

Gearing up

An investigation into safer cycling in London

November 2012



Copyright

**Greater London Authority
November 2012**

Published by
Greater London Authority
City Hall
The Queen's Walk
More London
London SE1 2AA
www.london.gov.uk

enquiries 020 7983 4100
minicom 020 7983 4458

ISBN: 978-1-84781-535-4

This publication is printed on recycled paper

Transport Committee Members

Caroline Pidgeon, Chair	Liberal Democrat
Valerie Shawcross, Deputy Chair	Labour
Jennette Arnold	Labour
Victoria Borwick	Conservative
Tom Copley	Labour
Andrew Dismore	Labour
Roger Evans	Conservative
Darren Johnson	Green
Joanne McCartney	Labour
Steve O'Connell	Conservative
Murad Qureshi	Labour
Richard Tracey	Conservative

Terms of reference for the investigation

The Committee agreed to investigate cycling in London at its meeting on 14 June 2012, with the following terms of reference:

- To understand the issues facing current cyclists and the barriers to potential cyclists;
- To examine the plans proposed by the Mayor and Transport for London (TfL) to improve cycling safety and increase cycling modal share; and
- To generate recommendations to the Mayor and TfL to improve the cycling environment and cycle safety in London.

Contents

Chair's foreword	6
Executive summary	7
Introduction	10
Chapter 1 – Is the cycling revolution happening?	12
Chapter 2 – Investing in cycle safety	20
Chapter 3 – Safe cycling route infrastructure	29
Chapter 4 – Improving interaction with other road users	40
Conclusion	47
Appendix 1 List of recommendations	49
Appendix 2 Stages in the investigation	54
Appendix 3 Orders and translations	56
Appendix 4 Principles of scrutiny page	57
Endnotes	58

Chair's foreword



The future of cycling in London is at a critical juncture.

This summer London was the scene of numerous cycling highs among British athletes in the Velodrome and at the Olympic and Paralympic road cycling events. Interest in cycling has soared, with the 'Olympic effect' leading to 20 per cent of people saying that they would like to cycle more. Cycling retailers expect the market to grow by 5 per cent in 2012.¹

Away from the euphoria of national successes, cyclists on our streets face daily challenges to their safety. Soberingly, London has continued to witness the tragedy of people killed and seriously injured – and many slightly injured – when using their bikes on the capital's roads. This is also the year that The Times launched its *Cities fit for Cycling* campaign, mayoral candidates took part in election hustings dedicated to cycling, and MPs launched a cross-party inquiry into the barriers that stop people cycling in the UK.

This is a crucial time if the Mayor wants to get more people cycling. The Mayor has an opportunity to capitalise on the growing interest in cycling to make it a major mode of transport. We have heard that many Londoners do not think London is an inviting place to cycle, and they want to see the Mayor and TfL build infrastructure that offers physical protection to cyclists. Our report finds that cycling has remained at the political and financial margins of decision-making about London's roads. In the Netherlands and Copenhagen, city leaders took bold decisions in the 1970s to create safe and attractive places for cycling. In contrast, London has been left behind and has failed to reap the benefits of lower air pollution, improved health and reduced motor traffic congestion. This has to change.

We want to see London become a model for cycling best practice in the UK. Cycling in London could be as safe and popular as other European cities if the Mayor and TfL have the vision and energy to lead a properly resourced cycling revolution. The Mayor's new vision for cycling must create a genuine step-change about the road space given to cycling. With strong political will and investment, 2012 could be the turning point for cycling in London.

We would like to thank everyone who contributed to our investigation.

Caroline Pidgeon AM, Chair of the Transport Committee

Executive summary

The cycling revolution

London has a long way to go to achieve the Mayor's objective of a cycling revolution. Only 2 per cent of journeys in London are made by bicycle. This falls short of other UK cities like Bristol, Cambridge and Hull, and it is significantly less than the Netherlands – where 26 per cent of journeys are made by bicycle – and Copenhagen, which sees 36 per cent of work and study-related trips cycled. The Mayor's target to increase cycling to 5 per cent by 2026 is unambitious; we propose the Mayor brings forward his current target to 2020, and aims for 10 per cent cycling mode share in 2026.

Concern about cycle safety is an important barrier to more cycling. Our analysis shows that despite improvements in the cycle casualty rate between 2001 and 2006, the cycle casualty rate worsened between 2007 and 2010. In other countries where cycling has grown, cycling casualties have dropped. Based on London's data, we doubt whether the safety in numbers effect is evident in the capital.

Political will is needed to make cycling a safe and mainstream form of transport in London as in leading cycling cities. We call on the Mayor to appoint a Cycling Commissioner to take responsibility for the Mayor's cycling vision, with a clear remit to influence decision-making and the cycling budget.

Investing in cycle safety

TfL must give increased priority to cycling spending in its new business plan, to shift cycling from an option for the few, to a safe and attractive choice of transport for all Londoners. Just 7 per cent of the 4.3 million potential cycling trips in London are currently cycled.

Cycling has increased as investment in cycling has risen; however, leading cycling cities spend more than London on cycling. TfL's spending on cycling is approximately £10 per capita, which is half the amount on cycling spent across the Netherlands and Copenhagen. London's spend on cycling represents less than 1 per cent of TfL's budget – £73m in 2012/13 – compared to Edinburgh City Council which has set aside 5 per cent of its transport budget for cycling over the next four years.

We are looking to the Mayor to double funding for cycling in 2013/14 and to use the TfL business plan to set out the investment London will require matching cycling levels in leading cycling cities. Outer London

boroughs have much of London's cycling potential but they have received a small fraction of the recent increases in cycling investment. We want the Mayor to dramatically increase his funding for the Biking Boroughs programme and to consider the case for earmarked cycling funding for boroughs.

Safe cycling infrastructure

Political will is needed to make cycling a mainstream form of transport that is supported by high quality, safe cycling routes. There could, and should, be more segregated cycle space in London. Currently, decisions to give cyclists protected space are often turned down because there is a lack of political will to take space from motorised traffic.

In the junction review, we want assurance that the Mayor will deliver on his pledge to provide continental-style cycling facilities, that he will prioritise the removal of gyratories and complex junctions and introduce 20mph limits where appropriate. In developing cycle route infrastructure, we want the Mayor to draw on good practice in New York and experience from London 2012, to trial new road layouts which can provide protected space for cyclists. His new 'super corridor' to connect Cycle Superhighways in Central London will be a litmus test for his commitment to incorporate Dutch design principles in London's cycling infrastructure. Crucially, the Department of Transport must enable TfL to trial internationally-recognised cycle safety technology.

