



Cycling action plan

Making London the world's best big city for cycling

MAYOR OF LONDON



**TRANSPORT
FOR LONDON**
EVERY JOURNEY MATTERS

About Transport for London (TfL)

Part of the Greater London Authority family led by Mayor of London Sadiq Khan, we are the integrated transport authority responsible for delivering the Mayor's aims for transport.

We have a key role in shaping what life is like in London, helping to realise the Mayor's vision for a 'City for All Londoners'. We are committed to creating a fairer, greener, healthier and more prosperous city. The Mayor's Transport Strategy sets a target for 80 per cent of all journeys to be made on foot, by cycle or using public transport by 2041. To make this a reality, we prioritise health and the quality of people's experience in everything we do.

We manage the city's red route strategic roads and, through collaboration with the London boroughs, can help shape the character of all London's streets. These are the places where Londoners travel, work, shop and socialise. Making them places for people to walk, cycle and spend time will reduce car dependency and improve air quality, revitalise town centres, boost businesses and connect communities.

We run most of London's public transport services, including the London Underground, London Buses, the Docklands Light Railway, London Overground, TfL Rail, London Trams, London River Services, London Dial-a-Ride, Victoria Coach Station, Santander Cycles and the Emirates Air Line. The quality and accessibility of these services is fundamental to Londoners' quality of life. By improving and expanding public transport, we can make people's lives easier and increase the appeal of sustainable travel over private car use.

We are moving ahead with many of London's most significant infrastructure projects, using transport to unlock growth. We are working with partners on major projects like Crossrail 2 and the Bakerloo line extension that will deliver the new homes and jobs London and the UK need. We are in the final phases of completing the Elizabeth line which, when it opens, will add 10 per cent to central London's rail capacity.

Supporting the delivery of high-density, mixed-use developments that are planned around active and sustainable travel will ensure that London's growth is good growth. We also use our own land to provide thousands of new affordable homes and our own supply chain creates tens of thousands of jobs and apprenticeships across the country.

We are committed to being an employer that is fully representative of the community we serve, where everyone can realise their potential. Our aim is to be a fully inclusive employer, valuing and celebrating the diversity of our workforce to improve services for all Londoners.

We are constantly working to improve the city for everyone. This means freezing TfL fares so everyone can afford to use public transport, using data and technology to make services intuitive and easy to use, and doing all we can to make streets and transport services accessible to all. We reinvest every penny of our income to continually improve transport networks for the people who use them every day.

None of this would be possible without the support of boroughs, communities and other partners who we work with to improve our services. We all need to pull together to deliver the Mayor's Transport Strategy; by doing so we can create a better city as London grows.

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Foreword

Look to our European neighbours and you'll find countless towns and cities where children cycle on their own to school, where older people ride to the shops on cycles, where cargo bike deliveries keep the economy moving and where cycling is a genuine option for most people.

For too long we've heard that people cycle more in countries such as Denmark and the Netherlands because it's part of their culture, or because it's flat, or because the cities there are compact. But none of those are the reason why cycling is more popular in these places. In truth, these cities see more cycling because their streets have been designed to prioritise people, not cars.

It's easy to forget that in the early 1970s, Amsterdam was much like London today: choked with traffic, filled with parked cars and with only a fraction of people cycling to get around. How the city works now is the result of the previous generation's political choices.

Cycle around London today and you will start to see glimpses of what happens when streets are designed to enable everyone to cycle: mums with babies cycling through Vauxhall; businessmen in suits gliding through Bank Junction on the way to meetings; children pedalling over Blackfriars Bridge.

In Waltham Forest, where bold choices are being made to redesign streets in favour of people, not cars, the borough has quickly become a haven for active travel. The latest monitoring shows that residents are cycling more, and they are also walking more. The borough now tops the outer London league table for residents cycling regularly, and has jumped from 11th to sixth place London-wide.

In central London, where we are building cycle tracks on main roads and redesigning dangerous junctions, we are seeing significant growth – often more than 50 per cent, and more than double in some places – in the numbers of people choosing to cycle where it has been made safer and more attractive to do so.

But London's streets, for the most part, remain too hostile for the vast majority of people to feel comfortable choosing to cycle, despite fewer Londoners now owning cars. Cycling's share of the transport mix remains stubbornly low, especially in outer London areas, which have seen little investment in making cycling easier. Too many people are killed and hurt in crashes with vehicles, despite cycling getting safer. Looking again to our European neighbours, we know that real change takes time and sustained investment, not just over political terms but over decades.

That is why we are publishing this Cycling action plan, setting out our comprehensive strategy for making London the world's best big city for cycling, including a pipeline of new cycle routes stretching into the future. Going forward, these routes will be part of a single unified network, with no more confusing branding. And new quality criteria will ensure that, no matter where they are built, new cycle routes are good enough to enable anyone to use them – making it crystal clear what we will, and will not, be prepared to fund. And of course, this is not just a plan for City Hall and TfL to deliver. It will require the support, hard work and creativity of boroughs, communities, businesses and everyone who is passionate about making London a better place.

Cycling is a means to an end, not an end in itself. More people cycling frees up space on overcrowded buses and trains. It makes our air cleaner. It gives everyone the chance to get around London quickly and affordably. It improves our mental and physical health. It makes our high streets and public places more vibrant. Making it easier to cycle means our city will be a better place to live, to work, to invest in, to raise children in. That is why we must continue this journey and enable more people to choose to cycle.



A handwritten signature in black ink, which appears to read 'Will Norman'. The signature is fluid and cursive, with a long horizontal line extending to the right.

Will Norman
Walking and Cycling Commissioner

Foreword

The Mayor's Transport Strategy makes clear that a new type of thinking is required to increase active, efficient and sustainable travel. This will help achieve the Mayor's vision for London – a fairer, greener, healthier and more prosperous city. The Healthy Streets Approach, set out in the Strategy, provides the framework for achieving this by putting people's health at the heart of our decision-making.

Cycling is a fundamental element of delivering the Healthy Streets Approach. The barriers to cycling are numerous and inter-linked, and consequently this Cycling action plan is not a collection of isolated projects dotted across the city. It is instead the most ambitious plan that we have ever developed for cycling, and demonstrates a step-change in our approach to this mode of travel.

Londoners tell us that they want to cycle for some trips, but that the dominance of motorised traffic makes them feel scared to do so. We can and will address this. Improving how people experience our streets is not just about delivering protected space for cycling on busy roads – although we will, of course, be doing this – but is also a much broader programme of activity to support people to take up cycling and to build it seamlessly into their daily routine.

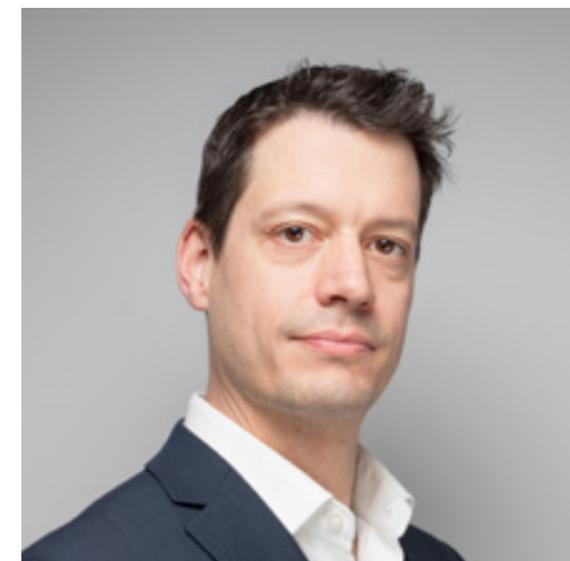
We have significantly improved our understanding of cycling, and the way we gather data about it, over the last few years, and this means that we are able to take an evidence-led approach to planning for cycling. We can now bring in new routes that are based on data about cycling potential, and other initiatives shaped directly by what Londoners are telling us is stopping them from cycling.

We can only deliver this Plan by working closely with the huge range of organisations, businesses and people who shape what it feels like to be on our streets – and encouraging them to take action. This means businesses installing new cycle racks, people driving at slower speeds and giving enough space when overtaking those cycling, and residents supporting changes to their streets that make them safer and attractive to people walking and cycling.

This Cycling action plan is fundamental to achieving the Mayor's vision for London. And along with our partners in London's local authorities, we will be taking the decisions that make London's streets more welcoming, accessible, safer and healthy. Thank you for your support.



Mike Brown MVO
Transport Commissioner



Gareth Powell
Managing Director – Surface Transport



Chapter 1 – Cycling’s role in London’s success

Enabling more people to cycle will support London's growth and continuing success, and improve the health and quality of life of Londoners.

The Mayor’s Transport Strategy, published in March 2018, sets out a vision for a fairer, greener, healthier and more prosperous London.

The Strategy is founded on the Healthy Streets Approach, and has a focus on active travel at its heart. This includes making cycling appealing to many more people, and ensuring that London’s streets are safe and accessible for everyone who wants to cycle.

Without a big increase in cycling, we won’t be able to address London’s congestion and air quality issues. We also need to ensure that nobody is excluded from the benefits of cycling, which include better physical and mental health, improved productivity and the freedom to travel cheaply around the city.

Working with London boroughs, advocacy groups and other partners, we have achieved much in recent years. There has been a significant growth in cycling powered by investment in

initiatives such as new routes, more cycle parking, cycle training and community cycling grants.

There is much more to do to make cycling in London accessible to everyone. There is an amazing potential for more cycling everywhere in the Capital, but achieving this will require committed action across all aspects of the transport network.

This action plan is aimed at borough officers, local decision-makers, community groups, the business sector, planning and delivery authorities and everyone else who is interested in how cycling can help make London a fairer and more successful city. It sets out how we’re going to work together over the next five years to enable more Londoners to cycle.

These actions will provide the foundation for London to become a city where cycling is accessible for all, regardless of age, gender or ability.



How cycling will support London's success

Active and inclusive travel

London faces an inactivity crisis, and active travel is at the heart of the solution: walking and cycling are the best ways for Londoners to build physical activity into their daily routines. However, just 31 per cent of people report having walked or cycled for two 10-minute periods on the previous day.¹ Encouraging more active travel would make a huge contribution to public health in the Capital: if every Londoner walked or cycled for 20 minutes each day, it would contribute at least 60,000 additional years of healthy life.²

Vision Zero for road danger

Too many people are seriously injured or killed while cycling every year, and safety remains the biggest barrier to cycling in London: more than half of Londoners who don't cycle choose not to because they are scared of traffic.³ To address this, we have adopted a Vision Zero approach to road danger.⁴ Through this we will help address safety, both actual and perceived, and create streets where people can travel without fear of injury.

Making efficient use of our streets

London's streets are some of the most congested in the world, which affects everyone and undermines London's success. By 2030, it is

estimated that congestion will cost London's economy £9.3bn each year.⁵ Cycling is one of the most efficient modes of transport and has a crucial role to play in tackling congestion.

- 1 Travel in London report II, TfL, November 2018
- 2 Transport and Health in London – the main impacts of London road transport on health, GLA, 2014
- 3 Attitudes to Cycling survey, TfL, autumn 2017
- 4 Vision Zero action plan, TfL, July 2018
- 5 Understanding and Managing Congestion, ITP for TfL on behalf of GLA, November 2017, p2

31% 

of adult Londoners report having walked or cycled for two 10-minute periods on the previous day

20% 

of young Londoners achieve the 60 minutes of physical activity each day required to support their healthy growth

60,000

additional years of healthy life would be enjoyed by Londoners if everyone walked or cycled for 20 minutes each day

£9.3bn

Estimated annual cost of congestion to London's economy by 2030 without a shift towards sustainable, active and efficient modes of transport

Improving air quality and the environment

Poor air quality affects the health of all Londoners, and imposes an economic cost of between £1.4bn and £3.7bn every year.⁶ As a non-polluting mode of transport, cycling is part of the solution to London's poor air quality. Cycle schemes do not generate motorised traffic and encourage mode shift away from the private car, which will lead to reduced emissions and less noise.

A good public transport experience

Our ambition is for public transport in London to become more connected, less crowded and more reliable.

Enabling more Londoners to cycle will help achieve this by creating extra capacity for trips made using public transport and improving bus reliability by taking more cars off the road. Making it easier to cycle also means that more people can access public transport: every day, 80,000 cycle trips are made to or from public transport stations⁷ and this number will increase as the cycle network grows.

New homes and jobs

By 2041, there will be more than two million more people living in London and an estimated six million extra journeys made every day.⁸ Both population and employment growth offer enormous potential for London's continued success, and cycling can help ensure this growth works for all Londoners. The draft London Plan embeds cycling and the Healthy Streets Approach at the heart of new developments and growth areas. This will ensure that our road and public transport networks continue to function efficiently as London grows, and that London's future population is active and healthy.

A city that succeeds for everyone

In the face of many challenges, it is vital that London remains an appealing place for major global businesses, and that the city is able to maintain the strong talent pool required to sustain its place as a world-leading economic and cultural destination. Cycling can help keep the city moving for business, improve the motivation and productivity of employees, and boost the all-round quality of life that London offers.

For instance, 85 per cent of London's Business Improvement Districts (BIDs) say that cycling is important for business performance in their area. This is because people want to spend time in places where they can walk and cycle: BIDs report that good environments for walking and cycling can not only bring in more customers, but can also help attract and retain staff.⁹

However, we need to ensure that the economic benefits of cycling can be enjoyed by all Londoners, and that we are supporting all types of business. Inner and outer London are home to almost 65 per cent of London's employment, and it is the Capital's many small and medium-sized enterprises and local businesses that provide the majority of private sector jobs in London.¹⁰

Cycling can benefit these businesses and help restore vitality to local high streets and town centres across Greater London: high street walking and cycling projects have been shown to increase retail sales by up to 30 per cent.¹¹ Perception surveys from Waltham Forest show that business owners can overestimate how many customers travel by car by a margin of up to 40 per cent.¹² This highlights that parking spaces are not as essential to business performance as they may seem to some, and that repurposing this space for walking and cycling can contribute to thriving high streets.

£1.4bn-£3.7bn

Estimated yearly cost of poor air quality to London's economy

80,000

cycle trips are made every day in London to reach public transport, or continue a public transport journey

6m



The number of extra journeys in London that will be made every day in 2041 – many of these can be cycled

85%



of London's Business Improvement Districts say that cycling is important for the business performance of their area

⁶ Mayor's Transport Strategy Supportive Evidence: Challenges and Opportunities for London's Transport Network to 2041, TfL, July 2017

⁷ London Travel Demand Survey (LTDS), 2014/15-2016/17

⁸ Mayor's Transport Strategy, GLA, March 2018

⁹ Healthy Streets: A Business View, University of Westminster for TfL, November 2018

¹⁰ Economic Evidence Base for London, GLA, 2016

¹¹ The Pedestrian Pound, Living Streets, 2013

¹² London Borough of Waltham Forest, 2015

Focus box I

The economic benefits of cycling investment

Enabling more Londoners to cycle is not just about helping people get around the Capital quickly and easily. It also assists in creating the conditions for London's economy to thrive by keeping the city moving.

Cycling helps our streets move more people at the busiest times, making the city function more efficiently for businesses. Our analysis shows that, following the opening of segregated cycle lanes on Blackfriars Bridge, the number of people travelling across the bridge at the busiest time increased by five per cent.¹³ Only space-efficient modes can achieve this level of increase. Cycling is also a considerably more affordable way to travel than driving,¹⁴ meaning that benefits can also be enjoyed at an individual level.

