand out from the figure. The first is that, compared to the scale of the pandemic impact on overall travel demand, the pandemic impact on active, efficient and sustainable mode share was relatively modest. This reflected a combination of much lower overall mobility, and a relative increase in the share of trips that were made by active modes, notably walking and cycling, particularly during periods of formal restrictions. The second is that, during the recovery, the continuing relative shortfall of public transport trips, which in 2019 accounted for 35 per cent of all trips in London was acting as a drag on the overall proportion of trips made by active, efficient and sustainable modes. A further factor holding back progress is that London’s population is lower than previously forecast. The 2021 Census estimated this to be 8.8 million, two per cent lower than contemporary mid-year estimates.

Figure 7: Estimated trips per day (millions) and mode share 2019-2023. Source: TfL



3. Healthy Streets and healthy people

To tackle traffic and road danger, and to protect Londoners' health, our climate and air quality, we need to make it easier and safer for people to walk, cycle and use public transport. We also need to support safe, clean and efficient freight and servicing trips. Healthy Streets means creating streets that work for everyone and that are accessible, safe and inclusive. Attractive street environments encourage active travel, and a well-planned street network ensures that space for buses is prioritised, with high-quality public transport connections that provide appealing alternatives to car use.

Healthy Streets Investment

In 2022, we announced that we would restart work on schemes to make the capital's roads safer and more attractive for those walking and cycling, after securing £80m per year from the Government, with a further £69m per year to be allocated to boroughs through the Healthy Streets programme.

London boroughs are central to the success of the Healthy Streets Approach and delivering the Mayor's Transport Strategy. They are responsible for 95 per cent of London's streets and around 70 per cent of the most important streets for the bus network. We and London Councils have recently published a [Borough Three Year Report](#), which demonstrates how boroughs have used Local Implementation Plan (LIP) funding over three years (2019/20, 2020/21, 2021/22) to transform local areas, making London's roads safer and more attractive for people using public transport, walking and cycling.

In 2023/24 we allocated £86.6m to London boroughs, including more than £50m to outer London boroughs. This funding enabled boroughs to deliver schemes in their two-year Local Implementation Plan timeline, with a strong focus on mode shift and reducing road danger. Funded proposals included bus priority, new cycle routes, new or upgraded pedestrian crossings, School Streets and Low Traffic Neighbourhoods, and the introduction of 20mph speed limits (described in more detail in section 3.2).

For 2024/25, the final year of the two-year LIPs, we announced an initial allocation of £41m to outer London boroughs and £25m to inner London boroughs. We expect to allocate a total of £80.4m in funding by the end of 2024/25. The funded proposals include:

- More than 150 new and upgraded pedestrian crossings including dedicated pedestrian signals at busy junctions in Barnet, Kensington & Chelsea and Enfield
- Introduction of 20mph speed limits on roads in Barnet, Brent, Harrow, Redbridge, Waltham Forest Enfield and Richmond
- Junction and corridor improvement schemes that will make London's streets safer, better for active travel and more reliable for buses
- 125 bus priority schemes, including 89 in outer London
- More than 30km of new Cycleways across London
- More than 2,000 secure residential cycle parking spaces
- Free cycle training sessions for thousands of adults and children

Our [2024 Business Plan](#), commits TfL to invest £150m per annum on safe and active travel schemes, of which more than half will be allocated to the London boroughs, growing by inflation from 2025/26.

We are now working with boroughs to develop their three-year delivery plans for the 2025/26-2027/28 period. A set of strategic datasets has been shared with boroughs to help them identify and develop schemes with the most potential to reducing road danger and support people to shift to more sustainable travel options.

3.1. Active

3.1.1. Physical activity and active travel

The aftermath of the pandemic presents both challenges and opportunities for active travel in London. On the one hand, pandemic travel patterns, and the steps that were taken to encourage and embed them, have left positive legacies for both cycling and walking. On the other, the ongoing relative shortfall in public transport trips means that active travel journey stages, such as the walk to and from the station as part of the daily commute, are not being made.

It is recommended that adults undertake 20 minutes per day of physical activity in order to stay healthy. The Mayor aims for all Londoners to achieve this level of activity, with a target of 70 per cent of Londoners achieving 20 minutes of active travel (walking and cycling) per day by 2041. Even in the context of significant investment, historically this measure has been around 40 per cent.

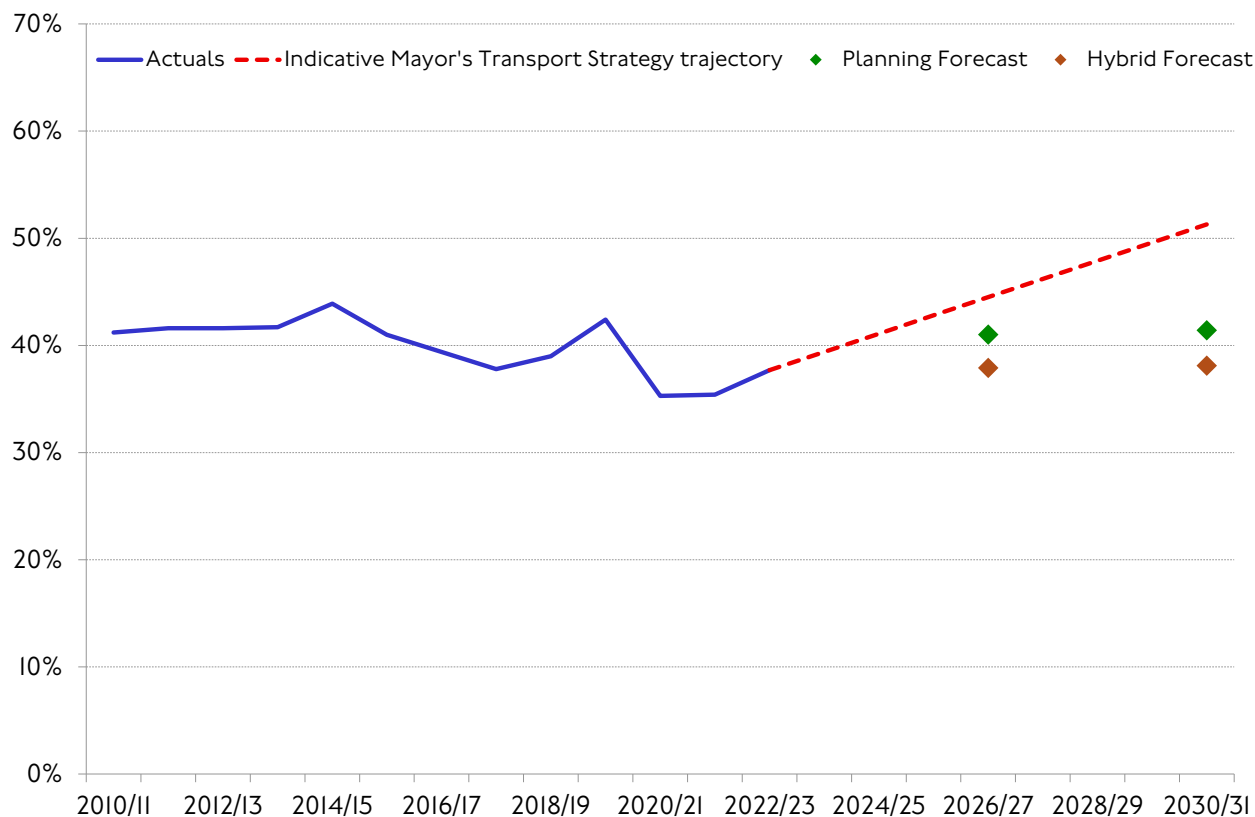
Overall, it fell slightly during the pandemic, although this reflected a resilient performance in the circumstances (Figure 8).

Recovery from the pandemic has so far been incomplete, with 38 per cent of Londoners achieving the daily 20 minutes in 2022/23, down from around 40 per cent before the pandemic.

Although the use of active modes was higher in 2022/23 than before the pandemic, active travel is often used to access public transport, as a journey stage (trip component), and the decline in public transport usage overall since the pandemic has probably contributed to the net fall in this measure.

The London Travel Demand Survey (LTDS) suggests that, where these trips are not made, for example as part of a hybrid working pattern, other trips made at equivalent times are not sufficient to compensate in terms of daily recommended active travel overall, and this development should be viewed as a particular concern for achievement of the active travel target and its impact on the overall health of Londoners.

Figure 8: Mayor’s Transport Strategy Tracker for Active: Proportion of London residents achieving at least 20 minutes of active travel per day, observed 2010 – 2022, Planning and Hybrid Forecast to 2030, and Mayor’s Transport Strategy target trajectory. Source: TfL



3.1.2. Reducing traffic dominance

Low Traffic Neighbourhoods

Low Traffic Neighbourhoods (LTNs) are implemented by the boroughs and are designed to reduce traffic in neighbourhoods by preventing motor vehicles passing directly through the LTN area, while retaining access for residents, businesses and emergency services.

Although LTNs are not new, many were implemented under temporary, experimental orders during the pandemic and the majority of these are now being made permanent. Indeed around 100 schemes remain of the 120 put in since March 2020. While the pace of LTN delivery has slowed since the pandemic, they remain a key part of the Healthy Streets Approach and we continue to support boroughs’ implementation of schemes with both funding and technical support. Several new LTNs have been implemented in 2023/24 and we have provided funding through the LIP programme for two years (2023/24 and 2024/25) for the development of more than 30 more potential LTN schemes.

In 2023 we published [a summary of the evidence on LTNs](#), which demonstrates how LTNs are making streets safer by lowering traffic levels, reducing street crime and enabling people to walk and cycle more. Included in this evidence is the significant contribution LTNs can play in meeting our Vision Zero ambition to eliminate all deaths and serious injuries on

London's streets by 2041. A long-term study of those implemented in outer London shows streets within LTNs becoming three to four times safer for people walking and cycling, while a review of all LTNs implemented in 2020 found a 50 per cent reduction in road casualties within LTNs. Both studies found no negative impacts on safety on LTN boundary roads. This reflects their impact on motor traffic, with a review of monitoring by boroughs, also included in this evidence summary, showing 74 per cent of streets within London LTNs have reduced traffic prior to implementation, and no change in the median volume of motor vehicle on their boundary roads.

As listed in our summary of evidence, a representative poll of Londoners found 58 per cent of respondents were in favour of LTNs (against 17 per cent who opposed them). The recently published [DfT guidance on implementing](#) LTNs stresses the importance of high-quality engagement in developing LTNs. We continue to expect boroughs to engage with local communities and key stakeholders, including us, on the development of new LTNs.

Pedestrian crossing improvements

We delivered 35 new or improved pedestrian crossings on the Transport for London Road Network in 2023/24. With our support, 1,053 new pedestrian crossings have been delivered by boroughs in the period 2019/20 to 2022/23. The Lea Bridge Road transformation, for example, includes 52 transformed side roads with improved side road junctions, and nine new pedestrian-and cyclist-controlled crossings. In 2023/24, London boroughs were allocated LIP funding to progress the delivery of more than 150 new or upgraded pedestrian crossings.

Green Link Walk

We published London's first [Leisure Walking Plan in 2022](#) to enhance and expand leisure walking routes and better connect London's communities with green spaces. A key action is to develop new walking routes to increase leisure walking in London, improve Londoners' health and wellbeing, and enhance community access to green space and nature. In March 2024 we launched the Green Link Walk, a new 15-mile walking route from Epping Forest to Peckham town. Fully signed along its length, the new route links more communities with green spaces, building on increases in leisure walking seen since the pandemic, and helping to fulfil a Mayoral manifesto commitment and our vision to make London the most walkable city in the world.

The Green Link Walk is the eighth route in the Walk London Network, linking almost 40 areas of green space, including Walthamstow Marshes, London Fields and Burgess Park, and five other Walk London routes. It goes through two sites of planned major urban realm transformations, at Clerkenwell Green and St. Paul's Gyratory. The route has been designed with accessibility in mind: it avoids streets without dropped kerbs and bridges with steep ramps and steps, and we funded the removal of barriers such as bollards and installed a dropped kerb. Two new rain gardens on the route help prevent flooding and create a more attractive environment.

3.1.3. School Streets

School Streets enable more children to walk and cycle to school by introducing vehicle restrictions at drop-off and pick-up times around the school. In 2024, to support boroughs in delivering more School Streets, we provided data that assessed every nursery, primary and secondary school in terms of their suitability and need for a School Street. This was included in the LIP data packs to help boroughs better identify appropriate sites. The boroughs have now introduced School Streets at over 600 schools, 373 of which were funded with support from us and the Greater London Authority.

TfL Travel for Life

Many London schools are making significant progress in shifting pupils' travel habits to walking and cycling, as part of TfL's education programmes, which celebrated 16 years with the launch of a new brand, TfL Travel for Life, in September 2023. TfL Travel for Life brings together the different educational programmes (Road Safety Club, STARS, Safety and Citizenship and TravelSmart). It is delivered in partnership with the London Transport Museum and all London boroughs, and designed in line with the OFSTED enrichment programme, the National Curriculum and the new Climate Action Planning expectations in education. The newly branded accreditation programme has accredited near half of the 3,313 schools in London with Bronze, Silver or Gold. Almost a fifth (671) of those 3,313 schools have received Gold accreditation as a result of achieving a six per cent reduction in car use or over 90 per cent of its children walking and cycling to school. Keeping the same engaging content and adding cohesive branding, an easier online process and a dedicated support team, will help us reach our target of 1,000 Gold-accredited schools by 2024/25.

3.1.4. Delivering the Cycling action plan 2

In June 2023, we published our new [Cycling action plan 2](#). The plan highlights the potential of cycling and sets out a comprehensive delivery plan to broaden the appeal of cycling to a wider range of Londoners, including those demographic groups currently under-represented in cycling.

We have set an ambitious new target for 40 per cent of Londoners to live within 400 metres of the strategic cycle network by 2030 and have made good progress in 2023/24. We, working with the London boroughs, have more than quadrupled the size of the strategic cycle network, from 90km in 2016 to 390km by June 2024 (see Figure 9 and Figure 10). In 2023/24, we launched 20 new Cycleway routes, connecting over 600,000 Londoners to the network. As of March 2024, a quarter of Londoners lived within 400 metres of the network.

The new Cycleways completed in 2023/24 are a mix of segregated routes on busy roads (for example Cycleway 4 in Southwark), quieter streets where people cycling can mix with low levels of motorised traffic, for example Cycleway 58 in Enfield, and upgraded legacy routes integrated to the Cycleway network, for example Cycleway 40 in Ealing.

The LTNs implemented since 2020 have played a key role in accelerating the expansion of the Cycleway network by lowering traffic volumes and unlocking new routes requiring minimal engineering solutions to provide a high-quality route.

The new Cycleways implemented since April 2023 have a stronger focus on connecting outer London boroughs to the network and creating new links to town centres. By summer 2024, 29 of the 33 London boroughs will be connected to the network and this will continue to increase as we are working with more boroughs than ever before to further expand the network. Funding allocated to boroughs for 2024/25 will enable them to deliver over 30km of new routes across London, including Cycleways along Cambridge Park Road in Redbridge, Deptford Church Street in Lewisham, between Hayes and Hillingdon, and between New Southgate and Edmonton. By the end of Summer 2024, we expect the proportion of Londoners living near the strategic cycle network to rise to about 27 per cent.

Figure 9: Strategic cycle network 2016. Source TfL

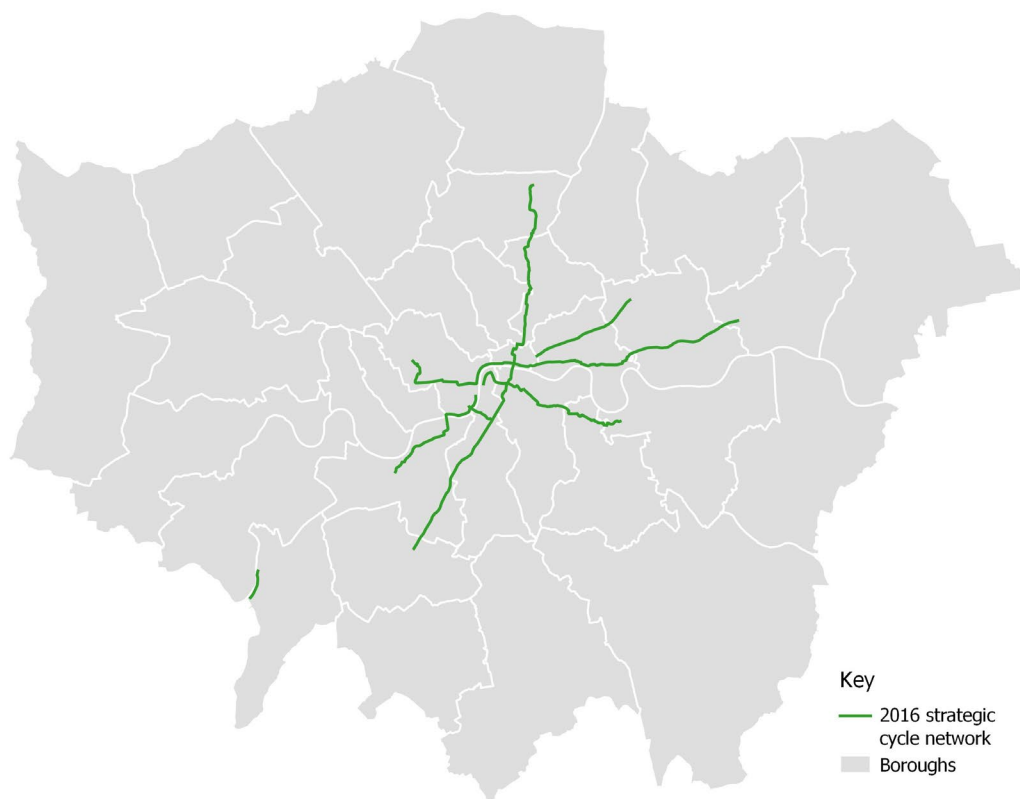
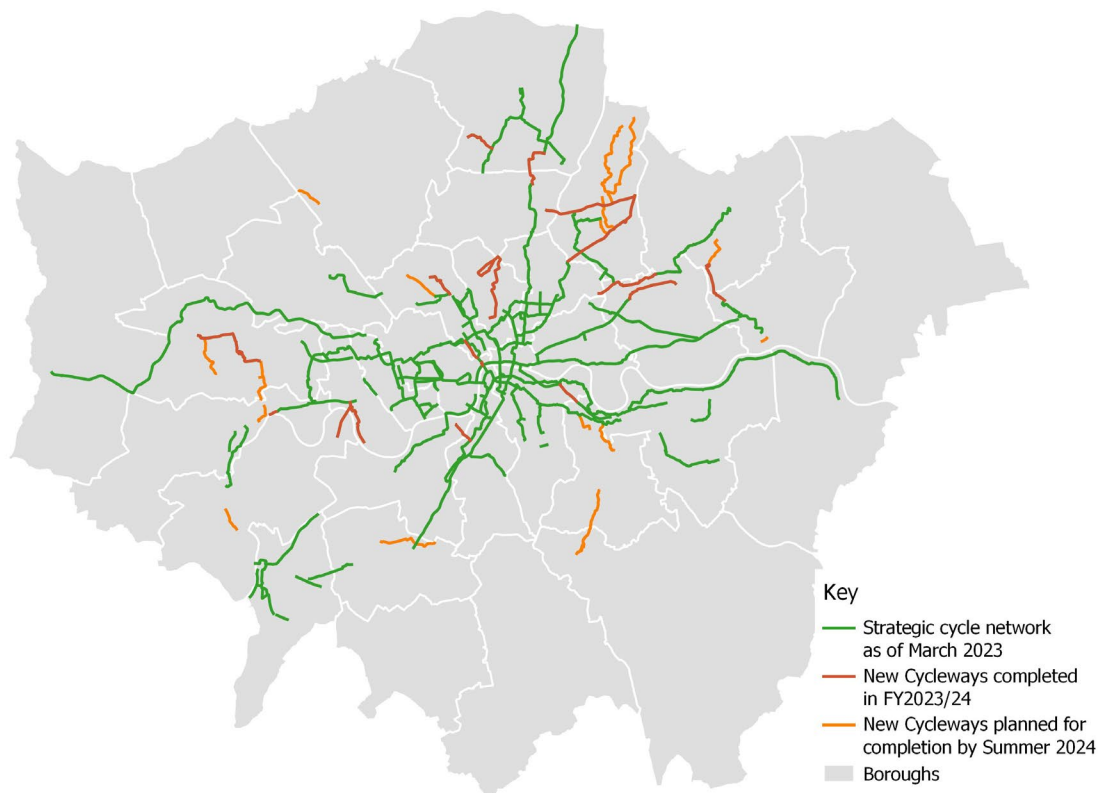


Figure 10: Strategic cycle network 2024. Source TfL



These interventions enabled the positive cycling trends we are observing:

- In 2023, cycling levels were 20 per cent higher than in 2019 and 6.3 per cent higher than in 2022
- The proportion of Londoners reporting having cycled in 2022/23 increased across all demographic groups, including among women, lower income groups and people of Black, Asian and other minority ethnicities
- Provisional road safety data for 2023 shows that the number of cycling casualties (including slight, serious and fatal injuries) has decreased by 5.7 per cent between 2022 and 2023, while cycling risk (i.e. number of casualties per cycle journeys) reduced by 11.3 per cent

Other delivery highlights contributing to increasing and diversifying the cycling population include:

- Scaling up the delivery of free cycle training sessions for children and adults in 2023/24 with £4.5m allocated to London boroughs through the cycle training programme (up from £2.5m in 2022/23). In 2023/24, nearly 60,000 individuals took part in cycle training sessions funded by TfL, including more than 32,000 children trained to Bikeability Level 2, more than 11,000 adults, and over 15,000 other children and adults trained through other training options, such as family sessions

- We continue to accelerate the delivery of secure residential cycle parking, with 3,500 secure cycle parking spaces funded by us and the Mayor in 2023/24 and another 2,000 funded by us to be delivered in 2024/25. Overall, the number of cycle hangars available to Londoners has more than quadrupled, from 1,200 hangars in 2017 to an estimated 5,600 by February 2024, providing a secure space more than 33,000 Londoners
- We launched a trial for new Santander Cycles concessions aimed at encouraging under-represented groups to cycle. Londoners that hold an Apprentice Oyster Card, Freedom Pass, 60+ Oyster card, Veterans Oyster photocard, Bus and Tram discount and Jobcentre plus discount can now obtain an annual or monthly subscription at a 50 per cent discount. In 2024/25 the ambition is to expand this discount to care leavers
- The latest beneficiaries of our award-winning Walking and Cycling Grants London programme (which enables community-led projects across all London boroughs to work with traditionally under-represented groups) were announced in December 2023. More than £575,000 was awarded to 78 new projects and 69 continuing projects in partnership with the London Marathon Foundation. Since the programme began, it has supported more than 78,000 participants to walk and cycle more
- We continue to promote cycling to all Londoners through our flagship event Ride London, which celebrated its 10th anniversary in May 2023. As part of communication campaigns for this, we encouraged Londoners to take up cycling, for example through 'Cycle Sundays' and by locally promoting new Cycleways
- We are also working closely with cycle journey planning and navigation app providers, including supporting Google Maps to update its routing algorithms to include quieter routes and the Cycleway network in October 2023
- Following concerns about potential unintended impacts of bus stop bypasses on older, disabled and vulnerable pedestrians, the Mayor asked us to carry out a review to understand how many people have been injured at a bus stop bypass and whether they present a danger to pedestrians. Bus stop bypasses involve routing a cycle track behind the bus passenger boarding area. This helps to keep people cycling separate from motor traffic. Bus users need to cross the cycle track between the footway and bus stop island, with the option to cross on a zebra crossing. The review has shown that the risk of pedestrians being injured at bus stop bypasses is very low. However, themes including fear and anxiety of a collision, difficulties accessing bus stops with bypasses, poor cyclist behaviour, inconsistent street design and concerns about under-reporting of collisions to the police were raised through our stakeholder engagement. The [report summarising the review](#) was published in May 2024 and sets out our next steps, including actions on education, design, customer information, and research and innovation
- We published a new [Access control guidance note](#) to support access for all, including those using larger cycles such as adapted cycles for disabled people or cargo bikes

3.1.5. Rental micromobility services

Santander Cycle Hire

Cycle hire is a vital part of the cycling offer in London and is an important way to address barriers to cycling. Our Santander Cycle hire scheme enables spontaneous cycle trips whether for commuting, running errands or leisure, bypassing concerns about cycle theft, and giving access to cycles to people who may not be able to own one, be it due to cost constraints or lack of secure cycle storage at home.

In 2023/24 more than 6.8m trips were made by Santander Cycle Hire members, a six per cent increase on the previous 12 months.

A new Day Pass was introduced in March 2024 with a daily rate of £3 for unlimited hires of a classic pedal cycle of up to 30 minutes. The new tariff led to a significant uptake of casual hires with more taking place in March 2024 than the same month the previous year, the first year on year increase since 2022.

After adding 600 e-bikes to our fleet of over 12,000 bikes in 2022, we announced in January 2024 that we will be adding another 1,400 e-bikes in 2024/25. Our new e-bikes have proven very popular with customers, with double the number of hires per bike per day compared to classic bikes. The e-bikes have been and will continue to be supported by a paid for marketing campaign promoting cycle hire across the capital. The longer-term ambition is to make half of the fleet electric, with charging available at docking stations.

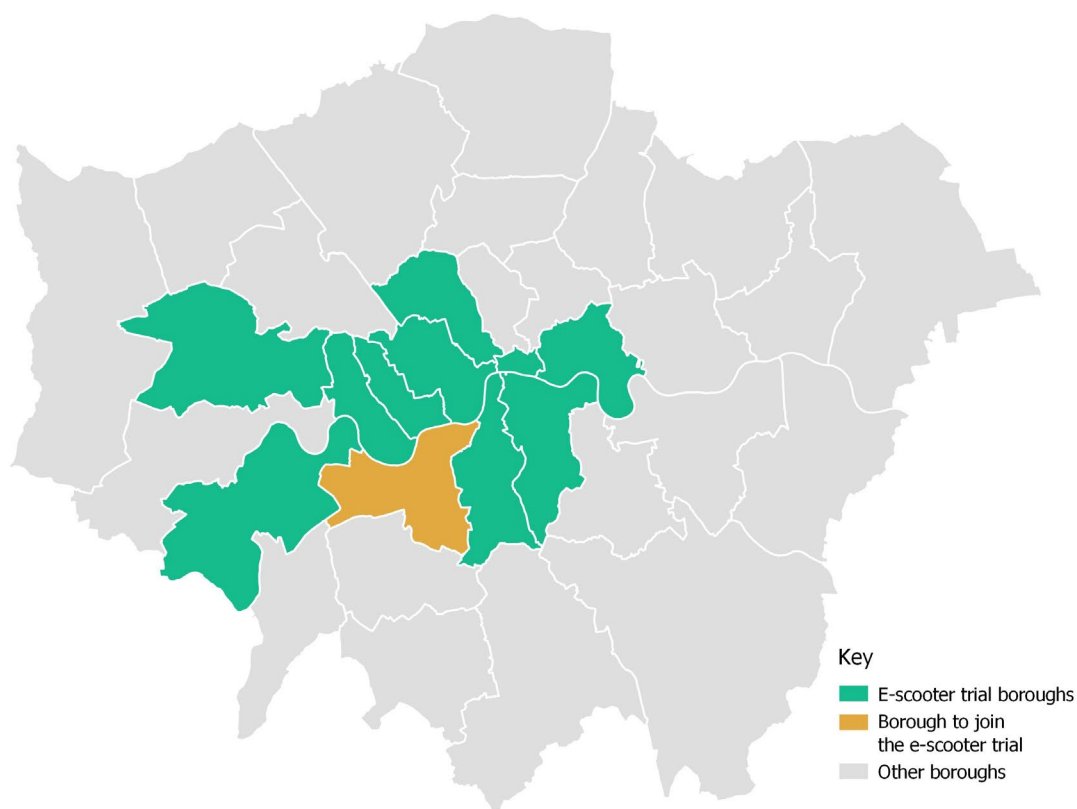
We continue to expand the scheme, installing new docking stations at Clapham South, Elgin Avenue and Westbourne Green in Westminster in 2023/24. We plan to install more in 2024/25 at Adeline Place and Camley Street in Camden and to replace the docking station at the Aquatic Centre in Queen Elizabeth Olympic Park.

E-scooters trial

Our London e-scooter rental trial has been running for two and a half years, and we launched the second phase of the trial in September 2023, working with operators Dott, Lime and Voi. The operators were selected following a competitive procurement process that assessed their ability to meet strict safety requirements and high operating standards. In April 2024, Dott withdrew from the trial due to financial pressures.

There are now 10 boroughs taking part and around 4,000 e-scooters available for hire, with a total of 3.8 million trips made since the start of the trial (up to 10 March 2024). The average e-scooter trip duration is 14 minutes and the average distance travelled is 2.4km. The second phase of the trial will build on its existing success by gathering more data to inform policy on rental e-scooters and trialling further innovations. This includes testing new technology using artificial intelligence to improve parking compliance and exploring the use of technology to detect pavement riding as well as audible vehicle alerts.

Figure 11: Boroughs participating in the e-scooter trial¹ Source: TfL



In February 2024, we published a [report on our findings](#) from the first phase of the trial (June 2021 – September 2023). The evidence in the report demonstrates that in the current trial conditions, rental e-scooters have the potential to contribute positively to the aims of the Mayor’s Transport Strategy. They have good safety records, are space-efficient, are zero emission at tailpipe, and are managed in a way to minimise clutter on footways. By providing a new alternative to the private car for short journeys and improving access to public transport services, rental e-scooter can support public transport and active travel in reducing our reliance on car use and its impact on road danger, congestion, air quality and climate change.

Future of rental micromobility

Private operators have been providing dockless cycle hire in London since 2017. Unlike rental e-scooters, this is an unregulated service, with operators entering into agreements with individual boroughs, meaning the deployment, parking density, and operator availability varies across boroughs.

¹ Participating boroughs are Camden, City of London, Ealing, Hammersmith and Fulham, Kensington and Chelsea, Lambeth, Richmond upon Thames, Southwark, Tower Hamlets and City of Westminster. Wandsworth will also be joining the trial

The unregulated nature of these services presents challenges, particularly when users or operators do not park the bikes responsibly. However, managed properly, these services present a great opportunity to encourage a larger and more diverse range of Londoners to take up cycling.

We continue to advocate for legislation that would give powers to strategic transport authorities to manage rental operations for micromobility.

In the absence of regulation, we are exploring with London Councils and London's boroughs the design of one coordinated future scheme to manage dockless e-bikes and e-scooters in London through a contract. The objective of this would be to improve the parking of these vehicles, while also increasing the quality and sustainability of these services in London.

To support these rental services and the parking approach we want to encourage, we have created a ring-fenced £0.6m budget for 2024/25 available to London boroughs for the provision of dedicated parking bays. We are also progressing the delivery of parking bays on the TLRN and our land.

3.2. Safe: Vision Zero for road danger

The aim of Vision Zero is to eliminate all deaths and serious injuries on London's streets by 2041. Every death or serious injury on our streets is devastating, bringing heartache and tragedy to all those involved. Vision Zero challenges us to think differently about the safety of our streets and how we design our road system. While normally unintended, road collisions result from choices made by individuals, organisations and society and all too often cause death and serious injury. Our response must be to create a safe road system, with every component working together – safe speeds, safe streets, safe vehicles and safe behaviours – so that we can reduce road danger and protect Londoners from harm.

We have a stretching ambition for reducing road casualties in London, with a target to deliver a 70 per cent reduction (against our 2010-14 baseline) in the number of people killed or seriously injured on London's roads by 2030.

Our provisional 2023 data - with final data subject to verification by the Department for Transport in the autumn - suggests that while London is outperforming other UK regions, we are not on track to meet the 2041 ambition. This provisional data for 2023 suggests there was a 24 per cent reduction in the number of people killed or seriously injured (see Figure 12). This is a six per cent reduction compared to 2022.

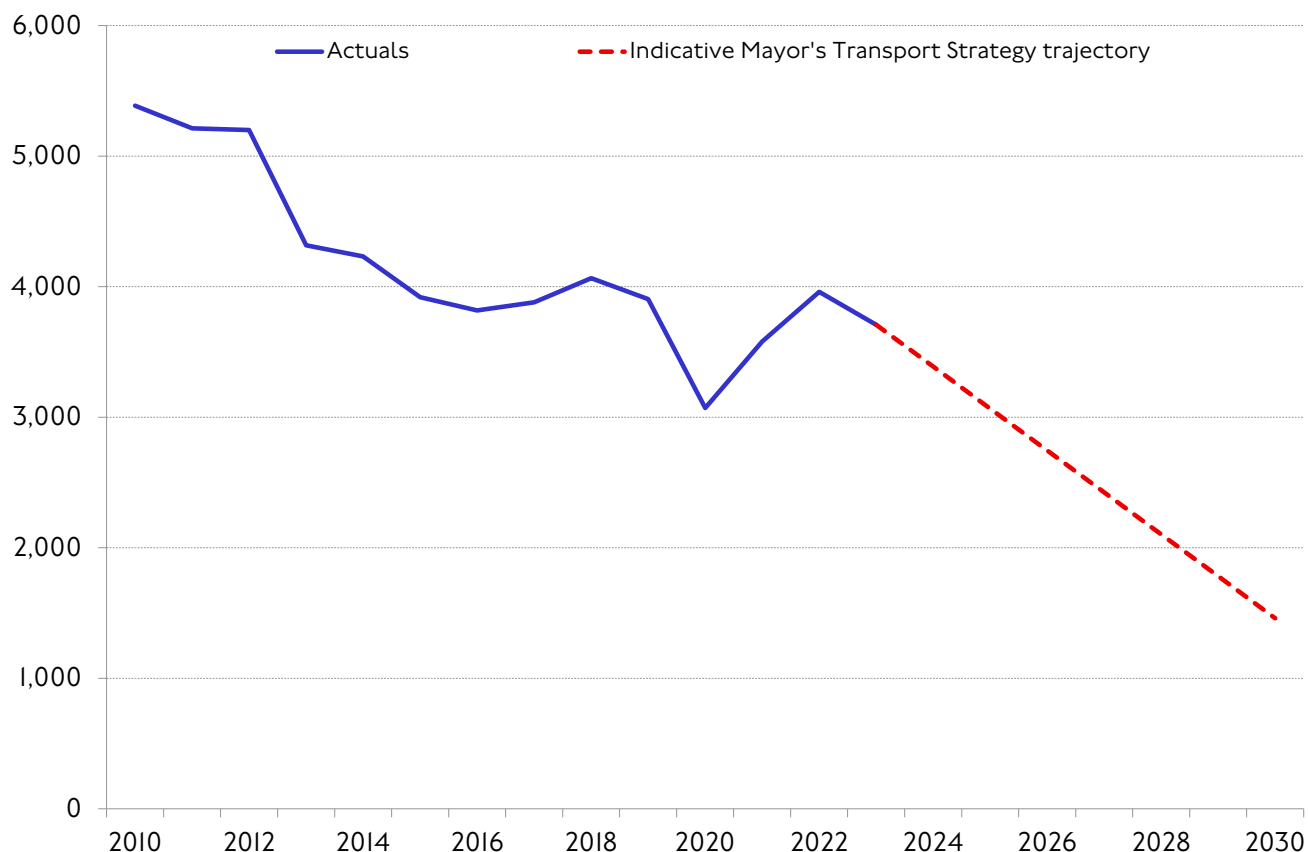
Despite the fact we have further progress to make, there are some positive aspects to highlight. The number of fatalities recorded in 2023 is the lowest on record (excluding pandemic-affected 2021) and the number of motorcyclists being killed or seriously injured have fallen 12 per cent year on year.

Although there remains a gap between our achievement and progress required to meet the Mayor's Transport Strategy target, we remain committed to our Vision Zero goal. The 2018 Action Plan for road safety and 2022 Progress Report set out measurable objectives that

we, the boroughs, Metropolitan Police and partners have been working to deliver by the end of 2024. We will continue developing an evidence-led forward programme of activity, using the internationally recognised Safe System approach, to extend this plan to 2030. This will be designed to eliminate and reduce risk and help to get us back on target.