Improving interaction with other road users

Improving cycle safety will also require the Mayor and TfL – in partnership with the police and government – to improve the interaction between cyclists and other road users.

Heavy Goods Vehicles are a particular risk to cyclists in London, and they are involved in half of cycling fatalities. TfL and the boroughs are engaged in a range of schemes to improve HGV safety, involving retrofitting safety equipment, and mandating cycle safety training, using levers such as minimum standards in procurement. The Mayor and TfL should continue to focus on raising HGV safety standards.

Our report also deals with enforcement against dangerous behaviour by road users. We find that London could learn from the Netherlands, where motorists are held at least 50 per cent responsible for collisions involving cyclists. Better education could help to reduce cycling

casualties, but currently, not all London children receive cycle training. We call on TfL to develop a plan to ensure all children have the opportunity to undertake training at school.

There is significant potential for many more cycling journeys in London if cycling was safer. The Mayor and TfL must make tough political and financial decisions to invest in infrastructural, enforcement, and training measures. London can draw on a wealth of evidence from other countries and our own experience from the 2012 Games about creating safe space for cycling.

Introduction

The Mayor aims to achieve a ‘cycling revolution’ in London. Cycling is a Mayoral priority, accompanied by a commitment to increase cycling and to learn from leading cycling nations such as the Netherlands and Denmark.

Cycling in London has become more popular over the past decade, and Transport for London (TfL) is spending more on cycling than before, but cycling casualties have also risen (in absolute numbers) in recent years.

The starting point for our investigation is the safety of cyclists. Cycle casualties and the fear of injury deter both more cycling, and cycling by potential cyclists. This work follows our previous investigations into cycling, including cycle parking (2009) and two of the Mayor’s cycling schemes, Cycle Hire and Cycle Superhighways (2010).

We have spoken to cycling stakeholders, cyclists and potential cyclists to understand their views and concerns about what it is like to cycle in London. We heard from expert guests at our meetings in July and September from the UK and abroad, about how London could be a safer and more inviting place to cycle. In September we visited Bow roundabout to see how TfL has made changes to the eastbound cycling facility. We also met with London Councils’ Transport and Environment Committee to hear boroughs’ views about cycling in London and efforts to improve safety and increase take-up.

This report presents our findings on what needs to happen if a genuine cycling revolution is to take place in London. We examine what a cycling revolution should look like, who should benefit, and the political and financial resources needed to achieve it. Our report does not aim to re-present in detail the wealth of research evidence on how to make cycling safer, or the benefits of cycling. Rather, it sets out the steps necessary at the political decision-making level to make safety the number one objective for cycling, enabling all Londoners to make a positive choice to cycle.

The evidence we have received suggests there is a strong case for improving cycle safety – and perceptions of the safety of cycling – in order to increase cycling in London. We have also taken evidence which suggests improvements for cyclists do not necessarily disadvantage other road users. Ultimately there is no doubt that, if

they are successful in increasing cycling rates, they could help the Mayor improve health, congestion, and livability for all Londoners.

Chapter 1 of this report looks at current cycling levels, and cycle safety performance and leadership for cycling at TfL. In Chapter 2 we examine the Mayor's and the boroughs' current and future cycling investment. Chapter 3 discusses the need for safe cycling infrastructure. Chapter 4 highlights a series of measures to reduce the risk of conflict between cyclists and other road users, including further action on Heavy Goods Vehicles and enforcement.

Chapter 1 – Is the cycling revolution happening?

The ‘Cycling Revolution’ will take place if Londoners can see that cycling is safe. A genuine cycling revolution should be ambitious and equitable, enabling all Londoners to cycle.

Launching his vision for a ‘Cycling Revolution’ in 2010, the Mayor set a target to increase cycling modal share to 5 per cent of all journeys by 2026.

In 2010 the Mayor also developed a Cycle Safety Action Plan, aimed at reducing casualties on London’s roads. It identified 52 action points under nine key areas, ranging from infrastructure measures, to enforcement, and research and monitoring.²

Levels of cycling

A small proportion of Londoners opt to cycle compared to residents in a number of leading cycling cities in the UK. Although levels of cycling in London are rising,³ only 2 per cent of journeys (equivalent to 540,000 journeys per day)⁴ are currently cycled in London. Elsewhere, cycling is the transport choice for 5 per cent of journeys in Bristol, 21 per cent of trips in Cambridge, and 12 per cent in Hull.⁵

London also compares unfavourably with some other countries. 26 per cent of all trips are cycled across the Netherlands,⁶ Berlin’s cycling mode share is 10 per cent,⁷ and in Paris it is 3.1 per cent.⁸ Copenhagen residents make 36 per cent of trips to work and educational establishments by bicycle.⁹ Cycling in the US has historically been at lower levels than in parts of Europe, yet there are relatively high commuter cycling rates in some major cities including Portland (5.5 per cent), Seattle and San Francisco (2.9 and 2.8 per cent respectively).¹⁰

The Mayor’s ambition

The ‘Cycling Revolution’

The Mayor plans to achieve a ‘cycling revolution’ in London. He has set a target for increasing cycling and established ten conditions that would need to be met; including cycling being recognised as a major transport mode, reducing cycling casualties, and maximising investment in cycling.¹¹

The Mayor and others are working to increase levels of cycling using a range of promotion and engagement initiatives. From August 2013, the Mayor and TfL will run *Ride London*, a cycling festival involving

both competitive events and open access to cycling on closed roads. ‘Businesscycle’, an online business engagement initiative run by TfL in partnership with British Cycling and others, provides information for employers on how to encourage cycling in the workplace.¹²

Community-based schemes such as *Cycle Buddy* work to encourage cycling by bringing together people who have similar cycling and fitness interests.¹³

The Mayor’s Cycling Revolution indicates the Mayor intends cycling to continue developing as it has done in recent years. His ambition for cycling is based on levels of cycling continuing to rise at similar rates¹⁴ to those seen in the past decade, to reach 5 per cent cycling modal share by 2026.

Drilling down into the Mayor’s aims for the cycling revolution, his investment strategy is based on targeting ‘near market’ groups, segmenting the population by demographic groups more likely to cycle.¹⁵ Those groups identified by TfL as more likely to cycle include ‘urban living’, ‘young couples and families’, ‘high earning professionals’, and ‘suburban lifestyle’. In contrast, TfL’s analysis identifies ‘hard pressed families’, ‘manual trades’ and Londoners in ‘comfortable maturity’ as having lowest propensity to cycle.¹⁶ We recognise that constrained resources in the current economic climate are likely to have influenced TfL’s decision to target the near market.