London's employers are increasingly supportive of action to make cycling easier. In 2014, the CyclingWorks campaign led to more than 180 major London businesses voice their support for new Cycle Superhighway proposals. Through the campaign, chief executives from companies including Microsoft, Deloitte, Royal Bank of Scotland and the Financial Times united to declare that cycling is crucial to attracting and retaining the employees they need to succeed.¹⁵

¹³ TfL analysis, 2016

¹⁴ <http://content.tfl.gov.uk/walking-cycling-economic-benefits-summary-pack.pdf>

¹⁵ <https://cyclingworks.wordpress.com>





Chapter 2 – The vision for cycling in London

Our aim is to make London the world's best big city for cycling by creating an environment where everyone who wants to cycle can do so.

Our Vision: London should be the world's best big city for cycling.

This means that cycling will be a fundamental part of a thriving and growing city, and that everyone who wants to cycle for their journeys in London will be able to do so confidently and comfortably.

London is a national and global capital for business, culture, education, politics, fashion, sports and leisure.

London offers something unique for everyone who comes here to live, work and visit. It is one of the world's best big cities. Our vision is for London now to become the world's best big city for cycling.

This means that London's streets will reflect the transport needs of a modern world city, with a comprehensive cycle network that everyone can use.

It means that Londoners will not face impediments to cycling and active travel, and will enjoy improved health and quality of life.

It means that cycling can contribute to London's growth and success, with a network of high-quality cycle routes serving businesses and their employees in all parts of London.

It means that London's transport network will operate more effectively and efficiently, with reduced congestion, improved air quality and greater accessibility.

As the world's best big city for cycling, London will lead the way in using cycling to address the great urban challenges facing all large cities today. As a result, London will become a greener, healthier, fairer, more affordable and more successful city for everyone.

Achieving the Cycling Vision

The key to achieving this vision lies in creating a city that is inclusive for cycling. The majority of Londoners can ride a bicycle, and supporting other types of cycle, including tricycles, handcycles, e-bikes and cargo bikes, could enable an even wider range of people to cycle.

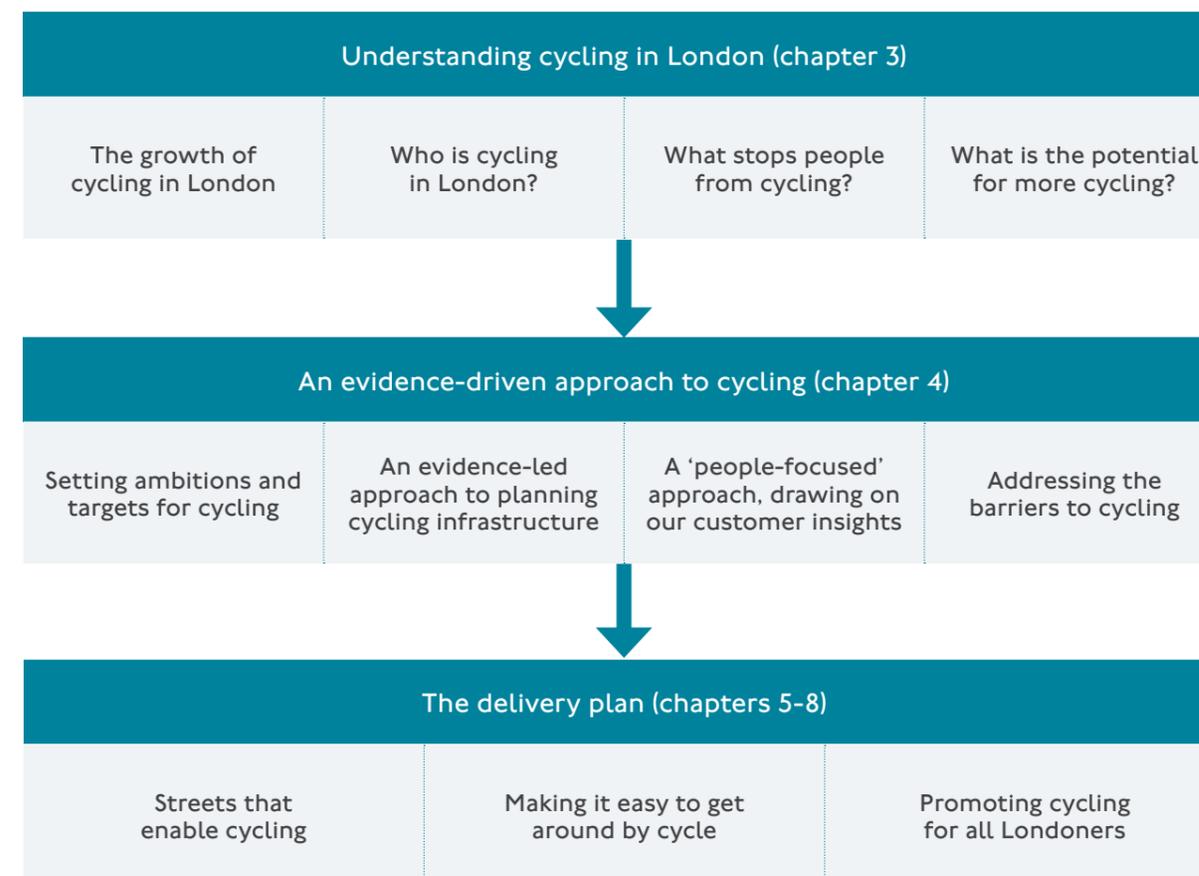
The reasons why people choose not to cycle in London stem principally from the physical and social environments around them. These environments influence different people in different ways, and we know that they create particular barriers to cycling for women, BAME people, older people and disabled people.

This Plan is therefore about creating an inclusive environment for cycling in London, and ensuring that cycling can become a realistic transport option for everyone. We will achieve this by addressing the main factors that exclude people from cycling in London through a range of inter-linked measures. Investment in cycling infrastructure will be allied to new activation measures to change both the perception and possibility of cycling in London for everyone.



The diagram below shows the overall structure of this Plan. The first section sets out our in-depth understanding of who is cycling in London, the potential for more cycling, and the barriers that stop more people from cycling. The

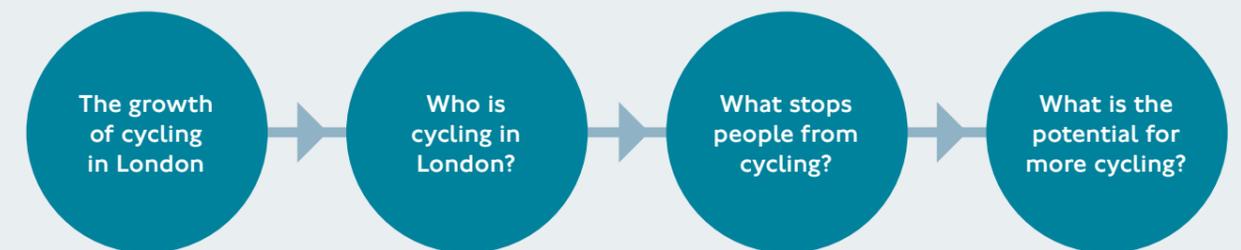
second section explains how we have used this evidence base to develop a coherent and broad approach to enabling cycling in London. The third section sets out the actions required to achieve this, split into three groups.





Chapter 3 – Understanding cycling in London

All of the actions in this Plan are based on clear evidence and insight into cycling in London. This chapter sets out what this evidence base tells us about cycling in London.



TfL has conducted a considerable amount of customer research, analysis and monitoring related to cycling in recent years. This has played a vital role in helping develop effective schemes that address the most pressing barriers to cycling.

Together with important contributions from boroughs, advocacy groups, think tanks and academia, this evidence base has also helped raise the profile of cycling, ensuring that cycling has become a key part of the public discourse on the future of our city.

This chapter sets out our overall understanding of cycling, including how cycling has grown in recent years, who is cycling, what stops people from cycling, and the overall potential for more cycling in London.

The growth of cycling in London

More Londoners cycling

Cycling in London has more than doubled since 2000. On average, cycling levels across the Capital rose by 5.8 per cent per year from 2000-2017, and there was an overall 24 per cent increase between 2012 and 2017¹⁶ (see Figure 1 overleaf).

These achievements are even more impressive when viewed in the national context, which has seen no major change in cycling levels over the last 15 years.¹⁷ This progress is therefore a testament to the efforts of TfL, the boroughs, cycling advocates and everyone else who has worked hard to encourage more cycling in London.

Although the upwards trend in cycling is clear, growth differs from year to year and can sometimes flatten. Between 2016 and 2017, for instance, there was a 0.8 per cent decrease in overall levels of cycling across Greater London (in the context of falling travel demand more generally).

However, in the places where we have invested in new and upgraded infrastructure, cycling growth has been extremely strong. Traffic counts from 2017 found a 54 per cent increase in the number of people counted cycling on Whitechapel Road, and a 127 per cent increase in the number of people counted cycling on Blackfriars Road compared to the equivalent period in 2014.¹⁸ This reflects the impact of the



protected cycle lanes that were opened on these streets in 2016. Higher levels of cycling have been recorded in the Mini-Holland boroughs, and in central London cycling levels were eight per cent higher between April 2018 and June 2018 compared to the equivalent period in 2017.¹⁹

It is in the parts of London that have seen no improvements for cycling that the growth in cycling levels has slowed. To address this, the Cycling action plan proposes investment in cycling across Greater London, including new projects targeted towards unlocking the significant potential demand for cycling in inner and outer London.

Cycling safety trends

There has been a significant decrease in the risk of being killed or seriously injured while cycling in London since 2000,²⁰ showing the positive impact of TfL and borough investment in infrastructure and other measures to reduce road danger over this time (see Figure 2 overleaf).

We must go further, however. Vision Zero makes clear that no death or

serious injury on London's transport network should be seen as inevitable or acceptable. Far too many people are killed or seriously injured while cycling, and incidents of people cycling experiencing abuse or intimidating behaviour are all too common. This needs to be addressed, and there is still more to do to overcome people's concerns about cycle safety by making cycling safer.

¹⁶ Travel in London report 10, TfL, December 2017

¹⁷ National Travel Survey: England 2017, Department for Transport, July 2018

¹⁸ TfL monitoring, 2017. Counts representative of an average autumn day in 2014 and 2017 respectively.

¹⁹ TfL monitoring, 2018

²⁰ STATS19 collision data. Due to changes in the reporting of collisions by the police, figures to 2016 have been backcast. For information, see <http://content.tfl.gov.uk/casualties-in-greater-london-2017.pdf>