Figure 12: Mayor’s Transport Strategy Tracker for Safe: People killed or seriously injured on London’s roads, observed 2010 – 2023 and Mayor’s Transport Strategy target trajectory. Source: TfL

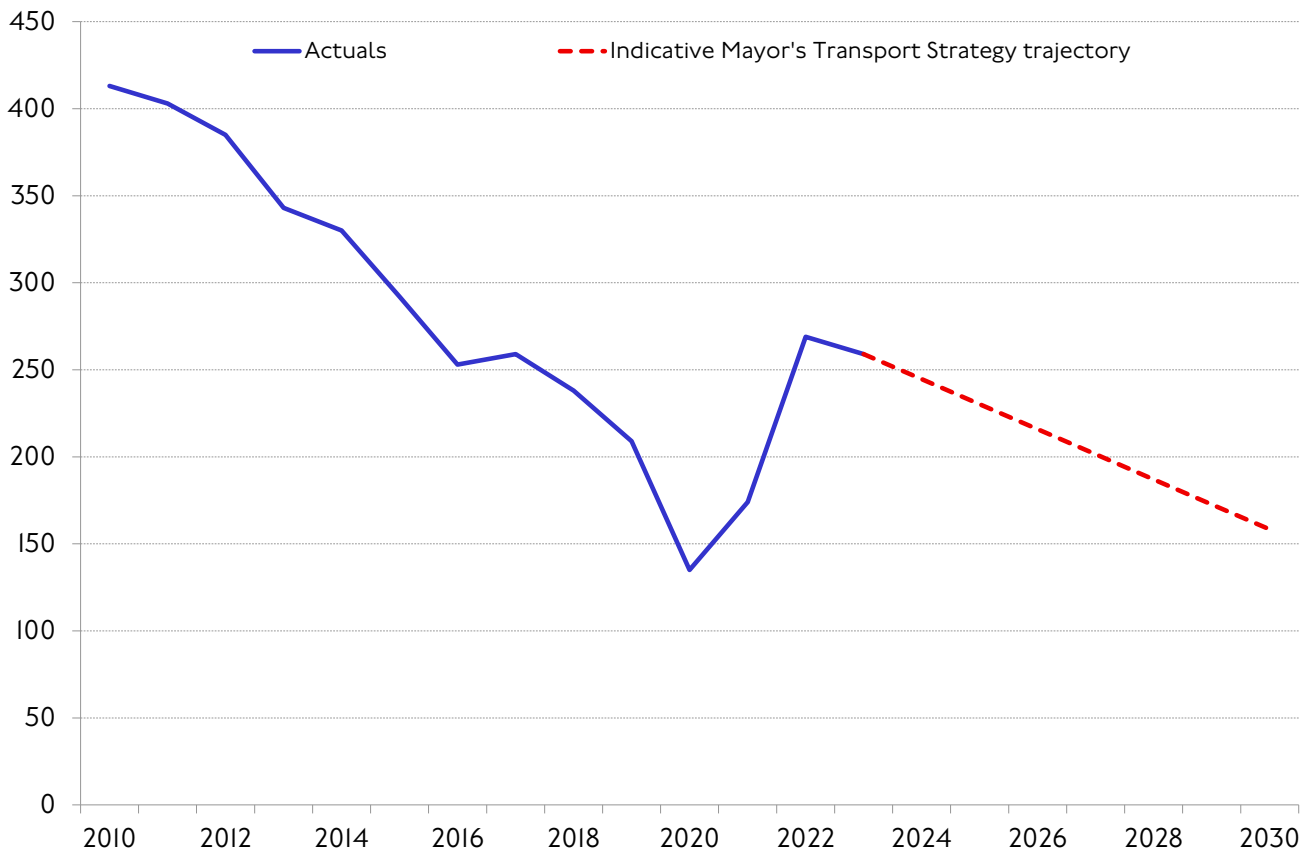
Note: Data reported for 2023 is provisional



We have set an ambitious target for bus safety, as described in the section on Safe Vehicles below. Provisional data suggest that the number of people killed or seriously injured in collisions involving London buses in 2023 reduced by 31 per cent against our 2010-14 baseline, compared to an overall reduction across all transport modes on London’s roads of 24 per cent. This is also a four per cent reduction compared to 2022, however further acceleration of the reduction against the baseline is needed to stay on track to meet the Vision Zero target.

Figure 13: Mayor’s Transport Strategy Tracker for Safe: People killed or seriously injured on or by a Bus, observed 2010 – 2023 and Mayor’s Transport Strategy target trajectory. Source: TfL

Note: Data reported for 2023 is provisional



Our continued commitment to innovation as a means to move towards Vision Zero has been recognised externally in the form of several awards in the past year. In December 2023, we received four awards from the Prince Michael International Road Safety Award scheme, for [London’s Direct Vision Standard](#), [Bus Safety Standard](#), fitting of [Intelligent Speed Assistance](#) on vehicles in the transport support fleet and for See.Sense² for its Proof of Concept for Vision Zero. We were also awarded the 2023 Premier Award at the ceremony for impressive investment and commitment to our Vision Zero ambition. Despite this welcome recognition there is much more to achieve to reduce deaths and serious injuries.

² The See.Sense project aimed to enhance cycling safety in London by utilising See.Sense smart bike lights as sensors. By gathering crowdsourced sensor data, the project provided insights into cycling conditions and potential risks, supporting our Vision Zero targets. The project addressed the need for granular, sensor data, to inform risk models and evidence-based decision-making. The use of See.Sense technology showcased the project's scalability and potential for widespread application

3.2.1. Safe streets

Since April 2017, we have been working to make significant improvements at those junctions identified as the highest risk locations for those walking, cycling and riding motorcycles. To date the Safer Junctions programme has delivered improvements at 45 junctions. The most recent is the Holloway Road / Drayton Park junction in Islington, delivering pedestrian safety improvements in the form of new and improved crossings.

Design work has been continuing for the remaining 28 Safer Junction locations, with some of these improvements being implemented under experimental orders, as follows:

- Chelsea Embankment/Grosvenor Road/Chelsea Bridge Road (as part of improvements to C8)
- Holloway Road/Tollington Road/Camden Road
- Holloway Road/Parkhurst Road/Seven Sisters Road (as part of C50), with consultation due to start on the C50 junctions in May 2024

Following publication of the consultation report for safety improvements at Battersea Bridge in June 2023, we are progressing design and survey work at pace to make improvements to the north and south sides of the bridge, including new pedestrian crossings, bus lanes, cycle signals and a section of protected cycle track. This will complement the initial junction improvements made in 2021 to the north side of the bridge which included a new pedestrian crossing, wider pavements and a lower speed limit of 20mph. Construction is due to start in autumn 2024.

In January 2024, we started engagement on pedestrian and cycle improvements at the junction of the Seven Sisters Road/Woodberry Grove and Holland Park roundabout, which is part of the next phase of the Cycleway 34 scheme. We have committed to public engagement on potential changes to 10 Safer Junction locations by the end of 2024, and we have currently achieved this at six locations.

Design work has continued on a further 40 Road Safety Programme schemes across London, at locations where there is an identified road safety concern. Of these, detailed design started in January 2024 for road danger reduction improvements at the junction of King's Cross Road/Pentonville Road. We have completed construction at five locations so far in this financial year, including:

- The A10 Edmonton County School, to improve entrance and exit movements
- The A4 Bath Road by the Compass Centre, where improvements were made to a pedestrian crossing in the area and the speed limit reduced from 50mph to 40mph
- The junction of the A205/Lancaster Avenue where improvements were made to a pedestrian crossing
- Grosvenor Place in Westminster - a new pedestrian crossing
- Palatine Road in Hackney - an upgraded pedestrian crossing

The Healthy Streets Local Schemes programme which focuses on the implementation of new and improved crossings, delivered four schemes in 2023 at A23 Kennington

Road/Kennington Lane (four improved pedestrian crossings); A24 Clapham Common Southside junction with Cavendish Road (one new signalised pedestrian crossing); A503 Camden Road (two new pedestrian crossings); and A205 Brownhill Road/Torridon Road (three new pedestrian crossings).

Lambeth Bridge project pre-construction enabling works started in November 2023 following detailed design completion. Construction is anticipated to take place during the next financial year (2024/25). This scheme is a high priority for road safety as well as for security. The project will deliver highway safety improvements by removing the roundabouts at either end of the bridge and replacing them with signalised junctions and dedicated cycle facilities to help increase cycle connectivity in the area. The project also involves the provision of hostile vehicle mitigation measures on Lambeth Bridge as well as essential structural maintenance and renewal work to increase the longevity of this important river crossing.

3.2.2. Safe speeds

Lowering vehicle speeds in London is key to reducing both the likelihood of a collision occurring and the severity of the outcome.

We have continued to encourage London boroughs to implement further 20mph speed limits on their roads or to consider a default borough wide 20mph limit. At present, 18 of the 33 London boroughs (including the City of London) have implemented a 20mph default limit. Figure 14 shows the TLRN roads subject to a 20mph speed limit as of May 2023.

Figure 14: Map of the TLRN with a 20mph speed limit, May 2024. Source: TfL

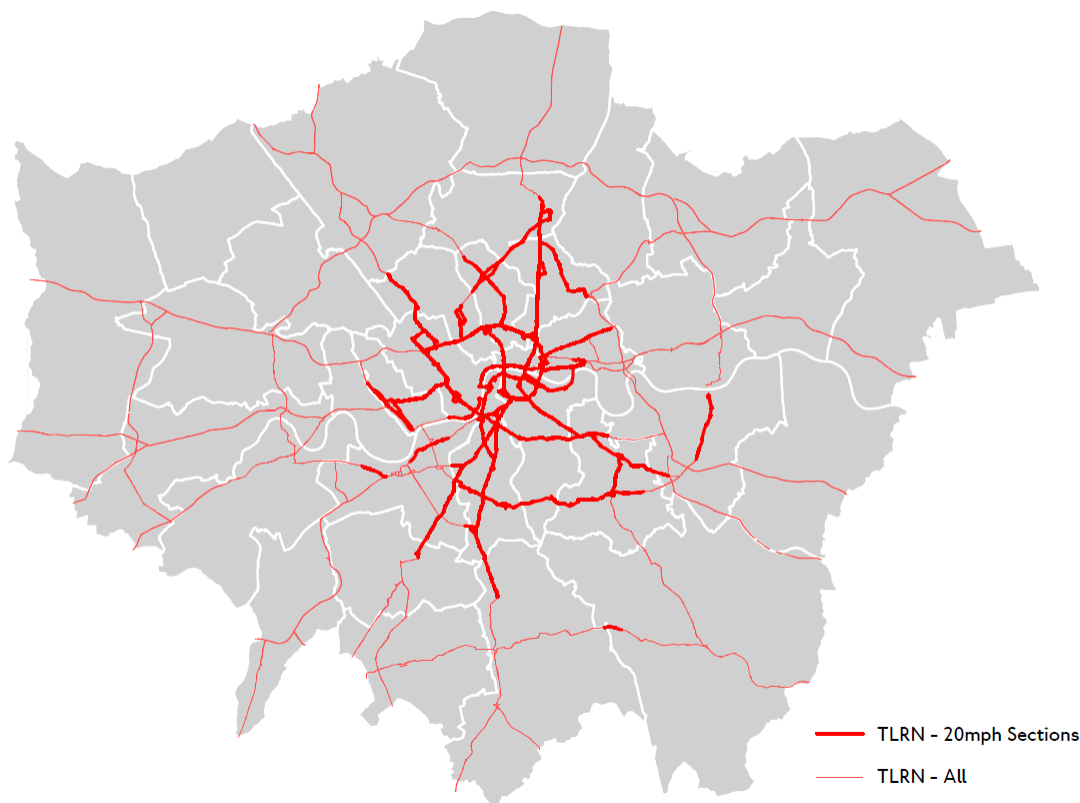
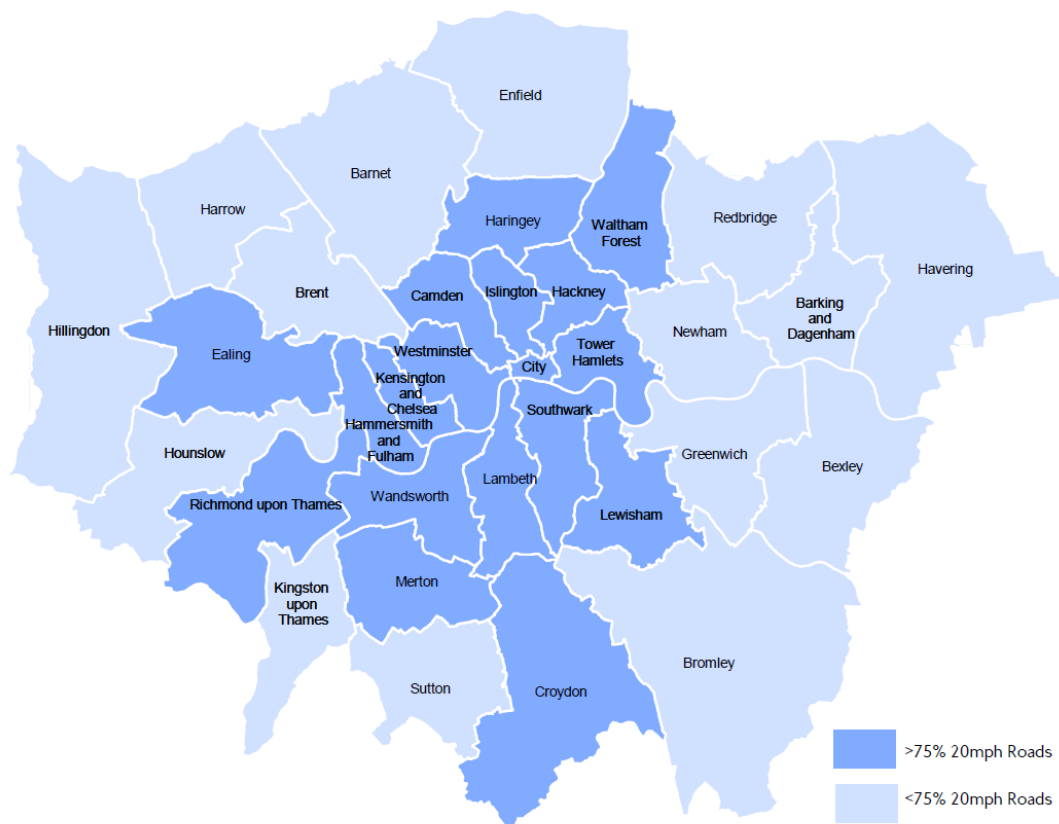


Figure 15: London boroughs with more than 75 per cent coverage of 20mph limits on all roads with speed limits. Source: London Digital Speed Limit Map, May 2024



The second phase of the safe speeds programme for the TfL Road Network is now nearing completion, with a further 5km to be implemented by May 2024. The total length of TLRN operating with a 20mph speed limit is 264km, 180km of which has been delivered since 2020.

In July 2023, the new lowering speeds educational campaign was launched to complement the on-street changes. The radio and digital campaign sought to explain to road users why we are lowering speed limits on some of our roads, highlighting the positive outcomes the programme has already achieved. This campaign, together with the new speed influence campaign, helps to bridge the gap between the lack of understanding behind the implementation of 20mph speed limits and why there is still a need for the behaviour change highlighted in the campaign.

It has been shown that nearly half (47 per cent) of Londoners claimed to have changed their travel behaviour as result of the campaign. The latest regular survey data is showing positive results: 44 per cent of all Londoner respondents strongly agree that speed limits of 20mph help prevent deaths and serious injuries on London's roads; 72 per cent of driver respondents agree that a speed that feels slow when you're driving can kill or seriously injure a pedestrian or cyclist; and 65 per cent agree that they need to think more about how fast they are driving.

Targeted localised lowering speeds communications also took place, informing local residents and businesses of changes in their areas, as set out on our [Lowering Speed limits Have Your say page](#).

3.2.3. Safe vehicles

Bus safety strategy

In September 2023, we published our new [Bus safety strategy](#) which outlines specific actions to be taken to achieve our Vision Zero goals for the bus network. These actions aim to eliminate deaths caused on, or by, a bus by 2030, and for there to be no serious injuries by 2041. The actions set out in the strategy include commitments to further progress the retrofit of intelligent speed assistance, trial fatigue detection on buses and work with the London Fire Brigade and other key stakeholders to identify vital new measures to tackle the risks posed by bus fires.

Bus Safety Standard

Safety is at the heart of our bus operations and the work of our Bus Safety Programme and the Bus Safety Standard is critical. We remain committed to going further wherever possible to ensure the safety of our operations and are pleased to report that more than 1,400 vehicles are now compliant with our Bus Safety Standard.

Across the year, we have achieved substantial progress on our Bus safety strategy. Having proven the effectiveness of new measures and mandated them in the Bus Safety Standard for new buses, we have begun an active retrofit campaign for some leading and available technology to the existing bus fleet. As part of this, we have fitted 3,795 buses with intelligent speed assistance, which uses GPS and geo-mapping to check the vehicle speed is within the speed limit. We have also fitted 1,251 buses with an acoustic vehicle alerting system (AVAS), which alerts other road users to the presence of quieter electric buses. We are currently upgrading this with our new responsive acoustic vehicle alerting system, which adjusts the sound levels to the ambient environment, increasing the volume in busy areas and lowering in quiet areas. Furthermore, we have had 1,297 buses fitted with a camera monitoring system that replaces wing mirrors to reduce blind spots and improve the driver's field of vision.

We have been liaising with interested bus operators and suppliers to trial two innovations: audible safety messaging initiated by sensors in the stairwell and upper deck bell push buttons, and driver training linked to telematics.

Direct Vision Standard

The Mayor launched the world leading Direct Vision Standard and Heavy Goods Vehicle (HGV) Safety Permit Scheme in 2019. The Direct Vision Standard tackles road danger at its source by eliminating HGV blind spots, which contribute to many tragic deaths and life-changing injuries. Initial analysis suggests there was a 35 per cent reduction in the number of people killed and seriously injured by an HGV when walking, cycling and motorcycling in 2023, compared to the pre-pandemic average of 2017/19 (38 people in 2023 compared to a

2017/19 baseline average of 59). If we focus solely on the number of people killed by a HGV when walking, cycling and motorcycling in 2022, the reduction is more marked: a reduction of 62 per cent (six people in 2023 compared to a pre-pandemic average of 16). Similarly, there was a 30 per cent reduction in the number of people seriously injured in 2022 compared to the pre-pandemic baseline.

During the 2023/24 financial year, we achieved formal approval for the new Progressive Safe System, as set out in our [report to London Councils' Transport and Environment Committee](#). This delivers our commitment to raise the minimum Direct Vision Standard star rating from one to three stars, as set out in our [Freight and servicing action plan](#). This means that the new, enhanced requirements will be enforced for safety permits issued to zero, one and two star rated vehicles from 28 October 2024. To give the road haulage industry sufficient time to buy, fit and test any new equipment to be retrofitted to their vehicles to comply with the new Progressive Safe System requirements, we also confirmed a grace period for operators of zero, one and two star rated vehicles who need additional time after 28 October 2024 to make their vehicles compliant with the higher standard.

Throughout autumn and winter 2023, our focus has been on supporting HGV drivers and the road haulage sector to be ready for the new requirements when they come into force. Activities to achieve this include the publication of updated [Operator's Guidance](#) in September 2023 and we are continuing to develop improvements to the user experience for HGV operators when applying for an HGV Safety Permit. Any extension to the grace period will be subject to agreement with London Councils TEC,³ and the first Safety Permits that incorporate the new Progressive Safe System have been available from 24 June 2024.

Fleet Operator Recognition Scheme

The Fleet Operator Recognition Scheme (FORS) is a voluntary accreditation scheme for fleet operators that aims to drive up standards within fleet operations and demonstrate which operators are achieving exemplary levels of best practice in safety, efficiency and environmental protection.

As part of this initiative, our Safe Urban Driving training course for HGV drivers is funded and delivered to increase awareness of the risks to people walking, cycling and motorcycling when driving in urban areas. To date, more than 110,000 HGV drivers have attended the course, which has now been fully revised with new training material to encompass the ever-changing driving conditions in the city. The new material, known as 'Safe Driving', also replaces the Van Smart training content so that van and HGV drivers only need to complete one course every five years. This year 52,522 HGV drivers have attended FORS training including Safe Urban Driving and the new Safe Driving course. Some drivers have addressed the cycling practical phase by undertaking the virtual reality or immersive training alternative options that are now available to FORS.

To date, FORS has approximately 4,700 operators that have signed up to the scheme, with members from the UK and within the European Union. We have updated our procurement

³ Transport and Environment Committee

rules for TfL-let contracts so that from April 2024 we will specify FORS Gold level for those supplier contracts worth more than £1m, and Silver for those worth less than this. This is part of our commitment on Work-Related Road Risk to improve and retain a high standard of vehicle and operator compliance and improve road safety through our supply chains.

During the 2023/24 financial year, we have also reviewed and revised the FORS standard. Version seven of the standard was published in May 2024 for implementation in January 2025. This included new environmental requirements, requiring operators to calculate and record their tailpipe emissions, and so commencing the journey to using cleaner vehicles, along with some changes to the driver training standards. The alternative schemes we have accredited such as the Driver and Vehicle Standards Agency's 'Earned Recognition' scheme and the Mission Zero scheme are required to align with all changes to the FORS standard, for consistency in the operating standards applying to drivers.

Safety improvements in the TfL fleet

Intelligent speed assistance helps drivers stay within the speed limit by restricting the top speed and acceleration of the vehicle. At the end of 2023/24, 360 of approximately 900 vehicles had intelligent speed assistance and we are continuing to expand this across the remainder of our fleet, including by ensuring that all new vehicles entering as replacements are fitted with this technology.

Additionally, we have been working to ensure that all new vehicles coming into the fleet are as safe as possible by procuring them to a safety standard based on the European New Car Assessment Programme. This is in line with our commitment in the [Vision Zero Action Plan progress report](#) (action 27). The standard that we seek to procure to is:

- For vans: Gold or Platinum standard
- For cars: five stars (with minimum 70 per cent Safety Assist and Vulnerable Road User score)

This standard encourages the uptake of the latest vehicle safety technologies (including intelligent speed assistance) and is also a self-maintaining standard (meaning that the standard will not require updating by TfL as vehicle technology advances). We intend to promote this procurement standard more widely to other organisations to improve vehicle safety standards in London.

The [General and Pedestrian Safety Regulations](#) were adopted by the European Union nearly two years ago and feature a package of 15 life saving features, including enhanced direct vision in HGVs, automated emergency braking systems, and intelligent speed assistance. The UK played a key role in the development of these vehicle safety measures before its departure from the European Union and we continue to call on the Government to adopt them as part of its new vehicle-type approval system.

Taxi and Private Hire

In 2020, the DfT set out new statutory standards to improve taxi and private hire vehicle safety. While the focus of these standards is on protecting children and vulnerable adults, all passengers will benefit. Although we are already compliant with the majority of these standards, in spring 2023 we consulted on further proposals and have published a [Consultation Report](#).

The proposals in Part 1 of the consultation have been prioritised, to ensure that we implement the remaining DfT statutory standards at the earliest opportunity. A decision was taken and a number of [regulations](#) were signed in November 2023, including the requirement for licensees to inform us of any arrest and release, charge, caution or conviction within 48 hours and the requirement for taxi drivers to pass a Safety, Equality and Regulatory Understanding assessment. The requirement for all applicants for a taxi or private hire vehicle driver's licence, to provide evidence of registration with the Disclosure and Barring Service update service has already been implemented and came into effect in February 2024.

New licensing requirements came into effect in April 2023 for private hire drivers. Any new applicants for a private hire vehicle driver's licence are required to take and pass both an English language speaking and listening test and the safety, equality and regulatory understanding requirement assessment. Those who were licensed or applied before April 2023 also need to satisfy these requirements.

3.2.4. Safe behaviours

Motorcycle safety and the meal and grocery delivery industry

People riding motorcycles face the greatest likelihood of death or serious injury of anyone driving/riding on the roads. Our casualty data has shown that people riding scooters and motorcycles are disproportionately injured in road collisions in London. Motorcyclists or those riding scooters account for 26 per cent of those fatally or seriously injured, while they only account for 2.7 per cent of the distance travelled by vehicles in London (2017-2022).

We have been working with the meal and grocery delivery industry and other stakeholders to reduce this number and bring about change.

Meal and grocery delivery motorcycle safety charter

In September 2023, we launched our voluntary [Meal and grocery delivery motorcycle road safety charter](#), which aims to keep motorcycle couriers and other Londoners safe on the roads. It consists of 10 road safety principles, which are aligned with our Safe Systems approach.

Five of the key companies in the meal and grocery delivery industry have signed up and committed to making improvements to reduce motorcycle casualties. This is a significant step in our efforts to achieve Vision Zero. To keep the momentum and conversation about road safety going, our second delivery company road safety forum will take place in spring 2024.

Improvements to motorcycle basic training

Training requirements for low-powered motorbikes are the lowest of any motorised vehicle in the UK. The current compulsory basic training for those wanting to ride motorcycles and mopeds enables people as young as 17 to ride motorcycles up to the national speed limit with L-plates after one day of training and without a theory test. This training was developed more than 30 years ago and has not been updated to reflect the usage and trends of today. We believe that improving the compulsory basic training has the potential to greatly reduce road danger for everyone. In July 2023, we sent a letter to the DfT, calling for improvements to the training, co-signed by a range of stakeholders including road safety charities, the motorcycle stakeholder groups and other transport authorities. We hope that speaking with a unified voice on this issue will encourage the Government to act.

Police education and enforcement

We continue to work closely with the Metropolitan Police Service (MPS) and the City of London Police to deliver on London's Vision Zero commitments. Traffic policing and enforcement of criminal and antisocial road user behaviour is a core part of our efforts to reduce road danger. The MPS and City of London Police undertake significant and wide-ranging activity to reduce road danger and prevent harm to all road users. This includes prevention and intelligence gathering activities, problem-solving to tackle the root causes of problems, community engagement and initiatives such as Community Roadwatch, Junior Roadwatch, Exchanging Places, close passing operations and actively monitoring and targeting high risk vehicles and drivers.

Throughout the year, the MPS Roads and Transport Policing Command participates in monthly national policing campaigns co-ordinated by the National Police Chiefs council. These operations are themed around road danger enforcement priorities, such as speed, use of mobile phones, not wearing a seat belt, and drink and/or drug driving. In November 2023, officers supported 'Operation Drive Insured' as part of Brake's National Road Safety Week, themed 'Let's talk about speed'.

We are making good progress on our commitment to increase the levels of speed enforcement undertaken by the police, building the capacity to enforce up to one million offences a year from 2024/25. In 2023/24, the MPS and the City of London Police enforced 902,887 offences in total, including 771,997 for speeding offences, 5,317 arrests for those driving under the influence of drugs or alcohol, and 14,159 mobile phone offences.

London's roads policing and enforcement data can be viewed on the [Vision Zero enforcement dashboard](#) on our website. Publicly accessible, the dashboard contains data on arrests, Notices of Intended Prosecution issued by the police for road traffic offences and for offences detected through London's safety cameras, Traffic Offence reports issued at the roadside, and letters to speeding motorists identified through Community Roadwatch.

3.2.5. Post-collision learning

In September 2023, we brought together road safety charities, policing partners, the emergency services, London councillors, MPs and London Assembly members for the third Vision Zero summit, five years on from the publication of the Vision Zero action plan.

At the summit, we announced our plans to launch a new victim support service pilot scheme to significantly improve support for victims of the most serious road traffic collisions in London. The service includes support from caseworkers recruited by the road safety charity Brake and longer-term aftercare support provided by RoadPeace (the National Charity for road crash victims). In partnership with the MPS and City of London Police, the service was launched as a one-year pilot scheme in November 2023, and will be accessible through direct referral from the MPS' Serious Collision Investigation Unit.

So far, approximately 60 people have been or are currently, in the care of the service. Brake and RoadPeace have reported positive feedback from those supported.

Inequalities in road danger

Following on from the [Inequalities in road danger in London report](#) in April 2023, we have embarked on a programme of engagement with boroughs and stakeholders to discuss the findings.

We have also developed an inequalities in [road danger dashboard](#) where users can interrogate the casualty data, with the ability to filter by borough, year, casualty severity and mode of transport. Published in January 2024, it sits alongside other Vision Zero dashboards, showing road casualties in London and police enforcement data.

We will continue to analyse the causes of inequalities in road safety, and work with public health and borough stakeholders to help target future road safety programmes and drive further action to make London's roads safer.

3.3. Efficient use of street space

An efficient street network is critical to enable us to make progress on our targets for active, efficient and sustainable mode share, and help improve Londoners' health. Reducing traffic dominance is key to addressing the triple challenges of toxic air pollution, the climate emergency and traffic congestion.

The continued dominance of motorised traffic not only makes it more difficult for people to choose to walk, cycle or take the bus, it also takes up valuable space on our streets. This space could be better used for these active and sustainable modes, which use space more efficiently, as well as to support essential freight and servicing trips. Space allocated to buses and cycles transports many more people per kilometre than private motor traffic.

We will continue to take action to:

- Manage the network to prioritise the most efficient modes of transport and minimise disruption from street works
- Roll out bus priority measures to improve bus journey times and reliability
- Support efficient ways of moving freight, by making changes to how the network operates and enabling more efficient ways of working in the commercial sector

Efficient use of street space is a key part of our wide-ranging activity to improve bus customer journey times (see Focus On: Improving bus customer journey times on page 90).

3.3.1. Managing an efficient network

Healthy Streets signal programme

TfL is responsible for the management of more than 6,000 sets of traffic signals across the capital. Signal timing reviews – which look at how different signals work in specific locations – offer an opportunity to make changes so that we can optimise conditions for active, efficient and sustainable modes of travel. For example, we can co-ordinate signals to help buses progress more smoothly, reduce pedestrian wait times and prioritise buses that are running late.

In 2023/24, signal timing reviews have enabled us to exceed our target of 8,800 hours saved for active, efficient and sustainable modes. This includes:

- 8,417 bus passenger hours saved from 594 reviews
- 726 hours saved for people walking from 391 reviews, including reduced waiting times for people crossing at 133 sites
- 42 hours saved for people cycling from 45 reviews

The Surface Intelligent Transport System programme has recently been enhanced with the new Real Time Optimiser project. This next generation technology will facilitate improvements in our management of the road network over the coming years and will significantly improve our ability to deliver the Mayor's Transport Strategy.

Managing street works on the TfL Road Network and Strategic Road Network

This year, we have continued to engage with works promoters (both within TfL and external providers such as utility and other companies) to minimise any negative impacts of highway works on people walking, cycling and travelling by bus. We work together to ensure that the temporary arrangements in place during the works – road layouts, traffic signal arrangements and signage – do not lead to unnecessary diversions, delays or barriers to accessing facilities. We set targets to reduce this disruption and are working with London boroughs to encourage the same on their networks.

During 2023/24, we avoided 5.9 kilometres of unnecessary diversions for pedestrians, more than 52km of unnecessary diversions for buses or bus priority protected, and a little more than three kilometres of diversions for cyclists or cycle facilities maintained during temporary

interventions. By challenging durations and working methods we saved 7,772 days of highway occupation and facilitated 1,184 days of collaborative working between multiple works promoters to prevent the same streets being repeatedly dug up. We are in partnership with the Greater London Authority (GLA) Infrastructure Coordination Service to drive a consistent approach to collaboration across London, which to date has resulted in an additional 1,000 days of disruption saved.

The Lane Rental scheme has been in operation on the TLRN since June 2012 and has been successful in minimising disruption caused by roadworks and streetworks on our network. We are now working with the DfT and London boroughs to deliver a pan-London framework for a London Borough Lane Rental scheme, which would allow boroughs to opt in so lane rental charging can be applied to the most sensitive parts of the borough road network. There are already two London boroughs (Enfield and Lambeth) committed to making a formal application to the DfT to operate Lane Rental, with a further four boroughs also showing a keen interest. The aim is for the first tranche of boroughs to go live with their schemes in April 2025.

Network Operating Strategy and Bus Sense programme

We have developed a Network Operating Strategy that applies those traffic management approaches already used on the TfL Road Network and Strategic Road Network to the entire London road network. Informed by extensive data and intelligence about how the network serves our customers, the Network Operating Strategy gives us a framework to collaborate with highway authorities and other partners to deliver better outcomes for people, businesses and essential services, and keep London moving.

More than 400,000 roadworks applications are received each year across London, which can cause a high level of volatility on the bus network - almost half of all road works are on bus routes, and are responsible for a significant level of bus delay. The Network Operating Strategy enables us to deliver innovations such as our Bus Sense programme (a partnership with boroughs and utility companies to support the mitigation and coordination of high-impact road activities on buses). This partnership expanded in 2023/24 to 12 boroughs and a number of utility companies to further increase the reach of this initiative across London.

3.3.2. Supporting efficient ways of moving freight

The Mayor's Transport Strategy aims to reduce the number of goods vehicles driving in the central London Congestion Charge zone during the weekday morning peak by 10 per cent from 2016 levels by 2026. This reflects pressures on the road network at this time of the day and will help to reduce road danger.

Figure 16: Change in freight vehicles entering the Congestion Charge zone compared to 2016, 13-period moving average, 2017/18 - 2023/24. Source: TfL

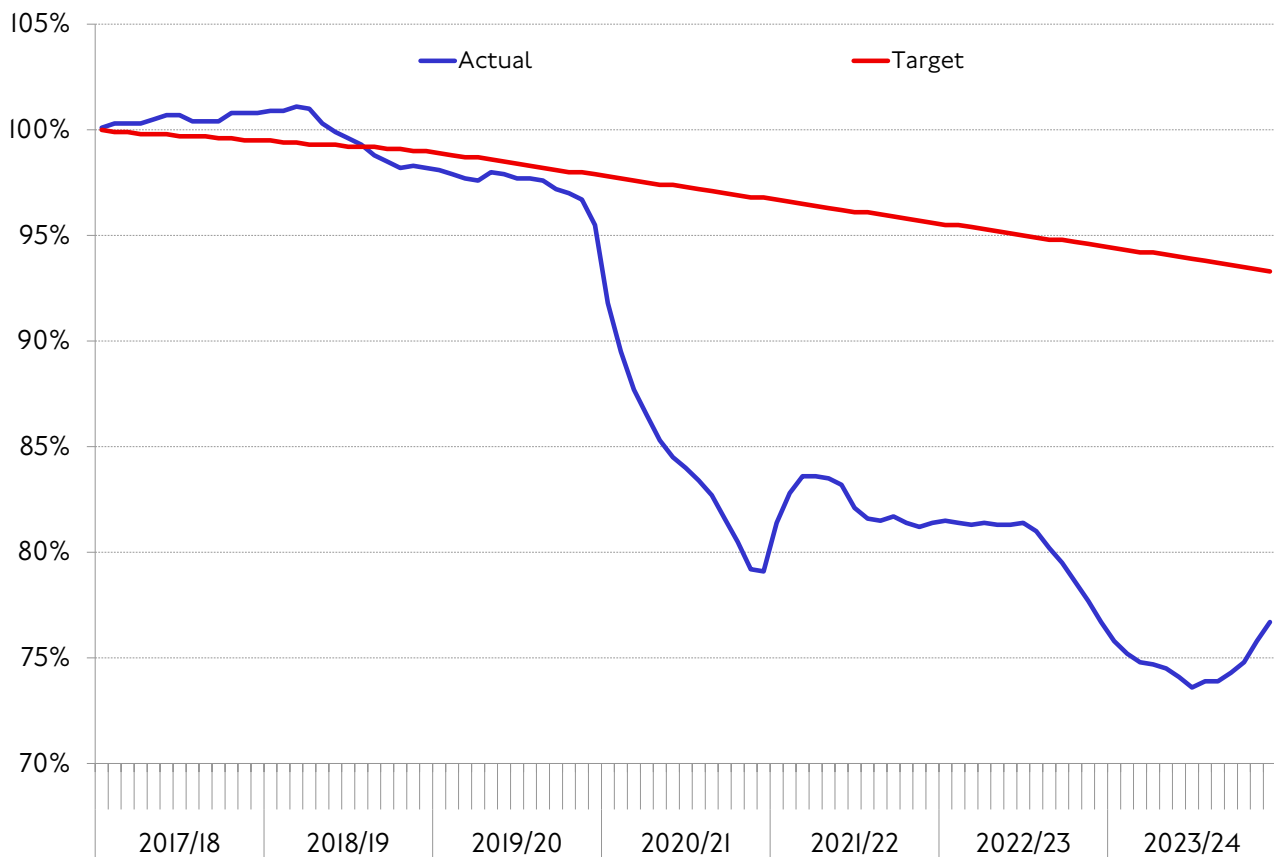


Figure 16 shows actual observations of freight vehicles in the Congestion Charge zone compared with a straight-line trajectory to this target. By early 2021, the reduction in the number of vans and lorries was more than 20 per cent against the 2016 baseline, mainly due to the impact of the pandemic. Although there was an initial increase in goods vehicle numbers once the pandemic restrictions were lifted, in 2022 the number of vehicles stabilised to around 19 per cent below 2016 levels. In 2023/24, we saw the rate of vehicles continue to decline and stabilise around 75 per cent of the 2016 baseline. It is now around 24 per cent below the 2016 baseline. This indicates that the Mayor’s Transport Strategy target continues to be met.