We consider that the Mayor’s cycling revolution should be ambitious and that investment in cycling should enable Londoners from all backgrounds to access safe cycle routes. Our evidence shows that cycling is a transport choice for people from all backgrounds in places such as the Netherlands and Copenhagen, and that it is not limited to more economically advantaged groups. Some work is underway to make cycling more accessible in London. The boroughs of Hackney and Ealing, for example, have retrofitted cycle stands and lockers on housing estates to address a lack of secure cycle parking.¹⁷ However, if TfL does not invest greater efforts in encouraging harder-to-reach groups to cycle, ambitious targets for cycling in London are unlikely to be met.

The Mayor’s cycling target

The Mayor aspiration for increasing cycling is lower than other cities. His target is to increase cycling by 5 per cent by 2026. TfL thinks that this target will be met.¹⁸ In comparison, the City of Copenhagen has a

*‘Unlike the UK, in other European countries cycling is distributed evenly across all income groups and is a mainstream mode of transport.’ –
Sustrans*

target to make cycling the mode of choice for 50 per cent of commuter and education-related trips in 2015, up from 36 per cent in 2010.¹⁹ Cyclists' organisations told us that the Mayor's target for London is unambitious.²⁰ If there is going to be a cycling revolution in London, the Mayor should aim for cycling modal share to match that in leading cycling cities.

The Mayor should use his new 2020 Vision statement to establish a new and more ambitious target for cycling in 2020. The Mayor specifically highlighted cycling in his post-election commitment to produce a 2020 vision. He announced that the document – due to be published by the end of 2012 – would establish a set of transport, spatial and quality of life outcomes to provide a vision for London's growing population.²¹ In our view, a new, higher target for cycling would signal the Mayor is committed to his aim to make London a city where 'cycling is recognised as a major transport mode right across the capital, from central London to the outer boroughs'.²²

'I have two sons and two grandsons who regularly cycle and I fear for them on London's roads. At 71 I would also like to cycle myself but wouldn't dare.' – Female respondent

Cycle safety in London

Although cycling is increasing in London, safety performance gives cause for concern. Fear of injury is a common theme in our stakeholder evidence²³ and the views we have received from members of the public, as described by one commuter: *'The perception of my colleagues when I tell them that I commute to work by bike is universally: "I would never do it, it's too dangerous"'*.

Cycling casualty data

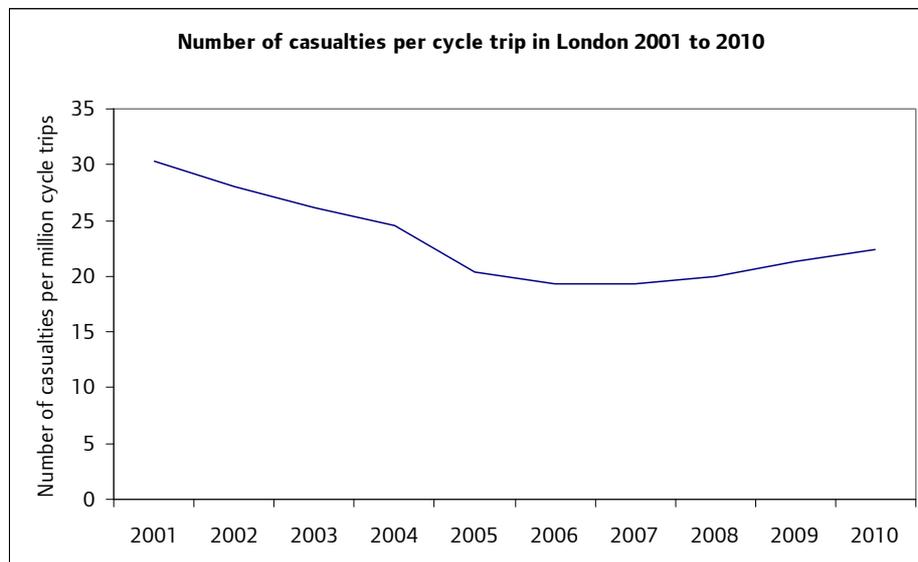
London has witnessed an increase in the number of cycling casualties over the last 10 years. TfL's data (Table 1) show that while there was a slight decline in all degrees of cycling casualties in London between 2001 and 2005, the number of cycling casualties – in absolute terms – has increased since 2006. The rise since 2006 has occurred across all types of cycling casualty: slight, serious and fatal. The number of cycling casualties rose by 50 per cent between 2006 and 2011.

Table 1: Pedal cyclist casualties in London 2001-2011²⁴

Year	Pedal cyclist injuries in London (all roads)			
	Slight injuries	Serious injuries	Fatal injuries	Total
2001	2857	444	21	3322
2002	2648	394	20	3062
2003	2616	421	19	3056
2004	2620	332	8	2960
2005	2523	351	21	2895
2006	2566	373	19	2958
2007	2509	446	15	2970
2008	2757	430	15	3202
2009	3236	420	13	3669
2010	3540	457	10	4007
2011	3926	555	16	4497

Cyclist casualties need to be taken in the context of an increase in cycling. TfL’s data show that the rate of cyclists injured on London’s roads is lower than it was in 2001, as the number of cycling journeys has increased.²⁵ Our analysis (Graph 1) shows that there were improvements in the cyclist casualty rate until 2006. Since then there has been an increase in the number of casualties per million cycle journeys. Therefore, we are concerned that the risk of injury to cyclists increased between 2007 and 2010.

Graph 1: Cycling casualties per cycle trip 2001 – 2010²⁶



Moreover, TfL failed to achieve its recent target to improve cycle safety and it has lowered its subsequent target. TfL aimed to reduce the number of cyclists killed or seriously injured (KSI) by 50 per cent by 2010 compared to the 1994-98 average, but the actual reduction achieved was 18 per cent.²⁷ Looking ahead, TfL has proposed a lower cyclist casualty reduction target for 2020. The draft Road Safety Plan aims to reduce KSI cycling casualties by 40 per cent compared to the 2005-09 average.²⁸

We can also look at how changes in cycling casualty rates in London compare with other cities and countries. New York, like London, has witnessed significant increases in cycling. Although cycle safety (in relation to the increase in cycling) has improved over the last ten years in London, comparison with New York cycling data would suggest that it is improving less quickly than in New York. In the 10-year period between 2001 and 2010, New York recorded a drop of 72 per cent in the rate of cyclist KSIs, based on data collected on cyclists entering central Manhattan.²⁹ In the same period, TfL recorded a drop of 55 per cent³⁰ in rate of cyclist KSIs on the Transport for London Road Network (TLRN).³¹ This is based on an increase in cycling of 255 per cent in New York,³² and 160 per cent³³ in London. While the figures from the two cities are not directly comparable, they show, at least in some areas, that other cities may be finding innovative ways to reduce casualties more quickly than in London.³⁴