Figure 1: Daily cycling journeys in London, 2000-2017

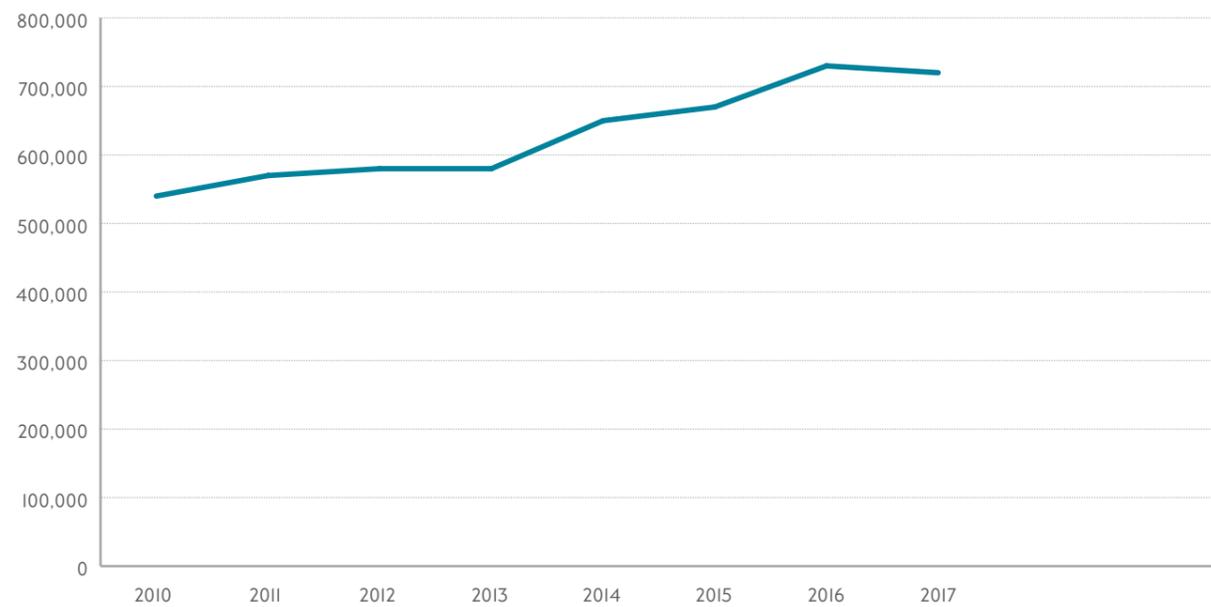
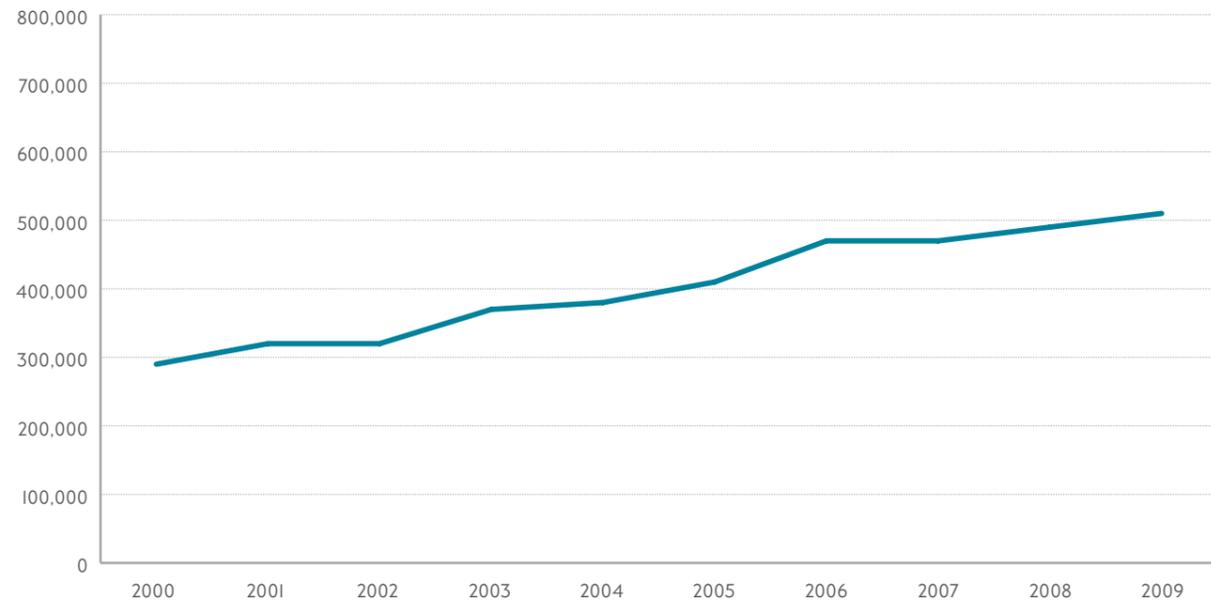
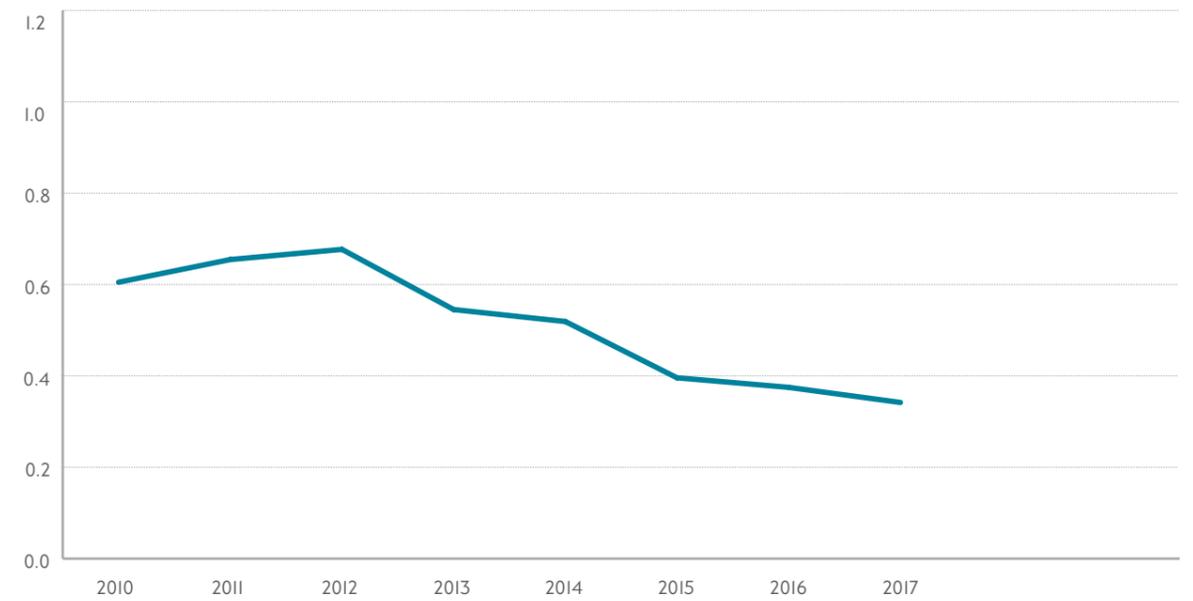
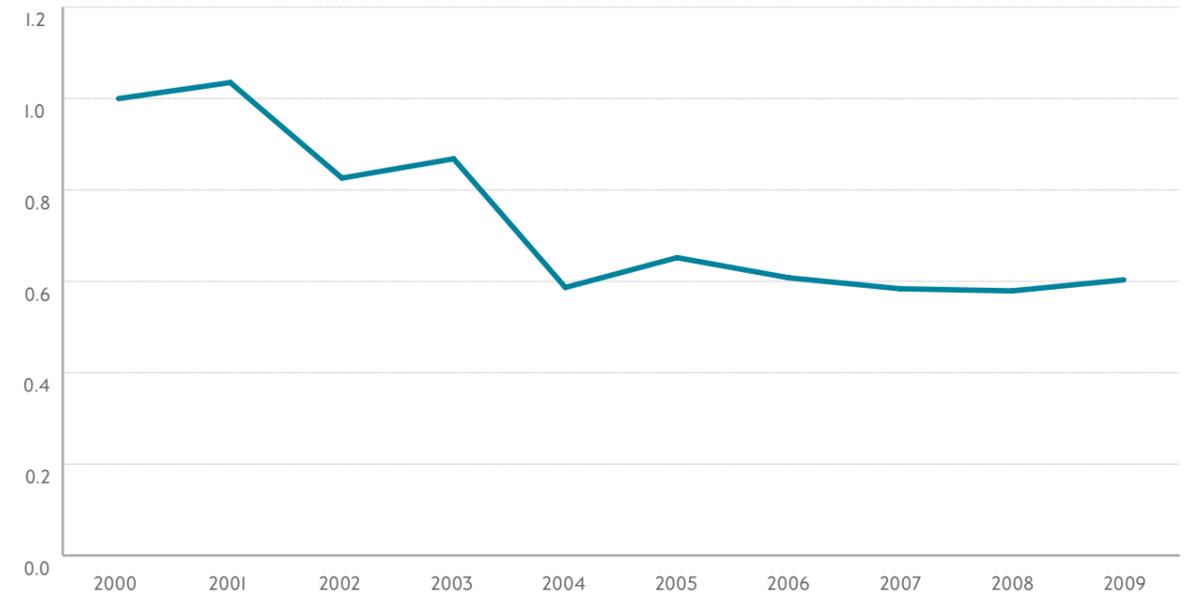


Figure 2: Risk of being killed or seriously injured while cycling in London, 2000-2017 (indexed to year 2000)



Who is cycling in London?

Where are people cycling in London?

Figure 3 overleaf shows the busiest areas for cycling in London in recent years, based on the latest TfL monitoring and modelling. The areas with the most cycling at present are in central and inner London, with comparatively busier routes for cycling than in most outer London boroughs. However, there are some exceptions, particularly in suburban south-west London. This shows that cycling can be a feasible and popular mode of transport in all parts of London, not just the inner city.

People are making cycle trips in London for all types of journey. Thirteen per cent of all cycle trips are made for shopping and eight per cent are trips to school or university. More than 10 per cent of all cycle trips are made to meet friends or family members, or for other social trips. The remaining journeys are made for a variety of reasons including travelling between meetings, running errands, and for leisure.

The demographics of cycling

Despite some welcome recent trends, such as a four per cent increase in the number of women cycling in London over the last three years, cycling does not yet reflect London's great diversity.

There is a still higher proportion of men cycling than women; a higher proportion of white people than black, Asian and minority ethnic (BAME) people; and a



higher proportion of those aged 24-44 than older or younger people.²¹

This is an issue because it shows that the barriers to cycling are particularly acute for groups who are currently under-represented in cycling, such as women and BAME people.

Our aspiration is for everyone to feel that they can cycle on London's streets if they wish. TfL has conducted extensive customer research and analysis into the

barriers faced by different groups, and this is reflected in the actions included in this Plan.

For example, our research²² suggests that women cycling in London are more likely than men to prefer routes away from motor traffic and difficult junctions.

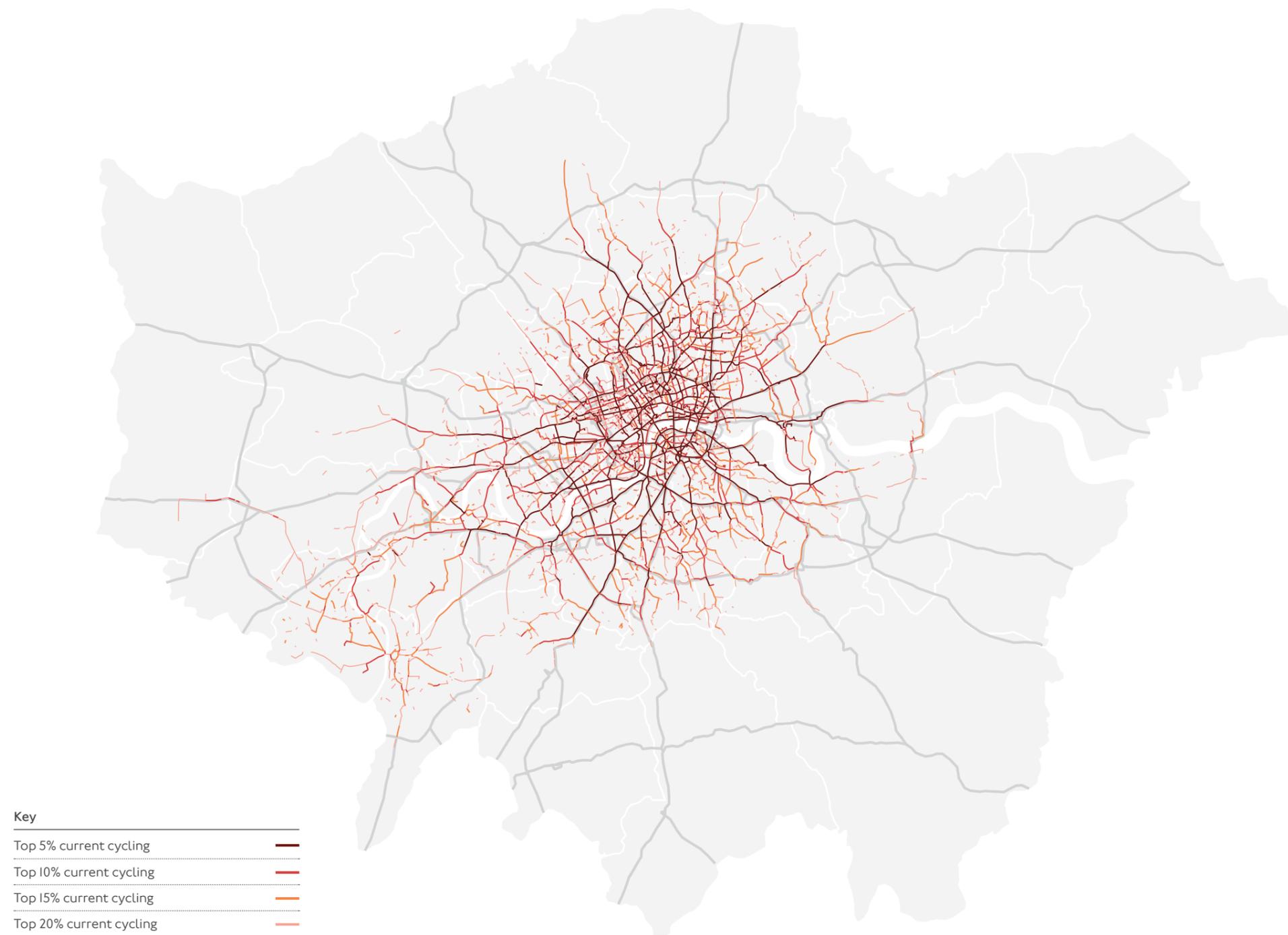
This insight has informed the design of new routes such as Quietway 1 between Waterloo and Greenwich, where the proportion of women cycling has increased from 29 per cent to 35 per cent since the delivery of new infrastructure on the route.²³

²¹ Attitudes to Cycling survey, TfL, autumn 2017

²² Cycle route choice research, SDG for TfL, June 2012

²³ TfL monitoring, 2017

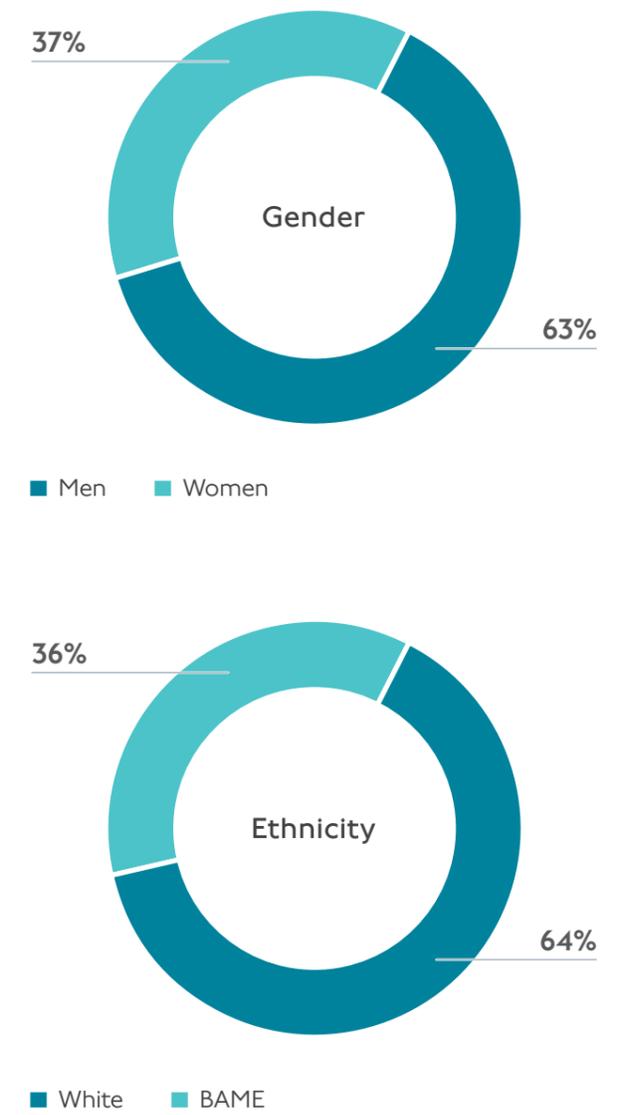
Figure 3: The areas of London with the highest levels of current cycling



Key

- Top 5% current cycling
- Top 10% current cycling
- Top 15% current cycling
- Top 20% current cycling

Figure 4: Gender and ethnicity of people who cycle in London





What stops people from cycling?

Our customer research has highlighted the main reasons why people currently choose not to cycle in London. The actions in this Plan focus on breaking down all of these evidence-based barriers.

1. Fear and vulnerability

Almost half of all Londoners are put off cycling by fear of collisions.²⁴

We are tackling this by investing to make London's streets safer and more inclusive for cycling, as well as taking a Vision Zero approach to road danger.

Fear of cycle theft also deters people from cycling. Twenty-five per cent of people who cycle, and 22 per cent of people who don't, are put off cycling in London by fear of having their cycle stolen.²⁵

2. Worried about fitness

More than 20 per cent of Londoners who don't cycle say that they feel too old or unfit to cycle.²⁶ We are addressing this by working to normalise cycling and show that it is a comfortable, non-strenuous activity that everyone can enjoy. We are also promoting measures such as e-bikes, which can help overcome fitness barriers.

3. Not confident about cycling

Our customers have told us that they can feel uncomfortable when cycling as they don't know what to expect, or don't know where good cycling routes are.²⁷ We are working with every London borough to provide cycle training to adults, children and families to help give Londoners the confidence boost they need to start cycling. We are also developing improved wayfinding and on-street signage to enable Londoners to plan and make cycling journeys with confidence.

²⁴ Attitudes to Cycling survey, TfL, autumn 2017

²⁵ ibid

²⁶ ibid

²⁷ TfL customer research, 2017

46% 

of all Londoners are put off cycling due to fear of collisions

22% 

of Londoners who don't cycle say that they feel too old or unfit to do so

30% 

of Londoners say they don't cycle because they prefer to use other modes of transport

49% 

of Londoners say that they don't see cycling as an activity for 'people like me'

4. Cycling not seen as convenient compared to other alternatives

Thirty per cent of Londoners say that they do not cycle because they prefer other modes of transport.²⁸ However, for many journeys, cycling can actually be the most convenient and reliable way to travel. By taking action to make cycling a real choice for more people, we can help greater numbers of Londoners integrate cycling into their lifestyles.

5. Not identifying as a 'cyclist'

Almost half of Londoners say that cycling is 'not for people like me'.²⁹ The image of the stereotypical 'cyclist' is off-putting to many³⁰, and can wrongly suggest that cycling is not something that everyone can take part in. We can all work to normalise cycling, making it clear that it is something that everyone can do, with no special equipment or clothing required. A key part of this Plan is developing a more inclusive branding for London's cycle network, to make it appealing to more people.