We are working to take forward a range of initiatives to identify more efficient ways of moving freight and goods around the city, including through shifting journeys onto more efficient and sustainable modes. These include:

- A review of the trials of freight traffic signal timing reviews held at seven pilot locations in London, showed they delivered demonstrable improvements in journey time reliability and reduced journey times for HGV freight vehicles during the late evening and overnight periods. This has allowed us to commence the roll-out of freight signal timing reviews, informed by data that we hold and feedback from the freight haulage industry. We are grateful for the participation of DHL Express in the trials, including the sharing of their freight telematics data, which enabled the HGV freight benefits to be assessed. This work realises one of our key commitments from the [Freight and servicing action plan](#)

- In line with our [Cargo Bike action plan](#) published in 2023, we have begun the development of a London safety standard for cargo bikes and intend for this to be adopted later in 2024. This will be preceded by revised cargo bike operations guidance for operators and riders to ensure that riders are trained, operate safely and use proper equipment; thereby contributing to the safe and well-managed expansion of cargo bike use in London
- We continue to investigate the potential for technology and data to reduce the high number of bridge strikes and over-height vehicles colliding with tunnels in London. This research will help us to identify potential areas where improvements can be achieved to work towards fewer instances of bridge and tunnel strikes, and to improve compliance with carriageway weight limits. We have finalised the research outcomes report and intend to make this available later this year

3.3.3. Tracking progress against our aims

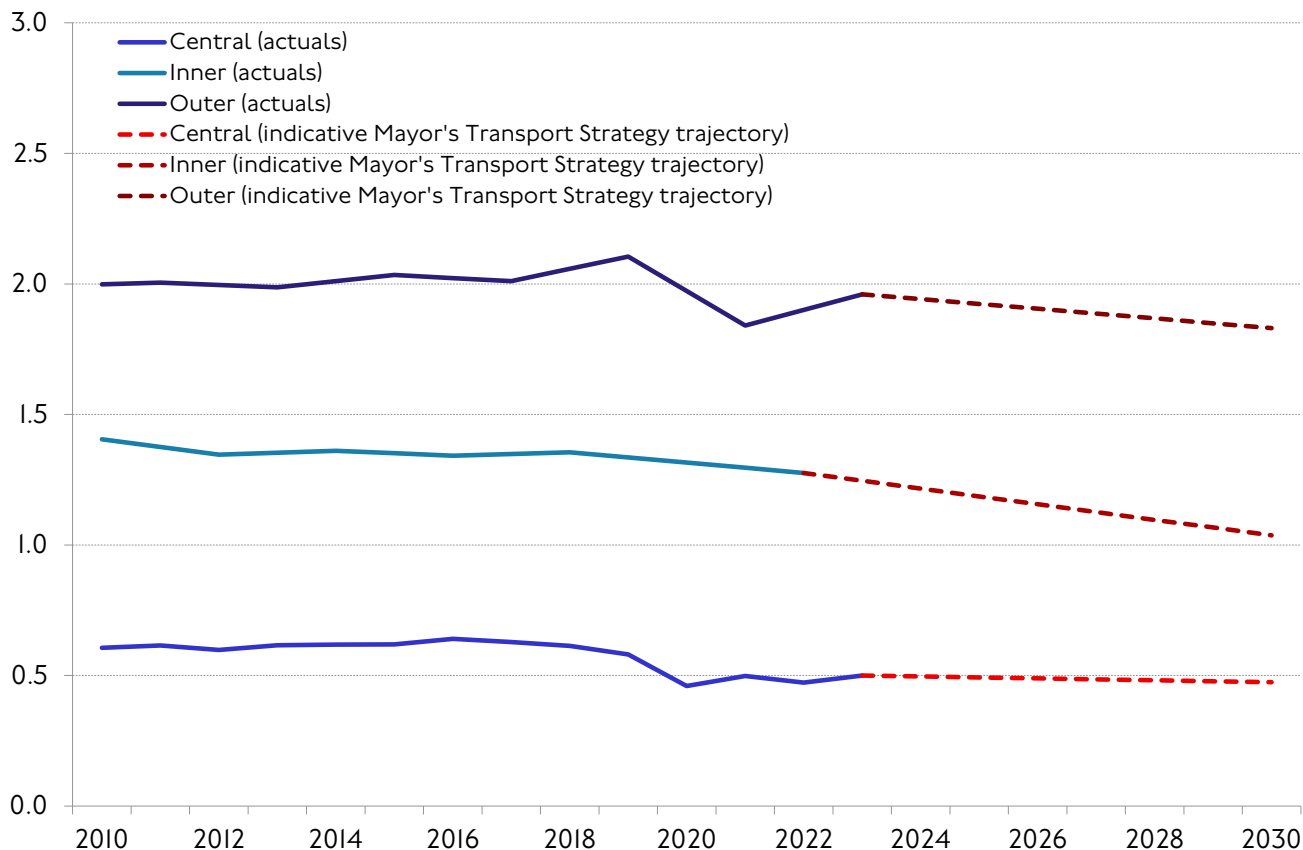
Seventy per cent of congestion in London is caused by demand exceeding capacity. Traffic dominance is one of the main deterrents to people cycling and walking: a healthy street is one where people feel safe and comfortable to use these modes, including as part of a longer journey to access public transport.

The Mayor's Transport Strategy Tracker for the 'Efficient' outcome monitors reductions in car use, namely the target of three million fewer car crossings at the three cordons at central, inner and outer London by 2041. These cordon counts have been used as the metric for the Mayor's Transport Strategy Tracker and show the number of cars passing the Greater London boundary cordon, inner London cordon and central London cordon on a representative day. It should be noted that cordon counts are only carried out every other year at the inner and outer cordons. Therefore, while the latest available data for the central and outer London cordons covers 2023, the latest available data for the inner cordon is for 2022.

Figure 17 shows the trend in the number of cars crossing the central, inner and outer cordons, with the aim in the Mayor's Transport Strategy being to reduce the number of car journeys by three million on an average day by 2041 compared with 2016. Despite post-pandemic increases in the numbers of cars crossing the boundary cordon, overall levels remain lower than before the pandemic. However, the tendency of traffic growth to reassert itself, particularly in outer London, is evident. Boundary cordon data, surveyed every two years, show that 2.11 million cars crossed the boundary cordon on an average day in 2019, falling to 1.84 million in 2021 and in 2023 this increased to 1.96 million.

Figure 17: Mayor’s Transport Strategy Tracker for Efficient: Number of cars counted crossing Greater London, inner London and central London cordons, cars per day (millions), 2010-2023 and indicative Mayor’s Transport Strategy trajectory to 2030. Source: TfL

Note: Counts were not undertaken in 2020 across the outer cordon and in 2020 or 2021 across the inner cordon, therefore the data reported are interpolated from adjacent years



While these reductions are to be welcomed and indicate the success of interventions particularly in central and inner London over the past decade, the outer London picture is concerning. Indeed, more than 70 per cent of London’s traffic is in outer London. The continued increase in trips across this cordon has a significant overall impact on our ability to use streets efficiently and achieve the Mayor’s Transport Strategy outcomes.

The switch from car use to active, efficient and sustainable modes is, in many cases, highly achievable. Almost 10 million car journeys are made in London every day: more than 30 per cent of these could be walked in under 25 minutes, and around 1.7 million of these trips could easily be made by bus. This switch would also increase Londoners’ time spent on active travel, thereby benefiting their health.

3.4. Green

Activities related to the Green outcome in the Mayor's Transport Strategy are being delivered alongside activities cited in the London Environment Strategy. This includes actions to reduce vehicle emissions, increase green infrastructure and biodiversity, adapt to climate change and increase the resilience of London's transport network to extreme weather. This will help move us towards meeting the Mayor's ambition for London to be a net zero carbon city by 2030 and improve the health of all Londoners through improving the city's air quality.

3.4.1. Improving air quality

Air quality in London

In March 2024, the Mayor published the [Air Quality in London 2016-2024](#) report. This draws on data from London's comprehensive monitoring network and the latest modelling from the London Atmospheric Emissions Inventory. This information is used to evaluate how much air quality in London has improved between 2016 and 2024, the period covering the Mayor's first two terms. It also assesses the policies that have contributed to this change.

The report notes, that although average concentrations of nitrogen dioxide (NO₂) were much higher in London than the rest of the UK in 2016, in the years following they have fallen much more steeply in London compared to the rest of the country. Annual roadside NO₂ concentrations across London dropped by nearly half (49 per cent) between 2016 and 2023, compared to 35 per cent in the rest of England, 39 per cent in Scotland and 31 per cent in Wales over the same period.⁴ However, parts of the city still exceed UK legal limits for NO₂ and most of the city still exceeds the World Health Organization's (WHO) air quality guidelines for NO₂ and particulate matter (PM₁₀ and PM_{2.5}). Despite substantial progress, the latest modelling shows that without additional action, all Londoners will still live in areas exceeding the WHO guidelines for both NO₂ and PM_{2.5} in 2025 and 2030.

Annual average roadside NO₂ concentrations by area are presented in Figure 18, showing progress since 2010, based on trend analysis from roadside air quality monitoring sites in London, and the indicative trajectory to the Mayor's Transport Strategy target. Average NO₂ concentration levels in central London have dropped by two thirds over the last decade - from 96 µg/m³ in 2013 to 34 µg/m³ in 2023. Inner London sites have also seen large reductions, with average NO₂ concentrations 55 per cent lower in 2023 compared to 2013. Outer London sites have also seen significant reductions in average NO₂ concentrations from 47 µg/m³ in 2013 to 26 µg/m³ in 2023.

A key enabler of the significant reductions in air pollution seen in London has been the introduction and expansion of the Ultra Low Emission Zone (ULEZ). In April 2019, the world's first 24-hour ULEZ was introduced in central London, and it was subsequently expanded to inner London in October 2021. On 29 August 2023, the ULEZ expanded

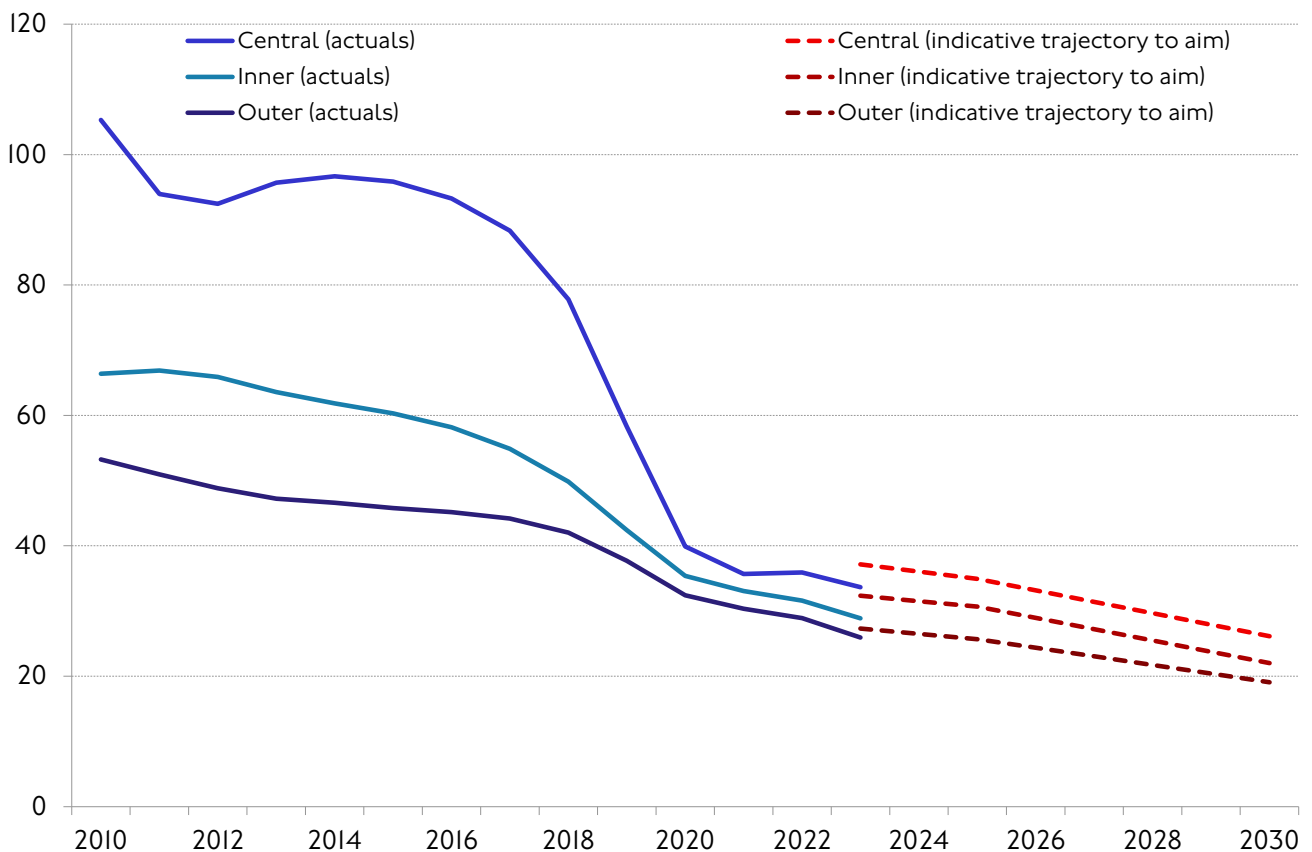
⁴ Northern Ireland is not included as no air pollution monitoring sites with sufficient data capture were available

London-wide, and now covers an area of around 1,500 km² with a population of around nine million people – this makes it the largest zone of its kind anywhere in the world.

Alongside the expanded ULEZ, we put in place a set of temporary exemptions (“grace periods”) to support disabled people, users of community transport minibuses, people using wheelchair accessible vehicles, and businesses and charities with brand-new compliant vehicles or a retrofit solution on order. Data up to and including 7 July 2024, shows that 7,247 applications were approved for a grace period. Our website provides a full list of these [discounts and exemptions](#).

Figure 18: Mayor’s Transport Strategy Tracker for Green: Average roadside NO₂ concentrations (µg·m⁻³) by area 2010-2023 and Mayor’s Transport Strategy indicative trajectory to 2030. Source: TfL

Note: Historical series has been updated to reflect improvements to air quality monitoring and trend-based analysis



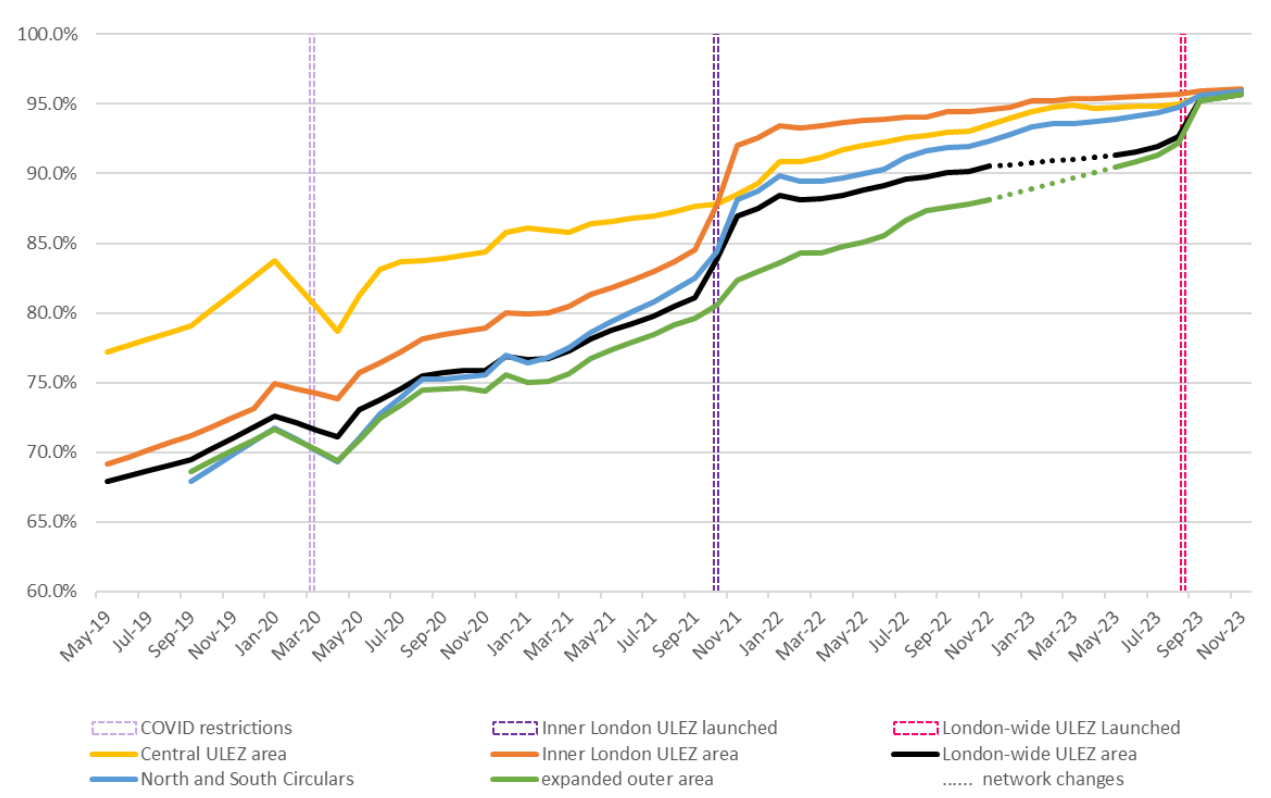
ULEZ first month report

Following the expansion of the ULEZ London-wide in August 2023, the [London-wide ULEZ first month report](#) was published in October 2023. This report evaluated the impact of the newly expanded scheme in its first month of operation. Initial data showed that the London-wide expansion has been highly effective at reducing both the proportion and number of older, more polluting vehicles on London’s roads. After the first month, the compliance rate for vehicles subject to the ULEZ was 95.3 per cent, up from 91.6 per cent in June 2023 and

from 39 per cent in February 2017 when changes associated with the central London ULEZ first began. After the first month, on an average day, there were 77,000 fewer unique non-compliant vehicles detected in the London-wide ULEZ compared to June 2023, a 45 per cent reduction.

We regularly report on vehicle compliance rates for the ULEZ with [quarterly factsheets available on our website](#). Our latest published data to the end of December 2023, shows that the compliance rate for vehicles subject to the ULEZ is now 95.8 per cent. Figure 19 shows the increase in ULEZ compliance across London over time and evidences the rapid improvement in compliance rates. Alongside this, the compliance rate for heavier vehicles subject to the Low Emission Zone⁵ is now 97.2 per cent.

Figure 19: Monthly average ULEZ compliance rates split by zone – all ULEZ vehicles. Compliance rate of unique vehicles detected in the zone. Source: ULEZ first month report



A longer period of time is required to assess the impact of the London-wide ULEZ on air pollutant emissions and concentrations. Preliminary analysis of the air quality impacts will be reported in a London-wide ULEZ six-month report in the summer of 2024, with a fuller analysis in a London-wide ULEZ one-year report due to be published in 2025.

London-wide ULEZ scrappage scheme

⁵ <https://tfl.gov.uk/modes/driving/low-emission-zone/your-vehicle-and-lez>

To support the London-wide expansion of the ULEZ, a new £110m scrappage scheme, funded by the Mayor, launched on 30 January 2023. This was initially targeted at low-income and disabled Londoners alongside sole traders, microbusinesses and charities, in line with the previous scrappage scheme that accompanied the central and inner London ULEZ schemes.

Ahead of the London-wide expansion, we made a number of changes to the eligibility criteria and grant levels in the scrappage scheme, in response to feedback from Londoners and to ensure that as many people as possible could benefit from the scheme. This included expanding the eligibility criteria to include small businesses in London with fewer than 50 employees and opening up the scheme to any Londoner with an eligible non-compliant car or motorcycle.

A number of ULEZ support offers were also secured to help Londoners (irrespective of whether they received a scrappage grant) save money and use greener, cleaner forms of transport. This included receiving cheaper hire and subscription services for bikes, e-bikes, cargo bikes and e-scooters, discounts on car clubs and many other offers supporting a switch to active, efficient and sustainable modes.

In March 2024, the Mayor launched a new option within the ULEZ scrappage scheme enabling applicants to donate their non-compliant vehicles to Ukraine, via a trusted partner, for humanitarian purposes. Those who choose to donate their vehicle receive the same level of grant payment that is available to those who choose to scrap their vehicle.

The Mayor increased the scrappage fund from a total of £110m in January 2023, to £160m in August 2023 and subsequently to £210m in February 2024, in recognition of the continued high demand for the scheme and its importance in supporting Londoners to change to less polluting vehicles. The most recent available data, up to and including 7 July 2024, shows that 53,351 applications have been approved and more than £183m has been committed (Table 2).

Table 2: Scrappage scheme key statistics (up to and including 7 July 2024).

Source: TfL

Note: These figures include 259 vehicles that have been accepted for donation to Ukraine to date (since this option became available from 15 March 2024). Please note that these donation figures are sourced from British-Ukrainian Aid (BUA), the registered charity which supports the transfer of vehicles to Ukraine to be used for humanitarian purposes

Scrappage key stats by scheme type	Car and motorcycle	Van and minibus	Total
Applications received to date	74,134	60,374	134,508
Applications approved to date (following proof of eligibility)	35,649	17,702	53,351
Total funds committed to date	£68,739,400	£114,980,000	£183,719,400

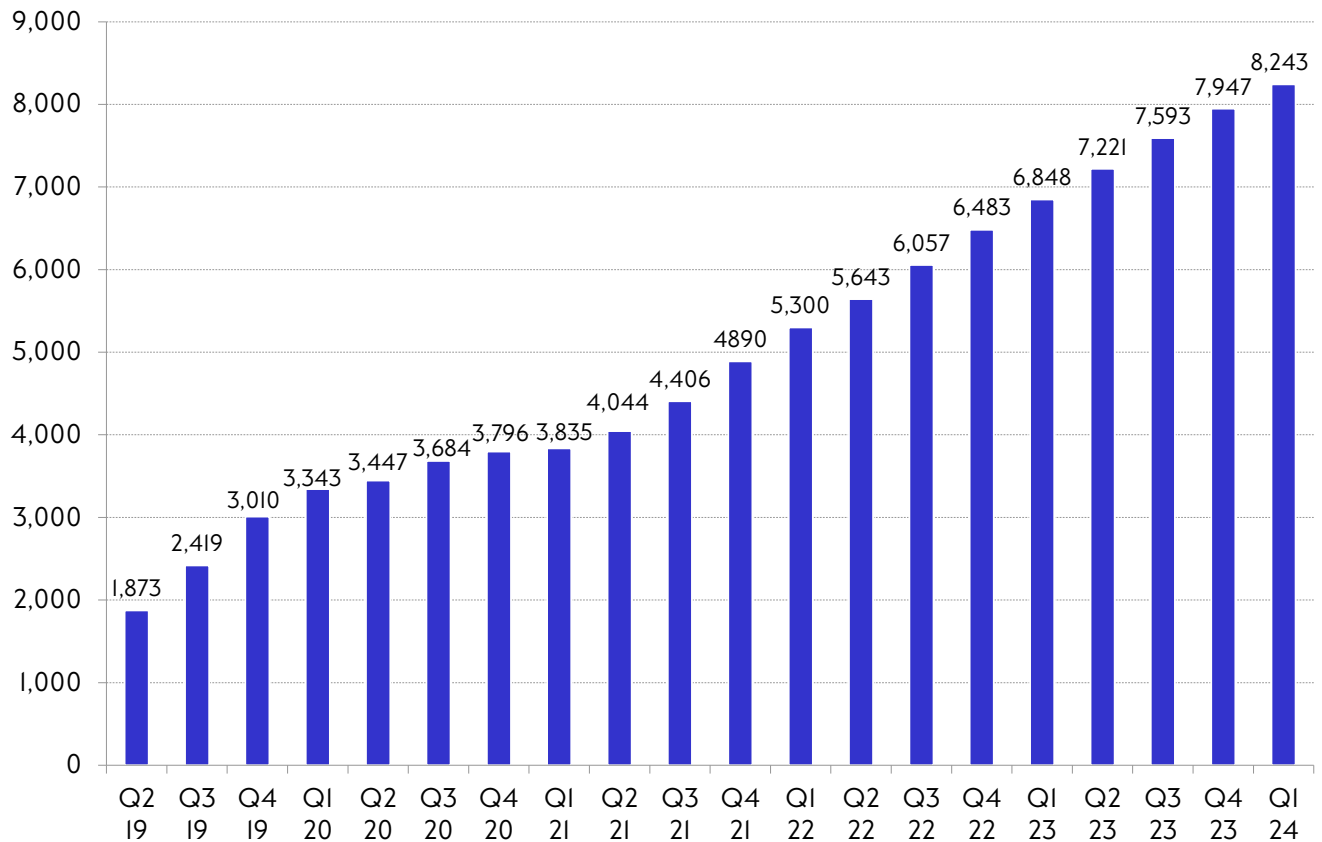
As with the previous scrappage scheme, we will publish an evaluation report following the scheme's closure which will include a detailed analysis of the scheme. This could include the number of successful applicants who did not replace their vehicle, once they had scrapped their vehicle and how applicants spent their grant payment.

Taxis and private hire vehicle emissions

London's iconic and historic taxi trade is now leading the way in the early adoption of zero emissions capable (ZEC) technology and, as a result, helping to reduce harmful emissions. As of March 2024, 56 per cent of 14,700 taxis actively licensed by us on London's roads were ZEC. The progress made to clean up the taxi fleet is significant; and has come about largely through our introduction of strict licensing requirements. These [licensing requirements](#) were introduced in January 2018, and since then all taxis presented for licensing for the first time have needed to be ZEC.

Figure 20: Cumulative number of actively licensed zero emission capable taxis in London. Source: TfL

Note: reporting of actively licensed ZEC taxis began in June 2019

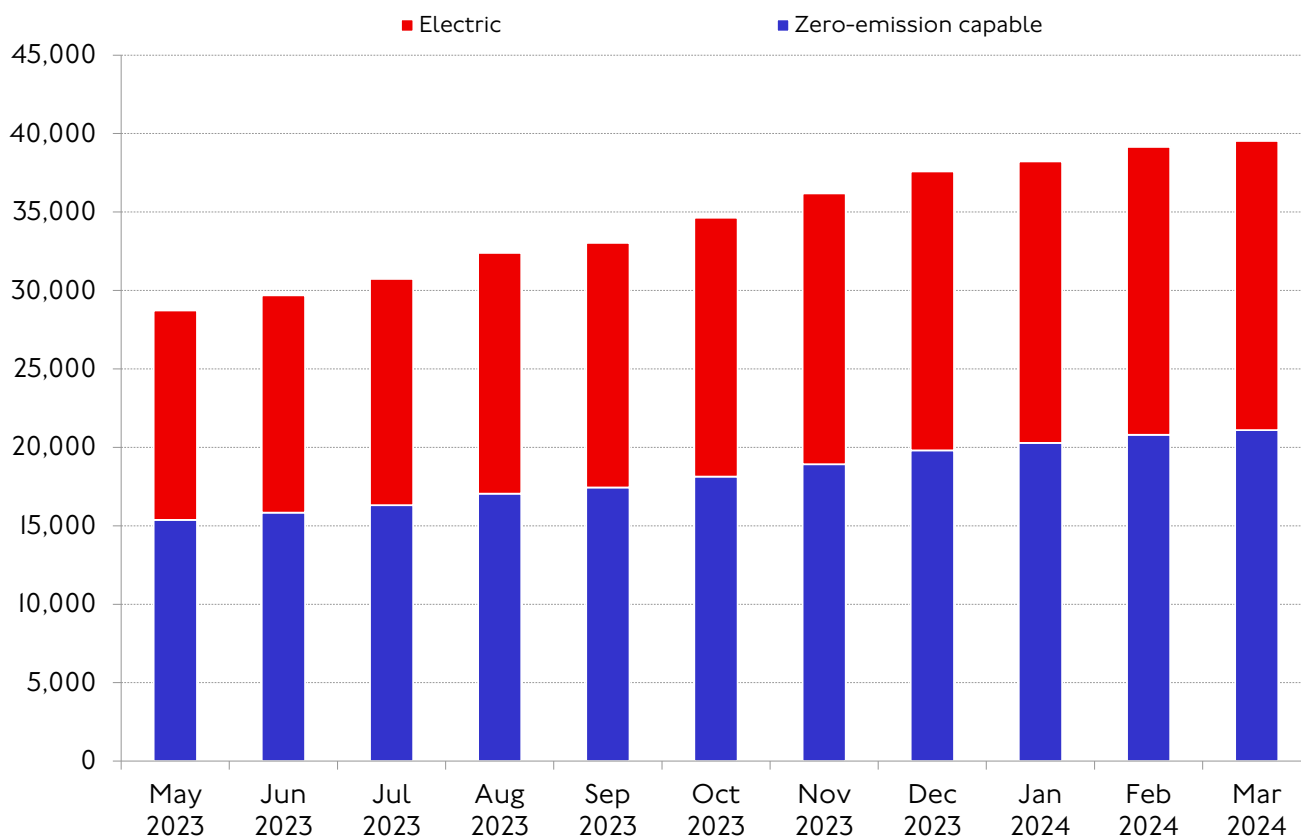


Alongside this, to phase out the most polluting vehicles from the fleet, from 2020 and 2022 we reduced the maximum age for the most polluting taxis from 15 to 12 years. To help drivers make the switch, a plug-in taxi grant remains available from the Government to help with the price of a new ZEC vehicle. In February 2024, following strong lobbying from a range of organisations including us, it was announced that the grant would be extended for another year until April 2025, albeit at a lower level of £6,000 per vehicle.

We have taken a similarly ambitious approach with [licensing requirements](#) for private hire vehicles. This included introducing emissions-based licensing requirements in 2018. The latest requirement was introduced in January 2023, with all private hire vehicles licensed for the first time needing to be ZEC and to meet the Euro 6 emissions standards. As of March 2024, nearly a quarter (23 per cent) of the private hire fleet was ZEC (emitting under 75g/km of CO₂) and one fifth (20 per cent) was electric.

Figure 21: Cumulative number of zero emission capable and electric private hire vehicles in London. Source: TfL

Note: Continuous reporting of ZEC PHVs and electric PHVs began in May 2023



Improving air quality on the Tube network

Improving air quality on the Tube network is a priority. We are taking a threefold approach to reducing dust levels:

- Conducting extensive cleaning and monitoring
- Exploring the latest innovations to improve air quality
- Commissioning world-leading research to ensure that Londoners have the most up-to-date and in-depth understanding of the topic as possible

The latest readings from our [2023 independent monitoring](#) show that dust levels in Tube stations have been reduced by 19 per cent since 2020, and in drivers' cabs by 27 per cent since 2019. The latest monitoring also showed that dust levels remain within the legal limits set by the Health and Safety Executive.

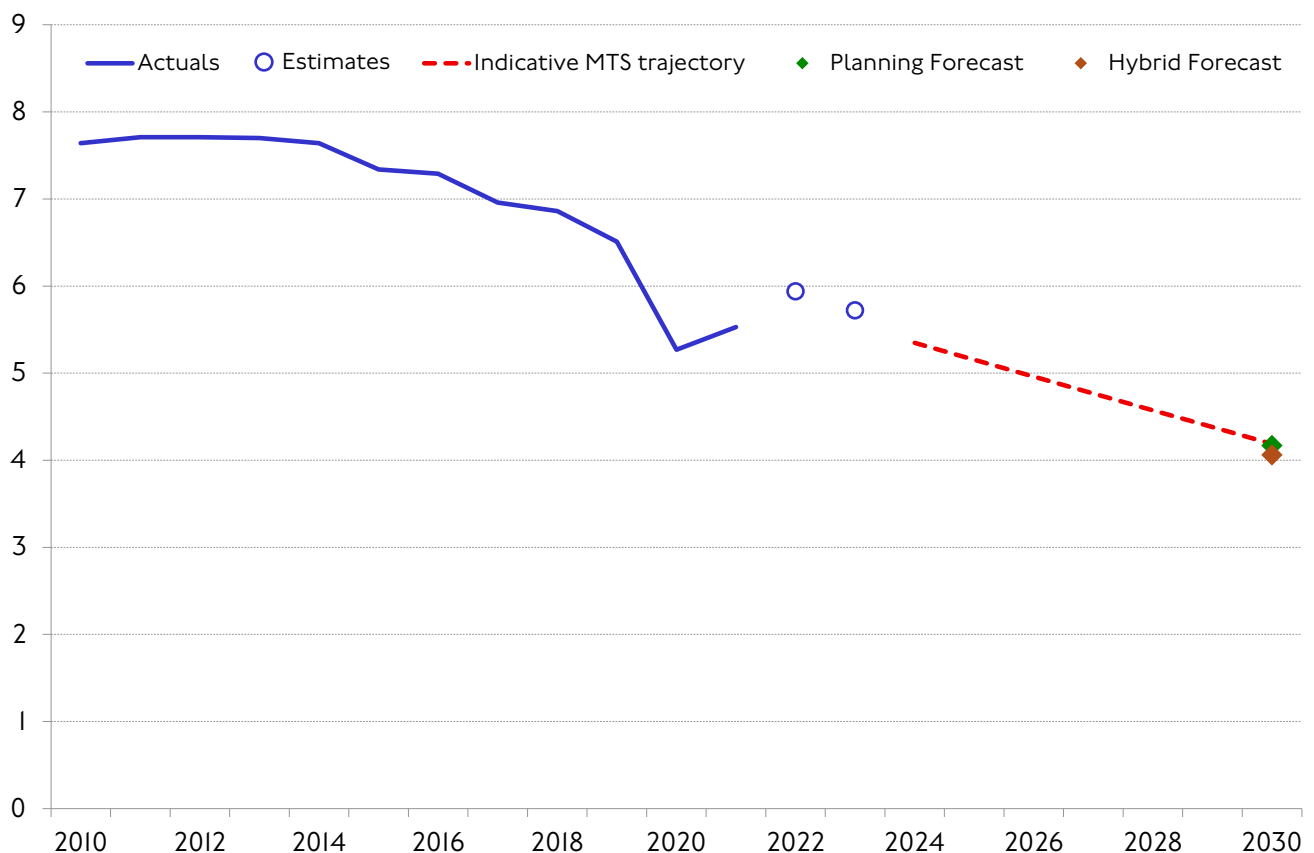
We continue to implement our Dust action plan, which includes increasing our annual dust cleaning budget on the network by a third, to £2 million per year. Additionally, we've allocated further funding for trials and innovation to improve air quality. We have begun a pilot of air filtration systems at Baker Street station.

3.4.2. London-wide net zero carbon

The UK is committed to bringing all greenhouse gas emissions to net zero by 2050 - this is referred to as the UK net zero target. This commitment was set by the Government in 2019, strengthening the commitment in the 2008 Climate Change Act.

The Mayor has stated his ambition that London will be net zero carbon by 2030, 20 years in advance of the national target. We are continuing to explore the role of transport in achieving the Mayor's ambition.

Figure 22: Mayor's Transport Strategy Tracker for Green: CO₂ emissions from surface transport in London (excluding aviation), observed 2010 – 2021, provisional estimates for 2022 and 2023, 2030 Planning and Hybrid Forecasts, and Mayor's Transport Strategy target trajectory. Source: TfL



While Figure 22 shows that we are broadly on track to meet the original ambition for 2050, as set out in the Mayor's Transport Strategy, we need urgent and large-scale action to meet the accelerated 2030 ambition. Provisional data for 2022 show CO₂ emissions from London's transport network was 5.94 million tonnes, a 19 per cent decrease compared to 2015, and that estimates for 2023 suggest a 22 per cent decrease since 2015. Note that data for 2022 is provisional in advance of final publication of LEGGI later this year. Indicative figures for 2023 have been based on initial scaling of 2022 data and will be subject to further revision.