The 'Safety in numbers' effect

Evidence from other countries indicates that higher cycling rates have led to fewer casualties. The Dutch Cycling Embassy told us that as cycling increased in the Netherlands in the 1970s and 1980s, cycling fatalities dropped. They attributed this to: a shift from motorised to bicycle transport; greater awareness of cyclists and cycling; and to infrastructural measures that separate cyclists from large volumes of motor traffic.³⁵ Likewise, we heard that in Copenhagen, as cycling grew by 50 per cent between 1995 and 2010 the risk of cycle casualties reduced four-fold in the same period.³⁶ The graph below³⁷ shows that there are fewer cyclist fatalities in countries where bicycle usage is higher:

Graph 2: Relationship between fatal casualties and distance cycled

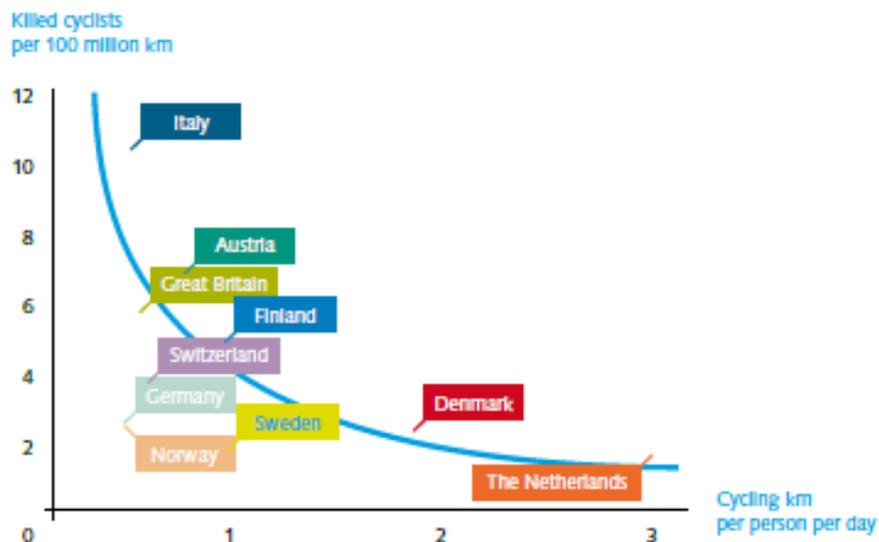


Figure 8: Relation between accidents and bicycle usage

The Mayor believes the ‘safety in numbers’ effect will improve cycling safety in London but this is not currently evident. In the Cycle Safety Action Plan, the Mayor and TfL note that ‘One of the most effective strategies to increase the safety of cycling may be to encourage more cycling and more cyclists.’³⁸ In our view, this is at odds with TfL’s evidence to the Committee suggesting that increases in cycling casualties in 2011 should be seen in the context of an increase in the number of cyclists.³⁹ Our analysis in Graph 1 shows that the safety in numbers effect has not prevented an increase in the cycling casualty rate between 2007 and 2010.⁴⁰ Therefore, there remains an imperative for the Mayor and TfL to make improving the safety of cyclists on the roads the top priority in all their cycling programmes.

Cycling leadership

The Mayor has given personal leadership to supporting cycling in London. Experts have told us that political will is needed to ensure the Mayor’s commitments to increase cycling and cycle safety are delivered. Cycling requires leadership if it is to move from a ‘peripheral’ mode of transport to become a mainstream choice.⁴¹ Hackney Council provides a local example of the importance local leadership plays in integrating cycling in local transport decisions. The council involves local cycling groups in engineering decisions,

including the Hackney branch of London Cycling Campaign (LCC), and several of the group's members are represented on the Council.⁴²

Our panellists attributed the growth of cycling in leading cycling cities to political will. Roelof Wittink told us that cycling grew in the Netherlands in the 1970s and 1980s due to policies to actively encourage cycling. At the same time, cycle fatalities dropped.⁴³ London is learning from places like Copenhagen and the Netherlands that cycling requires bold political backing to make cycling a safe and viable option for all Londoners.

However, it is unclear who has responsibility for driving the Mayor's vision for a 'cyclised' London. At the launch of the cycling revolution, responsibility for cycling lay with the Mayor's Transport Advisor. The current Mayor also appointed a Cycling Champion in his first term.⁴⁴ Ahead of the 2012 election, the Mayor pledged to introduce a Cycling Commissioner to support improvement in cycling safety.⁴⁵ More than six months after the election, the Mayor and TfL have not published details of their plans to introduce a Cycling Commissioner. In October 2012 the Mayor said that he would shortly announce plans to introduce a 'Cycling Tsar,'⁴⁶ but we do not have any information on who the Mayor will appoint, the responsibilities of the role, or the appointee's influence over the cycling budget. Furthermore, it is not clear who has responsibility for championing cycling on the TfL board. In November 2012 TfL announced that the Mayor would publish a new 'cycle vision' by the end of the month.⁴⁷

London could learn from Copenhagen's approach to informing residents about its progress to deliver cycling improvements. The City produces a biennial 'Bicycle Account'. This document monitors the city's progress against its goals to improve cycling safety and the cycling experience, and it reports on Copenhagen residents' perceptions of safety, and what would make them feel safer.⁴⁸ Following publication of the Cycle Safety Action Plan, the Mayor and TfL published an End of Year Review in 2010, but they have not published further updates. A bicycle account for London could draw together safety performance, customer satisfaction, targets, and investment information in one place to help Londoners understand action the Mayor and TfL are taking to improve cycling in London.

We support the Mayor's objective to increase cycling but we have two main concerns. Firstly, his target does not reflect an

ambition to achieve a cycling revolution, or to approach the levels of cycling seen in leading cycling nations and cities. Secondly – and more importantly – upward casualty trends could prevent more Londoners cycling. The Cycle Safety Action Plan recognises that concerns about cycle safety are both the most significant barrier for non-cyclists taking up cycling (27 per cent), and that it stops 10 per cent of current cyclists cycling more.⁴⁹ The objectives of the Mayor’s ‘Cycling Revolution’ should be revised in order to establish a higher target for cycling brought about through improved cycling safety and encouraging all Londoners to cycle.