6. Not having access to a cycle

Forty-five per cent of London households do not have access to a cycle.³¹ We are helping address this by continuing to develop the successful Santander Cycles scheme and by working with boroughs and private companies to help shape the future of dockless bike sharing in London. We are also helping improve access to different types of cycles, such as e-bikes, tricycles and cargo bikes, through our community grants scheme.

7. Lack of cycling infrastructure

Poor infrastructure, including a lack of cycle routes and cycle parking, puts 16 per cent of Londoners off cycling.³² We will address this barrier with significant investment in expanding London's cycle network over the life of this action plan, together with the development and implementation of London's first ever Cycle Parking Strategy in 2019.

28 Attitudes to Cycling survey, TfL, autumn 2017

29 ibid

30 Incompetent or Too Competent? Negotiating Everyday Cycling Identities in a Motor Dominated Society. Rachel Aldred, *Mobilities* Volume 8 Issue 2, 2013

31 Attitudes to Cycling survey, TfL, autumn 2017

32 ibid



What is the potential for more cycling?

What is the potential for more cycling?

Every day, Londoners make more than eight million journeys by car, taxi, Tube and bus that could potentially be switched to cycling instead.³³

The majority of these 'switchable' journeys are very short, and most are currently made by car. Indeed, two-thirds of car trips made by London residents could be cycled in under 20 minutes.³⁴

By enabling the people making these 'switchable' journeys to cycle them instead, we can achieve a shift towards cycling from motorised modes. This will reduce car dependency in London and free up space on public transport for those making longer journeys.

However, for many people, switching from the car will not be an easy task, and to achieve these benefits cycling in London will need to become significantly more appealing.

Where is the potential for more cycling?

Figure 5 overleaf shows the routes that these eight million 'switchable' journeys would take. Compared to Figure 3, the map shows that there are journeys that could be cycled in all parts of London, even in areas that currently have relatively little cycling, such as outer London.



In fact, 55 per cent of all 'switchable' journeys take place entirely within outer London. A further 24 per cent take place in inner London and 12 per cent are made to, from, or in central London (the remaining journeys are between these London regions).

Who has the potential to cycle more?

More than half of 'switchable' journeys are made by women, and 38 per cent are made by BAME people.³⁵

This highlights that the opportunity to cycle is not limited to any particular group in society. Eighty-one per cent

of Londoners are able to ride a bicycle, including 76 per cent of disabled people.³⁶ Adapted cycles, e-bikes and cargo bikes can allow an even wider range of people to cycle. Most Londoners therefore have the potential to cycle for their daily journeys, but for

many it is not a genuine opportunity. By breaking down the barriers to cycling set out in the previous section, we aim to enable more Londoners to cycle, and through this see an increase in the diversity and range of Londoners enjoying the benefits of cycling.

³³ Analysis of Cycling Potential 2016, TfL, March 2017

³⁴ Health impacts of cars in London, GLA, 2015

³⁵ Analysis of Cycling Potential 2016, TfL, March 2017

³⁶ Attitudes to Cycling survey, TfL, autumn 2017

Figure 5: The areas of London with the highest levels of cycling potential



Figure 6: Gender and ethnicity of people making switchable cycling journeys





Chapter 4 – An evidence-driven approach to cycling

The Cycling action plan marks an important milestone in London's cycling journey, with ambitious targets and an evidence-led approach.

This Plan marks an evolution in our approach to planning and delivering cycling in London, building on the evidence and lessons learned from the progress made in recent years.

Our approach is to:

- Maximise the contribution of cycling to transport in London, as outlined in the Mayor's Transport Strategy, through ambitious targets for cycling by 2024
- Use an evidence-led methodology to plan for cycling, based on our new cycling model and analytical tools, focusing on unlocking the enormous potential for cycling in London
- Develop people-focused initiatives founded on customer insights, directly addressing the specific barriers to cycling that Londoners have told us they face

Setting ambitions and targets for cycling

The Mayor's Transport Strategy sets out three long-term ambitions for 2041 that this Plan directly supports:

- Eighty per cent of journeys will be made by walking, cycling and public transport
- All Londoners will achieve 20 minutes of active travel each day
- Seventy per cent of Londoners will live within 400 metres of the London-wide cycle network

Meeting the targets in this Plan will ensure that we are on course to achieve the above longer-term goals for 2041.

Progress towards our targets will be reported annually in TfL's 'Travel in London' report.

The targets are to:

1. Increase the number of trips made by cycling



We plan to almost double the number of cycle trips made every day in London (from 0.7 million in 2017³⁷ to 1.3 million in 2024).

This will help keep London on track to meet the 80 per cent active, efficient and sustainable mode share target by 2041, as set out in the Mayor's Transport Strategy.

2. Expand the cycle network to reach more Londoners



We will increase the proportion of Londoners living within 400 metres of the London-wide cycle network to 28 per cent by 2024 (from 8.8 per cent in 2017³⁸).

This will keep London on track to meet the target for 70 per cent of Londoners to live within 400 metres of the London-wide cycle network by 2041, as set out in the Mayor's Transport Strategy.



37 Travel in London II report, TfL, November 2018

38 ibid

An evidence-led approach to planning cycling infrastructure

The approach to planning for cycling in London has reached a watershed moment. Over the past decades, TfL and the boroughs have invested in a range of cycling measures, including new infrastructure and behaviour change initiatives.

As we have rolled out these projects, we have also monitored their impacts and gathered evidence to help understand how effective they have been in helping people overcome the barriers to cycling.

As well as monitoring cycling levels on new routes, we have additionally conducted research into the innovative new infrastructure that has been delivered on London's streets, allowing us to hone our approach to design.³⁹ This research has also helped inform profound new tools for planning cycling projects, including the world's largest and most advanced cycle network model, Cynemon.

These new tools and learnings have allowed us to fully embrace an evidence-led approach to cycling. We are now using data and customer insights to inform and plan all of our cycling measures, to maximise their contribution to growing cycling in London.

The future growth of London's cycle network will be based on the Strategic Cycling Analysis (SCA), published by TfL in June 2017.⁴⁰ The SCA identifies the priority areas for a London-wide cycle network (Figure 7), comprising new cycle routes based on areas of greatest current and potential demand, taking into account future housing and jobs growth, and targeting areas where safety concerns and other barriers are preventing people from enjoying cycling.

The actions set out in Chapter 5 of this Plan will build towards this long-term network, focusing on new high-quality routes with the greatest potential for enabling more people to cycle. TfL and the boroughs will target investment to help local communities enjoy the benefits of cycling by providing well-planned cycling routes and networks to local places such as schools, shops and leisure outlets.

Our data-led approach will be used to influence more than just future routes. For example, our new Cycling Infrastructure Database (see Action 5) tells us where there is limited cycle parking. This data will feed into the new Cycle Parking Strategy (see Action 6), which will use this data to target safe and secure parking where it will most help Londoners to cycle.

Figure 7: Priority connections for a London-wide cycle network for 2041*



Key

Top potential connections	—
High potential connections	—
Medium potential connections	—
Existing and planned cycle routes (June 2017)	—

³⁹ <https://tfl.gov.uk/corporate/publications-and-reports/cycling>

⁴⁰ Strategic Cycling Analysis, TfL, June 2017

*reproduced from the Strategic Cycling Analysis, June 2017

A ‘people-focused’ approach, drawing on our customer insights

A ‘people-focused’ approach means continually seeking to learn how well our cycling initiatives and overall approach to enabling cycling are working for Londoners. It involves adapting and evolving our approach based on evidence of what people are telling us and what works for those who want to cycle on our streets.

The Healthy Streets Approach, which underpins the Mayor’s Transport Strategy, puts the wellbeing and health of Londoners at the centre of our planning.

The actions in this Cycling action plan will therefore:

- Be focused on supporting those Londoners who want to be more physically active
- Ensure that our cycling schemes are beneficial to users of other sustainable modes, particularly with the most vulnerable members of society in mind
- Directly address the barriers to cycling that people have told us they face every day

Supporting physical activity through spatial data

Our public health analysis shows us the areas of London where people are least likely to be physically active.



In many of these areas, particularly in outer London where car use dominates, concentrated investment would particularly help large numbers of people incorporate active travel into their daily journeys. Our actions, including community grants, cycle training, and other support, will be targeted in those locations (see Chapter 7).

Supporting users of other sustainable modes, including the most vulnerable

We have monitored the impact of new cycling infrastructure on all road users, particularly disabled people. We are using this evaluation to better plan new schemes that improve streets for everyone walking, cycling and using public transport.

For example, in partnership with older and disabled people’s organisations, we monitored different crossing layouts at bus stop bypasses on cycle routes to see how they perform for people who are blind or partially sighted, mobility impaired, deaf or hard of hearing, or have a cognitive disability. Following the publication of the research, we are now installing zebra crossings at all of our bus stop bypasses.

Focus box 2

Streets that enable walking and cycling

Investment in the growing cycle network is not just about making it easier to cycle. Every new cycle route is an opportunity to invest in measures that will make the street work better for people by reducing the dominance of motor traffic, overcoming severance caused by busy roads, improving public spaces and making public transport more accessible.

Many of our recent projects have involved creating space for people walking alongside cycling infrastructure, such as at Archway. Here, the new crossings and expanded public realm fill the space previously occupied by a busy traffic gyratory, making it easier and more attractive for people to walk around and spend time in the local area.

Other cycling schemes involve 'filtered permeability', where a bollard or planter is used to make streets 'access only' for cars and vans. These schemes are creating quiet, low-traffic streets across London, where people walking can enjoy priority over cars. Evidence from Waltham Forest, where quiet streets have been rolled out across the borough, shows that levels of walking are rising alongside cycling (see Focus box 5).



Addressing the barriers to cycling

To make cycling a real choice for more Londoners, we need to overcome the barriers that stop people cycling. Each action in this Plan has been developed to break down specific, evidence-based barriers to cycling. The actions fall within three 'groups' (see Table I), and the Plan will address the fundamental issues that stop people from cycling in London.

Seen in this way, the Plan is a package of coherent, inter-linked actions that, when delivered jointly, will enable more Londoners to cycle.

Delivering these actions as a package is vital in ensuring that cycling in London is inclusive. Every action in this Plan is an action in support of accessible and inclusive cycling, and therefore an accessible and inclusive London. For example, many disabled Londoners rely on cycling for the mobility and accessibility they need to enjoy the benefits that London can offer.

New infrastructure will open up London's streets for more people to cycle comfortably; improved journey planning will enable people to tailor routes that meet their specific needs; and initiatives such as our community grants will give more Londoners the support and confidence to start cycling.

Table I: How the seven barriers to cycling are addressed by the action groups

Barriers to cycling	Groups of actions		
	Streets that enable cycling	Making it easy to get around by cycle	Promoting cycling for all Londoners
1 Fear and vulnerability	✓		✓
2 Worried about fitness			✓
3 Not confident	✓	✓	✓
4 Cycling not seen as convenient		✓	✓
5 Not identifying as a 'cyclist'			✓
6 Not having access to a cycle		✓	✓
7 Lack of cycling infrastructure	✓	✓	

Our action plan for cycling

Our action plan is set out in the following chapters, based on three 'groups' of actions:

Streets that enable cycling (Chapter 5)

To encourage cycling, Londoners need safe, accessible routes that are not dominated by motorised traffic.

Improving street environments and building new routes to grow the London-wide cycle network will be vital to enabling more people to cycle. The Cycling action plan includes proposals for new routes, Safer Junctions and borough-led projects to expand the cycle network across London.

Making it easy to get around by cycle (Chapter 6)

Making a cycle journey in London should be as convenient as any other mode.

Increasing numbers of people use apps to plan their journeys, and the Cycling action plan proposes a step-change in the accuracy and quality of digital journey planning for cycling in London. This step-change will be powered by the world's largest Cycling Infrastructure Database, a comprehensive digital record of all cycling facilities on the streets of the Capital.

The Cycling action plan also includes proposals for the continued development of bike sharing in London, including Santander Cycles, and the delivery of more cycle parking.

Promoting cycling for all Londoners (Chapter 7)

Appealing cycling environments are required to encourage new people to cycle, but removing other barriers and changing perceptions will be equally important.

To complement the growing cycle network, and break down all barriers to cycling, the Cycling action plan sets out a raft of initiatives including cycle training, community grants and events to celebrate cycling.

Wider action through the Mayor's Transport Strategy

Achieving the outcomes of the Cycling action plan will rely not only on the actions set out in the remainder of this Plan, but also on the wider delivery of the proposals set out in the Mayor's Transport Strategy. Adopting Vision Zero for road danger will make it safer and more attractive to cycle. Traffic reduction, both through the next generation of pan-London road pricing, and locally via boroughs' traffic reduction strategies, will be fundamental to creating the conditions where cycling becomes a real option for everyone.



Chapter 5 – Streets that enable cycling

To allow all Londoners to enjoy the benefits of cycling, our streets must be safe, attractive and appealing places where people can choose to cycle confidently and comfortably.

We know London's streets can be off-putting and frightening for cycling: 46 per cent of all Londoners are put off cycling because of streets with too much traffic, and 25 per cent are discouraged because of poor road conditions.⁴¹ This is felt more acutely by under-represented groups in cycling, including women⁴² and BAME people.⁴³

Cycling infrastructure plays a critical role in addressing these barriers. Following the construction of protected cycle lanes on Lower Thames Street, there was a 200 per cent increase in people counted cycling there in 2017 when compared to 2014.⁴⁴ Eighty-four per cent of people using the route told us that they felt safe during some or all of their journey.⁴⁵

The Cycling action plan sets out continued investment in new infrastructure, including:

- Building a London-wide cycle network, with major new routes opening across the Capital
- Investment in local routes and neighbourhood schemes
- Updated design guidance and new quality standards for cycling infrastructure
- A collaborative and smart approach to route construction

41 Attitudes to Cycling survey, TfL, autumn 2017

42 TfL monitoring, 2017

43 What are the barriers to cycling amongst ethnic minority groups and people from deprived backgrounds?, TfL, 2011

44 TfL monitoring. Counts representative of an average autumn day in 2014 and 2017 respectively.

45 TfL intercept surveys, spring 2017

Building the London-wide cycle network

At the core of our ambition for cycling is a London-wide cycle network, spanning the whole of Greater London, bringing together all high-quality routes into a single network that is easy for everyone to understand and use.

Today, the London-wide cycle network consists of the routes delivered in partnership by TfL and the boroughs in recent years, including Cycle Superhighway and Quietway routes. Almost nine per cent of Londoners live within 400 metres of this combined network.

Over the life of this Plan, we will work together with the boroughs to implement the most significant expansion of the London-wide cycle network in the city's history. More than 450km of new routes are planned for delivery by 2024, serving communities and businesses across London. This expansion will more than triple the reach of the network, with 28 per cent of Londoners expected to live within 400 metres of the network by 2024.

The routes in this network will use new, unified branding, supported by enhanced wayfinding tools to help Londoners tailor journey plans to meet their needs. This approach, explained further in Focus box 3, has been developed based on international best practice and a wealth of insight from Londoners on their requirements for cycling.