CO₂ emissions for road transport continue to reduce, and our monitoring reports for the ULEZ show the ongoing improvements in the vehicle fleet to help clean up London's air. The London-wide ULEZ expansion is forecast to reduce road transport carbon emissions by around 23,000 tonnes across London, almost double the savings estimated in the first year of the central London scheme. The impacts of the scheme will be reported in the one-year monitoring report, expected to be published in early 2025.

We are working closely with London Councils, which represents London's 32 boroughs and the City of London, to support their low carbon transport programme. A particular focus of our collaboration at present is to strengthen the data and evidence available to boroughs on pathways and interventions to reduce transport emissions.

TfL Buildings Decarbonisation

In November 2023, we formally initiated a buildings decarbonisation programme across our estate. As part of the programme we are currently working on a second tranche of operational estate feasibility studies at 24 buildings across 14 sites. This follows the completion of feasibility studies at 14 buildings across eight operational sites earlier in 2023. This second tranche is due for completion in July 2024 and together the two tranches will help to inform a pipeline of delivery projects managed by the programme.

We have successfully secured around £16.3m of grant funding from the Department for Energy Security and Net Zero through two separate Public Sector Decarbonisation Scheme Phase 3c applications: one for two operational sites (£2.3m) and one for six of our head office buildings (£14m).

In addition to the above funding we have also used the Mayor's Green Finance Fund to access around £34m of reduced cost borrowing to finance four projects across our estate. Much of this will be used to accelerate the rollout of LED lighting not only on the TfL Road Network (taking the proportion of energy efficient lighting columns from around 54 per cent to more than 70 per cent in the next two years), but also at London Underground small stations, where all lighting will be upgraded to LED in by no later than 2031. We will also be using the fund to finance a new energy efficient heating and cooling system for the staff welfare building and for the installation of new solar panels at Neasden Depot. Finally, we will upgrade the building fabric at our office at 200 Buckingham Palace Road, dramatically increasing the efficiency of the building as we prepare it to accommodate the new British Transport Police offices.

We have recently appointed a service provider partner through the GLA's retrofit accelerator workplaces framework on an initial five-year contract with the option to extend. They will help to support the design and delivery of our Public Sector Decarbonisation Scheme Phase 3b project at Therapia Lane, the PSDS Phase 3c projects mentioned above and other heat decarbonisation and retrofit projects across our estates and those of Places for London.

Power Purchase Agreement progress

Our long-term energy procurement strategy is to ensure that all the electricity we use is generated by 100 per cent renewable sources by 2030. In February 2023, we launched our

first Power Purchase Agreement procurement which was a major step towards this ambition. The aim of this initial procurement is to purchase approximately 10 per cent of our required electricity from renewable energy sources and the tender encourages the market to invest in increasing new renewable energy generation connected to the national grid. We look to award the contract in summer 2024.

Solar private wire

Solar private wire presents us with the opportunity to obtain solar power directly onto the London Underground network, bypassing the national grid and transmission network operators. Not only does this guarantee renewable energy, but it also offers potential financial savings. The project aims to provide carbon savings as a primary benefit, with any cost savings being a secondary benefit.

We will not deliver the solar sites ourselves – we will seek a partner in the market to fund and identify suitable sites and then design, build, operate and maintain them, ultimately generating electricity for sale to us over a long-term contract. Our current plan is to issue the tender by summer 2024.

Waste heat

We have identified the potential to harness waste heat from Tube ventilation shafts, thereby reducing gas combustion and associated carbon emissions. Current activity is focused on accelerating the delivery of an initial ventilation shaft site. An energy supplier has now been identified and we will undertake a study for the site this year. Work will continue in parallel to identify future waste heat opportunities across our estate, including other options for harnessing heat from alternative sources, including pumped water systems.

3.4.3. Electric Vehicles

Zero-emission capable vehicles,⁶ comprising battery electric vehicles (BEV) and plug-in hybrid electric vehicles (PHEV), have made up an increasing share of new car registrations in London in recent years. In 2023, of the 98,200 cars registered for the first time in London, 28,200, or 28 per cent, were zero-emission capable, compared to 14 per cent in 2020 and just four per cent in 2017.

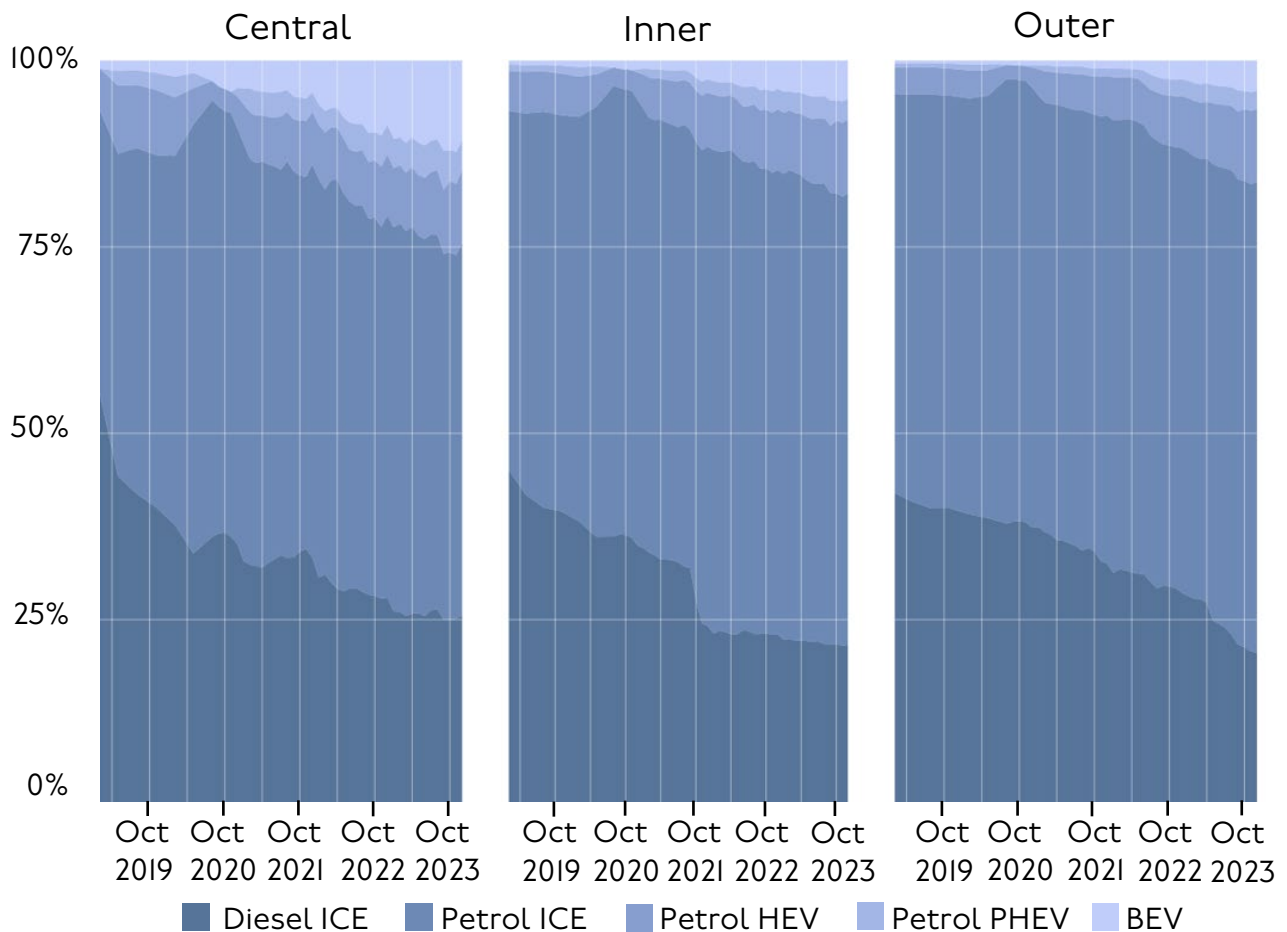
There are now 151,000 zero-emission capable cars registered in London, comprising 5.8 per cent of all cars, of which 93,450 or 3.6 per cent of the fleet are BEV.

The increase in uptake of zero emission capable vehicles across London has translated to an increase in BEV vehicle kilometres. The proportion of car kilometres, excluding private

⁶ Zero emission capable (ZEC) vehicles – those vehicles constructed to be capable of operating in zero emission mode for at least part of their operating cycle. The zero emission mode may be augmented by an internal combustion engine configured to extend the driving range of the vehicle, either by propelling the driven wheels or by powering an on-board generator. ZEC vehicles can include plug-in hybrids and battery electric vehicles (BEVs)

hire vehicles, by BEVs continued to increase in 2023, reaching approximately 12 per cent in central London, around five per cent in inner London and just over four per cent in outer London by October 2023. BEV vans account for approximately eight per cent of total van vehicle kilometres in the same period in central London, doubling since October 2022. BEV PHVs accounted for over 28 per cent of all PHV kilometres in central London in October 2023, with the share slightly lower in inner London.

Figure 23: Car kilometres (excluding private hire vehicles) by fuel type and central, inner and outer London. Source: TfL



3.4.4. Electric vehicle infrastructure

London’s charging network has grown by 300 per cent since 2019, and is the capital is broadly on track to have the forecast 40,000-60,000 charge points required by 2030, as set out in our [Electric vehicle infrastructure strategy](#) (2021).

As of May 2024, London had nearly 20,050 public electric vehicle charge points, of which 1,213 were rapid (50kW) or ultra rapid (>100kW). Since April 2023, there has been an increase of more than 7,200 charge points with the majority being lamp column (5kW) charge points (Zapmap data). Figure 24 below shows the rapid growth of charging infrastructure in London since 2020.

Figure 24: Public electric vehicle charging provision by slow to fast (up to 22kW) and rapid (50kW and above) charge point type. Source: DfT quarterly EV charging infrastructure statistics

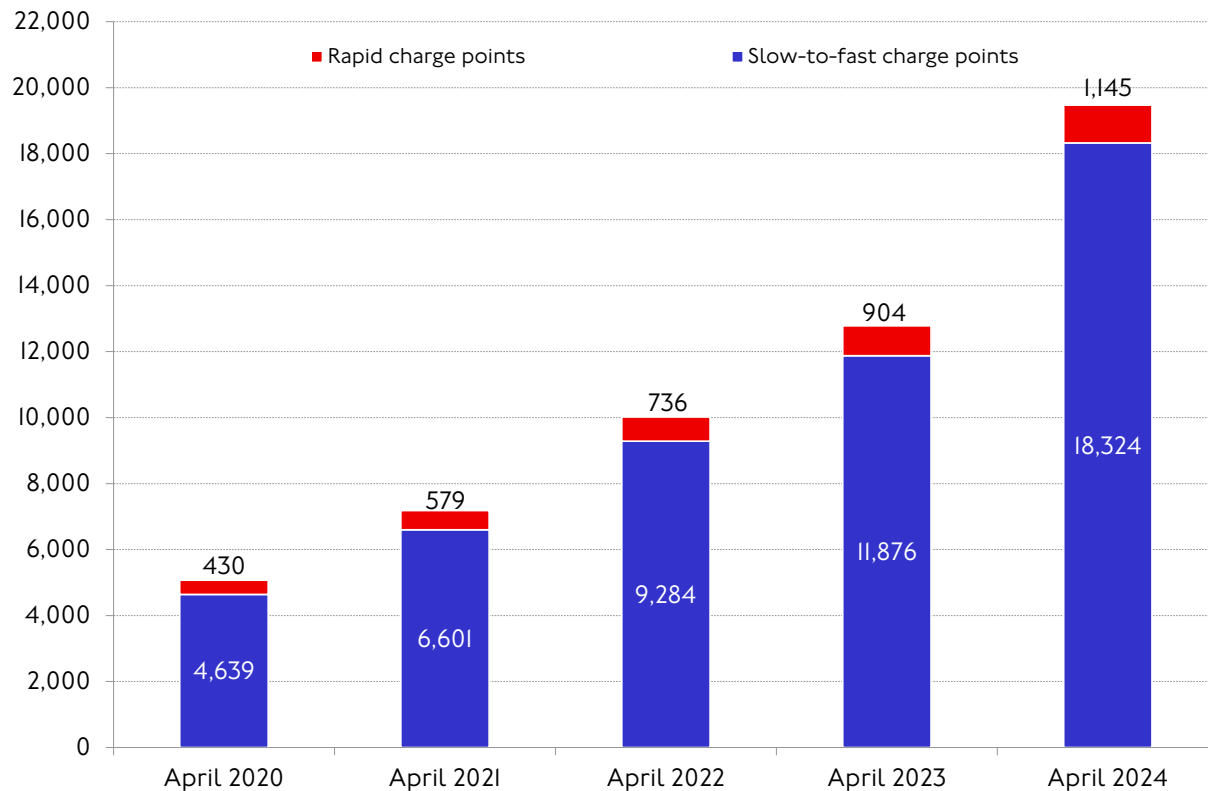


Figure 25: Rapid 50Kw and above charge points across London – May 2024.
Source: Zapmap

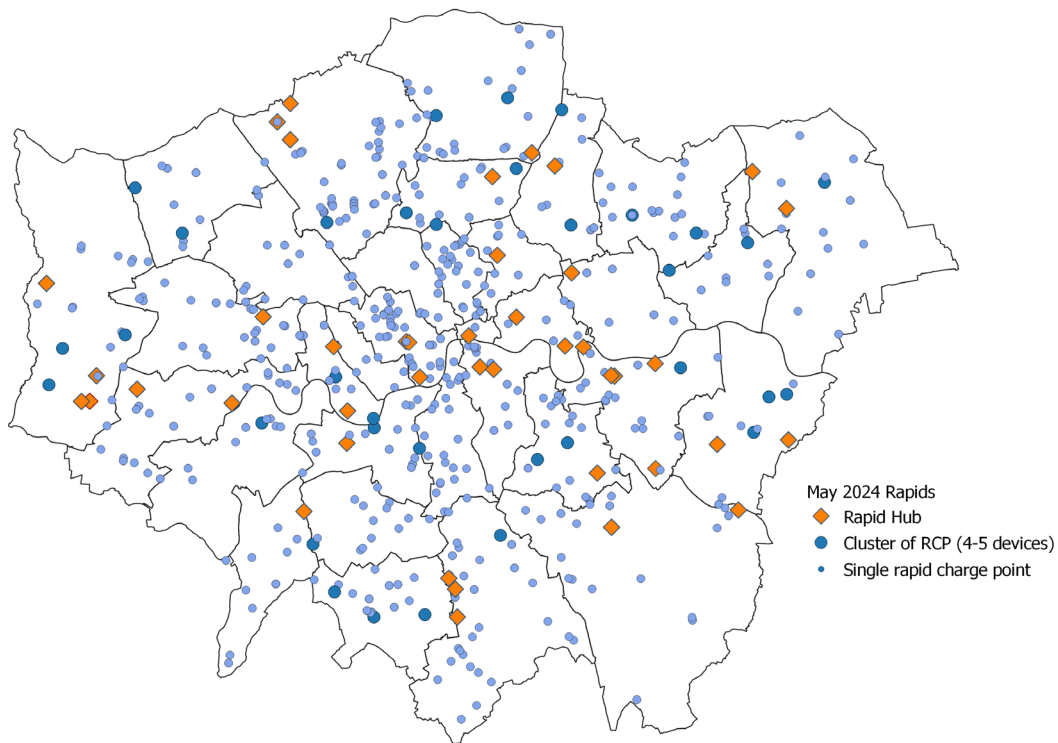
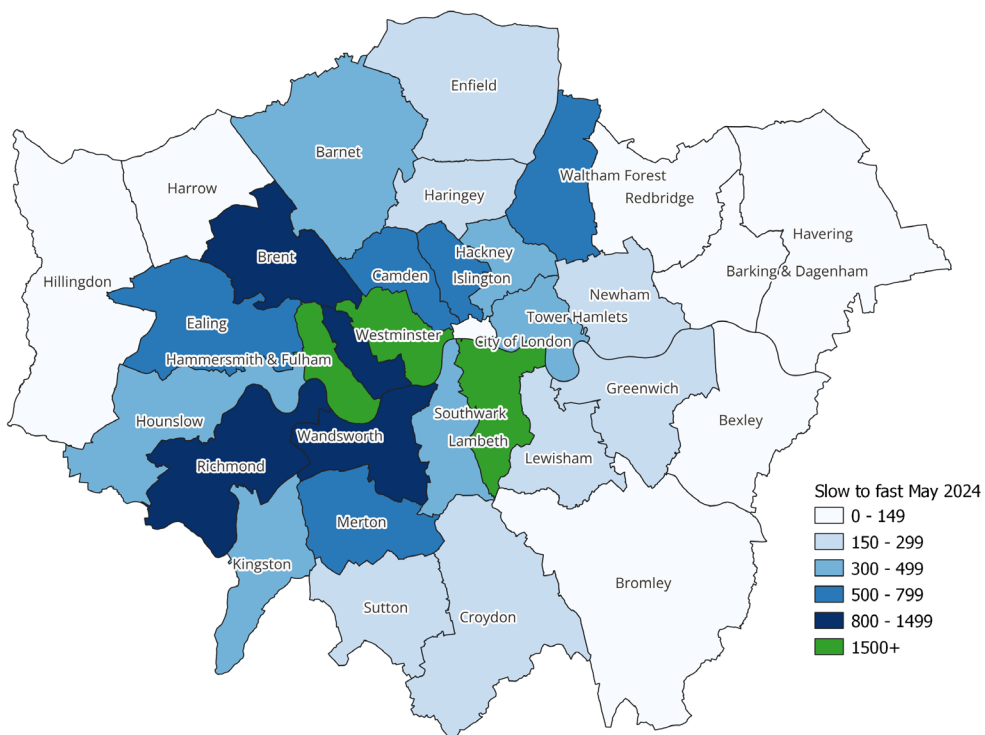


Figure 26: Number of public slow-to-fast (up to 22kW) charge points by borough, May 2024.
Source: Zapmap



We are supporting London boroughs and working with London Councils to access the £36m local electric vehicle infrastructure Government capital funding allocated to London, focused on delivering charge points for residents lacking off-street parking. £10m of this funding has been allocated to some boroughs so far, with further funding to be distributed throughout 2024.

In January 2024, we published an [electric vehicle infrastructure borough support pack](#) to assist borough officers with developing or updating local electric vehicle infrastructure strategies and borough delivery of public charge points. This pack includes information to help boroughs identify future demand for infrastructure from key user groups, including taxis, private hire vehicles, commercial vehicles and car clubs, as well as accessible and inclusive charging considerations.

We continue to unlock GLA group land for rapid electric vehicle charging through our TfL led electric vehicle infrastructure delivery programme and our electric vehicle charging hubs programme, run by our property company, Places for London. The former programme has a target to deliver an initial 100 rapid charging bays on the TfL Road Network. Preparatory and installation works commenced in February 2024 and the first 39 charging bays are expected to be operational by September 2024, with the remainder delivered by June 2025. Work to assess suitable sites for a second delivery phase, including sites across our land and wider GLA land, continues.

In November 2023, we launched a tender for a joint venture partnership to deliver electric vehicle charging hubs on TfL land. Each site will deliver a minimum of six ultra-rapid charging bays, including at least one bay for those with increased accessibility needs. Five sites will initially be built in Hillingdon, Ealing, Newham and Haringey, before more sites being rolled out across London. The first stage of the tender closed in January 2024 and bids are now being assessed. We expect to announce our partner later this year, with the delivery of our first site progressing soon after.

3.4.5. Transition to zero-emission bus fleet

London continues to have the largest zero-emission bus fleet in western Europe, which has increased to over 1,500 compared to just 30 buses in 2016. This includes hydrogen, battery electric and 'opportunity charged' electric buses, which are topped up via a pantograph multiple times during the day. Since March, four further routes have converted to zero emission – namely routes 152, 276, 307 and 384. Since 2021, all new buses joining the fleet have been zero emission, helping us become the green heartbeat of London. As a result of this increase in zero emission buses, we have lower CO₂ emissions per passenger kilometres than other global cities, such as New York and Paris.

This summer, we will be launching our first 'Opportunity Charging' trial, which will see the introduction of 20 new single deck electric buses, to be charged using the pantograph infrastructure at each end of route 358. Due to the length of the route, which is one of London's longest, a pantograph at each end of the route, rather than back at the garage, will mean buses receive a quick boost on the spot. This trial will enable us to learn about how we can target infrastructure for different parts of London's bus network.

We are on track to have a fully zero-emission bus fleet by 2034, and we are working on opportunities to accelerate this to 2030 in line with the Mayor's manifesto commitment. Through the decarbonisation of London's bus network, we will save an estimated 4.8m tonnes of carbon by 2034 or an estimated 5.5m tonnes of carbon by 2030, with Government funding.

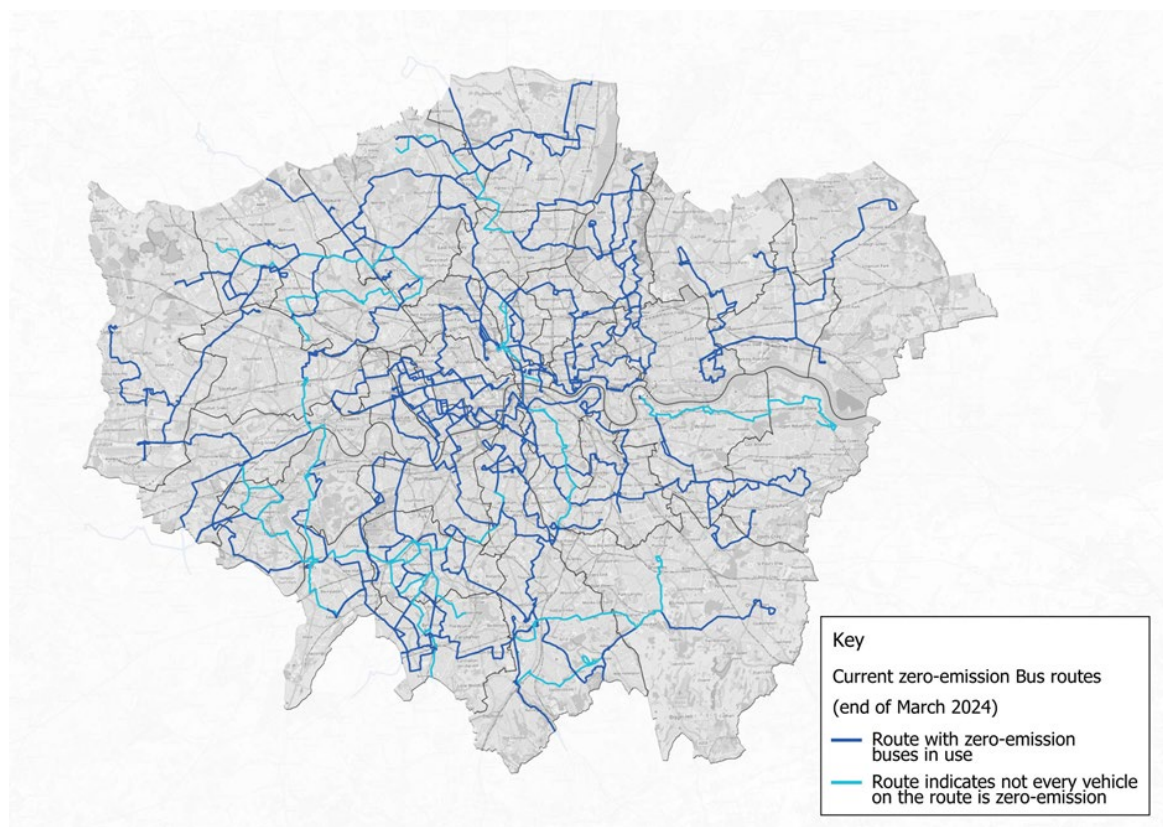
All new zero-emission buses joining the fleet have enhanced customer features, such as improved flooring, seating, lighting and customer information, and will meet the industry-leading Bus Safety Standard.

Focus On: Passing the 1,000 zero-emission bus milestone

In August 2023, we reached a major milestone of more than 1,000 zero-emission buses picking up customers on the city's streets. This achievement was celebrated with the Mayor visiting Edgware Bus Garage, with the 1,000th bus operated by one of London's bus operators, Metroline. There are now more than 1,500 zero-emission buses in use across 85 different bus routes (see Figure 27 below).

Zero-emission buses enable Londoners to breathe cleaner air and help decarbonise the transport network, which is crucial to our work to meet the Mayor's aim to achieve net zero carbon in London by 2030. Buses carry up to 80 times the number of people as a car, make efficient use of road space, and cut emissions by both taking polluting private vehicles off the roads and offering a green and affordable alternative to our customers.

Figure 27: Zero emission bus routes, end of March 2024. Source: TfL



3.4.6. Clean freight

Freight movements alone accounted for 30 per cent of carbon emissions coming from road transport in London in 2019. HGVs in particular accounted for almost 16 per cent of road transport carbon emissions while representing only three per cent of vehicle kilometres driven, showing that freight movements are relatively carbon-intensive compared to other vehicles.

As part of the Mayor's vision for Healthy Streets, and in the context of the actions London needs to take to achieve net zero carbon emissions and improve air quality by 2030, we have continued to work to reduce the emissions caused by transporting goods and providing services. These initiatives are outlined in our [Freight and servicing action plan](#), and activity in 2023/24 includes:

- Conducting a clean freight engagement programme to develop our understanding around how commercial vehicles will use public infrastructure, as more companies make the switch to zero emission vehicles
- Delivering our electric vehicle infrastructure strategy commitment to establish a commercial fleet database. This will help to inform future planning and investment in charging infrastructure and support commercial fleet users to switch to electric freight vehicles. We published a [commercial fleets dashboard](#) at the end of 2023, to help local authorities or other stakeholders involved in charging infrastructure to identify locations with higher needs for public charging points for vans in London. The dashboard uses a heatmap to show which areas will need more rapid, opportunity charging, as well as overnight, slow to fast charging for light commercial vehicles
- Continuing to deliver the cargo bike action plan, which was published in March 2023. Cargo and e-cargo bikes are a safe, clean and efficient alternative to vans and other light goods vehicles, being more reliable, taking less time, and providing a clean and more economical alternative. The action plan outlines cargo bike growth potential, and sets out 11 actions to address safety, behaviour change and infrastructure challenges
- Conducting a review of the FORS environmental standard to improve the requirements and which has now been added in [Version 7](#). We have developed a decarbonisation guidance for fleet operators that will be available for FORS operators, mainly focused on heavier vehicles, covering the different options to reduce emissions coming from the operation of their vehicles

Our fleet

For our own fleet, we are undertaking a programme to convert our operational support fleet of approximately 1,000 vehicles to become zero emission or zero emission capable as a minimum, by 2030 (except HGVs). This will involve the installation of associated electric vehicle charging infrastructure to facilitate a smooth transition and to meet key mayoral targets. Currently 22 vehicles meet this requirement and by 2025 we aim to phase out all non-zero emission capable cars in the TfL support fleet.

3.4.7. Green infrastructure and biodiversity

In our Business Plan we dedicated £1m in 2023/24, and £2m for subsequent years for climate change adaptation and green infrastructure measures, including Sustainable Drainage Systems (SuDS). This year, the funding has contributed to SuDS schemes at Tolworth Roundabout and a Trams drainage enhancement project.

In March 2024, we published our first organisation-wide [Green Infrastructure and Biodiversity Plan](#). It sets out how we will protect, connect and enhance our green infrastructure and biodiversity while maintaining our safety standards and service reliability.

The Plan captures in one place our existing legal requirements, as well as commitments set out in the Mayor's Transport Strategy and our [Corporate Environment Plan](#). It also identifies challenges and opportunities and outlines how we will promote best practice and raise awareness of the importance of green infrastructure and biodiversity. As part of the Plan, we have committed to developing outcome-focused green infrastructure targets, which will help focus future tree planting efforts to maximise the many benefits this provides.

As part of our work to meet our biodiversity net gain legal requirements under the Environment Act 2021, we conducted ecology surveys of key trackside Sites of Importance for Nature Conservation (SINCs) and wildflower verges to understand their potential to deliver biodiversity units. Part of this work included the development of a novel method for assessing SINC biodiversity baselines, which was discussed and agreed by key London stakeholders, such as the GLA and London Borough Biodiversity Forum.

We will publish a tree canopy cover plan by March 2025, which will show how we can meet our Corporate Environment Plan commitment to increasing TfL-wide tree canopy cover by 10 per cent by 2050, compared with the 2016 baseline. At the end of the 2023/24 planting season we have again delivered the Mayor's Transport Strategy requirement of a one per cent increase in street trees per year. We planted a total of 721 trees taking the total number of street trees on the TLRN to 25,031.

We are working to support the target of 50,000 additional square metres of catchment draining through SuDS every year on London's roads. Our [Climate Change Adaptation Plan](#) has a target of installing an additional 5,000 square metres of SuDS on the TfL Road Network highway catchment annually. The first year of this target has been met, with SuDS delivered at Old Street and Tolworth roundabouts, totalling almost 8,000 square metres of catchment.

For 2024/25, we are currently aiming to deliver four to six schemes that include SuDS, with the potential to collectively deliver up to 9,000 square metres of catchment area. We are also in the process of setting up a fast-tracked programme to identify locations for standalone SuDS schemes for delivery on the TfL Road Network from 2024/25.

We manage many of our roadside verges as 'wildflower verges' to improve biodiversity through less regular cutting and collection of the clippings and have doubled the area managed in this way to more than 260,000 square metres in 2024. We have monitored the scheme via a collaboration with the charity, Butterfly Conservation, which has completed

multiple surveys across our wildflower verges and identified 17 different butterfly species, including five London priority species. We are also investigating innovative ways in which to monitor the wider biodiversity benefits.

3.4.8. Climate Change adaptation and resilience

Our 2023/24 Business Plan funding for adaptation and green infrastructure measures has supported projects including:

- The first assessment of London's road and rail upstream climate interdependencies (such as power and communications sectors), which will be integrated into our fourth [Adaptation Reporting Power submission](#)
- Development of an adaptation framework, in association with the International Association of Public Transport
- An Environment Agency-led initiative to model London-wide SuDS opportunities, which will commence later this year
- A project to assess the GLA family's tidal flood defences, which will commence later this year

We are continuing to adapt our systems to reduce the impacts of climate change and ensure we are resilient in the face of more extreme and frequent weather events across London. Since climate hazards do not respect administrative or operational boundaries, a key part of this work involves collaboration.

We are an active member of the London Surface Water Flooding Strategic Group, which was set up in the wake of the July 2021 flood events. As part of this initiative, we have contributed funding towards the development of a forthcoming London-wide strategy.

We have undertaken considerable engagement with key external stakeholders to better understand our interdependent climate risks. For example, we worked with the London Borough of Hammersmith & Fulham on a series of workshops to assess borough highways climate risks.

We are also an active member of London Councils' resilient & green workstream, which forms part of their climate change programme. Alongside our adaptation reporting power work, we also incorporate climate risks into our Annual Report, and have now been joined by a researcher to help us embed recent findings about the impact of high temperatures on London Underground across the organisation.

4. A good public transport experience

The Mayor's Transport Strategy sets the path for the ongoing improvement to all public transport modes needed to meet customer expectations and to continue to encourage people to make more of their journeys by sustainable modes of travel. Three outcomes are related to this Mayoral priority area: Connected, Accessible, and Quality.

- **Connected** – The public transport network will meet the needs of a growing London with more people able to travel on an expanded public transport network
- **Accessible** – Public transport will be safe, affordable and accessible to all
- **Quality** – Journeys by public transport will be pleasant, fast and reliable

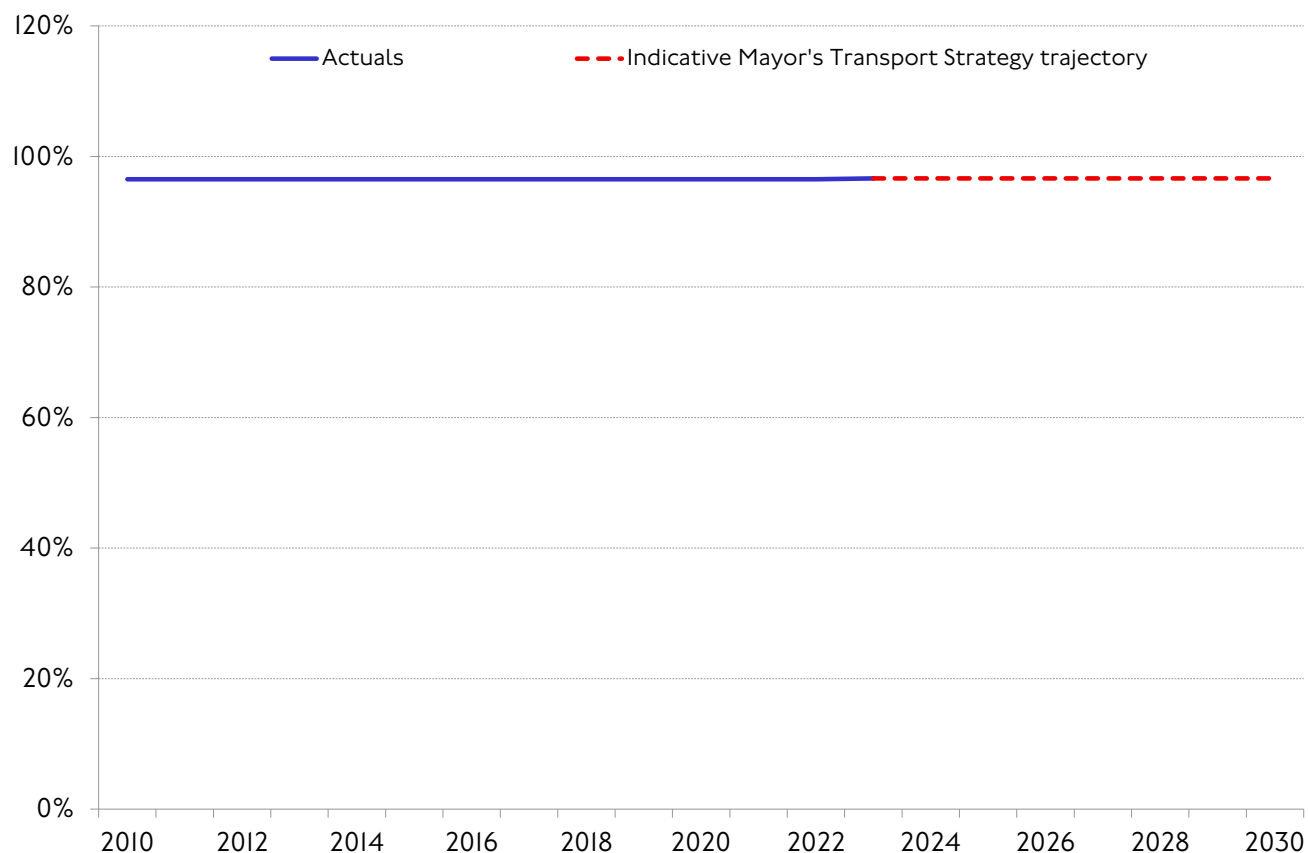
4.1. Connected

The metric used to track progress against the 'connected' outcome is the percentage of London residents living within 400 metres of a bus stop, which is used to represent the connectivity of all London residents to the public transport network in London.

This metric represents the ability of Londoners to access bus services within five minutes of where they live, connecting them to jobs, services and one another. While the Mayor's Transport Strategy does not set a target for this measure, success means maintaining connectivity to the extensive bus network we have already developed in London to be responsive to the needs of our customers.

Figure 28 shows that we have performed consistently well against this measure with more than 96 per cent of London residents living within 400m of a bus stop over the past decade, and we expect to continue to support this high level of access to bus services.

Figure 28: Mayor’s Transport Strategy Tracker for Connected: Proportion of the population living within 400 metres of a bus stop, observed 2010-2023, and Mayor’s Transport Strategy target trajectory. Source: TfL



4.1.1. Elizabeth line

Since the final service change in May 2023, which increased the peak service frequency from 22 trains per hour to 24 trains per hour in the central section and implemented direct Shenfield – London Heathrow airport services, demand for the Elizabeth line service has continued to grow and the route remains busy. In 2023/24, more than 200 million passenger journeys have been made, up from 128.5 million in 2022/23. During 2023/34, the average weekday number of passengers carried was 575,000, with Thursday 14 December 2023 being the busiest day on the network, carrying 777,000 passengers. Information on the benefits brought about by the Elizabeth line is provided in section 5.2 below.