The ‘safety in numbers’ effect did not prevent a rise in cyclist casualty rates in London in the three years between 2007 and 10. If cycle safety does not improve, there is a risk that more Londoners will be put off taking up cycling. The Mayor’s commitments to improve cycling could therefore suffer without action from TfL and clear leadership on the TfL board.

Recommendation 1

The Mayor should establish a new target for cycling in his 2020 Vision statement due in December 2012. In the statement, he should bring forward his target of 5 per cent cycling modal share from 2026 to 2020. He should also establish a new target of 10 per cent cycling modal share by 2026 to reflect the Mayor’s ambition to create a ‘cycling revolution’ in London.

The Mayor should appoint a Cycling Commissioner to champion cycling and realise his target to increase cycling. The Cycling Commissioner should be responsible for the publication of a biennial London Bicycle Account to inform Londoners of what TfL is doing to improve cycle safety, increase investment in cycling, and encourage more Londoners to cycle. In the London Bicycle Account the Mayor should establish – and monitor London’s progress against – a target to improve the perception of cycle safety. The Mayor should provide the Committee with information on the Cycling Commissioner’s remit and responsibilities, and how they will influence policy and spending, by February 2013.

Chapter 2 – Investing in cycle safety

TfL must give increased priority to cycling spending in its new business plan, to shift cycling from an option for the few, to a safe and attractive choice of transport for all Londoners.

‘In addition to cycling being a relatively rare mode of travel in London, it is not a choice made equally across the population...our study found that cycling is disproportionately an activity of affluent, White men.’ – London School of Hygiene and Tropical Medicine

TfL needs to create safe conditions to encourage more people to cycle in London. Londoners told us that they wanted to feel safe enough to cycle in their local area. They recognised that cycling has many benefits to local communities and individuals. It can reduce car use, improve air quality and reduce congestion, and benefit the local retail economy. Equally importantly, cycling is enjoyable and has health benefits.⁵⁰ Research shows that every £1 invested in cycling can generate benefits to society worth £9 in decreased congestion and health costs.⁵¹

London’s cycling potential is largely untapped. TfL’s own analysis shows that there are 4.3 million potentially cyclable trips every day, but only about 7 per cent of these are currently cycled.⁵²

Our evidence underlines the fact that many Londoners feel that cycling facilities in London do not cater to their needs. A number of groups are particularly underrepresented among Londoners who currently cycle, including Black and Minority Ethnic groups, the elderly, women and children.⁵³

TfL’s cycling budget

Cycling has increased as investment in cycling has risen; however, leading cycling cities spend more than London on cycling.

TfL spending on cycling remains a small fraction of the TfL budget. Funding for cycling has certainly increased over the last decade, with an especially marked rise since 2008. TfL’s budget for cycling in 2012/13 is £73 million; almost 27 times larger than its £3 million spend on cycling in 2003/4.⁵⁴ Even after such large increases, however, the cycling budget represents less than 1 per cent of TfL’s total budget, and 6.6 per cent of its surface transport budget.⁵⁵ Furthermore, we note that in 2012/13 TfL plans to spend approximately the same amount on professional and consultancy fees (£72m) as it does on cycling.⁵⁶

Cycling – which accounts for 2 per cent of the journeys made by Londoners – is arguably underfunded in receiving less than 1 per cent of TfL’s budget. In December 2012 TfL will publish its new business

plan for 2013/14 – 2014/15 which will include its plans for cycling over the period.⁵⁷ Stakeholders told us that more investment is needed. The Road Danger Reduction Forum, for example, suggested TfL should allocate £100 million a year (or 2 per cent of its budget) to cycling projects, in addition to its spending on Cycle Hire and the Cycle Superhighways.⁵⁸

Current spending on cycling per head is relatively low in London compared to leading cycling cities and countries. In 2011/12, TfL estimated it spent approximately £10 per head on cycling. Information provided to the Committee shows that this compares with spending of around £20 per head in Copenhagen, and an average of £20 per head across all transport authorities in the Netherlands.⁵⁹ In Germany, cities plan to spend between £6 and £15 per head from 2013-2020, depending on whether they are classified as 'starter', 'climber', or 'champion cycling cities'.⁶⁰ Closer to home, Edinburgh City Council has decided to spend 5 per cent of its transport budget on cycling, and it will increase this amount by 1 per cent per year from 2012-16.⁶¹

TfL's new business planning cycle in winter 2012-13 is the Mayor's opportunity to invest in high quality cycling route infrastructure to benefit all Londoners who want to cycle. TfL noted that spending on cycling in London has started from a lower base than other places. The difference in per capita investment between London and Copenhagen and the Netherlands is even more marked when we consider that investment in Copenhagen and the Netherlands follows 30-40 years of high investment in cycling. Taking into account low spending and low modal share in London, there is a strong case for significantly boosting cycling spending in London.

Given that much of TfL's expenditure is capital investment, once completed, cycling infrastructure projects will create the conditions for cycling growth and require smaller future operational investment. Therefore, London would benefit from greater early investment in cycling in order to boost cycling levels.

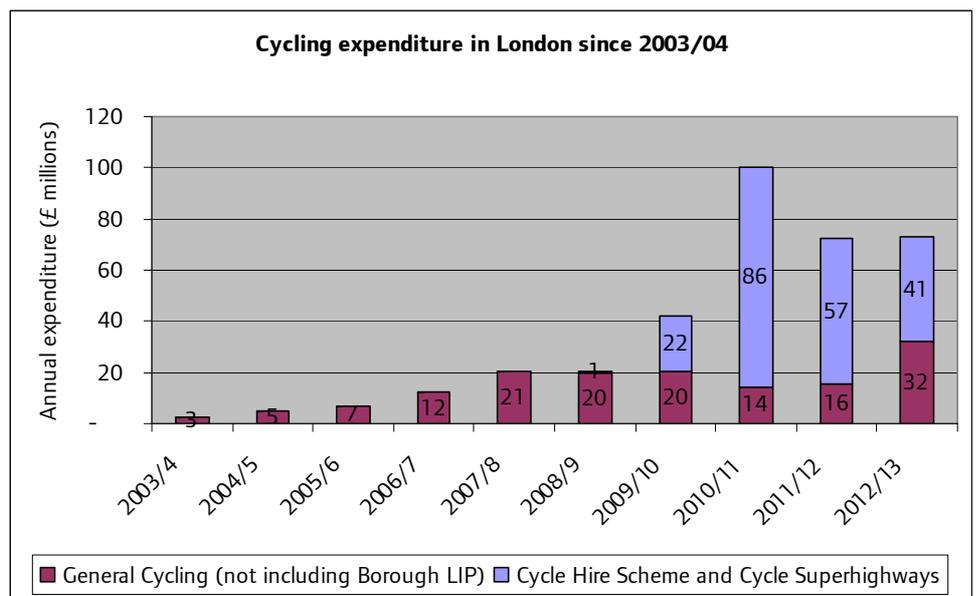
Increasing spending on cycling in London will require a re-prioritisation of resources in TfL's budget. TfL should investigate where it can find additional funding for cycling. For example, it may be possible for TfL to use money from unanticipated savings. Having exceeded its savings target in 2011/12, and being on track to do so in 2012/13,⁶² TfL has recently suggested that it expects to find

additional savings of approximately £100 million a year from 2013/14.⁶³ It could assess how a proportion of these unanticipated savings can be invested in the Mayor’s cycling revolution to reduce cycling casualties and increase cycling.