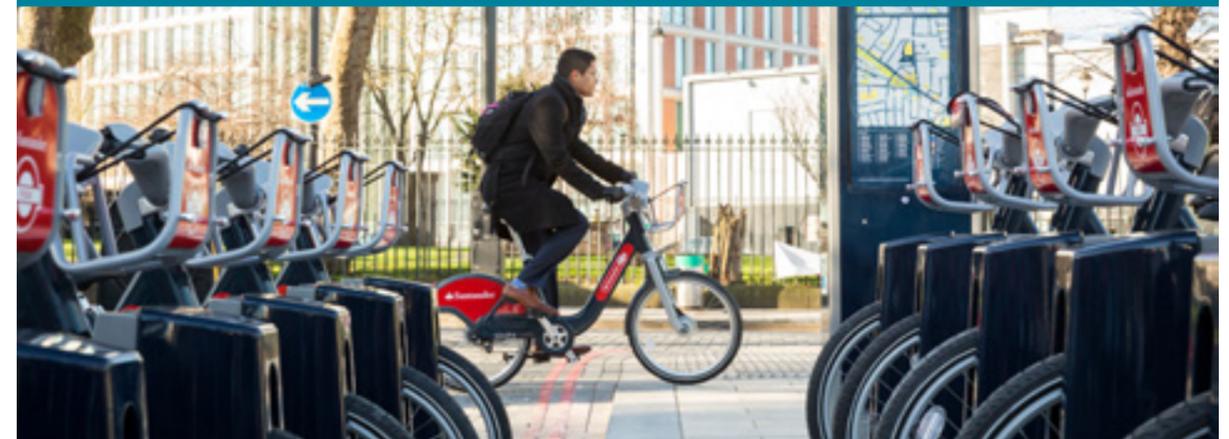
As well as investment in new routes, we are taking action to reduce road danger and severance across the cycle network by tackling dangerous junctions through the Safer Junctions programme, and developing plans for a new river crossing between Rotherhithe and Canary Wharf. Local schemes and networks (Action 2) will also be vital to complement investment in the London-wide cycle network.

Action 1

Expand the London-wide cycle network to reach 28 per cent of Londoners by 2024.

Further details of our plans for new routes, Safer Junctions and a new river crossing are set out over the following pages. A map of the combined network of new routes, Safer Junctions, other major schemes and local projects planned for 2024 is shown in Figure 8.

Focus box 3



A unified London-wide cycle network

The existing Cycle Superhighway and Quietway brands have been important in growing cycling in London, but as cycling becomes more and more popular, the time has come to move towards a more inclusive identity for the cycle network.

In 2019, we will begin using a single brand for all high-quality cycle routes in London. This not only aligns with international best practice, but also reflects what Londoners have told us about the current Cycle Superhighway and Quietway brands, which many find misleading and confusing.

The new wayfinding for the cycle network will be simple and easy to understand and use, and will be aimed at everyone who wants to cycle in London. All routes in the network will offer a good cycling experience, and our aspiration is for all new sections of the network to meet strong new quality criteria (Action 3). The London-wide network will be supported by improved customer information and digital wayfinding (Action 5).

The identity for the London-wide cycle network will be revealed in early 2019.

New routes to grow the London-wide cycle network

Over the next five years, we will work with boroughs to deliver more than 450km of new, high-quality cycle routes across Greater London. As is the case in the world's best cycling cities, these routes will draw from a range of different design approaches:⁴⁶ some sections of routes will be segregated, and some sections will be along less traffic-heavy streets, where walking and cycling are prioritised. All of the routes described in this section will be signed using the new, unified identity for London's cycle network.

Cycle routes are principally intended to make it easier for people to choose to cycle for their daily journeys, rather than drive. Our ambition is for all new routes to offer a consistently attractive and inclusive environment for cycling, irrespective of infrastructure used. To help TfL and boroughs meet this aspiration, new TfL-funded routes will now be designed and delivered in line with new quality criteria (Focus box 6).

Since 2010, TfL's investment in Cycle Superhighways and Quietways has created a step-change in improving the experience of cycling in London. These routes have succeeded in growing uptake of cycling by creating better conditions that help break down the barriers faced by Londoners. These well-used strategic routes will be incorporated into the new

unified network on an incremental basis, and we will also work with boroughs to identify other existing routes that can be brought into the cycle network.

We know that the ambition and determination of boroughs is vital to realising the level of quality that we are seeking on new cycle routes, and we will work collaboratively to support every local authority that is committed to transforming the experience of cycling on its streets.

However, we are equally clear that we will not support – or provide funding for – schemes that do not address the fundamental reasons why people don't currently cycle, or that are not underwritten with genuine political commitment for cycling.

We have therefore adopted a new, pipeline approach to the development and delivery of cycle routes in London. Working with boroughs, we have developed a pipeline of 25 new cycle routes with the greatest potential to contribute to the growth of cycling in London, informed by TfL's Strategic Cycling Analysis.⁴⁷ These routes are targeted towards potential cycling as well as current demand, and include both orbital and radial corridors. They focus on connecting town centres and communities in inner and outer London, where the majority of people live, work and travel.

In January 2018, the Mayor announced the first six routes to be progressed from this pipeline. We have been working with boroughs to develop detailed plans for these routes. Work on many of the routes is well advanced and we will begin bringing plans forward for public input from early 2019 (see Focus box 4). This will include consultations on routes between:

- **Camden and Tottenham Hale** – consultation planned 2019
- **Hackney and the Isle of Dogs** - consultation planned 2019
- **Dalston and Lea Bridge Road** - consultation planned 2019
- **Rotherhithe and Peckham** - consultation planned 2019
- **Ilford and Barking Riverside** – consultation on first section planned 2019
- **Wembley and Willesden** – consultation on first section planned by 2021

Beyond this, the pipeline has flexibility, allowing us to begin working with boroughs and engaging local communities early in the design process, while adjusting to changing local circumstances and ambitions. This means we can better harness the energy and determination of boroughs, and their unparalleled knowledge of local neighbourhoods, to develop proposals for ambitious new cycle routes.

For example, using this approach we have been working in close collaboration with Greenwich and Lambeth boroughs to develop plans for new routes connecting Greenwich and Woolwich, and Oval, Brixton and Streatham respectively. The proposals that we are developing with these boroughs will begin construction during the life of this action plan, subject to consultation.

⁴⁶ <http://content.tfl.gov.uk/international-cycling-infrastructure-best-practice-study.pdf>

⁴⁷ Strategic Cycling Analysis, TfL, June 2017

Focus box 4

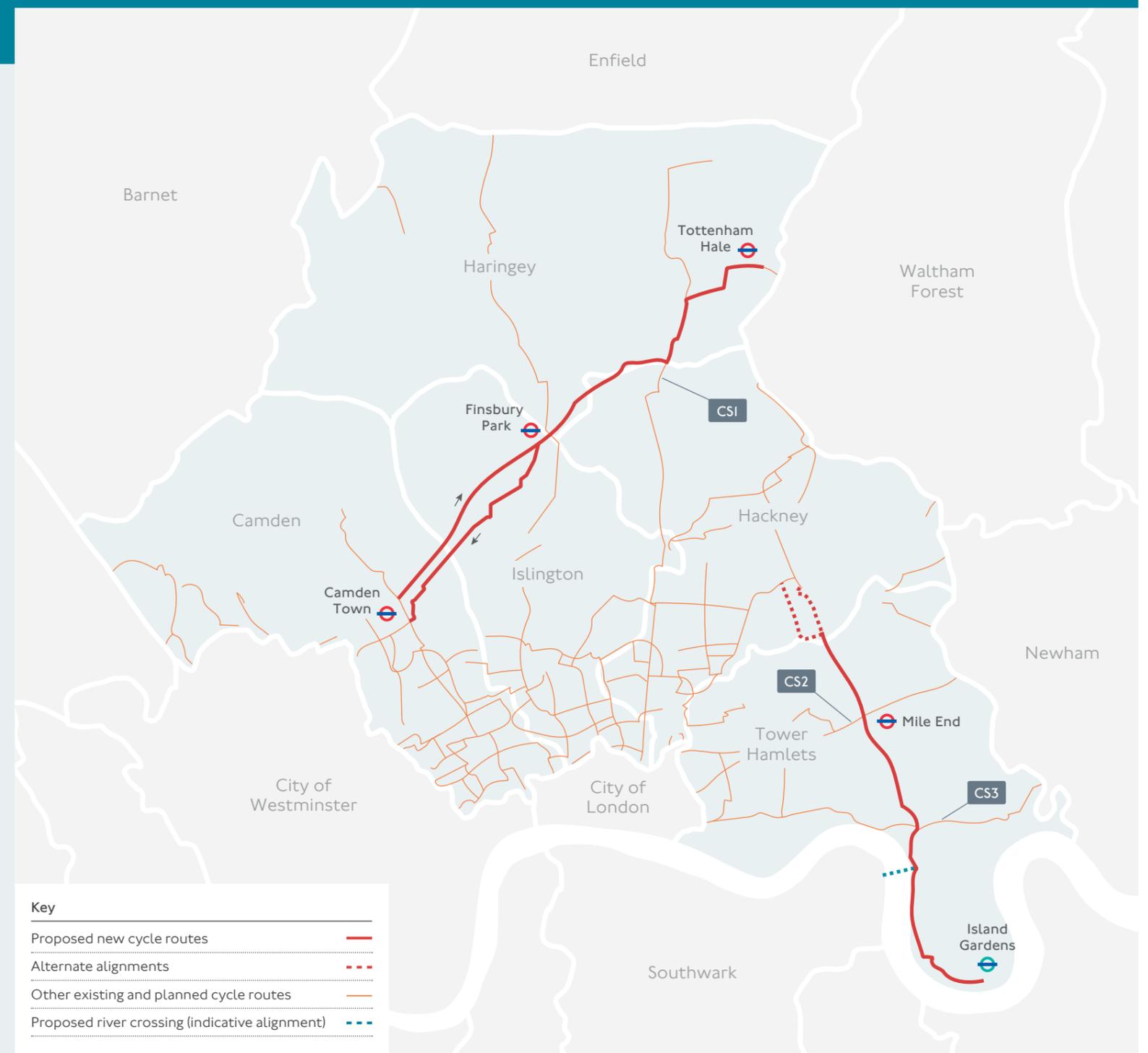
New routes to grow the cycle network

Working closely with boroughs and local communities, we are pressing ahead at pace with the next sections of the cycle network. In 2019, we intend to consult on and (subject to the outcome) start construction on two important new cycle routes.

The route between **Camden and Tottenham Hale** will link together communities and businesses in north London, including improving access to the major transport interchange at Finsbury Park. It will tackle the barriers to cycling along this corridor, including the intimidating and traffic-dominated Seven Sisters Road and Nag's Head Gyratory.

The route between **Hackney and the Isle of Dogs** will be London's first major orbital cycle route. As well as providing a much-needed connection between Cycle Superhighway 2 and Cycle Superhighway 3, it will link communities along the route with employment hubs, town centres, parks and waterways.

Construction on these routes is planned to begin in late 2019, following a full consultation, with significant sections to be open by May 2020. The full routes are scheduled to be open by 2022, and will be joined by ongoing investment in the growing cycle network across Greater London.





We are also committed to completing delivery of the high-quality routes currently under development by TfL and the boroughs, including routes conceived as part of the former Cycle Superhighway and Quietway programmes. These routes will be delivered under the new, unified cycle network branding and the quality criteria will also apply to them. Where necessary, we will work with boroughs to improve the designs for these routes and bring them in line with the new criteria.

Major new sections of the cycle network that will be delivered over the life of this Plan include routes connecting:

- **Greenwich, Deptford and Tower Bridge** – construction planned to start summer 2019, subject to consultation
- **Brentford, Chiswick and Hammersmith** – construction planned to start summer 2019, subject to consultation
- **Wood Lane and Notting Hill Gate** – consultation planned early 2019 and, subject to the outcome, construction could start in 2021
- **Clerkenwell Road and Old Street** – consultation planned for 2019
- **Blackfriars Road to Thamesmead** – currently under construction
- **Edgware Road to Tottenham Court Road** – construction planned for early 2019

We also remain committed to delivering much-needed improvements to the route between Swiss Cottage and the West End. We were disappointed that plans to start construction of this route in summer 2018 were not able to proceed, and we are now considering how best to progress with the scheme.

Beyond this, we will work with the boroughs to further expand the London-wide cycle network. In the long term, this will include completing the pipeline of 25 top potential routes and moving onto the high- and medium-potential routes identified in the Strategic Cycling Analysis,⁴⁸ working closely with boroughs to ensure that the evolving pipeline fully reflects local ambitions and priorities. We will also support the boroughs to plan and deliver more of these routes through programmes such as Liveable Neighbourhoods, Local Implementation Plans and other funding opportunities.

Overcoming severance for cycling

As well as investing in new routes, we will expand the reach of the London-wide cycle network by addressing major sources of severance.

For instance, the lack of river crossings for people walking and cycling in east London means that many journeys simply cannot be made by active travel. To address this, we are pressing ahead with proposals for a new river crossing

between Rotherhithe and Canary Wharf, and in 2019/2020 plan to submit an application for the powers to build and operate this crossing.

Reducing road danger at junctions

In London, 73 per cent of collisions resulting in a vulnerable road user (a person walking, cycling or using a motorcycle) being killed or seriously injured take place at junctions.⁴⁹ The Safer Junctions programme has therefore been established to radically reduce road danger at the most dangerous junctions on TfL's roads.

TfL's analysis has identified 73 junctions most in need of improvement. As well as significant investment in schemes to tackle specific junctions, we are reducing road danger at these junctions by investing in new cycle routes and other projects. We have already completed improvements to 27 junctions, and we will finish construction at at least a further 14 locations by 2020. The remaining junctions will all be at the design or construction stage by 2020, including Waterloo Roundabout and Lambeth Bridge (construction will begin in 2020 and 2021 respectively, subject to consultation).

We are also tackling other major intimidating junctions across the cycle network, including Stoke Newington Gyratory (consultation launched October 2018) and Old Street Roundabout (construction started December 2018).

⁴⁸ Strategic Cycling Analysis, TfL, June 2017

⁴⁹ Vision Zero action plan, TfL, July 2018

Supporting local cycle journeys

As well as strategic routes between different boroughs, local networks serving neighbourhoods and town centres will be an important part of the London-wide cycle network.

Where boroughs show real ambition and appetite to deliver local improvements for cycling, TfL will provide funding and support to help achieve these. This includes programmes such as Liveable Neighbourhoods and Local Implementation Plans (LIPs).

Some London boroughs are no strangers to delivering high-quality cycling infrastructure, and there are examples of successful and well-used borough-led cycling projects across the Capital. We will work with boroughs to identify the best existing routes to be signed as part of the London-wide cycle network and to upgrade other existing routes to the same high standard.

Action 2

Provide funding and support for boroughs to deliver local and neighbourhood improvements for cycling.

Ambitious plans led by boroughs

Boroughs will play a vital role in growing the high-quality cycle network, including creating local routes serving communities and town centres, and expanding neighbourhood cycle networks. In support of the Cycling action plan, we will look for boroughs to develop ambitious plans through a number of channels, including:

- The Liveable Neighbourhoods programme: seven Liveable Neighbourhood schemes are well under way, and the next tranche of projects will be announced in February 2019. Beyond this, new rounds of bidding for boroughs will open annually
- Completing the three Mini-Holland programmes in Kingston, Enfield and Waltham Forest. These ambitious projects have already made a positive change in their local areas (see Focus box 5) and will be fully complete in 2021
- Delivery of high-quality borough-led projects for cycling, such as the ambitious schemes at Stratford Gyratory (led by Newham) and Beam Park (led by Havering)
- Proposals for local cycle networks and other improvements through LIP funding. The LIP Guidance asks boroughs to set out how they will contribute to growing the London-wide cycle network through their LIPs

To grow the cycle network to the extent required by the Mayor's Transport Strategy, we will need to explore new methods of funding cycling infrastructure, including making better use of contributions from developers and other private sector bodies.