4.1.2. Improving capacity on the Underground

Four Lines Modernisation – upgrading signals on the Underground

The Four Lines Modernisation programme is transforming the Circle, District, Hammersmith & City and Metropolitan lines to deliver higher frequencies, improve reliability and make journeys faster and more comfortable. We have continued to make progress installing new signalling on sections of the railway known as signal migration areas. The new automated signalling system is in place through 62 stations, including the whole of the Circle and

Hammersmith & City lines, as well as the east end of the District line. This represents 66 per cent of the total number of stations where this new signalling infrastructure will operate.

We have made significant steps towards the delivery of the signal migration area located on the Metropolitan line between Finchley Road and Preston Road, which is one of the most complex on the London Underground network, with positive outcomes from site testing. This includes successful works undertaken in November 2023 to test the connection between the control systems of the Jubilee and Metropolitan lines to ensure communication between them. This is a significant step forward for the programme in advance of the commissioning of this area, which is currently planned for early 2025.

Piccadilly line upgrade

We have continued to progress delivery of the Piccadilly line upgrade, which will see the introduction of a new fleet of higher capacity, air-conditioned, walkthrough trains from 2025. The new fleet of 94 trains will allow an uplift in peak service frequency on the Piccadilly line from 24 to 27 trains per hour. The new trains, being manufactured by Siemens Mobility Ltd, will replace the current, life-expired stock on the Piccadilly line, which dates from the mid-1970s. With improved energy efficiency and regenerative braking capability, the new trains will reduce annual energy consumption by more than 20 per cent compared with today's Piccadilly line service, supporting decarbonisation of our operations.

We marked a key achievement in November 2023 with the start of dynamic testing of the first new train at Siemens' Test and Validation Centre in Germany. This extensive evaluation programme includes acceleration and braking performance, noise and vibration and climatic trials to fully assess all aspects of the new train design prior to deliveries to London.

As part of our [2024 Business Plan](#), we have agreed a rephasing of the profile of payments with Siemens Mobility Ltd and a revised delivery schedule for the new trains. This enables us to better align the introduction of the new trains with the refurbishment of our depots and does not affect the delivery of the first train in 2024 for testing in London, ahead of entering service in 2025. The revised schedule will mean that all the new trains will be delivered by December 2027. This supports the planned Piccadilly line timetable uplift to 27 trains per hour by 2028 and will mean up to 80 per cent of the new trains will be built in the UK at Siemens Mobility's new manufacturing facility in Goole, Yorkshire.

Bakerloo line upgrade

The Bakerloo line plays a key role in keeping London moving, acting as one of the primary services in the capital by linking three major London rail termini as well as connecting to employment, education and leisure hubs. However, the fleet currently operating on the line is more than 50 years old, the oldest passenger trains in daily operation in the UK. As such, it is increasingly unreliable, with maintenance becoming ever more challenging and costly. Given how difficult it is to maintain the fleet, the number of trains available for service each day has started to decline. As a result, the frequency on the Bakerloo line has recently been reduced from 22 to 20 trains per hour in the peak and could decline further without investment.

The Bakerloo line upgrade is a critical programme as it seeks to secure the long-term operation of the line by replacing the current aging fleet of trains. We are continuing discussions with central Government to make the case for the securing of capital funding for this critical programme as part of our business case development.

An option currently exists for the purchase of new Bakerloo line trains within our contract with Siemens Mobility Ltd, which is currently being used to replace the Piccadilly line fleet. The new trains would provide significant benefits to customers with improved reliability, increased capacity, air-conditioning, real-time information and journey time improvements. Furthermore, using the contract option with Siemens Mobility Ltd would provide wider benefits to the UK. Again, the trains would be manufactured in Goole, securing jobs at the new train manufacturing facility and in the broader supply chain.

Old Street station improvements

We have continued to progress with our transformation of Old Street station and the surrounding street environment. The new public square and final pedestrian crossing were opened to the public in December 2023, allowing customers and the wider public to enjoy the new square, rain gardens and seating. The public square encompasses the new station entrance and Santander cycle hub. The focus is now on completion of the refurbishment of the St Agnes' Well retail arcade by July 2024 which will bring further positive changes for the travelling public.

4.1.3. Improving the DLR

We have continued work to deliver a new fleet, which will see the introduction of 54 new walkthrough trains. This year, we placed an order for 11 additional trains funded by the government's Housing Infrastructure Fund, taking the total from 43 to 54. The first new train will enter service later in 2024/25 and will improve the customer experience, with live travel information and air conditioning. In the last year, we achieved a major milestone with main line testing commencement and signalling integration in April 2023. To enable entry into service, we have progressed construction works at Beckton Depot on the new sidings and completed power upgrade works on three routes in preparation for the new train introductions as well as beginning work on site for the Blackwall station upgrade.

In response to changing travel patterns and demand following the pandemic, we introduced a new DLR timetable in September 2022, with further enhancements in May 2023, which redistributed spare capacity to enable better use of the existing fleet, reduce crowding and reduce customer wait times. Since introducing the new timetable, the DLR has consistently seen more than 1.8 million trips per week and on average the busiest parts of the network have seen a 10 per cent increase in passengers. These timetable changes provide the basis for several service enhancements across the network, which will be brought in as we roll out the new trains. The improvements will help people access housing, employment and leisure opportunities more easily across the Docklands area and east London.

4.1.4. Improving bus services

We continue to keep London's extensive bus network under continuous review to ensure it meets the changing needs of London. A major achievement this year was the delivery of the Superloop and to improve public transport connectivity, we have made a number of enhancements to the network, especially in outer London. We have been implementing additional bus kilometres, delivering on the Mayor's commitment to deliver the Superloop and enhance other local bus connections.

We have introduced a range of improvements to the bus network over the last year. The key changes are summarised below:

- Croydon and Sutton area: extension of route 312, which has provided customers with new direct links between Norwood Junction and Purley; an extension of route 434 from Whyteleafe South to Caterham Station, providing new connections to the town centre and railway station; introduction of two new routes, comprising the 439 between Waddon Marsh, Sainsbury's and Whyteleafe South, and the S2 in Sutton connecting St Helier Station to Epsom Clock Tower via Sutton town centre; restructuring of route 346 in Havering to provide enhanced travel opportunities between Harold Wood and Upminster, involving the introduction of a Sunday service, an increased evening frequency every day of the week and significantly improved connectivity between the north and south of the borough
- Increased frequency on 14 routes: 14, 35, 86, 97, 107, 112, 141, 309, 345, C10, EL2, N15, N26, U3
- Introduction of extra early morning services on route 278 from Ruislip to Heathrow Central. Heathrow Airport will help fund these additional services, which will enable both staff and passengers on early departures to take the bus rather than drive
- Alpertton: increased services by extending routes 79 and 83 to support growing demand as new homes and communities are developed
- Harrow: extension of route 223 to the major housing development at Eastman village, Wealdstone

We have undertaken consultations about bus service changes in Kidbrooke and Haringey Heartlands to better serve new housing developments. We have also continued to plan for future changes with consultation on bus service proposals in the London boroughs of Waltham Forest and Redbridge, as well as around Brent Cross, Harrow, Wembley Stadium, Alpertton, King's Cross, Tooting, Orpington and Uxbridge.

We confirmed our plans to introduce a new limited stop route between Grove Park and Canary Wharf via the Silvertown Tunnel when it opens, which will be part of the Superloop network and named SL4.

Focus On: Superloop

Ensuring good connections in outer London is central to delivering the ambition of the Mayors Transport Strategy, although orbital connections in this part of London are often difficult and unattractive by public transport. To address this, in March 2023 the Mayor announced plans for the Superloop network of limited-stop express bus routes, connecting outer London town centres, railway stations, hospitals and transport hubs, alongside £6m funding to act as an initial catalyst. The Superloop has circled the entire capital since March 2024.

Over the year we delivered the Superloop in stages, initially by incorporating the four existing express routes and upgrading them including a doubling in frequency of the former X26, now SL7, and boosting off-peak frequencies on the 607, now SL8. Route X140 was incorporated as SL9, previously the first new express route to be introduced since TfL formed (delivered in December 2019). In addition, we have launched five new routes designed to offer quicker journey times between key outer London destinations and to complete a 138km loop of outer London, ensuring a greater spread of express services. Notably, route SL5 has reduced the journey time between East Croydon and Bromley South by around 35 per cent during weekday off-peak hours. In total Superloop services have added more than six million scheduled bus kilometres per annum to the capital's network.

Figure 29: Superloop Map Route. Source: TfL

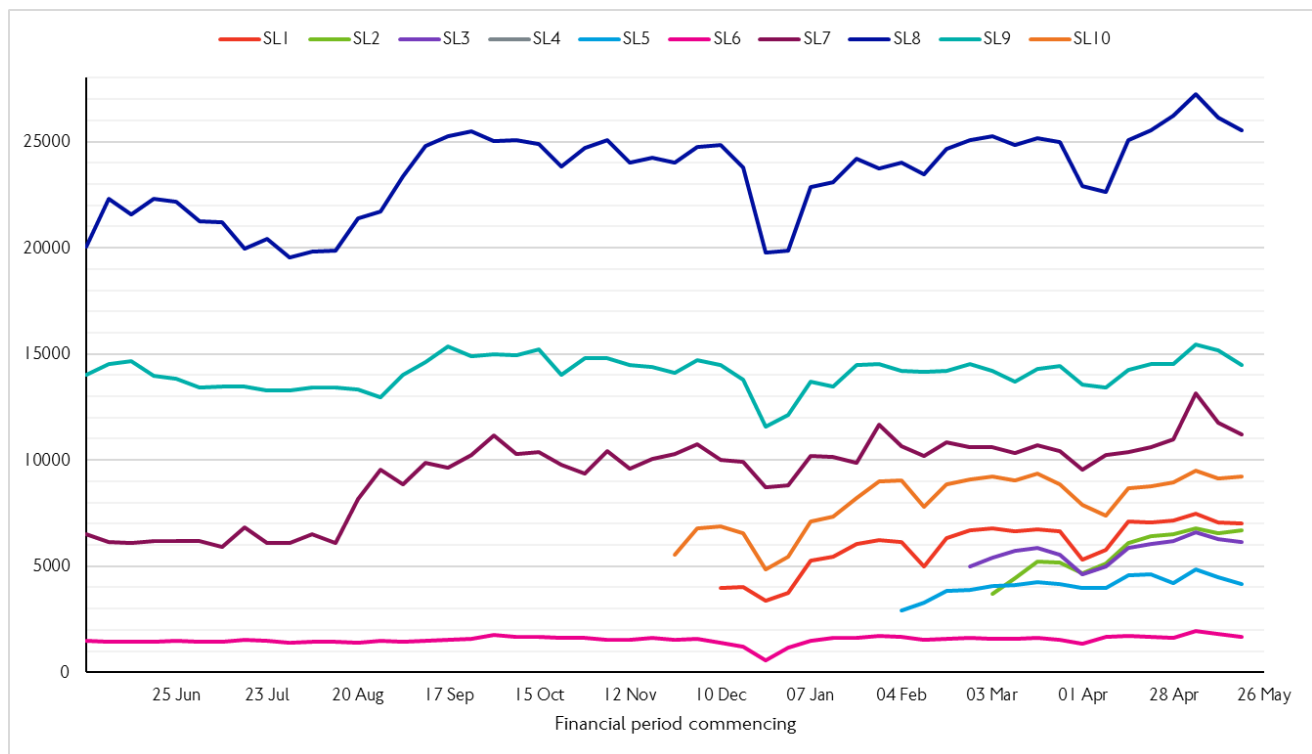


We developed the Superloop brand to work with the iconic London Buses brand by using a new roundel and bus livery to ensure the new service is clearly identifiable, but still familiar as part of the London Buses network. The new branding features on maps, timetables and other pieces of customer information. Both buses and stops are clearly recognisable with the new livery.

Superloop services are popular with the public. The latest data shows increasing demand for Superloop services, with average growth on all Superloop routes since June 2023 nine per cent higher than the network average. In addition, ridership figures show that almost half of all Superloop journeys involve an interchange with another mode of public transport, demonstrating the important role of the network in outer London's public transport connectivity.

Figure 30 shows weekday usage on each of the existing Superloop routes, with the five new routes appearing towards the right when they were introduced. Usage continues to grow on these new routes while demand on the four rebranded routes has broadly stabilised. SL7 and SL8 were also increased in frequency, leading to a larger increase in summer 2023. Seasonal variation is observed in the graph as public transport demand in outer London is impacted by school holidays.

Figure 30: Average number of weekday boarders on Superloop routes from 28 May to 26 May. Source: TfL



The final route in the new network, the SL4, will begin operating between Canary Wharf and Grove Park once the Silvertown Tunnel opens in 2025.

4.1.5. Improving the tram network

The London Tram network provides a vital orbital link between town centres in south London; however, our current tram fleet is up to 24 years old and is reaching the end of its operational life. We are therefore seeking to replace it with new trams to deliver a more reliable service for customers and enhancing the customer experience. This would include features such as air-conditioning and charging points along with the latest safety features, building further on improvements already made within the network. A future contract award for new trams will be subject to funding being available. We have made progress by issuing a notice inviting potential suppliers to demonstrate how their experience and expertise would be appropriate to deliver the new trams.

4.2. Accessible

We have made significant progress in reducing step-free journey times compared with 2016 levels. Around a third of the Underground, all of the Elizabeth line, half of London Overground stations, and all DLR, bus and tram stops are now step-free (See Table 3) The launch of the Elizabeth line and improvements to the Tube network in recent years have reduced the differential journey time using only the step-free transport network by 37 per cent compared to the 2016 baseline (see Figure 31).

Despite funding challenges, we are ahead of trajectory to meet the Mayor's Transport Strategy target of a 50 per cent reduction in the differential journey time by 2041. It is hugely important to continue to deliver accessibility improvements to ensure London's transport network meets the needs of all Londoners, and we have therefore set a stretch target to achieve the 2041 ambition by 2030. The committed forecast shows that we are on track to reduce the differential journey time by 44 per cent compared to the 2016 baseline by 2026, however further investment is required to meet the accelerated Mayor's Transport Strategy target.

Figure 31: Mayor’s Transport Strategy Tracker for Accessible: Percentage reduction from the 2016 baseline in the journey time differential between step-free and non-step-free journeys, observed 2016 to 2023, forecast to 2026 (committed schemes), and Mayor’s Transport Strategy target trajectory and accelerated target trajectory.
Source: TfL

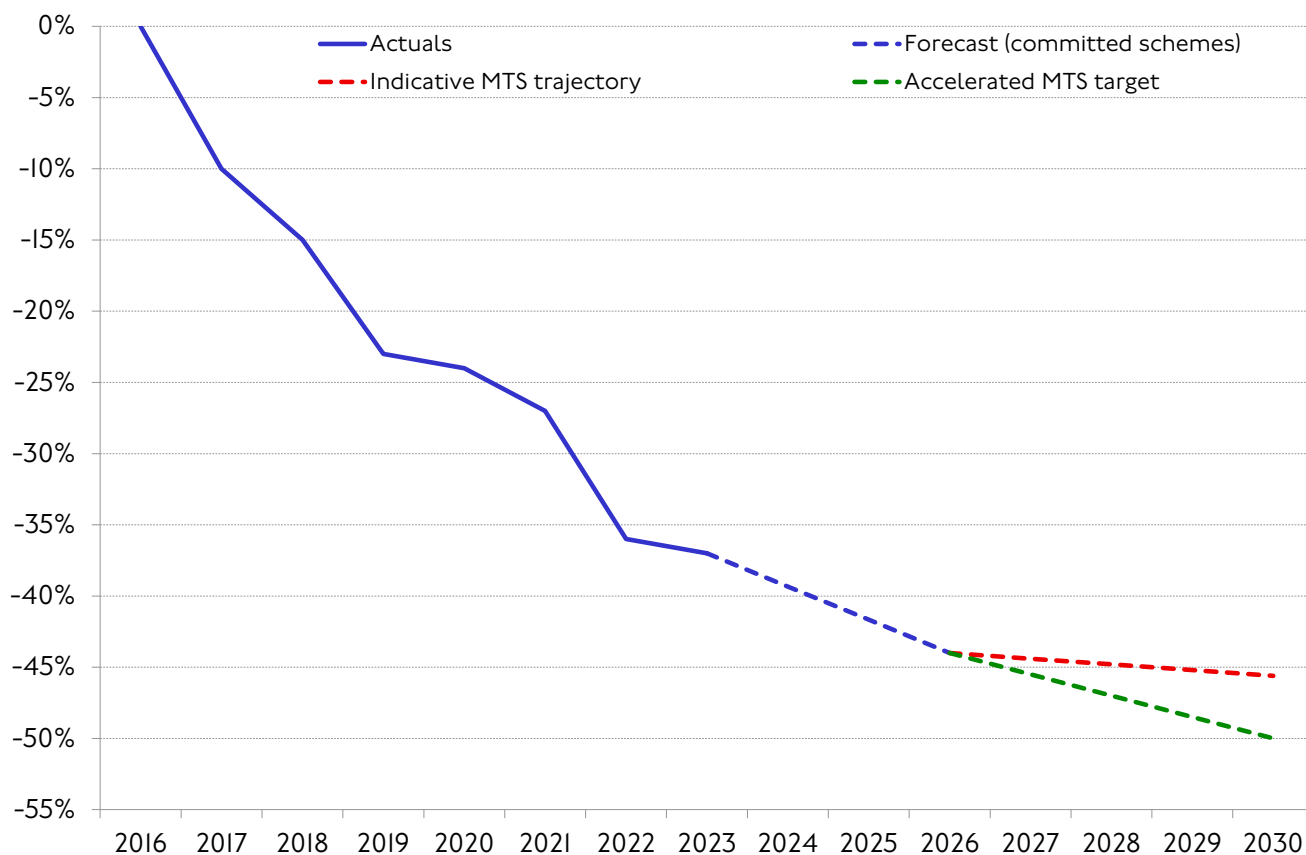


Table 3: Step-free stations on TfL’s network. Source: TfL , December 2023.
Source: TfL

Network	Current step-free stations	Proportion of step-free network	Change since 2016
London Underground	92	34%	+22 (+8%)
London Overground	62	55%	+6 (+5%)
Elizabeth line	41	100%	+27 (+60%)
DLR	45	100%	None
Tram (stops)	39	100%	None

4.2.1. Making the network more accessible

Step-free access

We have continued to make progress delivering our step-free station projects and planning for the future of the step-free access programme. Work continues to deliver step-free access at Knightsbridge and Paddington (Bakerloo line entrance) Tube stations.

Step-free access is also being progressed at Colindale and Leyton stations, which will be delivered with Levelling Up, borough and developer funding (see Focus on: Colindale and Leyton on p105). Delivering step-free access at these stations with third-party funding will continue our work to make the capital's transport network more accessible.

In July 2023, we announced step-free upgrade studies for 10 London Underground stations. These studies consider costs, benefits, funding opportunities and impact on customers. The 10 shortlisted stations were: Alperton, Arnos Grove, Burnt Oak, Eastcote, Finchley Road, Northolt, North Acton, Rayners Lane, West Hampstead and White City. In February 2024, we confirmed that, after Colindale and Leyton, Northolt would be the next London Underground station to become step-free and confirmed that we would fund the next stage of design for North Acton and West Hampstead stations to advance funding discussions with partners.

We are also looking to enhance step-free access on the National Rail network, including London Overground. We do not have direct funding powers, so our role focuses on making the case for funding from other sources to deliver the enhancements, including the DfT's Access for All fund and developer contributions. We previously successfully nominated Catford and Petts Wood stations for Access for All funding, and step-free access works at these stations were completed during 2023/24 together with step-free access at Streatham station. In addition, a new station with full step-free access at Brent Cross West opened in December 2023.

Another successful nomination we made to Access for All was for Seven Sisters station (London Overground platforms only). Delivery of this scheme is now under way and is expected to be completed during 2025. Step-free access is also being delivered at Surrey Quays station as part of the station upgrade, for which we secured funding from the developer of an adjacent site and the Department for Levelling Up and Communities Housing Infrastructure Fund. These works are expected to be completed during 2026. We are additionally designing step-free schemes at Brondesbury and Hackney Downs stations as part of the ongoing Access for All programme, working with our industry partners. TfL-served stations at Bushey, Dalston Kingsland, Gunnersbury, and Upminster were also recently selected for initial feasibility work under the Access for All programme.

Assisted transport

We are committed to making the whole of London's transport network more inclusive, allowing everyone to experience all that the capital has to offer, and we are taking a number of steps to improve London's accessibility. Dial-a-Ride services are a key part of this ambition and since the start of 2023/24 we have delivered more than 500,000 trip requests.

In 2023/24, we implemented a new simpler Dial-a-Ride booking and scheduling system. This enables members to book trips online and through an app, as well as over the phone and via email, which helps people to book trips quicker and improves the routing of journeys, optimising the service and freeing up time to serve more trips. The introduction of new technology can be challenging, but, as it has bedded in, we have actively responded to challenges. Our call answering time was cut to 38 seconds in February, and we doubled the percentage of bookings completed online and through the app compared to forecasts. We continue to work towards meeting our 90 per cent target for scheduled trip requests and in February 2024 we returned to consistently meeting this target. Where we cannot fulfil a trip at the time requested by a customer, we always aim to offer them alternative times. We are also working closely with our stakeholders to ensure we can get direct feedback from the people who use our services and make improvements to their experience.

In June 2023, we let a new multi-occupancy accessible transport contract. The successful bidders were nine community transport organisations with whom we are now partnering to deliver Dial-a-Ride services across London. The contract provides a reliable stream of income to our partners, which also enables them to carry out wider community transport work across London – this type of work, such as the provision of transport for day trips, sits outside Dial-a-Ride’s remit.

Our travel mentoring service continues to support Londoners with disabilities and vulnerabilities to overcome barriers enabling them to travel independently on our public transport network. Since the start of 2023/24, the team has delivered 60 bus days, supporting 2,461 individuals in learning how to safely use the bus network. In addition, 274 people have been mentored on a one-to-one basis to become confident, independent travellers, and another 584 have been supported in classrooms and workshops. The team has also responded to hundreds of telephone and email enquiries about accessibility over the past year.

In 2023/24, Taxicard is forecast to have helped pay for more than 700,000 trips. For 2024/25, we have agreed a new funding agreement for Taxicard with London Councils, alongside an agreement to review the Taxicard offering across London in terms of equity. Equity across the service would ensure the 58,000 Taxicard members have equal provision to make trips across the London boroughs, removing the current inconsistency across boroughs.

Focus On: Equity in Motion

Tackling inequality forms an essential part of our vision of a city where everyone can move around the city safely, inclusively and sustainably. In February 2024, we published [Equity in Motion](#), our first-ever action plan exclusively focused on creating a fair, accessible and inclusive transport network. It contains more than 80 actions and sits alongside the suite of action plans – such as the Bus action plan – which will deliver the ambitions of the Mayor’s Transport Strategy.

Equity in Motion sets out a new approach to addressing disproportionate impacts and inequality, and removing barriers to travel, so that more people can use London's transport network. The plan has four pillars: an equitable customer experience; protecting and enhancing connectivity; keeping travel affordable; and reducing health inequalities. For each of these pillars, there are short- (2024-2026) and medium-term (2026-2030) actions.

Highlights include reviews into the inclusivity of public spaces, new research into transport inequality to inform future investment, and the launch of a new inclusive design centre of excellence.

We have also set out how we will make the plan work by monitoring its impact, collaborating with customers and stakeholders, and hardwiring inclusion into everything we do.

Figure 32: Equity in motion graphic. Source: TfL



Tackling hate crime and sexual harassment

We have a zero-tolerance approach to hate crime and sexual harassment. A programme of activity is in place to tackle these crimes and support staff and customers who experience or witness them on our network. This includes our funding and partnership working with London's policing agencies, our enforcement activity, hate crime and sexual harassment campaigns, our bystander intervention campaigns, working with stakeholders, staff training and community engagement.

We have worked with our police partners to respond to the increases seen in hate crime against Jewish and Muslim communities, linked to the most recent conflict in the Middle East. This includes regular meetings with affected communities to reassure them and improve their confidence to travel. Our work with the police involves patrols around synagogues, mosques, and faith-schools near to transport hubs and areas with an increase in incidents. We continue to work with the British Transport Police and the MPS Roads and Transport Policing Commander to provide reassurance to all communities that our network is safe and welcoming for everyone.

We continue our work to tackle violence against women and girls on the transport network and improve their confidence to travel. Our focus is on sexual harassment and offences, given that women and girls are disproportionately impacted by this behaviour on public transport. We have a programme of activity under way to improve the safety of women and girls on public transport, as well as when, using taxi and private hire vehicles, walking and cycling, as well as improving the safety of women in customer facing roles in our workplace through tackling workplace violence.

Sexual harassment training is being rolled out to our frontline customer-facing staff and enforcement officers so they are better equipped and more confident to support customers who may have experienced or witnessed sexual harassment/offences on our network. More than ten per cent of our operational customer-facing staff (including bus drivers) have already completed the training.

We are making improvements in our technology and data to improve the safety and security of TfL customers and staff. We started a number of projects in 2023/34 to address this objective, which will continue into 2024/25, including:

- Standardising the CCTV retention period for new TfL CCTV systems to 31 days, which will apply to all new systems purchased
- Improving the functionality of help points to ensure customers are connected quickly to station staff or our control centres for emergency situations
- Trialling the impact of CCTV on crime investigation and customer confidence at 20 bus shelters
- Collaborating with the Home Office on an innovation trial to explore combining new technologies with existing on-bus technology to identify and improve the response to behaviours that make women and girls feel unsafe when using buses

In schools, our Project Guardian programme, delivered by London Transport Museum and supported by the Metropolitan Police's Roads and Transport Policing Command and British Transport Police, is an essential part of our activity to tackle sexual harassment on public transport, and raise awareness of the issue and improve confidence to report incidents and concerns. The programme was expanded for the 2023/24 academic year and reached 28,000 Year 9 students of all genders, up from 6,000 in 2022/23.

Innovation on the network

In November 2023, we announced a collaboration with Google to provide Google Street View imagery for customers inside around 30 Tube stations, including Green Park, King's

Cross and Waterloo, to provide virtual representations of some of London's busiest stations. Showing routes through some of London's key stations can help customers better plan their journeys in the same way they would for journeys made by walking and cycling across London. We hope this will be particularly beneficial to customers with accessibility needs or people who are unfamiliar with travelling in the capital. Google's blurring technology will be applied to the imagery, which is designed to automatically blur identifiable faces before publishing. The images will be launched throughout 2024, enabling customers to get a better sense of the layout of the stations when planning journeys or interchanging between different Tube lines at stations, as well as identify key facilities such as toilets and help points.

In partnership with KeolisAmey Docklands, operator of the DLR, as well as GoMedia and The Royal National Institute of Blind People, we launched a trial on 3 July 2023 using NaviLens, an app designed to help blind or partially sighted customers to navigate stations. The trial took place at Cutty Sark, Canary Wharf, Woolwich Arsenal, and Tower Gateway DLR stations for six months. It was designed specifically to enable blind and partially sighted people to access and locate information and interact with their environment, particularly in busy areas such as train stations. We will be using the findings from this trial to inform our innovation challenge focused on improving the travelling experience of disabled customers.

Following a successful trial at eight stations on the Jubilee line, we have now rolled out mini-ramps at 58 step-free London Underground stations. The mini-ramp is an industry-leading initiative that we developed to address customer and stakeholder concerns about the small remaining step/gap on step-free from street to train platforms. It is used at platforms that, despite being fully compliant with the current Rail Vehicle Accessibility Regulations – a less than 50mm vertical step and 75mm vertical gap – still present a challenge for some customers, particularly for people whose mobility aids have small or swivel wheels. Mini ramps cover this step/gap, offering customers additional reassurance.

Accessibility insight

The Independent Disability Advisory Group (IDAG) is a group of 10 paid members with a variety of professional expertise and lived experience of disability. The group provides strategic and practical recommendations based on best practice for inclusivity, informed by evidence and supported by lived experience. The members are not employed by TfL or the GLA to ensure the group's independence. IDAG worked on more than 90 projects in 2023, representing a 50 per cent increase in project involvement from 2022. Some of the projects to benefit from IDAG's expertise include the development of Equity in Motion, renaming of London Overground lines, the bus stop bypass review, TfL Go improvements and TfL Youth Panel's sustainability report. The success of IDAG was recognised through being shortlisted for the CIHT Equality Diversity and Inclusion Initiative of the Year Award 2023.

This year, we worked with the research agency Revealing Reality to create our new 'All Aboard' panel of 200+ disabled Londoners. The panel will provide key insights about their experiences of using our network through both regular and ad hoc research. We aim to use this panel to identify the main barriers and needs that both TfL and non-TfL customers have, and then create and take appropriate action. The panel results will be integrated with other

relevant accessibility data and research to give as full a picture as possible of our disabled customers' experiences. We will share the insights with colleagues across the business to help ensure the needs of disabled Londoners are better understood and addressed.

Our staff

To improve the experience of all Londoners using our public transport network, we are rolling out training courses around accessibility, including disability equality training, which was re-introduced in March 2023, for professional service colleagues and all frontline staff. Bespoke versions of this training were also delivered to the Chief Operating Officer, the Chief Customer and Strategy Officer and their Directors. We are currently working with our training partner Diversity and Ability to make this course more widely available to our staff.

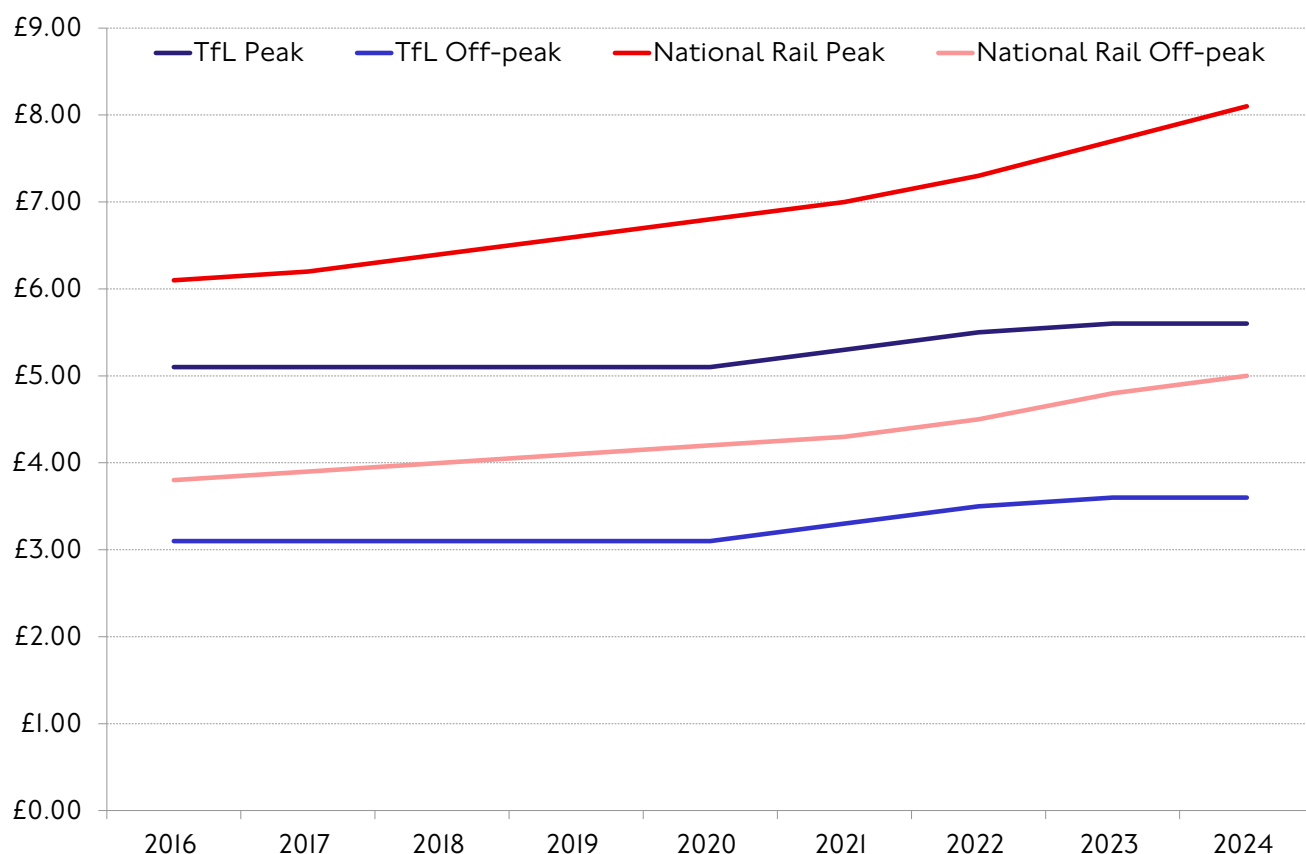
From November 2023, we began to deliver our new equality, diversity and inclusion training course to London's bus drivers. The training was developed with a specialist training partner, Equality Works, and has been designed to increase driver awareness and empathy with all customers, and to equip them with the skills, knowledge and behaviours to deliver an inclusive service. All of London's 24,700 bus drivers will participate in this training over a period of approximately two and a half years as part of their Certificate of Professional Competence, as well as new drivers as part of their initial training.

4.2.2. Delivering value fares

Ensuring that our fares offer value for money is vital to ensuring Londoners can continue travelling through the cost-of-living crisis. The Mayor has provided £123m of additional funding so that our fares can be frozen until March 2025. This means all pay as you go fares will be frozen on buses, the Tube and trams as will fares on the DLR, London Overground and Elizabeth line services where Tube fares apply. The freeze will support Londoners with the cost-of-living crisis and the city's recovery from the pandemic.

Figure 33 below, shows peak and off-peak adult single pay as you go fares for a journey between Zones 1 and 6 for TfL and National Rail services since 2016. The chart illustrates the divergence between TfL fares, which were frozen by the Mayor from 2017 to 2020 and again in 2024, and National Rail fares, which have risen in line with Government fares regulation.

Figure 33: TfL and National Rail peak and off-peak Zones 1-6 pay as you go single fares since 2016. Source: TfL



We have introduced a new concession to support care leavers across London aged 18-25. Through this concession, up to 16,000 care leavers are now able to apply for half-price bus and tram travel, allowing them to be able to travel more affordably while they transition into independent living. The new concession is part of the Pan-London Care Leavers Compact, a common core offer of support designed with care-experienced young people and agreed by the Mayor, TfL, London boroughs and London’s health services.

At the initiative of the Mayor, we conducted a three-month trial, where all London Tube and rail fares were made off-peak on Fridays from 8 March to 31 May 2024. The trial also meant that 60+ and Freedom Pass holders were able to use their passes all day on Fridays. We are analysing the results of this trial to help us better understand whether offering off-peak fares on a Friday could help drive ridership and boost London’s wider economic recovery after the pandemic.

To complement and support the off-peak fares trial, a range of commercial partners and Business Improvement Districts launched special Friday offers, deals and competition prizes during the trial. This created more exciting and enticing reasons for Londoners and visitors to make the most of all London has to offer.

4.2.3. Mobile connectivity on the move

Boosting connectivity across London

We are continuing to roll out mobile coverage on the Tube, making it easier for customers to stay in touch with friends, family and work while travelling. Our Connected London programme sees all four mobile network operators⁷ bringing high-speed 4G and 5G mobile connectivity across the Tube. Figure 34 shows mobile coverage at the end of summer 2024.

As well as keeping customers connected, this technology hosts the new emergency service network, which, when fully operational, will give first responders immediate access to lifesaving data, images and information in live situations and emergencies.