Spending since the launch of the Mayor’s cycling revolution

Increased spending on cycling has been directed largely at TfL’s flagship Cycle Hire and Cycle Superhighways schemes, which mostly target inner and central London. These two schemes account for most of the increase in TfL’s spending on cycling since 2009/10, as shown in Graph 2.

Graph 2: Cycling expenditure in London 2003/4 – 2012/13



A closer look at the breakdown of TfL’s spending on cycling shows that the Cycle Hire scheme has been the main beneficiary of increased spending on cycling. Since 2010, Cycle Hire has received double the funding allocated to Cycle Superhighways,⁶⁴ which are designed to provide commuter routes from outer and inner London to Central London. Table 2 below shows that over the last three years, the Cycle Hire programme has received 50 per cent of cycling funding, while spending on Cycle Superhighways accounts for 25 per cent of TfL’s spending on cycling. Although the Mayor’s Biking Boroughs programme is also a TfL ‘flagship’ cycling programme, in comparison, it has received just 1 per cent of TfL’s spending on cycling in the last three years. With gross annual expenditure in excess of £8

billion, spending on Biking Boroughs accounts for approximately 0.02 per cent of TfL spending between 2011/12 and 2013/14.⁶⁵

Table 2: Spending on cycling programmes between 2010-13

£m	2010/11	2011/12	2012/13	2010-13
Cycle Hire	64 (64%)	42 (58%)	15 (21%)	121 (50%)
Cycle Superhighways	21 (21%)	15 (21%)	26 (35%)	62 (25%)
Biking Boroughs	- -	1 (2%)	2 (2%)	3 (1%)
Better Junctions	- -	-	19 (26%)	19 (8%)
Other programmes	14 (14%)	14 (20%)	12 (16%)	40 (16%)
Total*	99	72	74	245
Borough LIP	- -	11	28	39

*Due to rounding some totals vary slightly from actual figures

Cycle Hire investment is set to receive a further boost in 2013, to deliver the Mayor's commitment to expand the scheme in parts of West and South West London.

Despite significant investment in the Cycle Hire scheme, there are questions about whether the scheme is delivering the intended increase in cycling, and for which groups. When it was introduced in 2010, TfL expected it to deliver 40,000 additional bicycle trips per day.⁶⁶ Reports suggest the Cycle Hire scheme has failed to reach this target, with average weekday hires at 30,000 a day by September 2012.⁶⁷ Furthermore, user surveys indicate that members of the scheme are predominantly male (comprising three quarters of members), and from white ethnic backgrounds (88 per cent of members).⁶⁸ This raises issues about equity, and whether the scheme has an impact on encouraging under-represented groups to cycle.

'I think the 'improvements' that have been made to cycle infrastructure lately have been half-hearted, even cynical. Bright blue lanes that stop and start. Often narrow. Only in use at certain times of day. Sometimes used for car parking. They disappear at frightening junctions. All of them stop short of central London itself.'

– Male cyclist

Investing in cycle safety?

As we set out above, the last decade has seen TfL increase cycling spending and more Londoners cycling. Over the same period, however, the number of cycling casualties has also increased.

We heard that many cyclists and potential cyclists are particularly concerned that the Cycle Superhighways do not offer cyclists adequate protection.⁶⁹ Cyclists and stakeholders expressed concerns about the potential for conflict with other road users (including taxis, motorcyclists, cars and buses), and at junctions, where most – 70 per cent – of cycling collisions occur.⁷⁰ These views are consistent with the findings of a 2009 report on the barriers to completion of the London Cycle Network+ (LCN+). This report identified 140 'infrastructure barriers' across the LCN+, many of which were junctions on TfL roads.⁷¹

In winter 2011, TfL announced a review of dangerous junctions following the tragic deaths of Londoners killed while cycling at junctions, including two at Bow roundabout. Initial funding for the Junction Review was provided through a £15 million grant from the Department for Transport (DfT) and TfL will have already spent £19.2 million by the end of 2012/13.

Experts told us that high quality cycle safety improvements will require higher levels of investment than announced to date. It is not possible to tell how much TfL spent on junctions prior to 2012/13, but it has now been recognised separately within the cycling budget⁷² and the Junction Review makes up £18.9 million (26 per cent) of 2012/13 cycling spend.⁷³ LCC has called for the Mayor to commit £100 million to the Junction Review.⁷⁴ We discuss the Junction Review in more detail in Chapter 3.

We welcome greater investment by TfL in cycling over recent years, but spending on cycling remains low relative to other modes and other parts of Europe. By allocating less than 1 per cent of its budget to cycling, TfL's current business plan does not reflect the Mayor's commitment to have a cycling revolution. The new TfL business plan should signal TfL's intent to prioritise cycle safety in line with the Mayor's objective to increase cycling modal share.

We remain supportive of the Cycle Hire scheme and the Mayor's plans to expand the scheme in 2013. The new business plan should, however, provide for greater investment in safe cycling route infrastructure on the Cycle Superhighways. We believe more could have been done to prioritise cycle safety on the first four routes.

We welcome the Junction Review, but we are disappointed that TfL did not prioritise investment in safe cycling measures at junctions at the beginning of the Cycle Superhighway programme.⁷⁵ The new TfL business plan should set out a fully-resourced plan for the Junction Review. We note that, if resources are spread too thinly, there is a risk the review will lead only to minor changes that do not remove the risk of conflict between cyclists and other road users. It is important that TfL uses this review to ensure that high quality route infrastructure is installed at junctions.

Borough spending on cycling

TfL should do more to support borough cycling programmes, especially in outer London boroughs.