Boroughs are already leading the way here, with innovative approaches such as the Croydon Growth Zone. This involves future business rates being leveraged to provide vital new infrastructure, including £15.6m for cycling improvements. These include enhanced cycle routes on the Brighton Road, Roman Way and the A232, improving connections between Croydon town centre, Purley, Mitcham and Bromley.

Better streets across London

Taken together, investment in the London-wide network and local cycling improvements will create a cycle network that serves all types of journeys in the Capital. Figure 8 on page 64 shows the latest map of these improvements, together with a timeline of delivery milestones.



Focus box 5

Ambitious boroughs achieving great results

London's boroughs own 95 per cent of the Capital's roads and maintain deep links with their local communities, and thus play a leading role in improving London's streets for cycling. There is growing evidence highlighting what ambitious boroughs are able to achieve through improvements to local walking and cycling networks.

For example, studies show that the delivery of the Mini-Holland schemes in Enfield, Kingston and Waltham Forest has led to increased levels of walking and cycling. Residents increased their levels of cycling by 18 per cent and levels of walking by 12 per cent.⁵⁰ In Waltham Forest, research has found that children living in the borough will live an average of six weeks longer because of improved air quality and lower traffic volumes delivered by the Mini-Holland programme.⁵¹

These remarkable findings illustrate how, by displaying ambition and commitment to improving local streets for cycling, boroughs and their hard-working officers can make real improvements to the health and quality of life of those who live and work in the area.

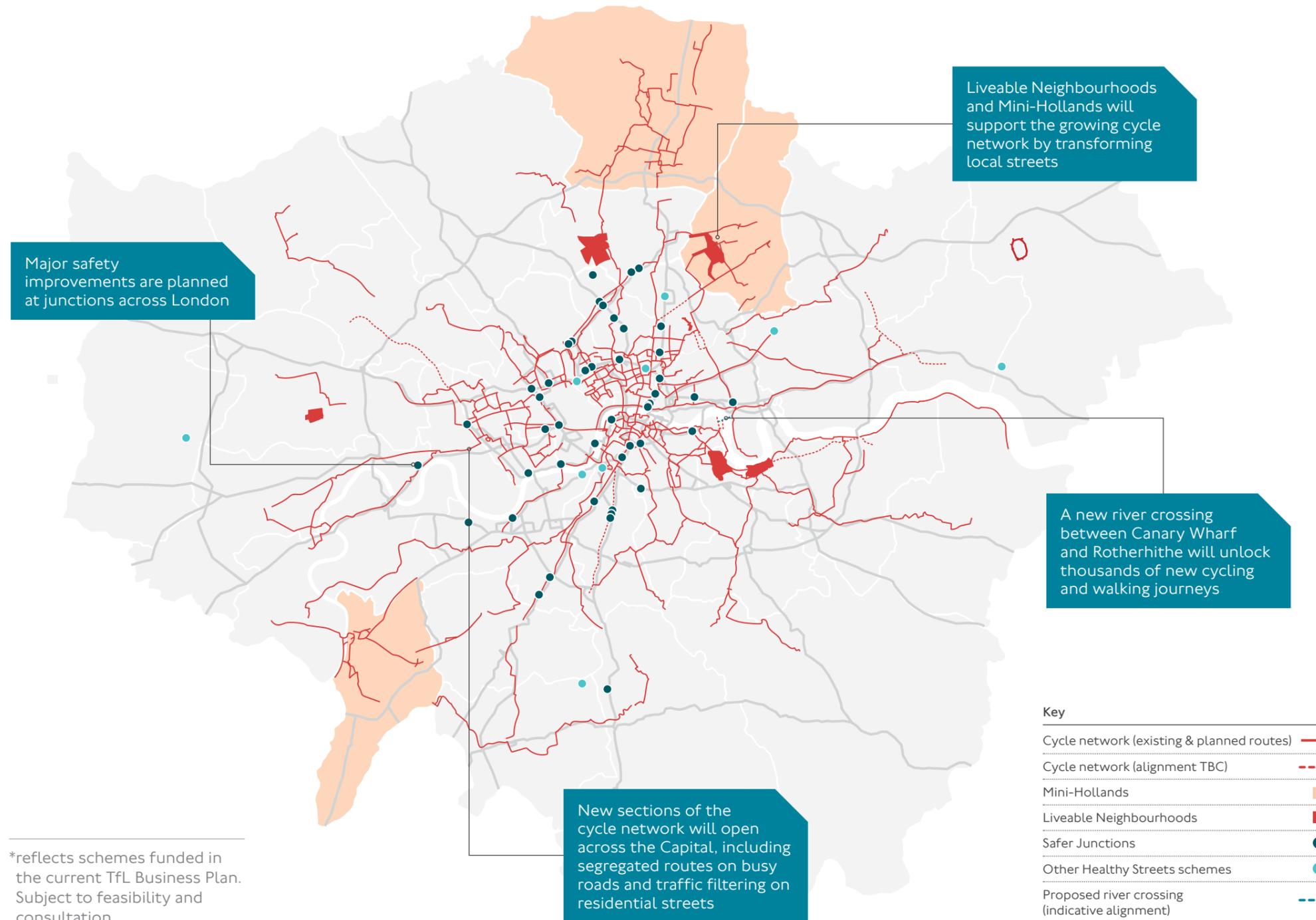
We will continue to work with every London borough that shows ambition and commitment to realise these benefits across the Capital. Borough leadership, and the continued efforts of their officers, will be vital to achieving the vision set out in this Plan.

⁵⁰ Impacts of an active travel intervention with a cycling focus in a suburban context: One-year findings from an evaluation of London's in-progress mini-Hollands programme, Rachel Aldred, Joseph Croft and Anna Goodman, Transportation Research Part A: Policy and Practice, June 2018

⁵¹ Air quality: concentrations, exposure and attitudes in Waltham Forest. David Dajnak, Heather Walton, Gregor Stewart, James David Smith and Sean Beevers, King's College London, 2018



Figure 8: The planned London-wide cycle network (schemes completed or under construction by April 2024)*



*reflects schemes funded in the current TfL Business Plan. Subject to feasibility and consultation

Delivery highlights

- 2019**

 - Construction begins on major new cycle routes connecting Brentford and Olympia, and Greenwich and Tower Bridge
 - Consultation on new cycle routes between Hackney and the Isle of Dogs, Camden and Tottenham Hale, and Wood Lane and Notting Hill Gate
 - Second tranche of Liveable Neighbourhoods announced
 - 2020**

 - Construction begins on major new sections of the cycle network
 - At least 14 more Safer Junctions complete, with all remaining junctions at design or construction stage
 - 2021-24**

 - Delivery of Mini-Holland programmes complete
 - Major new sections of the cycle network opened, and construction begins on further new routes
 - Majority of Safer Junctions complete
 - Continued investment in Liveable Neighbourhoods, including delivery of transformative schemes and new rounds of bidding
- A full cycling delivery plan, setting out milestones for all of these projects, can be found in Appendix I



Updated design guidance for cycling

The London Cycling Design Standards (LCDS), published in 2015, has proved to be a vital design tool, with planners at TfL, London boroughs and around the UK using the guidance to develop high-quality cycling schemes.

We are in the process of updating the LCDS to ensure that the guidance remains as relevant and useful as possible. This update is due to be published in 2019.

The updated LCDS will, for the first time, introduce quality criteria for new cycle routes in London. These criteria, set out in Focus box 6, will guide the development of new cycle routes and the consistency of quality that is expected across the network. We have been working with boroughs and other stakeholders to develop these, and they will be applied to all new TfL-funded cycle routes.

The revised LCDS will also incorporate the latest design approaches and tools, including the Healthy Streets Check for Designers.⁵² This is a tool that TfL has developed to understand how well streets are performing against the Healthy Streets Indicators, and how we can make changes to the streets to make them better.

As we deliver innovative cycling infrastructure on London's streets, we will continue to study and learn how well it is working for all road users. This is a vital part of our evidence-led approach to cycling, and ensures that new cycle schemes can learn from previous ones. For example, we have recently published a study into crossings at bus stop bypasses, with clear design recommendations to improve their performance for people walking.⁵³ The updated LCDS will reflect these and other design recommendations, ensuring that the new guidance fully reflects and incorporates what we have learnt in recent years.

Action 3

Publish an update to the London Cycling Design Standards in 2019, which will:

- Embed the Healthy Streets Approach
- Set out quality criteria for new cycle routes
- Incorporate findings from the latest research into new cycling infrastructure

⁵² <https://tfl.gov.uk/corporate/about-tfl/how-we-work/planning-for-the-future/healthy-streets>

⁵³ <https://tfl.gov.uk/corporate/publications-and-reports/cycling>

Focus box 6

New quality criteria for cycle routes

To ensure that the cycle network continues to increase in quality, we are – for the first time – introducing a benchmark for cycle routes through new quality criteria.

The six criteria, designed to be consistent with the high-quality recommendations in the London Cycling Design Standards (LCDS), will be used to shape the design of cycling infrastructure, working alongside existing guidance and tools to ensure that schemes perform well for all active, sustainable and efficient modes of transport. The criteria provide additional quality assurance from an early stage in the design process.

For each criterion, a benchmark level of quality has been defined that proposals need to achieve. A target level of quality, shown here, has also been developed, which we will work with boroughs to aim for across all schemes. The six criteria are interrelated and will be used together to ensure that schemes aim to deliver high-quality provision for cycling that is appropriate for the context. Where a target level of provision is not achieved for one criterion, we will review this in partnership with boroughs to understand whether this can be improved, and next steps will be decided on a case-by-case basis.

The diagrams opposite show the six quality criteria, together with the target expected for each one. More detailed technical guidance has been developed setting out design considerations that include how the criteria relate to one another. The detailed criteria will be included as an update to the LCDS in 2019 (see Action 3) and will be regularly reviewed as part of the ongoing development of cycling infrastructure design. This will ensure the evolving criteria reflect latest feedback from monitoring, trials, on-street experiences and international best practice.



Total volume of motor traffic

Target level of provision:

The design of new cycle routes should only mix people cycling with motorised traffic where there are fewer than 500 motor vehicles per hour (vph) at peak times, and preferably fewer than 200vph



Kerbside activity has a minimal impact on people cycling

Target level of provision:

Design of new cycle routes should enable people cycling to comfortably pass kerbside activity such as parking and loading



Speed of motor traffic

Target level of provision:

The design of new cycle routes should only mix people cycling with motorised traffic where there is a 20mph speed limit and a high level of driver compliance



Interaction between heavy goods vehicles (HGVs) and people cycling minimised

Target level of provision:

Cycling provision on new cycle routes should provide sufficient space for cycling relative to the volume of HGVs



Appropriate width for cycling

Target level of provision:

The design of new cycle routes should provide sufficient width for people to cycle comfortably



Collision risk between people cycling and turning vehicles minimised

Target level of provision:

Junctions on new routes should give people cycling time and space to pass through comfortably

Innovative techniques for effective delivery

Actions 1 and 2 of this Plan highlight the huge amount of new cycling and walking infrastructure that will be delivered over the coming years. Our aim is to deliver this infrastructure using efficient and effective construction techniques.

We have learnt from the construction of cycling infrastructure on London's streets, and now have a better understanding of how to manage and coordinate construction of cycling infrastructure at scale. Building on these lessons, we are delivering new routes in a way that minimises disruption for people walking, cycling and using public transport.

To do so, we are using techniques such as more night-time construction away from residential areas, and working with boroughs and other partners to pioneer a joined-up approach to planning roadworks (see Focus box 7). This approach will result in shorter construction times and smoother delivery of schemes.

We will work to ensure that construction and other roadworks on London's streets do not hinder people cycling. This approach will apply not just to TfL's own schemes, but to everyone planning, designing and operating temporary traffic management on the highway, including developers and utilities companies.

Through TfL's Temporary Traffic Management Handbook, we will provide guidance to the industry to ensure that safe and inclusive access is maintained for people walking and cycling throughout the duration of roadworks.

We will also continue working closely with contractors, developers, user groups and other partners to offer monthly road safety patrols to identify improvements that can be made to construction sites to improve conditions for cycling and walking.

We also provide advice on major construction works and events to people cycling and walking to communicate the impact of the works, including travel guidance. Where the opportunity presents itself, such as in locations with high-quality cycling infrastructure, we now encourage drivers to consider walking and cycling to help minimise disruption due to planned works.

Not all disruptions to London's streets are planned, and we are also taking action to protect people cycling in the case of unexpected disruptions. TfL's Network Management Control Centre has adopted a new decision-making framework that focuses on the 4Ps – Protection, Pedestrians, Pedal cycles, and Passengers. With this new framework, the decisions made in response to disruptions on London's streets will seek to minimise the impact on people cycling. This includes, wherever possible, granting access to people cycling to continue their journeys safely and efficiently without the need for long or disruptive diversion routes.

Action 4

Work with London boroughs, local businesses, utilities companies, contractors and other partners to:

- Construct new cycling infrastructure as efficiently as possible, ensuring that disruption is minimised for everyone using London's streets
- Minimise the effect on people cycling caused by planned and unplanned disruptions on London's streets



Focus box 7

Smart construction to minimise disruption

Innovative joint working was used on Phase 2 of Cycle Superhighway 6 to minimise potential disruption due to the construction of the route.

For instance, Charterhouse Junction on Farringdon Street was identified as a challenging section for delivery. A number of bus routes pass through the junction, which is also a key business route for Smithfield Market. Therefore, minimising disruption during construction was particularly vital.

TfL organised a road closure over the Christmas period, working with utilities companies and other partners to consolidate works by six separate parties into a single, joined-up project.

As a result, a potentially disruptive two-week programme of roadworks was condensed into just four days. Access to local businesses was maintained throughout, and disruption to bus passengers was kept to an absolute minimum.





Chapter 6 – Making it easy to get around by cycle

Londoners should be able to navigate London's streets easily and safely, and to access a cycle for their journey.

Londoners increasingly rely on technology for journey planning and on-street navigation, and the digital tools available for cycling should be as accurate and up-to-date as those for other modes of transport. It should also be fast and convenient to start and end a cycle trip, with easy access to cycles and more places to store and park them.

There is a huge opportunity here for innovative solutions from the private sector, and we are working with tech companies, app developers, bike retailers and others to help achieve these goals. We are not just engaging with the industry, but actively challenging it to do more, hosting events such as hackathons and workshops to spur innovation.

This section sets out actions to make it easier and more convenient to get around by cycle, including:

- Launching new digital cycle maps, powered by the world's first Cycling Infrastructure Database (CID)
- Working with the tech industry to develop new digital wayfinding and journey planning tools
- Providing more cycle parking across London, and improved access to a cycle through promoting Santander Cycles and other bike share platforms

Making it easy to plan a journey

When planning a journey, people want to cycle on safe, attractive streets where traffic does not dominate. Beyond this, Londoners will differ in their preferences:⁵⁴ some may want to stick to segregated routes where possible; some may prefer to use parks and canal paths; and some may want to avoid the latter, especially after dark.