- Customers travelling on the Elizabeth line between Liverpool Street and Paddington stations now benefit from high-speed 4G and 5G mobile coverage while travelling in the tunnels
- Further tunnelled sections to Whitechapel, Canary Wharf and Woolwich will be connected across the summer, building on all Elizabeth line stations getting mobile coverage earlier this year
- Mobile coverage continues to be rolled out across the London Underground network with Hyde Park Corner, Piccadilly Circus, Leicester Square and Russell Square recently connected for the first time

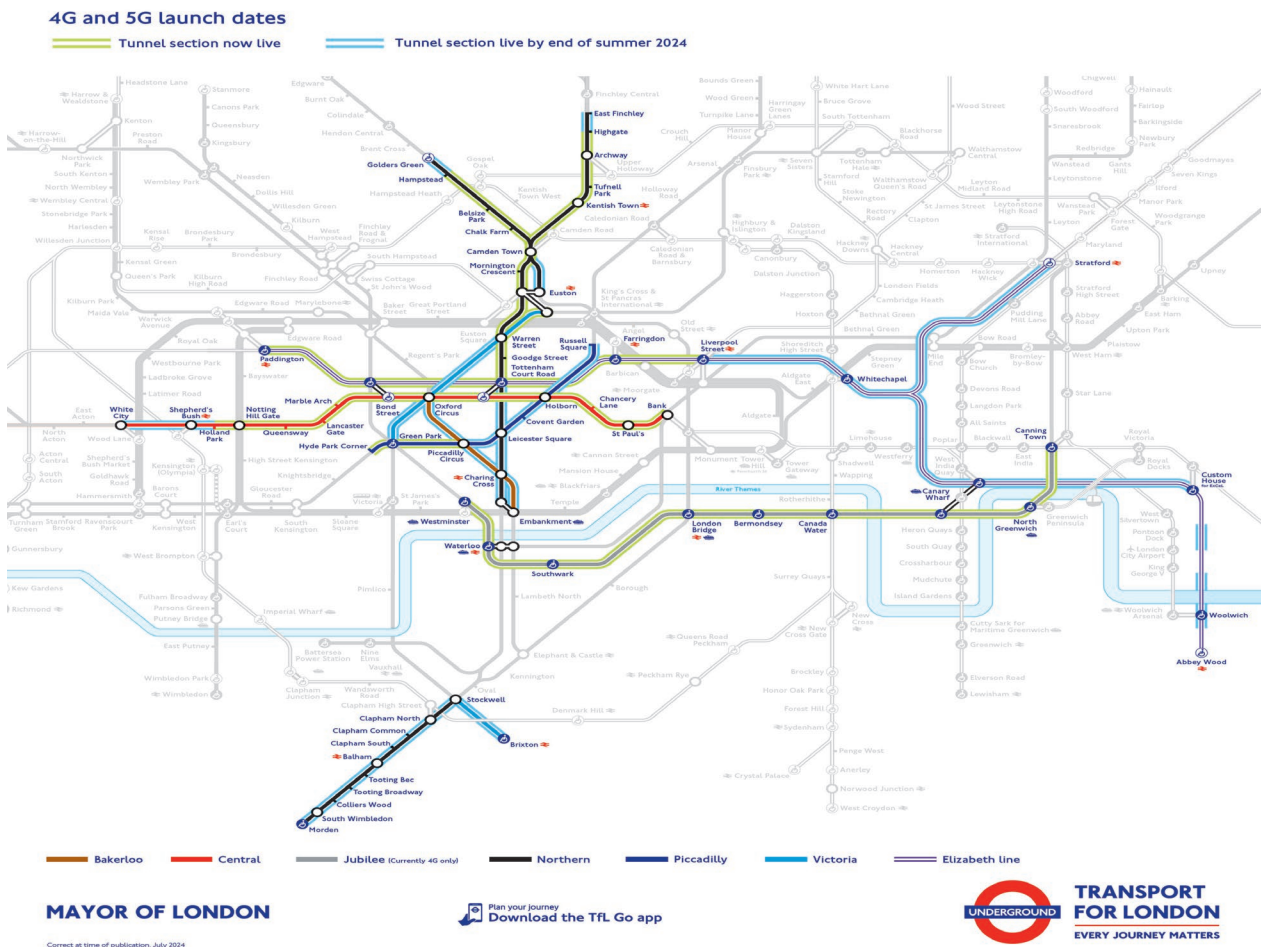
Customers can now receive a mobile signal on the underground section of the Central line between Holland Park and Bank, and both underground sections of the Edgware and High Barnet branches of the Northern line as far south as Tottenham Court Road, along with the Jubilee line 4G coverage between Westminster and the Canning Town portal. This means that, as of May 2024, around 37 per cent of Tube stations with platforms underground have a mobile service available.

This enables customers to have better access to our services, including the TfL Go app, even when travelling underground. It gives them access to real-time information, allowing them to make decisions about their journeys while on the move.

⁷ Three Mobile, EE, Vodafone and Virgin Media-O2

Figure 34: Tube map showing below ground 4G and 5G coverage by end of summer 2024. Source: TfL

Tube map showing below ground 4G and 5G coverage



More than 100 EE and 3UK small cells have been deployed and are live on TfL Road Network lighting columns broadcasting a 4G and 5G signal around Old Street, Waterloo, Euston, New Cross and Park Lane. A total of 40km of fibre has been laid through TfL’s traffic management system to provide the fibre backbone for the small cell deployment. This network will significantly improve mobile connectivity in these areas.

TfL Go

Our TfL Go app has now been downloaded more than 5.8 million times, with a peak of more than 848,000 monthly users in January 2024 (an 18 per cent increase since the beginning of 2023/24). TfL Go is inclusive by design, with a focus on accessibility standards compliance, including support for bigger type sizes and screen reader technologies. The app reaches proportionately more women, young people, and those in lower socio-economic groups than our website.

We have continued to release regular app updates, including detailed information about all stops and interchanges on bus routes, and more comprehensive information about the

expected quieter times to travel. Enhanced disruption information on the live Tube map has also been introduced, making it easier to see where closures and severe delays are occurring. During summer 2023, we launched 'Promoted Places' content to help customers discover things to do in outer London neighbourhoods. We also partnered with the London Design Festival during September 2023 to celebrate our rich design heritage.

Later in 2024, we will be making a significant enhancement to the app's functionality by including integrated payments so that customers can top-up Oyster cards, buy Travelcards and view their journey history through one simple app. We will also launch app notifications so that we can proactively inform customers about major disruption and network-wide issues.

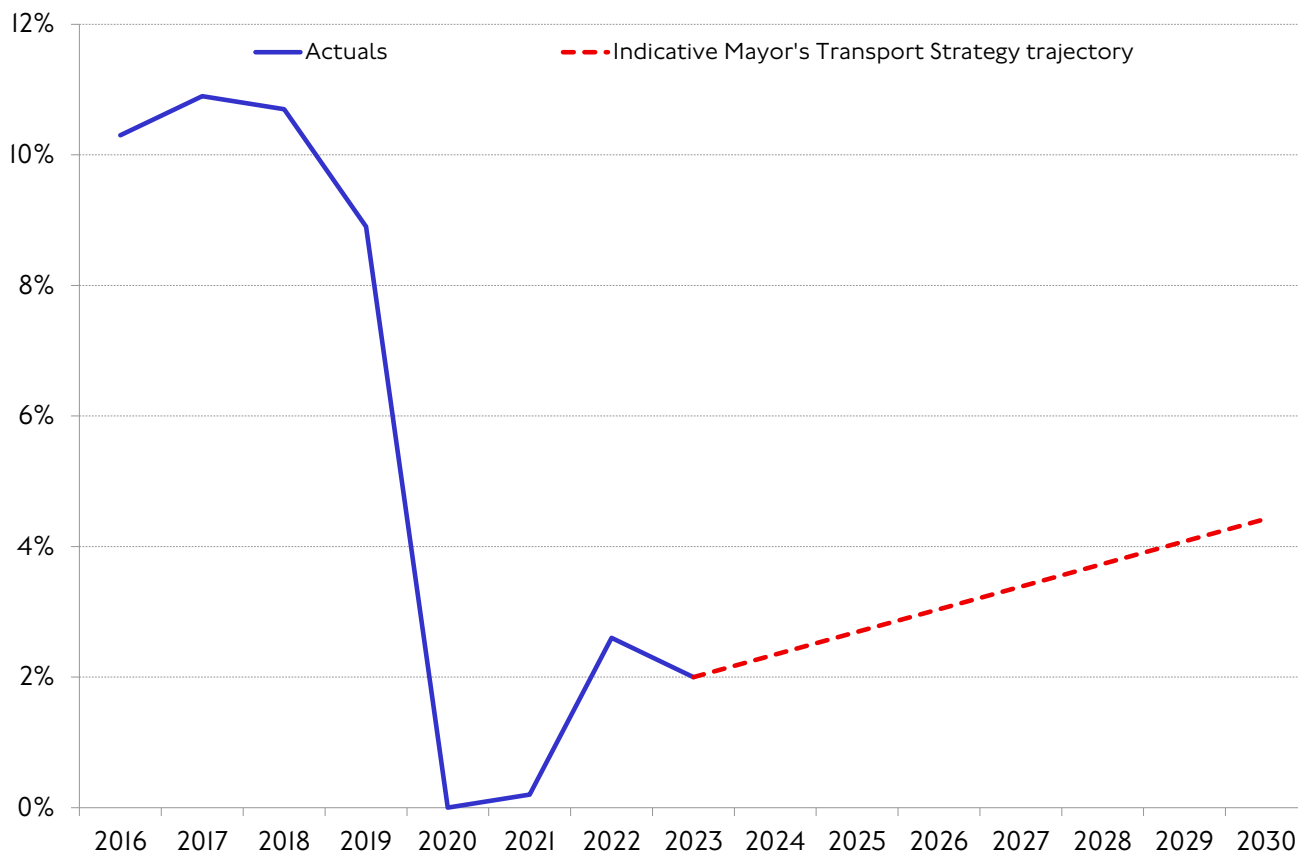
4.3. Quality

The Mayor's Transport Strategy sets an ambition to reduce the proportion of rail kilometres travelled in crowded conditions by 10-20 per cent by 2041, compared to a 2016 baseline. This measure has proven to be highly sensitive to pandemic demand fluctuations, as shown in (Figure 35). In 2020, it fell to effectively zero, but in 2022 it increased to three per cent. In 2023 crowding reduced slightly compared to the previous year, to two per cent of passenger kilometres travelled in crowded conditions. This is likely as a result of the delivery of a full timetable on the Elizabeth line, providing direct services to outer branches and increased peak frequencies through the central section.

Post-pandemic patterns of customer demand, particularly during the peak period, are driving this reduction in crowding compared to pre-pandemic levels. Furthermore, the introduction of the Elizabeth line provided additional capacity and is also alleviating crowding on the London Underground network. However, without further investment in capacity on our network, it is expected that crowding will increase with population growth.

Figure 35: Mayor’s Transport Strategy Tracker for Quality: Proportion of passenger kilometres travelled on TfL rail services in standing densities above two people per square metre 2016-2023 and indicative Mayor’s Transport Strategy trajectory.
Source: TfL

Note: 2023 data is based on preliminary demand data and may be subject to revision

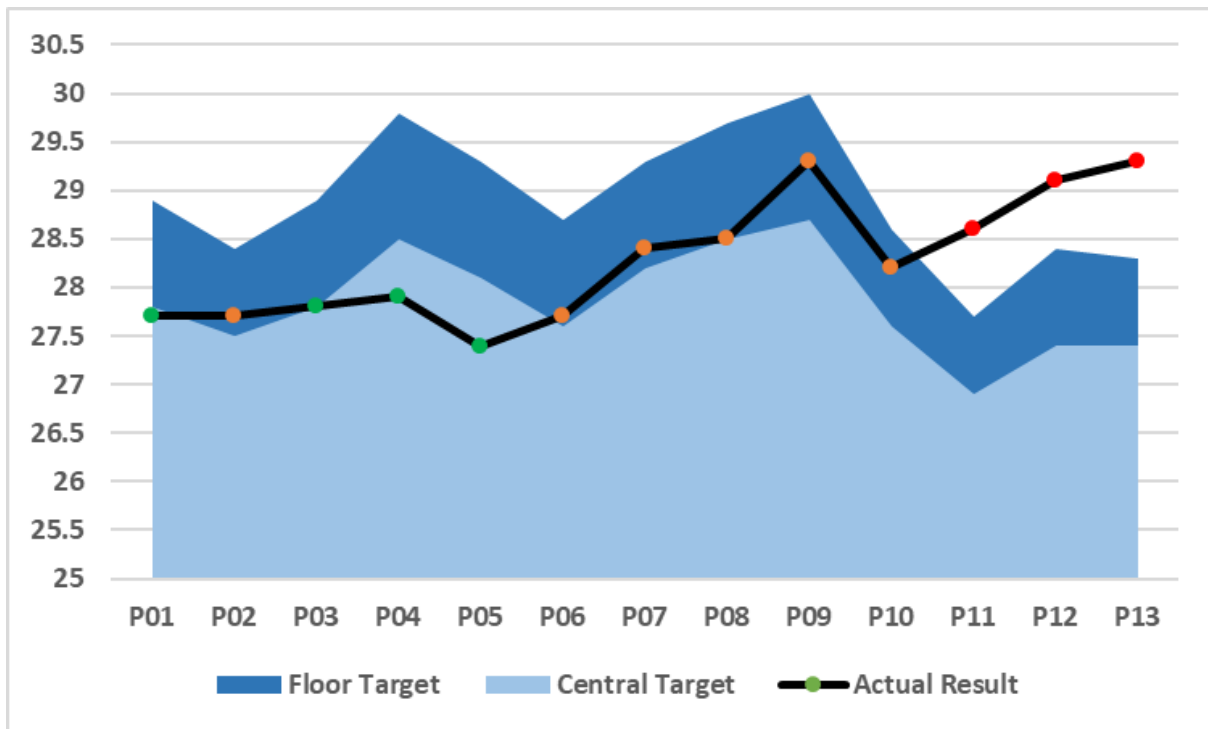


London Underground performance

Customer journey time is the length of time passengers perceive their journeys to take. Our journey time metric calculates customers’ waiting time and travel time and assesses the degree to which they experience crowding. It is ‘perceived’ because it is weighted according to observations of customer behaviour and decision-making.

Figure 36 shows that London Underground performance was better than the floor target in terms of the customer journey time metric between April and November 2023. The floor target is the minimum level of performance we consider tolerable, while the central target is what we are aiming for. This level of performance on the Underground was achieved despite multiple operational challenges such as fleet non-availability on the Jubilee line and operator non-availability on the Piccadilly line. However, largely due to the motor issue with the Central line fleet, journey time performance failed to meet our targets in January and February 2024.

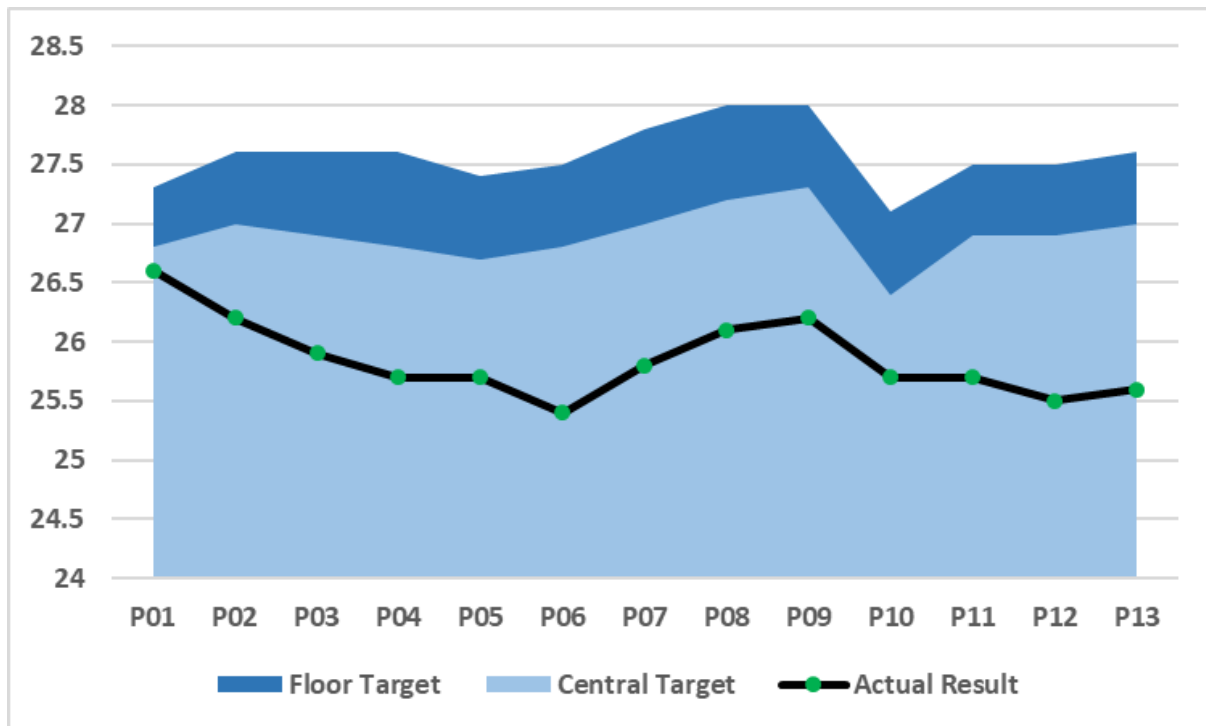
Figure 36: London Underground customer journey times in minutes, 2023/24.
Source: TfL



Rail performance

Figure 37 shows the Elizabeth line, DLR, London Overground and London Trams have been performing well in terms of customer journey times throughout 2023/24. The improved performance has been driven by various changes to service, primarily on the Elizabeth line and DLR, while the London Overground has performed consistently well. Due to ongoing fleet issues, Trams performance has not been as stable, but this only accounts for a small percentage of the rail demand. The reduced performance observed between September and December 2023 is explained by factors such as autumnal weather and an increase in customer demand. Poorer weather impacts service performance, while higher demand increases crowding on the network which in turn increases weighted journey times in our customer journey time metric.

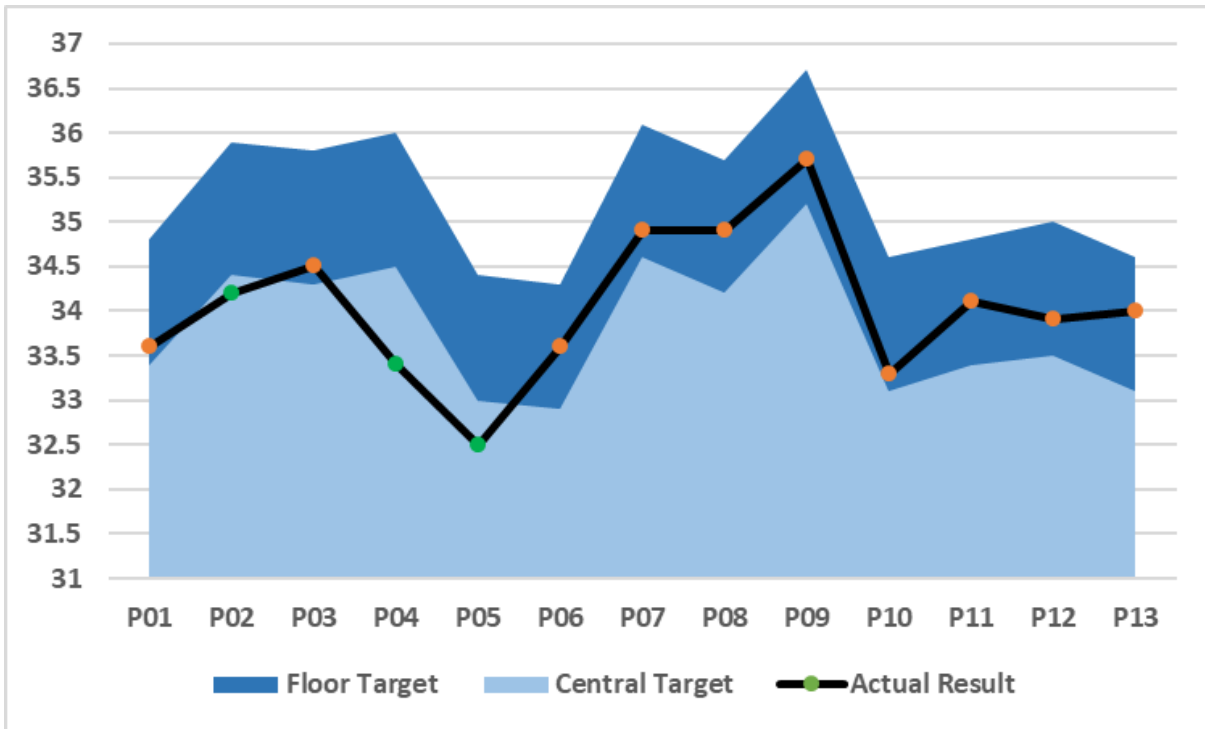
Figure 37: Rail customer journey times in minutes, 2023/24. Source: TfL



Bus performance

Figure 38 indicates that bus journey times have been worse than the central target but remained better than the floor target for most of 2023/24. Although issues with staff availability as seen in 2022/23 have been improved in 2023/24, bus journey times in 2023/24 have been adversely affected by ongoing mechanical issues, traffic impacts like third-party utilities works, and external events such as protests and industrial action. This has resulted in increased excess wait time and lower bus speeds. This has an adverse impact on the average customer in-vehicle time and waiting time, and on the variability of customers' in-vehicle and waiting time. Furthermore, the average in-vehicle time on buses is higher following the pandemic, which reflects that, since then, the average journey length of bus customers has become longer.

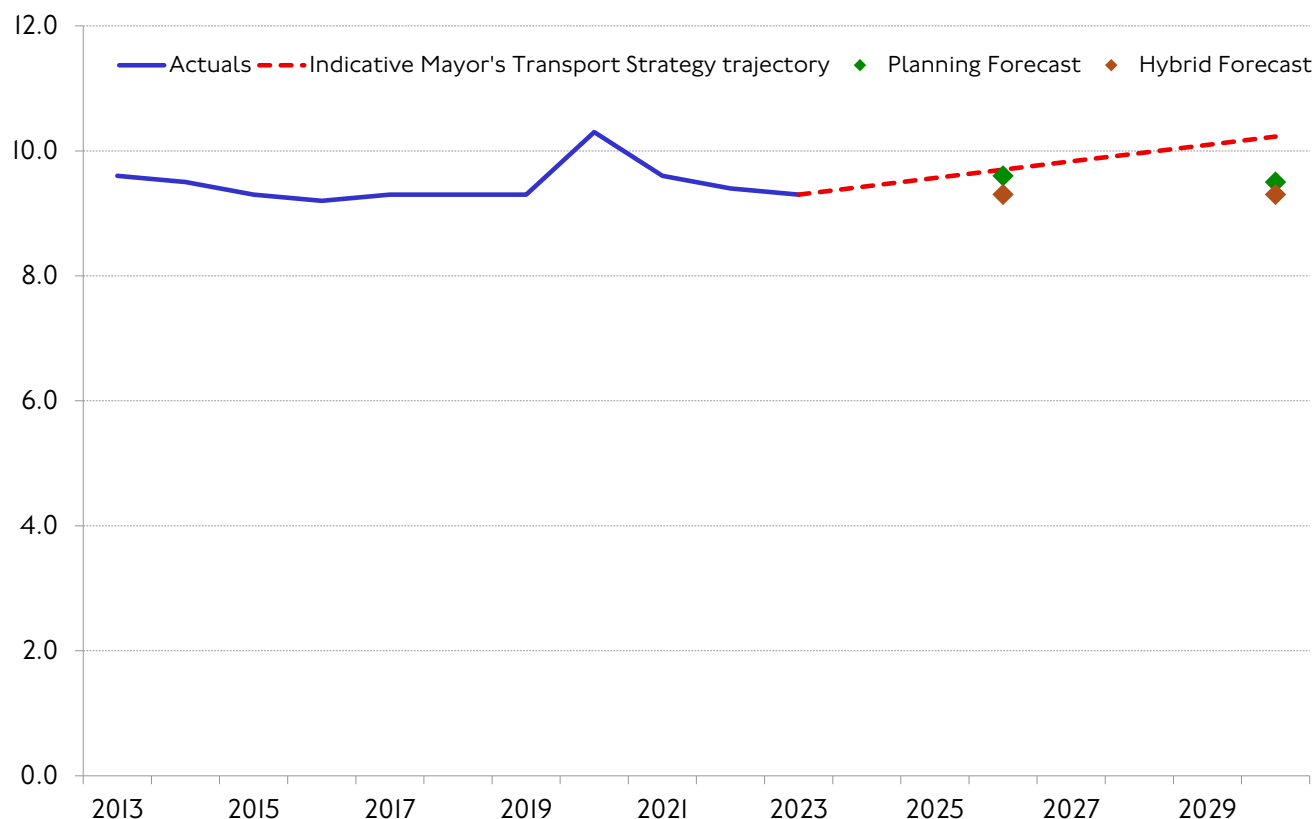
Figure 38: Bus customer journey times in minutes, 2023/24. Source: TfL



Bus speeds are one component of overall bus customer journey time, and the annual average bus network speed in London is used to track progress against the Mayor’s Transport Strategy ‘quality’ outcome. Figure 39 shows the trend for this metric since 2013, and the straight-line trajectory to the target of a 10 per cent increase in bus speeds (from a 2015 baseline) by 2030.

Before the pandemic, bus speeds had been declining, but pandemic-related changes to travel demand led to an increase in bus speeds in 2020. Due to the return of car traffic, and, therefore, congestion, since then, the large improvement seen in 2020 has fallen back in recent years. In 2023, the London-wide average bus speed was 9.3 miles per hour, 10 per cent below the 2030 target.

Figure 39: Mayor’s Transport Strategy Tracker for Quality: Average bus network speed (mph) in London, observed 2013-2023, indicative Mayor’s Transport Strategy trajectory to 2030 and Planning and Hybrid Forecast. Source: TfL



Focus On: Improving bus customer journey times

Our Bus action plan sets out the vision for 2030, including a focus on reducing journey times, improved customer experience and decarbonisation. We know that longer and less dependable journey times make people less likely to travel by bus. To improve bus journey times, we are working on a number of projects, including implementation of bus priority measures across London and Bus Sense, delivered as part of our network operating strategy.

Bus priority measures

In 2023/24, we completed the new Strategic Bus Analysis, which illustrates those sections of the road network with poor bus performance, and shared this analysis with the boroughs to encourage them to explore bus priority in these locations in their local implementation plans. Bus priority covers a wide range of interventions, including bus lanes, bus gates, junction improvements, bus stop consolidation and road signage and markings that can improve bus journey times – the right type of intervention will depend on local circumstances.

In the Bus action plan, we committed to delivering an extra 25 kilometres of new bus lanes by 2025, which was further enforced by the DfT including this delivery as a condition of the August 2022 funding settlement. In 2023/24, we delivered over 10 kilometres of new bus lanes across both borough road networks and the TfL Road Network, with a further 15 kilometres planned for delivery in 2024/25.

To support new Superloop bus routes in outer London, in 2023 we identified potential bus priority opportunities along the TfL Road Network and borough road networks. We are now working with boroughs to provide funding and support to further investigate and deliver complementary bus priority measures along Superloop routes. Work is now starting to assess the impact of the 10km of bus lanes delivered in 2023/24.

Bus Sense

Bus Sense is an initiative to minimise the impact of roadworks on the bus network. There are more than 400,000 applications to carry out roadworks each year in London and although these are essential to support the capital, they can cause significant delay to traffic and buses. To tackle this, we are pioneering the Bus Sense project to reduce delays caused by roadworks through better collaboration between private and public organisations.

We piloted Bus Sense in the London Borough of Islington initially in 2022 by sharing data and pairing TfL's technical expertise with the borough's local knowledge. In just a few months, we saw significant improvements to bus journey times across the bus network borough-wide, with continuing year-on-year improvements compared to neighbouring boroughs not using the Bus Sense approach. In 2023/24, Bus Sense was expanded to cover 12 boroughs across central, inner and outer London, with the target of improving the associated bus journey times by five per cent.

4.3.1. Bus customer improvements

We are delivering enhancements to the bus customer experience across London, making buses a more attractive option for travel in line with our Bus action plan. In 2023/24, we refurbished more than 590 of our New Routemaster buses, bringing a fresh interior with the introduction of a special priority seat moquette. We also made wider improvements to our on-board customer experience, with 433 buses across 29 routes benefiting from enhanced customer features, similar to those pioneered on our flagship route 63 buses. This includes richer on-bus content displays with more detailed customer information, USB charging points, priority seat demarcation and enhanced lighting. We improved the experience for customers waiting for their bus with the roll-out of more than 300 new countdown signs at bus stops across the capital, with all boroughs benefiting from new live travel information signs at a variety of locations, and we renewed more than 400 bus shelters.

At Kingston Cromwell Road, we began work in summer 2023 to provide a state-of-the-art bus station that will make journeys by bus in the area much easier and more attractive. This is due to conclude in the 2024/25 financial year. The project will see the construction of new, energy-efficient bus station buildings, a new canopy to provide protection against the weather across the station's entire waiting area, and a wider passenger island providing

more space for customers to wait and circulate. Other customer-focused features include improved live travel information screens, fully accessible customer toilets, improved LED lighting and CCTV, a new public address system and new retail units.

4.3.2. Rail customer improvements

Central line improvement programme

We are overhauling all Central line trains to deliver a safer, more reliable and accessible service. The upgraded trains will have new, more efficient motors that will reduce energy consumption by seven per cent, leading to a cumulative saving of 6,000 tonnes of CO₂ emissions across the programme. The overhauled trains will offer an enhanced customer experience with improved customer information, better lighting and CCTV. Importantly, they will also be more accessible, with the installation of wheelchair bays.

London Overground line naming

On 15 February 2024, the Mayor announced the new names for the six London Overground routes. Naming the London Overground lines aims to make the network easier for customers to navigate. Each route will be represented by a new name and line colour, which will be reflected across our iconic Tube map and journey planning tools.

The London Overground network connects some of London's most historic and diverse neighbourhoods, so the naming of the Overground lines presented an opportunity to showcase and celebrate London's rich history, heritage and diversity. Therefore, for the first time, on behalf of the Mayor, we engaged customers, stakeholders, staff and communities to help influence the line names. The new line names are:

- **The Lioness line:** Euston to Watford Junction
- **The Mildmay line:** Stratford to Richmond/Clapham Junction
- **The Windrush line:** Highbury & Islington to Clapham Junction/New Cross/Crystal Palace/West Croydon
- **The Weaver line:** Liverpool Street to Cheshunt/Enfield Town/Chingford
- **The Suffragette line:** Gospel Oak to Barking Riverside
- **The Liberty line:** Romford to Upminster

Following the Mayor's announcement, we are continuing to engage with the key stakeholders associated with each line name to co-create a series of community/stakeholder events over the summer to showcase stories behind the line names and bring them to life. The new names and design approach will go live by the end of 2024, when customer-facing information, including maps, signage and announcements, will be unveiled across the Overground network.

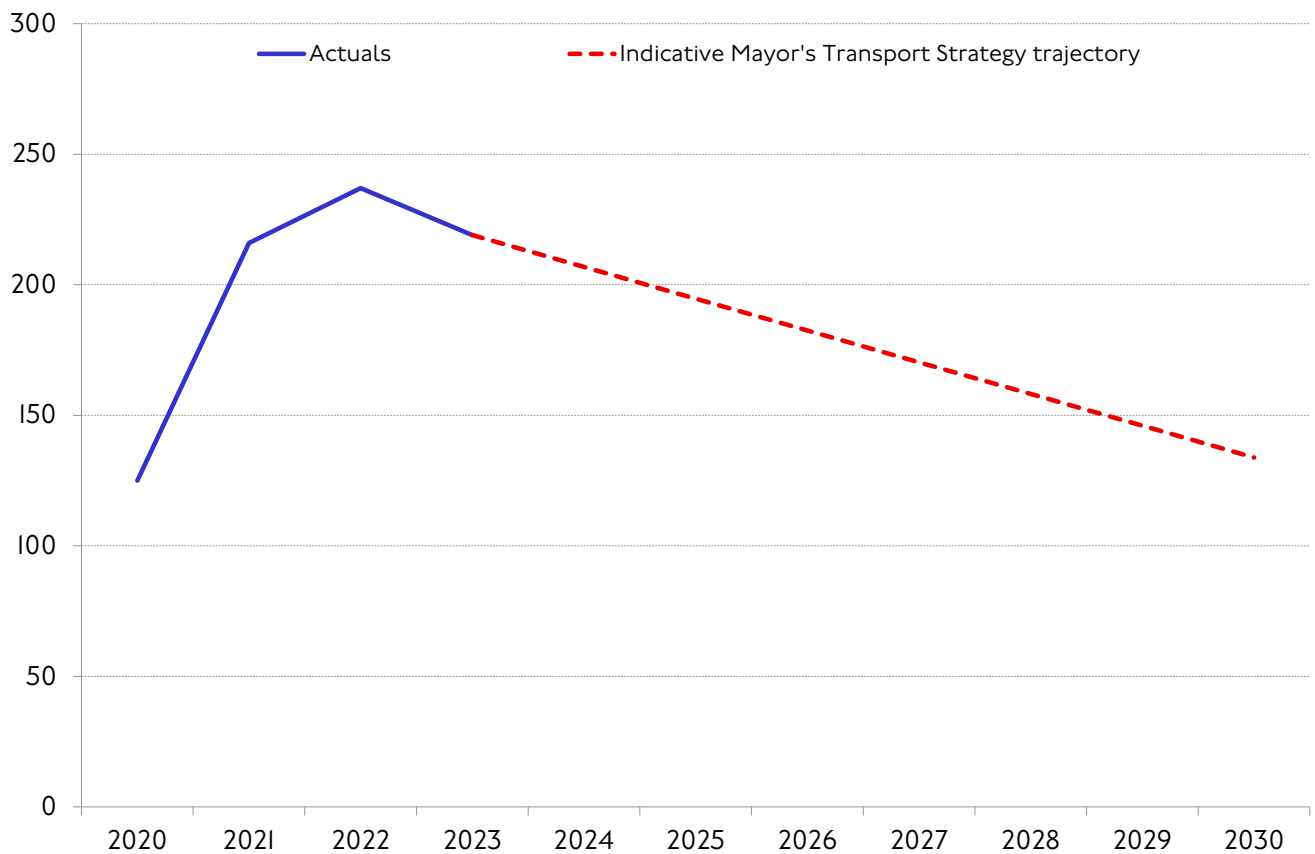
4.3.3. Vision Zero for public transport

Our performance

Public transport remains the safest way to travel in London, and overall we are seeing a gradual improvement in customer and colleague safety. The risk of being injured on the public transport network is falling, as patronage has recovered to around 90 per cent since the pandemic.

However, we know we still need to do much more to achieve our ambitious targets and eliminate death and serious injury. Figure 40 shows that, tragically, nine people (eight customers and one colleague) lost their lives on our public transport network in the 2023/24 financial year. There were 193 serious injuries sustained by our customers and 17 by colleagues on the network. This represents a decrease in the number of customers and colleagues killed or seriously injured compared to the previous financial year.

Figure 40: Mayor’s Transport Strategy Tracker for Safe: Customer and workforce killed and seriously injured, 2020-2023, and Mayor’s Transport Strategy straight-line trajectory to 2030. Source: TfL



Our TfL Strategy and accompanying safety and health road map clearly sets out the progress and ambitions for improving the safety and health of our customers and colleagues. To achieve Vision Zero on the public transport network we are prioritising action

on those risks that lead to the greatest number of injuries and harm as well as continually improving the foundational activity of controls and operational processes that prevent harm from occurring.

Our top risks to customer safety

Slips, trips and falls

Slips, trips and falls account for the majority of customer injuries across all modes. We continually review and analyse these incidents to ensure we have the latest understanding of where and why these may be taking place ensuring approaches being taken are aligned with prevention.

On our bus network, 2023/24 saw the launch of our Bus safety strategy, which includes delivery of the latest Bus Safety Innovation Challenge. This focuses on identifying novel or innovative solutions to reducing customer slips, trips and falls while standing or moving on the bus or while on the stairs. Applications closed in March 2024, and we are currently reviewing proposals and working with suppliers and our bus operators to design trials. These will begin later this year and will be subject to independent evaluation to measure the effectiveness of the innovations.

Intoxication across the network

We have an important role in making sure our customers reach their destination safely and, while we cannot prevent customers from becoming intoxicated, we can anticipate the impact and try to mitigate the effects. As part of our intoxication strategy last year, we aimed to reduce the negative impacts linked to intoxication. This included bringing down the number of customer injuries as well as the number of staff assaults and workplace violence and aggression incidents relating to intoxication - both of which were successfully achieved during the festive season in 2023.

The strategy included working with the London Ambulance Service to play announcements at hotspot stations reminding customers to take extra care when travelling after drinking alcohol; using our own marketing teams to promote safe travel during the festive season; and issuing guidance to station staff on how to deal with and prevent incidents from occurring. We also started working with three new Business Improvement Districts and continued to work with our previous partners (including three other Business Improvement Districts and the London Ambulance Service) to deploy trained volunteers and medics at intoxication-related customer injury hotspots.