A number of local barriers may prevent more Londoners cycling and more often. We heard that cycling facilities are inconsistent between boroughs, and that it is often not possible to find continuous 'safe' routes. London Councils told us that generations of school-age children are missing out on cycle training in schools, and we discuss the importance of cycle training in more depth in Chapter 4. Other cyclists raised issues about the difficulty of finding convenient and secure cycle parking near their destinations. Our 2009 report on cycle parking found that a lack of cycle parking can act as a barrier;⁷⁶ and it is clear more work is needed to provide more secure facilities.

'...a failure to invest and to communicate that investment is being made, will confirm individuals' attitudes towards the safety of cycling and, at best may mean little or no increase in cycling. In a worst case scenario, failing to invest in cycling could result in a reduction in the cycling mode share.'
– London Councils

Borough-level funding for cycling is uncertain. Since 2010, when TfL withdrew ring-fenced Local Implementation Plan funding, boroughs have not had dedicated budgets for cycling. As a result, feedback from boroughs suggests that cycling investment is at risk as it competes with other local priorities. London Councils' Transport and Environment Committee warned us that cycling has been de-prioritised in some boroughs as a result of these changes.

Indeed, there is cross-party support for earmarked additional funding for cycling. London Councils told us that reintroducing ring-fenced funding for cycling would enable all boroughs to invest in making cycling safer.⁷⁷ TfL could explore new and innovative options for supporting boroughs to invest in cycling.

Investment in cycling in Outer London

TfL's investment to date has not reflected the 54 per cent of the cycling potential that is in Outer London.

Outer London is home to the majority of London's cycling potential (54 per cent). Half of all trips in Outer London are less than 2 miles,⁷⁸ but only 5 per cent of 'cyclable' trips are cycled.⁷⁹ Increasing cycling – and reducing car traffic – can have multiple benefits: it can work to improve air quality, ease congestion, and deliver an economic boost to local shopping centres.⁸⁰

Our evidence suggests that Outer London suffers from particularly poor infrastructure for cycling. LCC considers that *'the quality of provision [for cycling] appears to gradually decline towards Outer London.'*⁸¹ Furthermore, the London Borough of Ealing said that it had not benefitted from recent investment by the Mayor and TfL. For example, the Cycle Hire scheme – including extensions of the scheme in 2012 and 2013 – does not cover Outer London. In his manifesto, the Mayor promised to explore future expansion to town centres including Bromley, Croydon, Hounslow, Kingston, Richmond, and Romford.⁸² We note that TfL is due to publish the results of its feasibility study on the impact the Cycle Hire scheme could have on encouraging more cycling in Outer London town centres.⁸³

Only one of TfL's 'flagship schemes' – the Biking Boroughs programme – is dedicated to outer London. Its budget of £4 million over three years is a small fraction of the funding allocated to the

Cycle Hire and Cycle Superhighways programmes which were worth a combined total of £206 million from 2008/9 – 2012/13.⁸⁴

The Biking Boroughs programme has encouraged 13 boroughs to develop innovative local cycling schemes. Boroughs have used the funding to improve cycling infrastructure: benefits include safer links from local routes to TfL routes, and increased cycling around town centre ‘hubs’.

London Councils told us some boroughs have called for the Mayor to commit more funding to borough-level programmes, to match his efforts to increase cycling in inner and central London.⁸⁵ Sustrans sees the need for TfL to invest in off-road or segregated local routes to connect residential areas with town centres.⁸⁶ The current Biking Boroughs programme could provide inspiration for such projects in the other outer London boroughs.

Having started to deliver the ‘Cycling Revolution’ in inner and Central London, TfL must now commit to converting cycling potential in the boroughs, particularly in outer London. Londoners want safe, clearly-marked and consistent cycle routes, and secure cycle parking. It is evident that investment in these measures would help encourage more people to cycle.

Outer London boroughs currently lack support for long-term investment in cycling infrastructure. If the results of TfL’s feasibility study into the expansion of the Cycle Hire scheme in Outer London town centres is positive, these locations should be prioritised in the next phase of the scheme. Biking Borough funding has generated some benefits to Outer London boroughs, but despite being a ‘flagship’ scheme, it has received just 1 per cent of TfL’s spending on cycling over the last 3 years. Furthermore, we note that TfL has made no commitments to extend this programme.

Specific additional funding for cycling programmes should be reintroduced through the LIP process. Dedicated borough funding for cycling would enable boroughs to prioritise cycling safety improvements. There is scope for TfL to explore options including proposals for earmarked cycling funding matched by boroughs, or incentive packages to reward boroughs increasing cycling mode share.

Recommendation 2

The Mayor and TfL's new business plan, due to be published in December 2012⁸⁷, should reflect the Mayor's ambition to have a cycling revolution. He should therefore commit to doubling the amount of funding for cycling, Specifically the business plan should:

- In 2013/14 allocate at least £145m to cycling (which is equivalent to 2 per cent of TfL's 2012/13 budget). For subsequent years, TfL should set out the resources it will require to transform cycling in London to match the levels seen in leading cycling cities.
- Commit a minimum of £100m to funding the Junction Review (over the period of the Review), based on the Mayor's estimate of the cost of improvements.
- Set out a timetable for future expansion of the Cycle Hire scheme, starting with locations in Outer London.
- Provide at least £60m (or 20 per cent of the TfL cycling budget) over the new business plan period to fund the Mayor's Biking Borough programme. The programme should become an Outer London Cycling Fund, providing funding for safe and innovative cycling schemes in *all* Outer London boroughs.
- Consider the case for a dedicated cycling fund as part of the Local Implementation Plan (LIP) process. This fund could be matched by boroughs. The Mayor and TfL should work with the boroughs to assess the success of borough programmes in improving cycle safety. This information should then be used to promote best practice examples in future borough schemes.

Chapter 3 – Safe cycling route infrastructure

Political will is needed to make cycling a mainstream form of transport that is supported by high quality, safe cycling routes. There could, and should, be more segregated cycle space in London.

The decision to provide cyclists with safe dedicated cycling space can come into conflict with traffic modelling that prioritises motor traffic flow. As a result, cycling facilities in London too often place cyclists at risk of conflict with other road users.

The Mayor agreed before the election to introduce Dutch-style cycling facilities providing clear space for cyclists by signing London Cycling Campaign's *Love London – Go Dutch* pledge. He must deliver on this pledge and direct TfL to prioritise cycle safety by allocating more road space to cyclists.

Current cycling route infrastructure

Cyclists and stakeholders emphasised that, in their view, cycling is treated as a marginalised form of transport in London. They told us that the low priority given to cycling is reflected in poor quality infrastructure allocated to cyclists, which is often narrow, advisory only, close to motor traffic and inconsistent.⁸⁸ Cycle lanes with little protected road space for cyclists place them at risk of conflict with motor vehicles and other road users.