Through our open data platforms, TfL provides data and maps for cycling. Two new additions to this open data will be launched in 2019, to enable journey planners to be more tailored to specific needs.

The first is an interactive digital map showing the existing and planned signed routes that make up the London-wide cycle network, as well as cycle hire docking stations and public transport hubs. This will be launched in early 2019.

We will then build on this by launching the CID in spring 2019. This will be the world's largest and most comprehensive database of cycling infrastructure: over the past 18 months, we have amassed data on every street in London, cataloguing almost 146,000 cycle parking spaces, 2,000 km of cycle lanes and more than 58,000 cycle signs and street markings. We will work with boroughs and other partners to keep this data up to date as new infrastructure is delivered.

The CID will be used to upgrade our digital map of the cycle network, including showing the location of cycle parking. This will allow Londoners to plan journeys that meet their needs and preferences, as well as offering valuable information to TfL and boroughs for planning future investment.

However, we know that Londoners use a range of different tools and apps to plan their journeys around the Capital. The CID will therefore be made available through TfL's open data platform, and we are working with others such as Google, Apple, Citymapper and CycleStreets to ensure that their journey planning services are fully upgraded with the new data. We will proactively foster innovation by hosting hackathons for large, small and independent developers to experiment with and explore new applications of the data.

Action 5

Make it easy to plan cycling journeys, by:

- Launching an interactive digital map showing the London-wide cycle network in early 2019
- Launching the world's largest Cycling Infrastructure Database as open data in spring 2019

54 TfL customer research, October 2014

Focus box 8



A Cycling Infrastructure Database for London

In 2019, the Cycling Infrastructure Database (CID) will be made available to everyone, free of charge, through our open data platform. The data will have a range of applications to help make cycling in London easier, including:

Tailored journey planning: Data from the CID can be integrated into new and existing journey planning services. This will provide Londoners with much more information about their routes, allowing people to tailor their journeys to meet their unique needs.

Cycle parking mapping: The CID will provide the first comprehensive record of on-street cycle parking in London. The CID will make cycle journeys easier and less frustrating by allowing Londoners to quickly see where cycle parking can be found on the streets of the Capital.

Informing TfL and borough plans: The CID can also be used by boroughs and TfL to inform their overall plans and strategies for cycling. Where the CID identifies high-quality existing cycle routes, we will work with boroughs to incorporate them into the London-wide cycle network.

Secure cycle parking where it is most needed

Every cycle journey begins and ends with a secure place to park. Despite the progress made to improve cycle parking in recent years, more than half of Londoners are deterred from cycling due to a lack of cycle parking and one fifth of Londoners are deterred due to a fear of having their cycle stolen.⁵⁵ This is a particular issue in high footfall destinations such as major stations, where the supply of cycle parking simply does not meet demand.

Resolving this is a major priority, and we are taking a data-led approach to providing cycle parking with the development of a new Cycle Parking Strategy in 2019.

The strategy will be based on robust evidence showing where a lack of cycle parking is a barrier to cycling. It will set out a strategic approach to guide TfL and boroughs when prioritising and delivering high-quality, secure cycle parking in London, focusing on increasing provision where demand and potential are greatest.

We will work with Network Rail and London Underground to provide more cycle parking at stations, including exploring opportunities to deliver more secure cycle parking hubs. This builds on the success of the hubs at Walthamstow Central, Edmonton Green and Finsbury Park stations.



We will encourage businesses, BIDs and developers to take an innovative and collaborative approach to delivering cycle parking in priority locations such as the Midtown Cycle Vault in Bloomsbury, a central cycle parking hub serving a number of businesses.

We will also work with retailers to provide cycle parking to attract more customers, including highlighting the potential for businesses to convert their

car parking spaces into cycle parking. This approach, pioneered in Oslo and now used in Hackney, allows businesses to lead by example and showcase the economic benefits of cycle parking.

In addition to offering more cycle parking at key destinations, it is important to provide secure and convenient places for people to store cycles where they live. The policies in the draft London Plan will ensure that new developments provide appropriate levels of cycle parking, and

the Cycle Parking Strategy will include a clear focus on improving existing residential cycle parking. This will include the delivery of more on-street cycle hangars, as well as retrofitting housing estates with high-quality cycle parking.

Action 6

Ensure that parking is not a barrier to more people cycling by developing and implementing a Cycle Parking Strategy for London in 2019.

55 Attitudes to Cycling survey, TfL, autumn 2017



Reducing cycle theft

As well as providing more secure cycle parking spaces around London, we are working with a number of stakeholders to take wider action to deter cycle theft in London. As the National Cycle Security and Safety Strategy is developed, we look forward to working to implement the strategy in the Capital.

Cycle marking and registration is a key part of reducing the impact of cycle theft, allowing the police to check for stolen bikes, and retailers and members of the public to protect their cycles and deter theft.

Together with the Metropolitan Police Service, British Transport Police and City of London Police, TfL supports BikeRegister, London's official cycle database, and we will continue to promote this to Londoners through a range of channels. For example, cycle training sessions will be used to convey crucial information on combating theft through cycle marking and secure locking techniques. Boroughs are also leading the way on this: for instance, Waltham Forest has introduced cycle marking as a requirement for users of secure cycle parking hubs at stations in the borough.

We will also work with the cycle industry, including retailers and manufacturers, to extend opportunities for cycle marking and registration to avenues including the points of manufacture, sale and maintenance.

Action 7

Take action on cycle theft by:

- Working in partnership with police and the cycle industry, including retailers and manufacturers, to promote cycle marking and registration through a wider range of channels
- Working with the Government and partners to support the forthcoming National Cycle Security and Safety Strategy in London

Improved access to bikes through cycle share

Almost half of Londoners do not have access to a cycle in their home, and some trips that would be perfect for cycling, such as a quick hop to the office following a longer rail journey, are made more difficult by lack of access to a cycle.

We are taking action to address this by both delivering and shaping bike sharing services in London.

Now in its eighth year, TfL's Cycle Hire scheme, in partnership with Santander, continues to break records for number of hires. In all, 10.5 million cycles were hired in 2017 – the most ever in a calendar year – and 51 per cent of Cycle Hire users started cycling in London because of the scheme.⁵⁶ We continue to improve the service to meet the needs of the people who rely on them. For example, all bikes now feature the cutting-edge Beryl Laserlight for improved visibility on the roads, and customers are now able to use their contactless payment cards to hire a bike.

Alongside contactless, we have improved the customer experience of hiring a bike, making it quicker and easier than before, and we are trialling other innovative measures such as pop-up docking stations and different ways of parking bikes.

Alongside promoting and upgrading our own scheme, we are taking a strategic role with dockless bike sharing, working with boroughs and industry on policy and enforcement, and monitoring the successes and challenges that have arisen from operations to date.

Dockless schemes represent a great opportunity to make cycling more accessible and attractive for Londoners, especially in areas such as outer London, where providing Santander Cycles is less feasible.

We are working with boroughs and London Councils to develop a London-wide framework for dockless bikes. This will make bike sharing simpler for both Londoners and dockless operators, and give TfL and boroughs more power to ensure that schemes are safely and responsibly managed.

Action 8

Improve access to cycles for all Londoners through:

- Improving the Santander Cycles scheme to meet the needs of customers
- Working with boroughs and London Councils to develop a London-wide framework for dockless bike hire to create a simpler system for both dockless operators and users

⁵⁶ TfL customer research, October 2017

Focus box 9



Celebrating the success of Santander Cycles

Since TfL's Cycle Hire scheme was launched in 2010, it has gone from strength to strength and become an iconic part of the city's transport network. Usage of the scheme has grown to record levels: in July 2018, 1.1 million cycles were hired, the most hires seen in any month since the scheme began.

The success of Cycle Hire has been reinforced by our partnership with Santander, which has sponsored the scheme since 2015. This record £43.75m sponsorship deal, the largest public-sector sponsorship in the world, has helped us improve the initiative and promote it to more Londoners.

We will continue to develop Santander Cycles, with a focus on customer needs, and make the scheme even better for Londoners, including overseeing the ongoing roll-out of the next-generation, British-built Santander Cycles. These bikes, which debuted in November 2017, offer a better ride, featuring greater manoeuvrability and a more comfortable seat, among other improvements.



Chapter 7 – Promoting cycling for all Londoners

Every Londoner should be able to enjoy the freedom that cycling can bring, and we will work with schools and communities to give more people the opportunity to cycle.

Alongside the delivery of new infrastructure and digital wayfinding, we are working with partners across London to break down barriers to cycling in local communities and promote cycling to more Londoners, especially those who may not realise that they enjoy cycling – or may not even realise that they can actually cycle.

To achieve this, we are investing a total of £5m every year in a new Healthy Streets Activation Programme. We will target new initiatives where there is most potential for more cycling, with a particular focus on supporting those who experience the greatest barriers to cycling, including currently under-represented groups such as women, BAME people and families. The funding will also be used to boost the level of resource provided to boroughs to deliver these activities, helping them reach as many Londoners as possible.

This section sets out the actions that we will take to make cycling inclusive and appealing to a wider range of Londoners, including:

- Providing community grants to encourage Londoners from all communities to walk and cycle
- Expanding cycle training for adults, children and families, and increasing the number of schools participating in cycle training
- Celebrating cycling and inspiring Londoners with new events and promotions, including car-free days
- Implementing Vision Zero, with better enforcement and safer vehicles to help improve safety, and perceptions of safety, for people cycling

Giving everyone the chance to cycle

Many Londoners will not have cycled since childhood, and some may not even realise that they can cycle at all. By offering people the chance to enjoy cycling through local community groups, and by providing the opportunity for people to use different types of cycles, such as tricycles, hand-cycles, e-bikes and cargo bikes, we can help more Londoners from diverse backgrounds overcome barriers to cycling and build the confidence to choose to cycle more regularly.

To allow people from all walks of life to try cycling, TfL has established a fund that provides grants of up to £10,000 to local communities. Since it launched in 2015, more than 90 local projects (see Focus box 10) have been funded, encouraging more than 16,000 Londoners to cycle. The programme has reached social groups that are traditionally under-represented in cycling, enabling a more diverse range of people to enjoy cycling in London.

We will build on this success by seeking to widen the scheme to encompass both walking and cycling, encouraging more Londoners to bid for funding to promote active travel in their communities.

We will also extend the programme to engage with more under-represented groups across London, with a target to double the number of Londoners encouraged to cycle and walk, through the community grants scheme.



Successful schemes will become exemplars for other communities to learn from and emulate across the Capital. To help communities develop the best possible proposals for cycling and walking grants, we will launch an innovation hub to showcase some of the most successful schemes to a wider audience.

Action 9

Promote active travel to all Londoners by providing annual community grants for walking and cycling, with an aim to double the number of Londoners engaged through the scheme.

Focus box 10

Cycling Grants London

The Cycling Grants London scheme has proved successful in helping overcome barriers to cycling in communities across London. More than 90 local projects and initiatives have been funded since the launch of the scheme in 2015, including:

Limehouse Women's Cycle Project: Run by The Royal Foundation of St Katharine, the project teaches cycling skills to women from the Bengali community. The sessions are led by a female Bengali-speaking instructor and provide an active social network, reducing isolation in the community.

Hackney Bike Workshop: Hackney Bike Workshop is a volunteer-led initiative, teaching bike maintenance skills and providing a professional bike-fitting service. The workshops are open to all, with particular focus on encouraging women, older Londoners and people with reduced mobility to take up cycling.

Ride Side by Side: Ride Side by Side provides people who would normally rely on carers or subsidised taxis with both an alternative way to get around and the opportunity to enjoy the sensation of cycling.



Training and encouragement for adults, children and families

Cycle training is an effective way of increasing confidence among adults, children and families, and so encouraging more people to cycle. Ninety-six per cent of Londoners said that they felt more confident after cycle training, and 75 per cent of Londoners said that they cycled more after a cycle training session.⁵⁷

Boroughs and TfL have nearly tripled adult cycle training since 2014, with 21,000 adults and 33,000 London schoolchildren trained in 2017/2018.

In line with our insight-led approach, we will seek to deliver cycle training in a coordinated and targeted way, aimed at those most likely to switch from the car.

We will enable more families to cycle by promoting cycle training to the parents of the children who have received training at school. We will also encourage greater take-up among BAME audiences and women.

Action 10

Give more Londoners the confidence to cycle by increasing levels of cycle training, including:

- Doubling the annual number of adults completing cycle training, from 21,000 adults trained in 2017 to 42,000 adults trained each year from the end of 2021 onwards
- Increasing the number of children completing cycle training by more than 50 per cent, from 33,000 children trained in 2017 to 55,000 children trained each year from the end of 2022 onwards
- Increasing the percentage of schools participating in cycle training from 50 per cent in 2017 to 66 per cent by 2024

TfL's STARS (Sustainable Travel: Active, Responsible, Safe) programme is an accreditation scheme for schools, nurseries and colleges to inspire young Londoners to travel sustainably, actively, responsibly and safely on the journey to school.

STARS schools on average see a six per cent decrease in car travel to and from school and a four per cent increase in active travel. More than 1,400 London schools are currently STARS accredited, representing half of all schools in London, and next year we will increase this to 1,600. Gold-accredited schools are particularly effective at reducing car use and encouraging more walking and cycling to schools, and we will look to double the number of such schools by 2024.

To maximise the impact of the scheme on improving the quality of life for younger Londoners, we will target new schools in areas with poor air quality, high numbers of road casualties and the most active travel potential.

Action 11

Support more younger Londoners to cycle through the STARS programme, by:

- Increasing the number of STARS-accredited schools by 200 by 2019
- Increasing the number of gold-accredited schools from 500 to 1,000 by 2024

⁵⁷ Follow-up surveys with cycle training participants, 2017

Celebrating cycling and inspiring Londoners

Our research tells us that many Londoners recognise the benefits of cycling, and think that it is an appealing way to travel.⁵⁸ However, these positive attitudes are rarely enough to make people actually start cycling. We need them to go beyond agreeing that cycling is a good idea to actively wanting to do it.

To help build the desire for cycling, we have launched a new communications campaign, 'Walk, Cycle, Discover', showcasing the pleasures and experiences that can be enjoyed when you cycle or walk instead of taking the car. This will be supplemented with further initiatives targeted at newly launched cycle routes and other street changes. For instance, the launch of Cycle Superhighway 6 in September 2018 was supported by local promotion and activities involving schools and communities.

Action 12

Deliver annual promotional activity, including:

- London-wide campaigns to promote active travel, including the 'Walk, Cycle, Discover' campaign
- Targeted action to encourage more people to cycle on new routes and infrastructure

Cycling events and other car-free days can help more Londoners experience the joy of cycling, and encourage them and their families to cycle.

The most iconic of these events is Prudential RideLondon, the world's largest festival of cycling. In 2018, more than 70,000 Londoners enjoyed cycling on eight miles of traffic-free streets in central London during the FreeCycle event. This event is about giving more Londoners the opportunity to try cycling, and our monitoring shows that more than 30,000 Londoners have continued to cycle after participating in RideLondon.

Smaller events can also have a big impact on encouraging more Londoners to walk and cycle. As set out in the Walking action plan, we will work with boroughs to encourage more local and community events.