Escalators

On our London Underground network, we have been focussing on high-risk slips, trips and falls areas, including escalators. We have refreshed plans for those stations that see the greatest number of incidents, bringing in mitigating measures considering changes to the customer demographic that has returned to the network following the pandemic. Specific interventions include the prominent display of posters, the broadcast of public announcements and the use of travel ambassadors to support regular staff.

We have been increasing the focus of these campaigns to target high-risk periods and locations when we know there are increases in alcohol-related incidents. During school holidays, when we see more children using the network, we display our 'Keep Kids' Feet Clear of Edge' poster and play regular announcements to raise awareness of children's safe use of escalators.

We continue to work with Network Rail, several other train operating companies and escalator manufactures to share the work being carried out by the different organisations, and the learning associated with it to ensure that an industry-wide approach is being taken on this issue.

Platform train interface

We have been working hard to understand and reduce the risk of injuries at the platform train interface, such as falling from the platform, being caught between the train and the platform, or being struck by a train. As well as the wider work on campaigns targeting safe use of the network, we have been developing a comprehensive, risk-based platform train interface plan, focusing on what we can deliver in terms of better infrastructure such as gap fillers, customer communications, training and briefing of station colleagues and train operators.

Following a successful trial at Willesden Green, we are rolling out the technology behind Smart stations to a further five platforms. Smart stations uses enhanced video analytics to provide front line colleagues with real-time notifications on customer movement and behaviour. This better alerts station colleagues in the event of an incident. We have been testing the feasibility of this technology for safe use on our network and exploring wider artificial intelligence options. We are also approaching other rail and metro operators in the UK and worldwide to share how platform train interface risk is managed, and learn from the mitigation measures that other rail operators have in place. We will continue to assess new solutions as they become available. The mitigations that will have the greatest impact - those that physically reduce the gap or utilise emerging technologies - are likely to take several years to test, develop and implement so in the shorter term, we will continue our focus on customer and colleague behaviours and procedural updates that will contribute to improved customer safety.

Fatigue management

A comprehensive fatigue management programme and plan for the whole organisation has been in place, and continually developing, since 2019. In 2023/24, we delivered a key intervention in support of our night- and shift-working colleagues across several disciplines and roles. Known as the Night Club, it brings sleep experts into the workplace to provide colleagues with evidence-based sleep health information during their shifts. The sessions focused on improving diet, exercise, sleep hygiene, mental health, the understanding of chronotypes, and sleep. This has been very well received by the target audience, reaching over 450 colleagues across a range of roles – from control centres, and engineering depots to Dial-a-Ride. We have also worked to continually promote fatigue management across the organisation, encouraging completion of our four online fatigue training courses. This has led to more than 9,700 courses on fatigue being completed over the course of the year.

5. New homes and jobs

The transport network has a crucial role to play in supporting people to live and work in London. New development, designed around walking, cycling and public transport, enables people to live active, healthy lives and mitigates congestion and environmental impacts that would otherwise result from growth.

The housing crisis is one of the greatest challenges facing London today, with rents and home ownership being unaffordable for many. Transport is critical to unlocking new areas for development, supporting the intensification of already built-up areas and ensuring that development is sustainable.

There are two interlinked outcomes related to the mayoral priority for new homes and jobs:

- Sustainable – Active, efficient and sustainable travel will be the best option in new developments
- Unlocking – Transport investment will unlock the delivery of new homes and jobs

The approach in the Mayor's Transport Strategy contributes to the London Plan's aims for Good Growth, which are to build strong and inclusive communities, make the best use of land, create a healthy city, deliver the homes Londoners need, grow a good economy and increase efficiency. The sustainability of development is also critical for the Mayor's aims for decarbonising transport in London by supporting mode shift. Good Growth encompasses both the Sustainable and Unlocking outcomes.

We work in partnership with our stakeholders to deliver these outcomes including with London boroughs and developers through the planning process. We also develop projects and bids to secure funding for infrastructure and transport improvements, which enable sustainable and car-free or car-lite developments. Car-free development supports sustainable growth and the viability and patronage of transport services. We are also focusing on expanding the step-free network to ensure inclusive growth and enable more Londoners to live without cars.

Some financial commitment from TfL is often required to leverage third-party funding and to develop transport schemes to a position where they can attract funding. We have made progress to allocate some funding via our Business Plan to introduce the Sustainable, Housing and Accessibility Fund. This fund is supporting transport schemes such as station upgrades across London (see Sustainable housing and accessibility fund on p106). It is, however, limited and there also remains a lack of funding for strategic, long-term, transformational projects that support new homes, jobs and regeneration. Meanwhile, increasing viability pressures on development could potentially limit developer funding.

5.1. Sustainable

We continue to shape local plan policies across London so that they are better aligned with the Mayor’s priorities. We have ensured policies require transport land and assets to be safeguarded and that car parking is minimised in new developments. Every car-free home delivered in London helps reduce car ownership, generates mode shift and makes the provision of public transport more feasible.

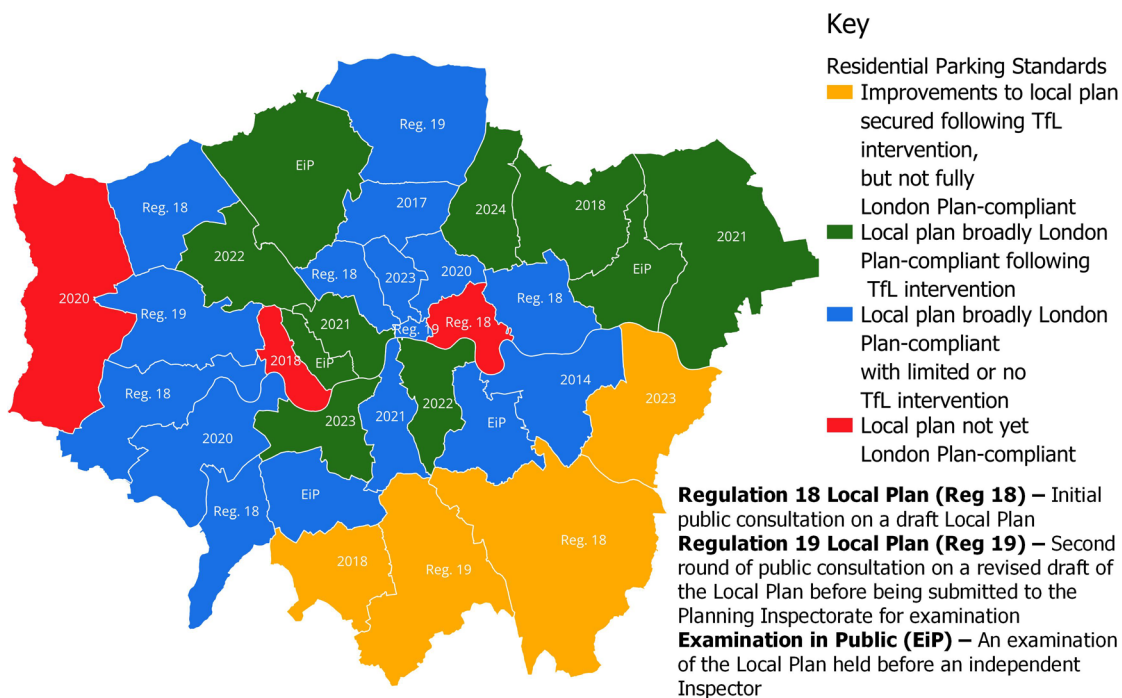
5.1.1. Implementing the London Plan

Working with boroughs on local plans

In the past year, we have worked with at least 16 boroughs to better embed sustainable transport in their local plan policies and have attended two local plan examinations where we challenged policies that were not in line with our objectives. As a result, we secured changes that ensured local plans better align with the London Plan. We have also shaped at least 10 supplementary planning documents that cover more detailed planning for particular areas of growth. Figure 41 illustrates how influential we have been in shaping local car parking policies, for example.

Figure 41: Borough residential parking local plan standards compared to London Plan standards. Source: TfL

Note: The map shows in broad terms how residential car parking standards are set out in local plans compared to the standards set out in the London Plan. Where local plans are being reviewed and are being consulted on, the most recent draft has been considered



Development management

We are a statutory consultee on planning applications that have a strategic transport impact or that could affect our assets or operations. We work with boroughs and applicants to ensure development complies with the transport-related policies in the London Plan. In the past year, we have commented on more than 2,600 planning applications, of which nearly 200 were of strategic importance and, therefore, referable to the Mayor for a decision. This is similar to the number in 2022/23.

Our development management function is essential for securing mitigation from developments through planning obligations. In the past year, we have secured £38.3m in contributions to transport infrastructure under section 106 of the Town and Country Planning Act 1990 and collected £156.4m through the Mayoral Community Infrastructure Levy, which continues to be a key part of the funding package for the Elizabeth line.

One example of our role in development is the O2 Centre application in Camden. It is a mixed-use development, including about 1,800 dwellings. To address the considerable impact the development will have on the public transport and active travel network, we secured a package of mitigation, including £10m for step-free and capacity improvements at West Hampstead station, safeguarding a future second entrance to Finchley Road station, £1.5m for upgrades to the A41 at Finchley Road, new bus stands and driver toilets within the site, and a further £2m for the London Borough of Camden to deliver walking and cycling networks. We have also secured the removal of the retail car park at this site, freeing up space for better public realm and active travel facilities.

5.2. Unlocking

We play an active role in unlocking homes and jobs across London. This includes using our own investment and leveraging third-party contributions to deliver transport infrastructure which enables more homes to be developed, more quickly and more sustainably. Alongside this, we support the masterplanning of key growth areas in London and the transport interchanges that support them – we need to ensure that the right transport infrastructure is in place for growth and the case made to secure funding for that infrastructure. Public transport connections are key to unlocking areas across London in order to provide viable places to build homes and create jobs, and they also have a core role in placemaking and ensuring successful and well-connected neighbourhoods.

5.2.1. Measuring the impact of completed projects

We have been monitoring the scale of impacts across a number of our major transport projects across London. Investment in transport is likely to stimulate change in the wider area. It is important we understand these impacts, particularly on new homes and jobs, to ensure these schemes have met the aims and objectives of their business cases, and for lessons for future investment.

Elizabeth line

The full opening of the Elizabeth line in May 2023 has transformed travel in London. The line now connects Reading and Heathrow to the west of London, with Shenfield and Abbey Wood to the east, running through a 21km twin-bore tunnel under central and east London. The project added 10 per cent to the capacity of the city's public transport network. The line is the most used TfL service with more than 200 million passenger journeys in 2023/24.

Focus On: Elizabeth line

The Elizabeth line provides a high-frequency, high-capacity and accessible link between key locations such as Heathrow Airport, the West End, the City of London and Canary Wharf. It has provided 10 new stations and has increased the step-free access network, with every Elizabeth line station having new or improved step-free facilities.

In some areas of London, the line provides new connectivity; in others, it enhances the existing transport offer already in place. The original objectives of the project were to support economic growth and early work on the evaluation of the project indicates it is achieving that. It is predicted to lead to housing growth due to transport capacity improvements and associated increases in the attractiveness of areas for housing development. It is also predicted to lead to employment growth in central London due to an increase in the number of workers able to commute to the area. Monitoring of these impacts is ongoing and we expect wider impacts, such as those on housing and jobs to take time to be fully realised given the scale of the scheme and the complexity of the impacts. However, we are already starting to see these impacts, and early analysis shows the following:

Homes: Between 2017 and 2022, the line supported the delivery of 102,000 additional new homes within 3km of stations. We are seeing that growth is highest closest to the stations in comparison to areas in London beyond station catchments. The impacts vary along the line: along the Abbey Wood branch, development is coming forward at higher densities; along the Western branch, there is evidence that the Elizabeth line has raised the profile of some stations (such as Hayes & Harlington and Southall), supporting housing delivery at a higher rate. The scale and timing of delivery reflects the land available and the nature of local housing markets.

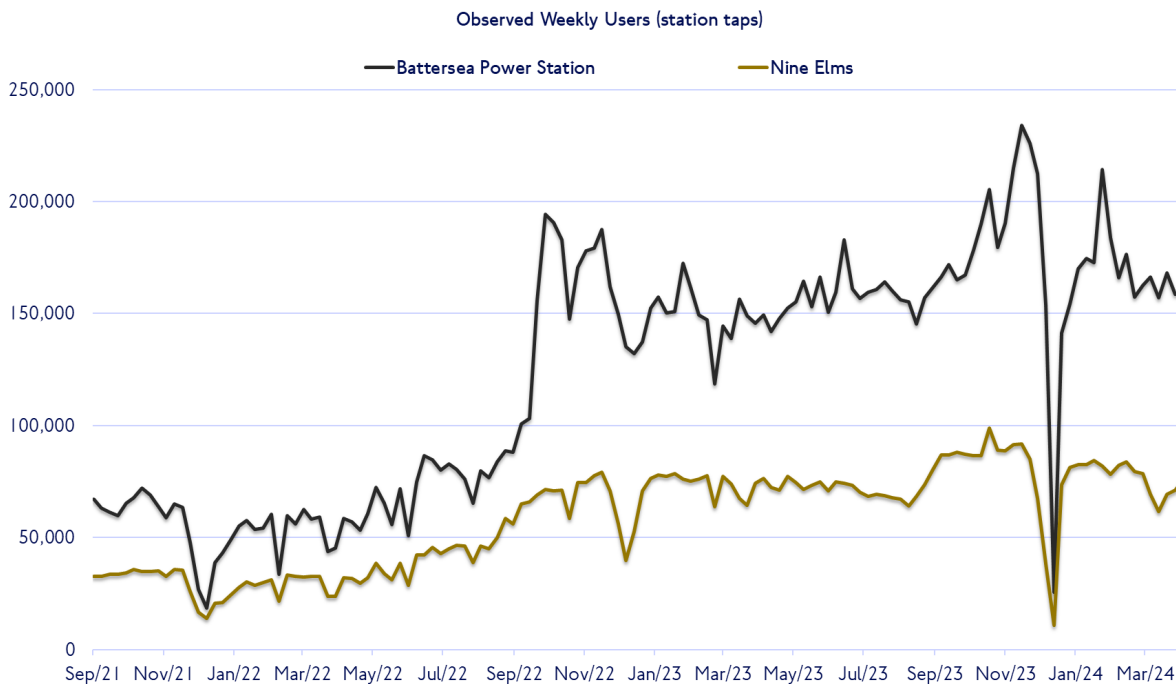
Jobs: Between 2015 and 2022, the line has supported the delivery of 420,000 additional jobs within 3km of its stations. Over this period, these areas within central London have seen the greatest increase in employment growth at 22 per cent. This is eight per cent higher than London areas not within 3km of stations which grew at 14 per cent. During this period, the highest jobs growth has occurred at Tottenham Court Road station. This is partly explained by the completion of large commercial developments on land that was previously used for the Elizabeth line construction works.

Northern line extension

The Northern line extension and its two new step-free stations at Battersea Power Station and Nine Elms are supporting the delivery of 20,000 new homes and 25,000 new jobs in the Vauxhall Nine Elms Battersea Opportunity Area. The opening of these stations in September 2021 preceded the opening of the Battersea Power Station centre in October 2022. This development involved the regeneration of a historic building into active use, providing new facilities, employment and placemaking benefits in a key riverside location. The extension will continue to support more homes being built and occupied and new businesses moving into the area, with the boundary of the Central Activities Zone extended to include some of the Opportunity Area. In 2023, Apple moved into their new headquarters in the Power Station which brought 3,000 jobs to the area.

We are now observing approximately 175,000 trips per week at Battersea Power Station and 75,000 trips per week at Nine Elms, with Figure 42 showing a trend of continued increases in demand. The two stations have very different demand profiles. Nine Elms lies in a largely residential area, with some employment and academic trips, whereas Battersea Power Station has balanced two-way flows in the morning peak, reflecting strong residential and employment uses. At weekends, Battersea Power Station is particularly well used, driven by leisure demand as the Power Station has established itself as a new leisure destination.

Figure 42: Observed weekly trips on Northern line extension (station taps).
Source TfL



With 12.4m trips made in 2023, annual passenger demand on the extension is exceeding our forecasts and continues to grow as the wider Opportunity Area develops further. We continue to monitor and assess both transport and wider benefits as part of our ongoing

benefits realisation activities. In mid-2024, we will commission a study which will assess the wider economic impacts of the Northern line extension including its impact on the development of new homes and jobs in the Vauxhall Nine Elms Battersea Opportunity Area.

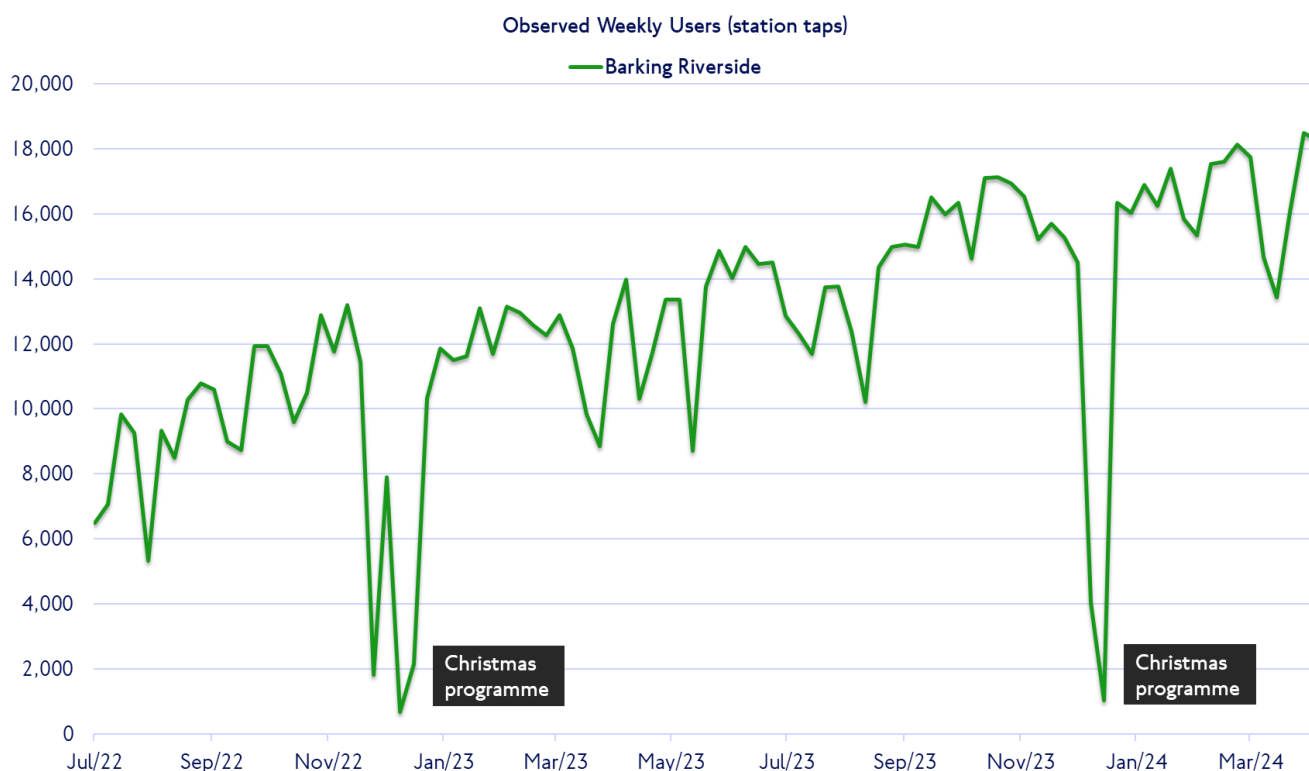
Work is also currently underway on a new western station entrance at Battersea Power Station which will increase capacity, enhance access and connectivity, and provide additional step-free facilities. The new entrance is due to be completed by spring 2025.

London Overground extension to Barking Riverside

We have been monitoring the impact of the Barking Riverside Extension of the London Overground since it opened in July 2022. The number of new homes completed in the station catchment was approximately 2,100 in December 2023 compared to a forecast of 5,400. About 1,500 further homes are currently under construction which would take the total to 3,600 by 2026. Barking Riverside Limited has emerging plans to increase the final number of homes at Barking Riverside to about 20,000, nearly double the 10,800 originally planned. Consideration is also being given to other housing developments along the route of the extension. These additional proposals demonstrate the value that the extension has delivered in terms of enabling housing development.

As at November 2023, usage of the station during the weekday morning peak hours has exceeded forecasts by six per cent, and overall demand throughout the week was almost double the initial forecast. This reflects the impact of the academy school adjacent to the station and the flow of workers to and from the nearby construction sites in the London Riverside Opportunity Area. In both cases the forecast used has been adjusted to reflect the actual number of homes completed. Figure 43 below shows the volume of entries and exits per week since the extension opened and shows a rising trend of usage.

Figure 43: Observed weekly entries and exits at Barking Riverside station since opening. Source: TfL



We keep these transport trends under review as part of our benefits realisation activities which will also seek to assess the wider impacts of the extension. We continue to work closely with Barking Riverside Limited on the future planning application to increase the number of homes in the area.

5.2.2. Potential impact of current projects

Elephant & Castle station capacity upgrade

A new station entrance and Northern line ticket hall will support the creation of 7,500 new homes and 10,000 new jobs in the area, significantly increasing station capacity to meet both existing and increased demand for Tube services. People will enjoy step-free access to the Northern line for the first time at the station, and we will factor in an interchange for the potential Bakerloo line extension.

The first stage of the project includes creating the station box and passenger tunnels to the existing Northern line platforms. The developer, Delancey, is creating the new structure for the station as part of its scheme. Our project team is pushing ahead with procurement arrangements for the new passenger tunnels with contract award planned for mid-2024/25. Pre-tunnelling ancillary works made excellent progress and were completed in April 2024. This will enable the main contractor to focus on tunnelling activities, without having to relocate services or needing to strengthen existing platforms.

Figure 44: The new station box at Elephant & Castle excavated to its lowest level, 33 metres beneath ground level. Source: TfL



The second stage of the project is to fit out the station and will be delivered once additional funds are secured. Options have matured on fitting out and bringing the new station entrance into use and were included in our [2024 Business Plan](#).

Housing Infrastructure funding for London Overground and DLR

The Department for Levelling Up, Housing and Communities launched the Housing Infrastructure Fund in 2017 – a central Government capital grant programme of up to £5.5bn to unlock and deliver new homes across England. Together with the GLA, we applied for two schemes that were awarded funding. These include packages of interventions for the London Overground and the DLR to unlock new homes in Southwark and Lewisham, and Newham and Tower Hamlets, respectively.

The London Overground Housing Infrastructure Fund programme was awarded £80.1m in 2018 to enable the first phase of the programme, which will unlock development of about 8,000 homes. This consists of improvements to Surrey Quays station and Canada Water bus station, alongside signalling and power upgrades. These works will enable us to increase train frequency from 16 to 18 trains per hour between Dalston Junction and New Cross Gate.

Contracts have been let for all elements of this phase of works and we are on site at Surrey Quays station and Canada Water bus station. We are making use of weekend and holiday works to deliver the key signalling and power upgrades. Works at Canada Water bus station completed in April 2024, with the remainder of the first phase of works due to complete in spring 2026.

The second phase of the programme is subject to a future bid and funding package. It would provide a new station at Surrey Canal Road and a number of other works across the network (including stabling and resilience improvements) to enable us to further increase train frequencies to 20 trains per hour. Both phases combined will unlock the development of a total of 14,000 homes.

Also in 2018, a Housing Infrastructure Fund contribution of £280.7m was granted to the DLR rolling stock replacement programme. This was to purchase additional DLR trains, and expand the Beckton Depot. The amount was later revised to £257.4m after it was agreed with the Government that the number of additional trains should be reduced from 14 to 11 to reflect the changes in travel patterns caused by the pandemic. Increases in train frequencies and the additional 10 per cent capacity of the new trains compared to the existing trains will help meet increased demand from new housing as well as improving journey quality and reliability for existing and new users. The HIF DLR contribution for 11 trains builds on our investment in 43 new trains for the DLR, taking the total number purchased to 54. It will support or enable the delivery of about 10,000 homes in total. Significant progress has been made in train manufacture and testing, delivery of depot works, and delivery of lineside infrastructure works, with the first new trains set to enter service later in 2024.

Silvertown Tunnel

East London has long been underserved by a lack of suitable river crossings, with serious problems of congestion and delay at the Blackwall Tunnel hampering effective connections. As the Blackwall Tunnel is the only strategic link in the area, there is a lack of resilience when problems occur at this ageing infrastructure.

The Silvertown Tunnel, which is on track to open in 2025, will help reduce congestion and deliver faster, more reliable journeys in east London, including new public transport connections. It will provide better access to jobs, education and leisure and will facilitate more public transport trips in south and east London. By improving the streetscape and freeing up safeguarded land either side of the river, the scheme also supports intensive development around the tunnel portals.

The tunnelling of both bores and the seven cross-passages that will run between the main tunnels is now complete. Activity continues on the cut-and-cover sections of the tunnel, which includes the tunnel entrances, and work is also progressing on the new road layout into the Tidal Basin roundabout in Newham, and link roads into the A102 south of the Blackwall Tunnel.

In order to manage traffic effectively, and deliver the expected economic benefits of the scheme, as well as mitigating environmental impacts, a user charge will apply at both Blackwall and Silvertown Tunnels when the Silvertown Tunnel opens. We have recently (July 2024) begun a consultation on the proposed charge levels and proposed discounts and exemptions.

Alongside the proposed user charges, we have also developed a green and fair package of measures to support residents and businesses to shift to more sustainable alternatives and adapt to the new user charges. This package includes discounts and exemptions for the tunnels user charges and also public transport concessions and new bus services. The discounts proposed include a 50 per cent discount for east London low income residents and a business discount on off-peak charges for certain businesses in the host boroughs.

There will be up to 21 zero emission (at tailpipe) buses per hour crossing the river at peak times, including the existing route 108 service, the extension of route 129 and the new Superloop 4 route, with concessions to support local residents to use these new services, and a new cross-river cycle bus shuttle, free for at least 12 months. A further part of the green and fair package will be free DLR journeys for at least 12 months to support residents making journeys from King George V - Woolwich Arsenal and Island Gardens - Cutty Sark.

Supporting boroughs with bids for new infrastructure funding

The Government launched a Levelling Up Fund of £4.8bn in 2021 to invest in infrastructure to improve everyday life across the UK. In each round of funding availability, we have taken an active role in supporting boroughs and the GLA to bid for this funding.

In the first round, there were three successful transport-related bids for London, with a total of £65m secured for Newham, Ealing and Tower Hamlets.

There were eight successful transport-related bids for London in the second round, of which six were transport related, unlocking a total of £113.8m transport investments. In terms of our ongoing projects, the GLA, in partnership with Waltham Forest, Barnet and TfL, was successful in securing £43m for improvements at two London Underground stations - Colindale and Leyton - which will support new homes and jobs.

Focus On: Colindale and Leyton

The £43.1m from the Levelling Up Fund will match more than £20m in contributions from Barnet, Waltham Forest and private developers to make the two stations step free.

At Colindale station the £29.5m funding package will be used for:

- The construction of a new landmark station building over the tracks
- The installation of a lift to provide street to train step-free access to increase accessibility
- Additional ticket gates in a larger ticket hall to support the growing demand resulting from the regeneration of the area around the station
- Improved safety, wayfinding and passenger experience throughout the station

Colindale is one of London's most deprived areas and the redevelopment of the station will enable 11,400 quality new homes to be built and unlock 2,000 new jobs. Since 2011, Colindale's population has grown by 70 per cent, making the area around the station the second-fastest growing ward in London after the Queen Elizabeth Olympic Park in Newham.

At Leyton station, the £13.7m funding package will be used for:

- Significant upgrades to make the station more accessible and encourage sustainable travel including a new, larger, high quality ticket hall building with additional ticket gates to reduce congestion and meet expected future demand
- Two new lifts and an overbridge to make the station step-free from street to platform for the first time
- An improved station environment leading to an enhanced passenger experience and gateway to Leyton town centre

The improvements will support 2,000 new homes being built near Leyton station with a further 5,300 new homes proposed.

Work started on site at Colindale in January 2024 and is expected to complete by autumn 2025. At Leyton we have also started detailed design work with the construction contract expected to be let by summer 2024, and the new station facilities opening in 2026.

These projects are models for how we want to deliver more step-free access in future, working with partners to fund the projects and stretching our available funding.

The third round of funding was announced in November 2023. London was awarded £29.9m for two transport-related projects, at Croydon and Edmonton. Croydon secured £18m for 'Reconnected Croydon', to develop existing proposals for improvements to the public realm, accessibility and movement infrastructure in the town centre. These seek to address the pedestrian and cyclist severance caused by major transport infrastructure. Enfield secured £11.9m for 'Angel Edmonton', to transform the town centre with a range of Healthy Streets interventions, including new active travel crossings, junction improvements and pedestrianisation.

Sustainable Housing and Accessibility Fund

The Sustainable Housing and Accessibility Fund was established following the conclusion of the Growth Fund in 2022. The Sustainable Housing and Accessibility Fund continues to focus on leveraging third-party funding to deliver additional public transport capacity and

step-free access that unlocks and supports sustainable growth. In the current financial climate, we continue to prioritise securing a range of third-party funds. We expect that funded projects will also meet wider objectives around mode shift, equality, decarbonisation and revenue generation.

At a programme level, the Sustainable Housing and Accessibility Fund aims to leverage between £1 and £2 of third-party funding for every £1 we spend. To capitalise on upcoming opportunities, some projects may need greater contributions from us and commitment recognising the operational imperatives - such as safety and reliability - and future fares revenue that they deliver.

The main areas of focus are:

- Housing schemes, where transport plays a key role in the business case, with short-term priorities being Royal Docks and along the London Overground in east London
- Step-free access and station capacity upgrades that leverage third-party funding as part of developer or borough infrastructure funding relating to development
- Standalone TfL-funded step-free access projects that make the network more inclusive and work towards improved journey time and public transport service provision

The Sustainable Housing and Accessibility Fund has a budget of £128m through to 2029/30. This year we have shortlisted the following projects to upgrade: Northolt station; West Hampstead station; North Acton station; and Pontoon Dock station.

Northolt, West Hampstead and North Acton stations were announced in summer 2023 as part of our planned forward programme of step-free access schemes. Northolt was about to enter construction before being stopped by the pandemic. Now, with work to analyse the design and constructability complete and a re-pricing exercise concluded in January 2024, we are recommending that we proceed to construction planned for early 2025. We are also recommending proceeding into concept design for capacity enhancements and step-free access at North Acton and West Hampstead, both of which have considerable potential for external funding and the ability to unlock new homes and jobs.

Supporting the Royal Docks development area

We are working with the Royal Docks Enterprise Zone and London Borough of Newham on the DLR Royal Docks programme to support local regeneration and growth. There are a number of development sites coming forward, including Silvertown Quays. To support this, we propose using the Sustainable Housing and Accessibility Fund alongside third-party contributions to upgrade Pontoon Dock DLR station by providing escalators from ground to platform level, as well as improving the public space beneath the station. Improvements are also being developed for Gallions Reach and Thames Wharf DLR stations that would unlock new homes and wider investment in the area.

HS2 between Euston and Old Oak Common

Following the Government's announcement in March 2023 to delay HS2, work to construct the HS2 station at Euston has been paused. Since then, we continued to engage with HS2 and the other Euston partners, to ensure essential local transport requirements are being considered as part of the design process. This includes the need for a suitably sized and located bus station, upgrades to London Underground stations, and Healthy Streets improvements to support people walking and cycling to and from Euston station. In October 2023, the Government announced its Network North plan, which removed £6.5bn of public funding from the Euston HS2 campus. We, alongside the Mayor of London, have continued to stress to Government the vital importance of HS2 reaching Euston to London and the wider UK economy.

We are also working with the London Borough of Camden on an updated Euston area plan, which will set the planning framework to support the delivery of Good Growth on the site. Work is currently underway to determine how many new homes and jobs could be supported at Euston following HS2's revised plans for the station.

Old Oak Common is set to become a new transport super-hub and is expected to act as the temporary London terminus for HS2 services until Euston station is complete. To enable HS2 services at Old Oak Common, significant enhancements are required to Elizabeth line services to accommodate the expected levels of demand. This applies particularly to interchanging HS2 and Great Western Main Line passengers, as well as to people in nearby developments. Key enhancements include the provision of adequate accessibility at the station with the provision of level boarding on Elizabeth line platforms and an increased Elizabeth line service frequency. This has been supported by the Government approving new funding for the delivery of ten additional Elizabeth line trains to support growing passenger demand. Surface transport improvements are also required to enable people to walk, cycle and take buses to and from the site.

The station sits within the Old Oak and Park Royal Opportunity Area, which has been identified as having the potential to accommodate a minimum of 25,500 new homes and 65,000 new jobs. More specifically, it sits within the area identified by the Old Oak and Park Royal Development Corporation as 'Old Oak West', which stretches from Willesden Junction station in the north, to North Acton in the south. This encompasses sites that could accommodate approximately 6,900 new homes and 22,400 jobs, most of which would be within walking distance of the new HS2 station. Additional transport improvements will also be required in the wider area to support this growth and ensure it can be delivered in a sustainable way. This includes the potential upgrade of North Acton station (subject to funding), which forms part of our current step-free access programme.

5.2.3. Continuing work on future projects

DLR to Thamesmead

We are working with partners to unlock growth in Beckton Riverside and Thamesmead. Improvements to public transport are needed to unlock up to 25,000-30,000 homes, support up to 10,000 jobs, and transform two major brownfield sites. Thamesmead and Beckton

Riverside sit at the heart of the largest concentration of Opportunity Areas and are a priority for regeneration and economic development in the Thames Estuary.

We submitted a strategic outline case to the Government in May 2023 that outlines how we can address the transport and housing challenges across the area. This was developed and supported by the partnership in place with the GLA, Royal Borough of Greenwich, London Borough of Newham, Homes England, the Department for Levelling Up, Housing and Communities, the DfT, and three major landowners.

The proposal is to extend the DLR from Gallions Reach to a new station at Beckton Riverside, a tunnel under the Thames and a proposed new station at Thamesmead. This would improve connectivity and cross-river access in an area with limited river crossings as well as creating greater orbital connectivity across the sub-region.

Beckton Riverside and Thamesmead Waterfront are currently poorly served by public transport. The proposal would provide direct rail access to unlock a long-term growth vision, and better access to London's rail network providing better access to jobs and London's employment centres.

Since we submitted the strategic outline case, the then Secretary of State for Levelling Up, Housing and Communities announced support for a 'Docklands 2.0' vision for up to 65,000 homes across Beckton Riverside, Thamesmead and Silvertown, in July 2023. This vision is underpinned by improved east to west transport connections. We are continuing to work closely with all partners to deliver and support this vision.

We carried out a public consultation on the proposals between January and March 2024, which included engagement events at Beckton Riverside and Thamesmead. We received 1,283 responses, including from 29 stakeholder groups. Feedback was generally positive from both stakeholders and the public, with the majority feeling that the proposals would make travel into and around the wider east and southeast more convenient and quicker. Respondents from Thamesmead particularly supported the prospect of improved transport connections to employment hubs such as Canary Wharf. Polls of local people in Thamesmead, Abbey Wood, Beckton and Gallions Reach during the consultation period found that 85 per cent of people supported the proposals, with only four per cent opposing them. All feedback will be used to shape any future proposals, and we plan to publish a consultation report and response to issues raised later in summer 2024.

Thamesmead bus transit

In July 2023, the Government announced the Brownfield, Infrastructure and Land fund to unlock development sites across England with an infrastructure-led approach. The Government allocated £150m to London via the fund to unlock housing in the Docklands 2.0 area.

The Thamesmead bus transit has been allocated £23m, subject to business case approval. The scheme would operate along a 6.5km corridor, linking existing communities and key development sites in Thamesmead with local town centres and rail interchanges, particularly the Elizabeth line. There is a package of measures to improve the bus corridor

between Woolwich, Thamesmead and Abbey Wood, including bus priority, improved bus facilities, and improving the environment for active travel. It has the potential to support new homes along the corridor.

We are working with the Government and borough partners to further the scheme and to develop the business case for Homes England's approval. Subject to business case approval, we plan to consult on the proposals later in the year.