Action 13

Give more people the opportunity to experience cycling by holding car-free events, including:

- Hosting the Prudential RideLondon festival of cycling each year
- Encouraging boroughs to support smaller-scale events on local streets

Figure 9: Example of the 'Walk, Cycle, Discover' campaign



58 Attitudes to Cycling survey, TfL, autumn 2017

Improving enforcement under Vision Zero

In 2017, 10 people cycling were fatally injured in collisions on London's streets, and 675 were seriously injured. This situation is neither acceptable nor inevitable, which is why London's Vision Zero aims to eradicate all deaths and serious injuries as a result of road collisions by 2041. The Vision Zero action plan,⁵⁹ published in July 2018, sets out a detailed plan for reducing road danger and achieving our casualty reduction targets. Several of these activities are profiled below, and the full range of actions can be read in the Vision Zero action plan.

Road danger deters people from starting to cycle in London, and can also be off-putting to people who cycle regularly. Academic research suggests that, over the course of a year, people who cycle regularly face an average of 450 'close pass' or other near-miss incidents from cars, with around one eighth of these judged to be 'very scary'.⁶⁰ Operation Close Pass (see Focus box II) aims to reduce these incidences.

Innovative techniques, including virtual reality technology, are also being used to widen public awareness of road danger. The Metropolitan Police's Cycle Safety Team is developing a library of virtual and augmented reality videos, including a virtual reality version of

Exchanging Places, which allows people to experience HGV 'blind spots' from an HGV driver's seat.

Safer lorry standards for Vision Zero

Between 2015 and 2017, heavy goods vehicles (HGVs) were involved in 63 per cent of collisions resulting in the death of a person cycling in London. Another key part of Vision Zero is taking action to address this through the development of a new Direct Vision Standard and associated HGV Safety Permit scheme for London.

Using a star system, the Direct Vision Standard rates HGVs from zero (lowest) to five (highest), based on how much an HGV driver can see directly through the cab windows. Permits for the scheme will be introduced in October 2019. Enforcement will then begin in October 2020, with standards becoming more stringent over time.

We are also taking action to reduce the risk that other large vehicles on London's roads can cause to people cycling, with a Bus Safety Standard to be incorporated into all London Buses and bus operator contracts by the end of 2018.

Further details of these initiatives, including timelines, can be found in the Vision Zero action plan.

Focus box II



Credit: West Midlands Police

Operation Close Pass

The Metropolitan Police Service's Cycle Safety Team has been running the 'Give Space for Cyclists' Close Pass operation in London since spring 2017.

The operation involves officers in plain clothes, wearing video cameras, and riding unmarked bikes to identify and deal with the offences that most deter people from cycling.

The Cycle Safety Team will go to any location, at any time, based on intelligence and complaints, to ensure drivers properly obey the rules of the road. The Team will stop and engage drivers committing any of these offences. The aim of the initiative is not only to reduce danger for people cycling in London, but also to change the behaviour and attitudes of those driving.

As well as Operation Close Pass, the Cycle Safety Team works to engage and educate all road users, and conduct roads policing enforcement against unsafe and irresponsible behaviour. They are the UK's first roads policing team to conduct enforcement through cycle patrols.

⁵⁹ Vision Zero action plan, TfL, July 2018

⁶⁰ Investigating the rates and impacts of near misses and related incidents among UK cyclists, Rachel Aldred and Sian Crosweller, Journal of Transport & Health, September 2015



Chapter 8 – Delivering the Plan

To achieve the vision and targets of this Plan, commitment, ambition and action will be required from TfL, boroughs and partners across the Capital.

We are committed to achieving the vision of the Mayor's Transport Strategy. However, we will need support, input and action from boroughs, businesses and communities across London.

Our target in this Plan is to enable 1.3 million cycle journeys to be made every day by 2024. This will be supported by the £2.3bn funding for Healthy Streets included in TfL's latest Business Plan. This investment underwrites many of the actions in the Plan; every action will need the input, involvement and enthusiasm of all our partners.

We need to work collectively to achieve the vision of this Plan, and we must all embody the step-change in ambition that it heralds. Action and commitment will be needed from partners across the Capital, such as:

- London boroughs to continue improving streets across London for cycling, and to lead this Plan at a local level

- The Metropolitan Police Service to help achieve Vision Zero
- The private sector to innovate and experiment with the open data that we are providing
- Businesses to help make the economic arguments for growing cycling
- Cycling advocates to continue making the case for cycling and raising the profile of the benefits, and
- Communities across London to drive change in their local areas and help everyone in London share in the benefits of cycling

Delivering the Cycling action plan

The actions in this plan will create better streets for cycling across London, with more and improved routes as part of a growing London-wide cycle network. They will enable a marked change in the level of information we can provide about cycling on London's streets, allowing thousands more people to easily plan cycling journeys. And they will help to break through social and cultural barriers to cycling, enabling all Londoners to experience and celebrate the joy of cycling.

We will monitor progress towards the targets of this Plan, reporting annually in the Travel in London report.

We will also continue to monitor the impact of all of our investment in cycling, to build an even stronger picture of what interventions are most effective at getting new people cycling.

All of these actions are underwritten by sustained funding for cycling, and supported by the robust, evidence-led approach set out in Chapter 4.

By delivering this Plan, we will not only be helping increased numbers of Londoners to enjoy the benefits of cycling, but will also be laying the foundations for London's future success.

While our long-term vision is for 2041, the time to press ahead with action on cycling is now, and the Cycling action plan marks an ambitious change in the planning and delivery of cycling initiatives.

Further information and guidance

Any comments or queries relating to the Cycling action plan should be directed to activetravel@tfl.gov.uk



Appendix I – Cycling delivery plan, 2019-2024

To support the Cycling action plan and help achieve the cycling targets for London, TfL has allocated significant levels of funding over the next five years to deliver new, high-quality cycling infrastructure across the Capital.

This section sets out the specific new routes and other projects that we will work with boroughs to deliver over the life of this Plan and beyond.

We are committed to delivering these much-needed projects to the timescales shown below. However, as with all changes to London's streets, there are risks inherent in achieving this. All dates shown are subject to consultation, and

issues such as legal challenges, highway authorities withdrawing support, and the need to obtain consents and coordinate works with third-party and other schemes can all cause delays in delivery. Only with the support of boroughs, businesses and communities across London can we successfully deliver the improvements for cycling to help the Capital continue to grow and succeed.

New sections of the cycle network

	Start construction				Scheme opens		
	Under construction	2019/2020	2020/2021 – 2023/2024	Beyond April 2024	2019/2020	2020/2021 – 2023/2024	Beyond April 2024
Bloomsbury to Camden Town	✓				✓		
Clapham Common to Wimbledon	✓				✓		
Vauxhall to Waterloo	✓				✓		
Victoria Park to Wanstead Flats	✓				✓		
Wandsworth to Teddington	✓				✓		
Beckton Alps to Barking	✓					✓	
Bermondsey to Catford	✓					✓	
Ealing to Greenford	✓					✓	
Elephant & Castle to Crystal Palace	✓					✓	
Greenwich to Bexleyheath	✓					✓	
Greenwich to Kent House	✓					✓	

	Start construction				Scheme opens		
	Under construction	2019/2020	2020/2021 – 2023/2024	Beyond April 2024	2019/2020	2020/2021 – 2023/2024	Beyond April 2024
Woolwich to Lee Green	✓					✓	
Acton to Wood Lane		✓			✓		
Apex Junction to London Fields		✓			✓		
Blackfriars to Waterloo		✓			✓		
Camden to Regent's Park		✓			✓		
Holland Park to Notting Hill		✓			✓		
Hoxton to Bethnal Green		✓			✓		
Kensington High Street to Holland Park Roundabout		✓			✓		
Olympia to Holland Park		✓			✓		
Putney Bridge to Hammersmith		✓			✓		
Shepherdess Walk to Haggerston Park		✓			✓		
Southwark to Canada Water		✓			✓		
Bethnal Green to Dalston		✓				✓	
Camden to Tottenham Hale		✓				✓	
Canada Water to Deptford via the Thames Path		✓				✓	
Edgware Road to Tottenham Court Road		✓				✓	
Farringdon to Bowes Park via Finsbury Park		✓				✓	
Farringdon to Old Street		✓				✓	
Greenwich to Tower Bridge		✓				✓	
Hackney to the Isle of Dogs		✓				✓	
High Street Kensington to Notting Hill		✓				✓	
Kennington Park to Burgess Park		✓				✓	
Olympia to Brentford		✓				✓	
Swiss Cottage to the West End		✓				✓	

	Start construction				Scheme opens		
	Under construction	2019/2020	2020/2021 – 2023/2024	Beyond April 2024	2019/2020	2020/2021 – 2023/2024	Beyond April 2024
Whitechapel to Stepney		✓				✓	
Angel to Barbican			✓			✓	
Brentford to Hounslow			✓			✓	
Colliers Wood to Sutton via Morden			✓			✓	
Dalston to Dalston Kingsland			✓			✓	
Greenwich to Woolwich			✓			✓	
Hammersmith to Twickenham			✓			✓	
Hornsey to North Finchley via Alexandra Park			✓			✓	
Ilford to Barking Riverside			✓			✓	
Kings Cross to Colebrook Row			✓			✓	
Kings Cross to Penton Street			✓			✓	
Kingston to Teddington via Bushy Park			✓			✓	
Lea Bridge to Dalston			✓			✓	
Liverpool Street Station to Sun Street			✓			✓	
Marylebone to St John's Wood			✓			✓	
Peckham Rye to Streatham			✓			✓	
Rosebery Avenue to Moorfields			✓			✓	
Rotherhithe to Peckham			✓			✓	
Smithfield Market to Angel			✓			✓	
Smithfield to Farringdon Road			✓			✓	
St George's Circus to New Kent Road			✓			✓	
Tooley Street to Tower Bridge Road			✓			✓	
Wembley to Willesden			✓			✓	
Wood Lane to Notting Hill Gate			✓			✓	

	Start construction				Scheme opens		
	Under construction	2019/2020	2020/2021 – 2023/2024	Beyond April 2024	2019/2020	2020/2021 – 2023/2024	Beyond April 2024
Wembley to Harrow Weald			✓			✓	
Whitechapel to Shoreditch			✓			✓	
Brentford to Twickenham			✓				✓
Camden Town to Euston			✓				✓
Chelsea to Knightsbridge			✓				✓
Commercial Road to Columbia Road			✓				✓
Croydon to Worcester Park			✓				✓
Hounslow to Richmond			✓				✓
Lower Sydenham to Bromley			✓				✓
Oval to Streatham			✓				✓
Paddington to Notting Hill			✓				✓
Pimlico to St James's Park			✓				✓
Tate Modern to London Bridge			✓				✓
Tottenham Court Road to Clerkenwell			✓				✓
Warwick Avenue to Regent's Park			✓				✓
Canonbury to Highgate				✓			✓
Colliers Wood to Wimbledon Chase				✓			✓
Covent Garden to Charing Cross Road				✓			✓
Kennington Park to Lambeth North				✓			✓
Kentish Town to Gospel Oak				✓			✓
York Way to St Pancras Station				✓			✓
Continued delivery of pipeline of cycle routes				✓			✓

Borough-led projects

	Start construction				Scheme opens		
	Under construction	2019/2020	2020/2021 – 2023/2024	Beyond April 2024	2019/2020	2020/2021 – 2023/2024	Beyond April 2024
Waltham Forest Mini-Holland							
Forest Road	✓				✓		
Lea Bridge Road	✓				✓		
Leyton to Blackhorse Road	✓				✓		
Leyton town centre	✓				✓		
Markhouse Village	✓				✓		
Walthamstow town centre and gyratory	✓				✓		
Forest Road / Blackhorse Road Junction		✓			✓		
	Start construction				Scheme opens		
	Under construction	2019/2020	2020/2021 – 2023/2024	Beyond April 2024	2019/2020	2020/2021 – 2023/2024	Beyond April 2024
Enfield Mini-Holland							
A1010 route South	✓				✓		
Enfield Town to Meridian Water	✓				✓		
Haselbury Road to Brettenham Road		✓			✓		
North Middlesex Hospital to Alywood Academy		✓			✓		
Palmers Green to Edmonton Green		✓			✓		
Turkey Street Station to Albany Leisure		✓			✓		
A1010 route North		✓				✓	
Enfield Town to Ponders End			✓			✓	

Kingston Mini-Holland	Start construction				Scheme opens		
	Under construction	2019/2020	2020/2021 – 2023/2024	Beyond April 2024	2019/2020	2020/2021 – 2023/2024	Beyond April 2024
Kingston Station	✓				✓		
Kingston to Surbiton	✓				✓		
Wheatfield Way Greenway	✓				✓		
Kingston Hill / Kingston Vale	✓					✓	
New Malden to Raynes Park	✓					✓	
Ewell Road		✓			✓		
Cambridge Road / Kingston Road			✓			✓	
Riverside Boardway			✓			✓	
Liveable Neighbourhoods programme	Start construction				Scheme opens		
	Under construction	2019/2020	2020/2021 – 2023/2024	Beyond April 2024	2019/2020	2020/2021 – 2023/2024	Beyond April 2024
Ealing			✓			✓	
Greenwich			✓			✓	
Hackney			✓			✓	
Haringey			✓			✓	
Havering			✓			✓	
Lewisham			✓			✓	
Waltham Forest			✓			✓	
Future tranches of Liveable Neighbourhoods			✓	✓		✓	✓

Safer Junctions programme

	Start construction				Scheme opens		
	Under construction	2019/2020	2020/2021 – 2023/2024	Beyond April 2024	2019/2020	2020/2021 – 2023/2024	Beyond April 2024
Euston Road / Judd Street junction	✓				✓		
Highbury Corner	✓				✓		
Marylebone Road / Baker Street junction	✓				✓		
Holloway Road / Parkhurst Road junction		✓				✓	
Holloway Road / Tollington Road junction		✓				✓	
Rotherhithe Roundabout		✓				✓	
Seven Sisters Road / Green Lanes junction		✓				✓	
Seven Sisters Road / High Road junction		✓				✓	
Seven Sisters Road / Woodberry Grove junction		✓				✓	
14 further Safer Junctions planned to start construction during 2019/2020		✓			✓	✓	
Lambeth Bridge North			✓			✓	
Waterloo Roundabout			✓			✓	
21 further Safer Junctions funded through the Healthy Streets Portfolio			✓			✓	✓

Other Healthy Streets projects

	Start construction				Scheme opens		
	Under construction	2019/2020	2020/2021 – 2023/2024	Beyond April 2024	2019/2020	2020/2021 – 2023/2024	Beyond April 2024
Old Street Roundabout	✓				✓		
Stratford Gyratory	✓				✓		
West End Project	✓				✓		
Beddington Gateways		✓			✓		
Hayes Town Centre		✓			✓		
Beam Parkway		✓				✓	
Nine Elms Lane			✓			✓	
Stoke Newington Gyratory			✓			✓	
Vauxhall Cross			✓			✓	

Rotherhithe to Canary Wharf crossing

	Start construction				Scheme opens		
	Under construction	2019/2020	2020/2021 – 2023/2024	Beyond April 2024	2019/2020	2020/2021 – 2023/2024	Beyond April 2024
Rotherhithe to Canary Wharf crossing			✓				✓