West London orbital

We are working closely with the West London Alliance and associated boroughs to develop the case for the West London orbital. The proposed London Overground service would use existing underused rail lines across the boroughs of Barnet, Brent, Ealing and Hounslow. This orbital link would significantly speed up public transport connectivity in the area, provide an alternative to the congested parallel A4 and A406 North Circular corridors, and support sustainable housing growth and jobs across west London. It would also offer interchange opportunities with the Elizabeth line and HS2 at Old Oak Common, providing an additional rail option for HS2 passengers. The West London orbital is estimated to support the development of 15,800 new homes.

We have been working with the boroughs and Network Rail on the feasibility design stage of the scheme which is nearly complete. Subject to funding for further development being secured and the conclusion of assessment of the case for the scheme, the next phase of design work will begin later this year, which will include developing the options. Funding would be required from local sources as well as from central Government to deliver the project.

Bakerloo line extension

Extending the Bakerloo line would provide a step change in public transport capacity, connectivity and accessibility across southeast London. Once complete it would connect a historically under-served part of London to the Tube network, unlocking more than 25,000 homes and 5,000 jobs along the Old Kent Road and the wider southeast corridor; relieving congestion on London's roads and bus services; improving the capital's air quality; and reducing journey times across the city.

The project is not currently funded but the route of the scheme from Lambeth North to Lewisham has been safeguarded for future delivery by the Secretary of State for Transport. The station capacity upgrade currently under construction at Elephant & Castle will include specific infrastructure to provide for an interchange to a future extension. Feasibility work funded by us and the London boroughs of Lewisham and Southwark continues to progress the scheme through ongoing design development to support future delivery. We continue to work with Lewisham, Southwark and Central London Forward to explore potential funding options for the scheme, building on recent funding commitments made by the boroughs towards future delivery.

Crossrail 2

The proposed railway linking the National Rail networks in Surrey and Hertfordshire via an underground tunnel through London. This new railway would improve access across London and the wider South East with communities on the corridor gaining new direct, faster and less-crowded connections into London, leading to transformative changes in jobs and homes opportunities.

Crossrail 2 could support 200,000 jobs, spur the development of 200,000 new homes across the region and increase London's rail capacity by 10 per cent. Its impact would be felt across the wider South East and beyond, cutting journey times in an area from the South Coast and stretching up to East Anglia and the Midlands.

In October 2020, as part of the TfL Funding Agreement, a decision was made to pause further work on the design and development of Crossrail 2. The work done so far was fully documented so that we could restart the project in the future.

We continue to manage the Crossrail 2 Safeguarding Directions on behalf of the Secretary of State for Transport and work with stakeholders whose developments are affected by the Safeguarding. This is to ensure we can continue to protect the route until the railway can be progressed.

Stratford station improvements

Stratford is one of London's strategic interchanges. It offers exceptionally high levels of connectivity across a range of public transport modes. Improvements to services at the station have facilitated and responded to the regeneration of the town centre and Queen Elizabeth Olympic Park, enabling the delivery of thousands of new homes and workplaces, as well as new educational, cultural and leisure facilities.

Due to existing and planned growth, Stratford station is forecast to experience congestion, delays and worsening journey times, especially during peak periods. Together with rail industry stakeholders, we are investigating and implementing short- and medium-term interventions to divert passenger flows from pinch points at entrances, ticket halls, subways and staircases. This includes a new southwestern entrance, scheduled to open in spring 2024.

We are also working with the London Legacy Development Corporation, Network Rail, London borough of Newham and other stakeholders to continue the development of the Strategic Outline Business Case for further enhancements. Consultants have now been appointed for a year-long programme of work to consider the scale of the challenge, design options and a funding package to enhancements identified. Beyond station capacity, other key considerations include enhancements to the passenger experience, accessibility, inclusion and local connectivity.

Metroisation and devolution

Many Londoners continue to rely on suburban rail services outside of TfL's control. The Mayor is committed to exploring options for the devolution of some rail services from the

DfT's model to TfL's as well as wider infrastructure improvements in order to improve services for customers. Our work on this proposal aims to define what elements of Metroisation could be delivered and by when and updating its strategic case. Metroisation and devolution can occur separately, but devolution could put us in a stronger position to realise the benefits of Metroisation including unlocking new homes that London needs.

Metroisation would be an incremental but radical reshaping of the National Rail network. This could include:

- Predictable, 'turn-up-and-go' services: identifiable 'lines', consistent stopping patterns, even intervals
- Better connections: higher frequencies and upgraded interchanges
- More capacity: longer trains, new infrastructure and simpler service patterns
- Shorter journey times: trains that accelerate and decelerate faster and wider doors for efficient boarding and alighting
- More reliable services: simplified service patterns
- Better customer service and experience: as per the London Overground

Devolution to London Overground and the Elizabeth line have been rail success stories which have led to higher usage, higher levels of passenger satisfaction, and more reliable services (Table 4). It has helped embed heavy rail services within wider public transport networks and achieve broader plans for housing, productivity and decarbonisation.

Table 4: London Overground performance comparison

Note: On like-for-like basis, that is North London Line, West London Line, Euston-Watford, Barking-Gospel Oak (^) 2020 score National Passenger Survey (paused during the pandemic)

	2007	Now	Change	London & south east Train Operating Companies now
Usage (trips)	33 million	100 million	+ 200%	+ 24%
Customer satisfaction	58	87(^)	+ 29 percentage points	82
Fares evasion (%)	11%	3%	-8 percentage points	n/a

Great Northern services from Moorgate would be the simplest to consider for devolution and there is some scope for frequency enhancement within the existing train fleet due to lower service patterns since the coronavirus pandemic. Southeastern would also be possible though there would likely be more significant capital and operating cost needed to achieve improved services.

London needs to deal with a sharp jump in the gap between identified housing supply and demand as we start to plan for the 2030s. Transport improvements are critical to plugging this gap but there are relatively few major schemes that can help us tackle this challenge. The Metroisation proposals serve housing sites identified in 2017 with capacity for around 60,000 new homes (excluding sites with planning permission). Higher frequency services could both accelerate and increase housing delivery further by enabling greater development densities. There is a wider opportunity for Metroisation to influence the housing approach in the next London Plan, which could further increase this housing potential.

5.2.4. Places for London: New homes and jobs on our land

[Places for London](#) is a commercial property company wholly owned by TfL which aims to deliver new homes and provide new offices on our land.

New homes

We will soon reach the milestone of completing our 1,000th new home with our first blocks at Kidbrooke in Greenwich.

We now have more than 4,300 homes under construction or completed, of which 47 per cent are affordable. In 2024/25 we expect to submit applications for up to a further 8,600 homes, including around 3,500 in the Edgware town centre in Barnet and 4,000 at Earls Court/Lille Bridge Road Depot in Kensington and Chelsea, and Hammersmith and Fulham.

Planning permissions that were granted last year included:

- 50 homes (36 per cent affordable) at South Kensington station in Kensington and Chelsea, following a successful planning appeal
- 351 build to rent homes (40 per cent affordable) at Cockfosters in Enfield
- 74 homes (100 per cent affordable) at Snaresbrook station in Redbridge

Our joint venture partnership with Barratt London is making great progress. Together, we have built 350 homes, including 50 per cent affordable housing, at Blackhorse View in Waltham Forest, completed last year. After partnering with Barratt London in 2017, we welcomed the first residents of the initial phase in 2021 and all the homes are now sold. Throughout construction we supported around 300 new jobs, including apprenticeship opportunities, and 25 per cent of those employed came from within the local borough – homes built for Londoners, by Londoners.

Following the success at Blackhorse View, construction is advancing at our second project with Barratt London at Wembley Park in Brent, delivering 454 homes (40 per cent affordable). We expect to start at Bollo Lane in Ealing in 2024, which will provide up to 900 highly sustainable homes (50 per cent affordable) within a very high-quality setting and with new north-south pedestrian and cycle links. Working alongside Barratt London, we could

deliver an additional 2,300 homes over the next 10 years taking the total number of homes delivered through the partnership beyond 4,000.

On other sites, Pocket Living completed its scheme at Woodside Park station in Barnet last year, which delivers 86 new homes, all of which are affordable. We are nearing completion of 46 new homes (100 per cent affordable) at Fenwick in Lambeth, with internal electricals and fit out now underway. Countryside Partnerships, with Peabody, has started building 98 new homes (100 per cent affordable) at Barkingside station in Redbridge. Work on the nine homes at one of our small sites at Portree Street in Tower Hamlets also started last year.

Fire safety and the new Department for Levelling Up, Housing and Communities requirements for second staircases in buildings more than 18 metres high has meant delays to a number of projects, some of which had already started on site. These projects are being redesigned and will need new applications or amendments to existing consents. Projects that are being redesigned within our build to rent partnership with Grainger PLC (Connected Living London) include 162 homes at Arnos Grove in Enfield, 139 homes at Montford Place in Lambeth, 479 homes at Nine Elms in Lambeth and 460 homes at Southall Sidings in Ealing. We are also looking again at Cockfosters in Enfield where we have planning permission for 351 homes but are awaiting a decision from the Department for Transport before proceeding. Our project with Berkeley for 523 homes at Armourers Court in Greenwich is also being redesigned to accommodate two staircases within each of the four towers.

Last year, we announced a major strategic partnership with Network Rail that aims to accelerate the delivery of regeneration and development activity across London, particularly where there are TfL or other public sector landowners adjacent. It combines our expertise, experience and knowledge, enabling us to unlock the potential of sites near railways and develop thousands of new homes on sites they own.

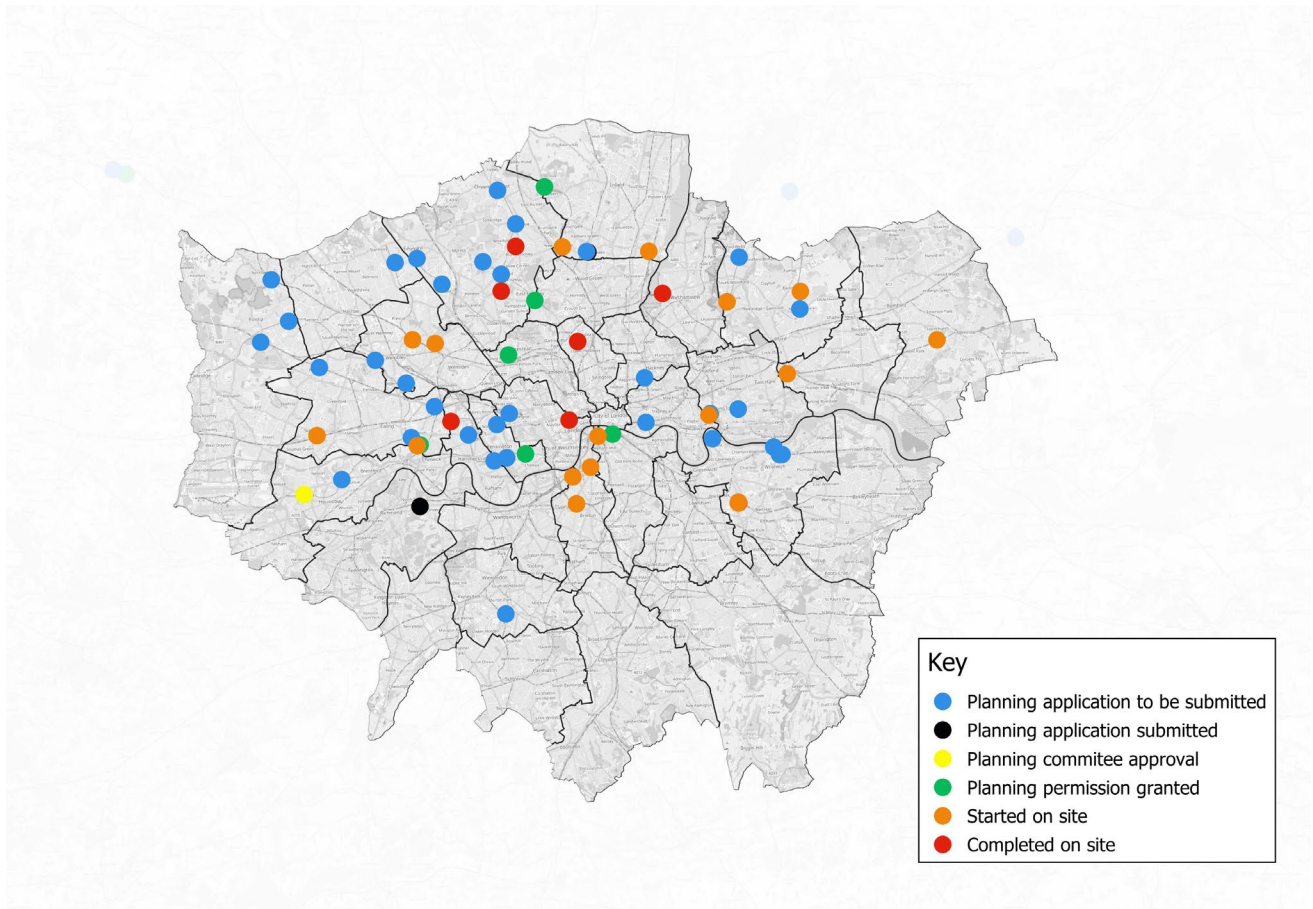
Figure 45: Places for London developments under construction and completed as at 31 March 2024. Source: Places for London

Places for London had built or started over 4,300 new homes by the end of March 2024:



Across London, Places for London has a significant pipeline of sites, shown in Figure 46, which will enable us to start building 20,000 homes by 2031.

Figure 46: Places for London's housing sites as of 31 March 2024. Source: Places for London



We have agreed a portfolio approach with the Mayor which ensures we are delivering an average of 50 per cent affordable housing across our Homes for Londoners portfolio. We remain committed to delivering our full housing programme as soon as possible, and is working with the GLA, developers and boroughs to make sure that it can build the homes our city needs in a safe, responsible and transparent way.

All projects in the programme will be rigorously reviewed to ensure they achieve the highest levels of sustainability in line with our Sustainable Development Framework. This framework is a metric-driven approach to optimising, specifying, delivering and monitoring best-in-class sustainability performance across the development portfolio. In terms of energy and carbon reduction, this means an average reduction of emissions compared to building regulations by 55 per cent (and up to 80 per cent on some projects), which significantly exceeds the London Plan requirement of 35 per cent. We are implementing our net zero carbon roadmap and delivery plans, including retrofitting.

Our sites are mostly located adjacent to or, in some cases, directly above public transport infrastructure including stations, sidings, and bus depots and garages. Where we can, we are prioritising investment to unlock substantial public transport enhancements, and to integrate existing public transport into our new developments. This includes step-free access, new cycle hubs, improved and safer public spaces and supporting the electrification of the bus fleet.

To build 20,000 homes, create sustainable, flexible and connected workspaces and unlock more of our property portfolio, we rely on people who are skilled, experienced and trained. We have introduced skills and education programmes to energise the property industry with new talent and inspire the next generation of city-shapers and place-makers. Together with our partners, and by working closely with The Skills Centre, we have trained more than 5,000 people across a network of centres. This includes the Earls Court Skills Centre, which opened last year with the Earls Court Development Company, which provides a transformative programme of future-focused skills and training in the clean and climate technology sectors. More than 2,100 of those trained have progressed into work, and 50 per cent are from under-represented groups as we believe the people who build our city should reflect our city.

We have a network of training centres across London. As well as our flagship centre, Build East, a collaboration with the London Legacy Development Corporation at Queen Elizabeth Olympic Park, a new centre in Edgware, the first of its kind in north London, will open in May 2024. Our centres provide a transformative programme of future-focused skills and training to equip the next generation of workers with vital skills across the built environment and construction sectors.

In February 2024, we created a partnership with Construction Youth Trust to help bring schools, employers and students together. Over the next three years, we will – along with our development partners – work together to engage more than 6,000 young people and directly support 250 of them into our built environment career opportunities.

New jobs

We are working with Helical, our Platinum Portfolio joint venture partner, to bring forward the delivery of around 600,000 square feet of high-quality development with best-in-class environmental and wellbeing credentials, located near stations in central London. The portfolio encompasses developments over the stations at Bank, Southwark and Paddington. The joint venture took control of the site above the new Bank station entrance in early June and should start main construction works at the end of 2024/25.

In 2024, the Earls Court planning applications will provide for around 2.5m square feet of new workspace supporting the climate technology market, creating a workspace ecosystem supporting startups, scale ups and multinationals, designed to foster collaboration and innovation.

We are also exploring the potential for our estate to create new industrial workspaces across London. We also continue our programme of repairing and refurbishing our arches and other existing commercial properties to help create lively urban communities with economic and cultural activity that is connected and accessible.

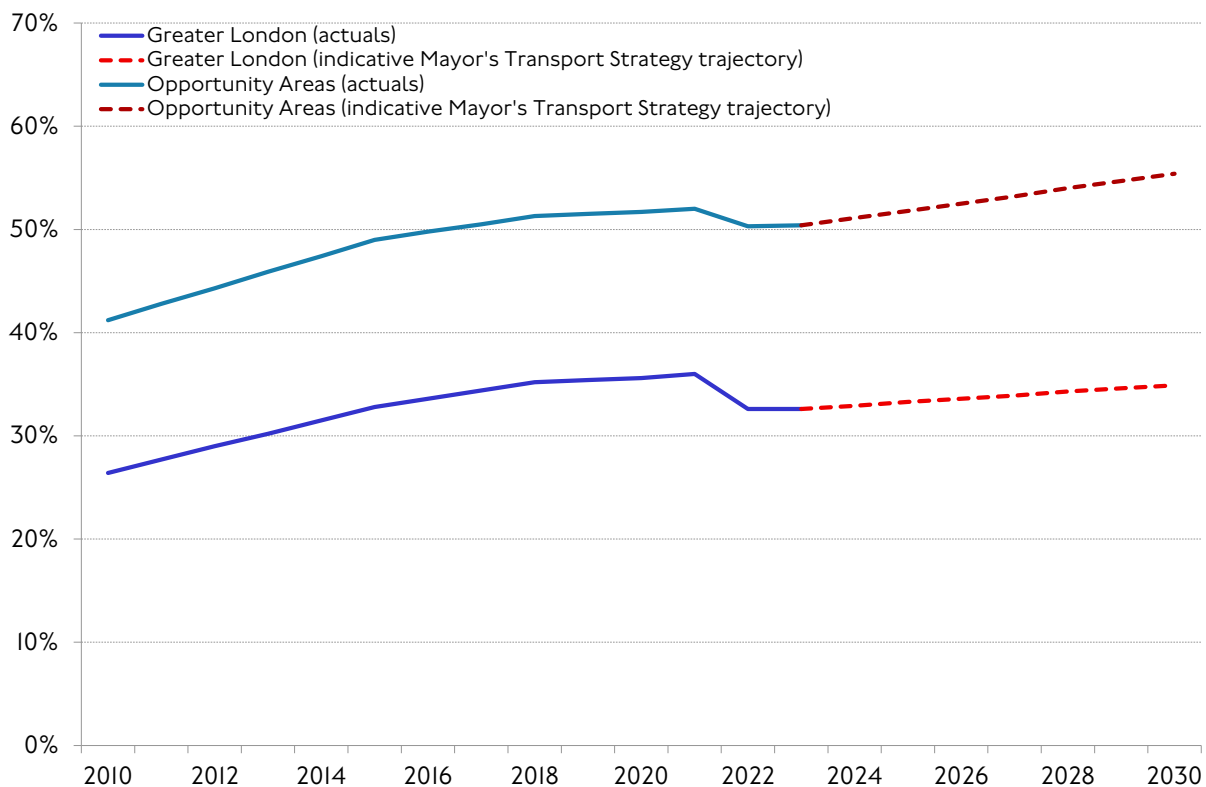
5.3. Progress against our aims

While the overall delivery of homes and jobs in London and fixing the housing crisis is not within our direct control, we make investments and interventions and set policy that directly unlock particular areas of development, support intensification more widely, and enhance the sustainability of new developments.

The Mayor’s Transport Strategy sets an ambition to increase the number of Londoners living in areas that are well connected by public transport – as measured by the Public Transport Access Level (PTAL). We have developed a measure of the proportion of Londoners living in areas with a PTAL of four or higher, both in Greater London and specifically in Opportunity Areas, where substantial housing growth is expected.

Before 2022 the proportion of London residents and residents of Opportunity Areas living in PTAL 4-6b areas had been steadily increasing, because of improvements to the public transport network as well as delivery of homes in well-connected locations. However, in 2022 the proportion of Londoners living in PTAL 4-6b declined, likely mainly due to post-pandemic timetable changes on the National Rail network and, to a lesser degree, on changes to the bus network. This has continued into 2023, resulting in a similar proportion of Londoners living in PTAL 4-6b compared to 2022. We will explore if changes to the distribution of population have also had an effect.

Figure 47: Mayor’s Transport Strategy Tracker for Sustainable & Unlocking: Proportion of the population living in areas of high PTAL (4-6b), London’s Opportunity Areas versus Greater London, 2010-2023 and indicative Mayor’s Transport Strategy target trajectory to 2030. Source: TfL



As new homes are built in London, we expect improvements in this metric but to achieve the Mayor's Transport Strategy trajectory, housing delivery must accelerate alongside enhancements in the transport network to unlock new sites and provide new connectivity. Achieving this metric would also have implications for mode share, as referenced in section 2.4 of this report, as people in new, dense developments are more likely to use active and sustainable modes.

6. Future delivery of the Mayor's Transport Strategy

The preceding three chapters outlined our progress against Mayor's Transport Strategy outcomes and the level of change needed by 2030 to remain on track to meeting 2041 ambitions, based on a straight-line trajectory. These are summarised in Table 5, alongside Planning and Hybrid Forecasts where available. The Planning and Hybrid Forecasts contain the same portfolio of investment limited to only those schemes that are funded and committed.

The forecasts demonstrate uncertainty over the period to 2030 and can be used to understand where, based on committed and funded schemes, we are in relation to the indicative Mayor's Transport Strategy straight-line trajectory in 2030. This shows that significant progress will be required this decade to remain on the trajectory towards the 2041 aims, based on the assumption that the rate of progress will be even between the 2020s and 2030s.

The Mayor's Transport Strategy outcomes are closely interlinked and progress on any metric will help to facilitate progress on others – safer and more connected streets will enable Londoners to use active, efficient and sustainable modes more often. With this in mind, we have identified three key areas for action in the immediate term:

1. Improving bus journey times
2. More progress on safety
3. Continuing investment

These areas are important as slower bus journey times mean fewer people travelling by bus, which may lead to more people travelling by car thus increasing traffic. In turn this slows buses further as well as increasing emissions and road danger. Slower buses also mean less revenue to reinvest in the network and more vehicles needed to maintain schedules which is resource that could otherwise have been used to enhance our services elsewhere.

Table 5: Mayor’s Transport Strategy Tracker. Source: TfL

Note: Forecast data is provided for those metrics which can be modelled in our Planning and Hybrid Forecasts

Outcome	Measure	Latest achievement (2023 unless specified)	Indicative Mayor’s Transport Strategy trajectory (2030)	Forecast (2030)
Mode share	Percentage of trips by active, efficient and sustainable modes	64.2%	70.3%	Planning: 64.6% Hybrid: 63.4%
Active	Percentage of Londoners doing 20 min active travel per day	38% (2022/23)	51%	Planning: 41% Hybrid: 38%
Safe	Number of people killed or seriously injured on London’s roads	3,709	1,461	n/a
Safe	Number of people killed or seriously injured on or by a London bus	258	157	n/a
Safe	Customer and workforce killed or seriously injured	219	134	n/a
Efficient	Number of car trips crossing strategic cordons	Central: 0.50m Inner: 1.28m (2022) Outer: 1.96m	Central: 0.47m Inner: 1.04m Outer: 1.83m	n/a
Green	Average roadside NO ₂ concentration in central, inner and outer London	Central: 33.7 µg·m ⁻³ Inner: 28.9 µg·m ⁻³ Outer: 26.0 µg·m ⁻³	Central: 26.1 µg·m ⁻³ Inner: 22.0 µg·m ⁻³ Outer: 19.1 µg·m ⁻³	n/a

Outcome	Measure	Latest achievement (2023 unless specified)	Indicative Mayor's Transport Strategy trajectory (2030)	Forecast (2030)
Green	All CO ₂ emissions from London's transport network	5.72m tonnes (estimate)	4.19m tonnes	Planning: 4.17m tonnes Hybrid: 4.06m tonnes
Connected	Percentage of Londoners living within 400 metres of a bus stop	96.7%	96.7%	n/a
Accessible	Percentage reduction in additional journey time by step-free routes	-37%	-46% (MTS) -50% (accelerated target)	Committed schemes: -44%
Quality	Percentage of rail travelled km in crowding above two persons per square metre	2.0%	4.4%	n/a
Quality	Average bus speed	9.3 mph (2023/24)	10.2 mph	Planning: 9.5mph Hybrid: 9.3mph
Sustainable & Unlocking	Proportion of population living in PTAL 4 or higher, in Greater London and Opportunity Areas	London: 32.6% Opportunity Areas: 50.4%	London: 35% OAs: 56%	n/a

6.1. Improving bus journey times

Winning more customers to the bus is central to reducing traffic. Customer insights tell us that bus journey times matter to our bus customers and are a key factor in what mode they choose. However, the recent trend in London has been a decline in bus speeds. There has been a clear correlation between deteriorating average bus speeds and declining bus demand, with research showing that a 10 per cent increase in journey times can lead to a six per cent fall in bus demand.

Customer satisfaction is not just about the time spent in the vehicle but also the wait time at the stop, the need to allow extra time for variability caused by unreliable services, and the level of crowding which can make journeys feel longer, as well as interchange time between services. Improving our customer offer means addressing all these elements.

Despite significantly scaling up our bus priority delivery programme and Network Operating Strategy in 2023/24, bus journey times have been increasing across London since traffic demand began returning following the pandemic. To address and help to reverse this trend, we have identified a number of cross-cutting workstreams aimed at improving bus journey times that will support the Mayor's new commitment to cut bus waiting times. Key actions in the year ahead are set out below.

Efficient operations

Through our operation of the road network, we will deliver a range of interventions to improve bus journey times. These include optimising traffic signals, better co-ordination of roadworks, monitoring and enforcing road operations and wider strategic initiatives involving our bus operations and lane rental scheme. We will monitor the impact of these initiatives on bus speeds and work with bus operators to ensure bus schedules are flexible and aligned to conditions on-street.

Bus priority infrastructure

A fundamental part of improving customer journey times is ensuring an efficient street network for buses to run freely and without additional obstacles resulting from congestion, parking or other kerbside activity. This requires action from both us and London's boroughs, because boroughs are responsible for 95 per cent of the road network, including 70 per cent of the most important streets for buses.

In 2024/25 we will continue to deliver bus priority infrastructure, notably working on the remaining 15km of bus lanes towards our target of 25km of new bus lanes by 2025. This will be both on our roads and funding boroughs to deliver bus lanes on their networks. Looking beyond this, we will support boroughs to plan the next generation of bus priority through their three-year Local Implementation Plan delivery plans (2025/26-2027/28). This will involve supporting the boroughs to deliver a range of bus priority infrastructure, including ambitious schemes such as bus gates, pinch point removal, delivering new bus lanes and extending operating hours and removing parking in existing bus lanes.

We will embed new monitoring approaches to build our understanding of the impact of bus priority schemes on bus speeds and journey time reliability. We will look for opportunities to use monitoring data as a basis for further activity to maximise scheme impacts whilst considering impacts on wider Healthy Streets outcomes. For example, bus lanes in London have been found to provide better levels of safety for people cycling than either general traffic lanes or advisory cycle lanes.⁸

⁸ Cycling Injury Risk in London: Impacts of Road Characteristics and Infrastructure | Published in Findings (findingspress.org)

Enhancing the Superloop

Building on the success of the Superloop, we will continue to develop bus priority on the road network used by Superloop routes working with boroughs as well as continuing feasibility studies of bus priority along our roads on these routes.

We will also continue to work with boroughs to investigate highway schemes to unlock more direct bus routes, in particular for the new Superloop routes to minimise journey times between express stops.

Waiting and Interchanges

Time spent waiting for a bus is typically much shorter than time spent on the bus, but can feel almost as long and dissuade people from travelling, so improving the experience at stops is an important part of minimising the perception of journey time. To address this, we will continue to improve the experience for customers waiting at our bus stops by introducing hundreds of innovative displays to provide live bus arrival information.

Interchange is another component of journey time spent outside the bus and can sometimes feel like a hassle, especially if it is not well designed. So, we will continue to improve wayfinding signs at our shelters, bus stations and Underground and rail stations to make it easier for customers to interchange between modes.

6.2. More progress on safety

Our Vision Zero ambition is that no one should be killed or seriously injured on London's streets or on our transport network. Achieving this ambition is a critical, long-term undertaking that will not only help achieve the Safe outcome of the Mayor's Transport Strategy but will make sustainable travel more attractive to all.

Around 70 per cent of deaths and serious injuries in London take place on borough roads, so the strategic partnership between us, the police and London boroughs is the foundation of our approach to achieving Vision Zero. We commend the work done by boroughs over many years to reduce road risk in their areas and to lead the way with key interventions such as area-wide 20mph limits, safer cycling infrastructure and School Streets. Borough ambition for Vision Zero is very clear in many Local Implementation Plans, and as boroughs start to write their new three year delivery plans we will work with them to deliver meaningful progress to reduce the number of people killed or seriously injured.

In the coming years, we will continue to make junctions safer and enhance our cycling network, complemented by communication campaigns and improved safety camera provision. Our new Bus safety strategy guides our work towards the elimination of death and serious injuries involving buses – both inside and outside the bus. This includes further work in developing our Bus Safety Standard, trialling fatigue detection technology and working towards fitting intelligent speed adaptation to more buses, as well as investing in bus driver welfare. In 2024 we will also implement the next phase of the DVS, which reduces the danger HGVs pose to others on the road.

To accelerate our progress towards the 2030 interim Vision Zero target for road risk (reducing the number of people who are killed or seriously injured by 70 per cent against 2010-14 levels) we will need to ensure continued focus on delivery of our evidence-led Vision Zero action plan. We are beginning work on identifying the scale of ambition needed to meet our 2030 interim target.

Progress in improving vehicle safety also relies on legislation and further development by manufacturers. We continue to encourage central Government to adopt vehicle safety regulatory standards that encourage the safest vehicle technologies and features available through alignment with the European General Safety Regulation.

We must continue to reduce dangerous behaviours and better protect people when they are most at risk, such as walking, cycling or riding a motorcycle. Working with the MPS, our new and enhanced enforcement capacity will enable one million more offences to be enforced by 2024/25. We also need to prioritise road safety investment to help reduce the gap in road safety outcomes in areas of high deprivation, inequality and vulnerability.

Alongside the targeted safety measures described in this report, traffic reduction remains one of the most effective ways of reducing the number of people killed or seriously injured on our roads, particularly in residential neighbourhoods. Lowering traffic speeds is also critical because it reduces the likelihood and severity of collisions that may occur and will continue to be an important intervention on both our and borough roads in the future.

To achieve Vision Zero on the public transport network, we are prioritising action on those risks that lead to the greatest number of injuries and harm, as well as continually improving the foundational activity of controls and operational processes that prevent harm from occurring. In June 2023 we launched our internal TfL Strategy, and accompanying roadmaps, setting out what, how and when we will deliver key projects, programmes, and milestones each year to support our and the Mayor's longer-term outcomes. In 2024/25 we will ensure these actions are embedded across the organisation, putting in firm foundations for delivering on safety, such as new training for managers and digitised Rulebooks for colleagues.

6.3. Continuing investment

Through sustained focus on reducing costs and rebuilding our ridership following the pandemic, we are now on track to be financially sustainable in terms of our day-to-day operations. However, additional Government support for capital investment in transport remains critical in being able to continue to deliver vital improvements to London's transport network, unlock new homes and support growth across London and the UK.

We commissioned an [economic impact analysis](#) of our UK-wide supply chain, which shows the positive economic impact that investment in London's public transport system has across the country as a whole. In 2022/23, we invested £6.5bn with more than 2,000 suppliers. This yielded substantial economic benefits, including a total gross value added of £5.9bn to the UK economy and supporting more than 100,000 jobs nationwide.

In December 2023, we welcomed £250m of Government capital funding, which enables us to continue to deliver our major rolling stock and signalling programmes in 2024/25, and the £23m in the Autumn Statement for funding a new bus network in Thamesmead. However, longer-term funding certainty, which most other major cities have into the next decade, is still needed, and we look forward to future discussions with Government on this.

7. Conclusion

As was the case last year, we have continued to see a recovery in travel demand as we move further away from the impact of the coronavirus pandemic, but we cannot yet say that there has been a full recovery. At the same time, and as the programmes arising from the Mayor's Transport Strategy have matured, we have seen progress compared to last year on many of the outcomes, including mode share and safety; and notably strong progress on air quality since 2016.

Travel demand continues to recover across almost all public transport modes compared to last year, although these are still below pre-pandemic levels. Traffic congestion remains high and road traffic volumes are around 90 per cent of 2019/20 levels. The pandemic has clearly affected some travel patterns, with greater recovery of pre-pandemic demand on the Tube at weekends and between Tuesday and Thursday, compared to Monday and Friday. Notable, and welcome among the pandemic legacies, is a significant increase in cycling trips at 6.3 per cent increase compared to 2022.

In terms of impact on the active, efficient and sustainable mode share, for which the Mayor's 2041 target is 80 per cent – there has been an encouraging increase to 64.2 per cent in 2023, an increase on the 62.3 per cent in 2022. That said, the overall number of trips being made, including public transport trips, remains below pre-pandemic levels, and therefore progress on this metric – even as cycling trips have increased – has been hampered. Other factors, including the cost of living, hybrid working and a lower than forecast population have also affected travel patterns and are likely to continue to do so.

An important achievement this year was the expansion of the ULEZ across all London boroughs in August 2023, alongside a series of measures to support Londoners including a £210m scrappage fund which included an additional recent option to donate vehicles to Ukraine. Although it is too soon to fully assess the air quality impacts, the vehicle compliance rate is now 95.8 per cent, and the previous central and inner London iterations of the scheme have contributed as part of a wider package of measures to annual roadside nitrogen dioxide concentrations in London dropping by almost half (49 per cent) in the period between 2016 and 2023. Currently, over 17 per cent of the bus fleet operates with zero-emission buses, and we exceeded our target of having 1,400 zero emission buses by the end of March 2024 and are on track to have a fully zero-emission bus fleet by 2034, with opportunities being assessed to accelerate to 2030.

Our programme continues to reflect the close relationship between land-use and transport and the need to unlock sustainable jobs and homes across the capital, both by enhancing connectivity and by delivering Good Growth. This year we enhanced London's bus network, especially in outer London and have delivered the Superloop in stages. Housing remains one of London's greatest challenges and last year our property company, Places for London, will soon reach the milestone of 1,000 new homes and has built or started more than 4,300 new homes with a target of 20,000 by 2031.

In December 2023, we welcomed £250m of Government funding, which enables us to continue to deliver our major rolling stock and signalling programmes in 2024/25, and the

reference in the Autumn Statement for funding a new bus network in Thamesmead. However, the need to secure long-term funding persists and despite recent DLR and Piccadilly line train upgrades, we lack the funding to replace other Underground and Tram stock, which cannot be paid for from revenue alone.

We continue to invest in the Healthy Streets programme as making London's streets attractive and safe places to walk, wheel, cycle and use public transport is key to many of the Mayor's Transport Strategy targets. Most of the road network is borough-run and we have committed half of the £150m per year dedicated to this programme to the boroughs. We announced an initial LIP allocation of £41m to outer London boroughs and £25m to inner London boroughs for 2024/25. It is important to maintain the momentum of local schemes such as LTNs, School Streets and reduced speed limits, particularly in outer London.

In the next year, we must prioritise making more progress on Vision Zero, not only by building on the innovations of the past year – such as the Bus safety strategy, the confirmed raising of the DVS (which takes effect from October 2024) and the Meal and Grocery Delivery Motorcycle Safety Charter – but also by re-focussing on what we need to do to meet our interim 2030 targets. We have also set out how we will work with the boroughs to improve bus journey times, which we know is important to our customers and which is a critical part of increasing our active, efficient and sustainable mode share.

While we have been successful in securing short-term Government funding, and with individual boroughs having secured funding for many local improvements (such as for step-free access at stations through the Government's Levelling Up Fund, or for transport schemes to unlock housing via the Housing Infrastructure Fund), the delivery of longer-term programmes is constrained by the lack of certainty on future funding. It is important that we – together with the boroughs – continue to focus on delivering interventions across the capital, so that we move closer to achieving the ambitious targets of the Mayor's Transport Strategy.