Many people suggested that more segregation to separate cyclists from motor vehicles would give potential cyclists confidence to cycle. Panel guests from Sustrans and London Cycling Campaign suggested that cyclists should mix with other traffic where possible, and be separated where necessary.⁸⁹

Experts told us that any effort promoted as cycling improvement should give cyclists protected space.⁹⁰ The lack of protected space for cyclists on the Cycle Superhighways continues to present risks to cyclists as vulnerable road users. Londoners responding to our investigation in 2012 echo the findings in our 2010 report on cycling: the routes offer inadequate protection from fast-moving motor traffic and appeal only to confident cyclists.⁹¹ Based on lessons from the pilot Cycle Superhighways, TfL states that on subsequent routes it will introduce mandatory cycle lanes 'where possible'.⁹² There is no firm commitment to prioritise protected cycling space and greater physical

'For children, the elderly and the less confident, cycling in London is impossible. How could a parent possibly consider letting their child cycle to school when they are constantly being overtaken by traffic that often passes so close that they can be touched with an outstretched hand?' – Male cyclist

'The number one thing which would make me feel safer and happy to suggest other people cycle is segregation.' – Male commuter cyclist

segregation; as a result, future Cycle Superhighways risk being little better than the earlier routes.

Now a third of the way through the Cycle Superhighway programme, TfL should focus its efforts and resources on applying lessons learnt to the eight remaining routes and retrofitting the four existing Cycle Superhighways.

TfL's Junction Review

TfL's *Better Junctions* review was announced by the Mayor and TfL in 2011. It aims to deliver safety improvements for cyclists at 500 junctions, including all 375 junctions on the Cycle Superhighway routes. From a priority list of 100 junctions, TfL has committed to completing improvements to 10 junctions by the end of 2012, and at least 35 junctions by the end of 2013. An additional 15 junctions from the remaining 400 junctions will lead to a total of 50 junctions being timetabled for improvements by the end of 2013.⁹³ TfL has not set out the timetable for implementing changes at the remaining junctions.

We have a number of concerns about the scale and nature of the Junction Review. We question whether the review will deliver significant cycle safety improvements that will enable more Londoners to feel safe enough to cycle.

Traffic modelling

Firstly, there is a risk that TfL's use of traffic modelling will effectively rule out allocating protected space to cyclists at junctions. We heard that TfL often rejects design options recommended by cyclists because TfL traffic modelling predicts increased queuing at junctions for motorised traffic.⁹⁴ LCC suggest that TfL's decision making at junctions is dominated by its objective to maintain network capacity.⁹⁵ On our visit to Bow roundabout we saw the priority TfL has given to concerns about motor traffic congestion. The early start facility at the junction provides just three seconds' early start for cyclists and there are no crossing facilities for pedestrians.⁹⁶

'We need to accept fewer cars on the road going more slowly and calmly.'
– Male cyclist

Competing demands for limited road capacity is a strategic concern for the Mayor and TfL.⁹⁷ TfL's written evidence to the Committee acknowledges the conflicts it faces in decisions on new cycling infrastructure on the Transport for London Road Network (TLRN). It questions the impact that safer cycling infrastructure would have on cycling safety and encouraging more cycling. At the same time, TfL

notes that cycling improvements would mean a certain reduction in road capacity, network resilience and journey time reliability for other road users.⁹⁸

If the Mayor and TfL do not reassess the priority currently given to motorised traffic, there will be little improvement in the space allocated to cycling. Cyclists' groups have argued that TfL's approach to traffic modelling fails to account for the increase in cycling that would occur if junctions were safer for cyclists. Experts said that it also underestimates the extent to which motor traffic would successfully adjust to the new conditions.⁹⁹

Safety at gyratories and complex junctions

Secondly, we think it is important that TfL takes action to prioritise the removal of gyratories and complex junction systems in the review. One-way gyratory systems can present particular risks to cyclists as they offer little or no protection to cyclists from fast-moving motor vehicles. We welcome the action that TfL has taken to remove some gyratories and complex junctions – such as at Elephant and Castle southern roundabout, and Brixton – and we urge TfL to continue to prioritise the removal of gyratories through the Junction Review.¹⁰⁰

There is scope for regeneration and development areas to ensure cycling is integrated into planning. Future development at locations such as Elephant and Castle presents opportunities for fundamental changes to road layouts, such as removal of the northern roundabout. Cyclists' groups have called for safe cycling facilities to be fully integrated into any future road re-design.

Road speeds

Thirdly, consideration should be given to reducing speeds at junctions through the junction review. Our 2009 report *Braking Point* noted that 20mph limits can reduce cycling slight casualties by 17 per cent and casualties killed and seriously injured by 38 per cent.¹⁰¹ Some boroughs, such as Hackney, have introduced 20mph limits on all residential roads, with Southwark and Islington aiming to introduce similar measures.¹⁰² The Mayor's draft Road Safety Action Plan states that TfL will support boroughs to install 20mph zones where appropriate.¹⁰³ TfL has suggested that it may introduce lower speed limits at junctions such as Waterloo Imax Junction. The extension of 20mph limits would help to reduce road safety risks to cyclists and other vulnerable road users.

‘London TravelWatch would welcome more transparency in the decision making process in order that we and other stakeholders, including the London boroughs, can comment more fully on schemes that TfL and the local highway authorities propose.’ – London Travelwatch

Rushed consultation phases

Lastly, we are concerned that TfL’s plans allow stakeholders and the public little time to assess whether the improvements will improve cycle safety. Cyclists report that junctions identified for safety improvements in the first wave of the junction review do not meet Dutch standards. With works scheduled to begin around a week after the consultations close, there are also concerns that TfL has insufficient opportunity to address consultees’ responses.¹⁰⁴ Rushed consultations could be at the expense of high quality, safe facilities for cyclists. It is equally important that boroughs – who have expressed concern about being excluded from decisions about changes to cycling infrastructure on the TLRN¹⁰⁵ – are fully consulted by TfL.

Opportunities to encourage more cycling by improving dangerous junctions could be lost if the changes do not offer visible protection from motor traffic. Londoners need assurance that TfL will use the junction review to radically redesign junction so that they safeguard cyclists and other vulnerable road users. Where TfL considers and rejects proposals to improve the safety of cyclists as part of the junction review consultation process, TfL should give reasons why these suggestions are rejected.

Recommendation 3

The Mayor and TfL should commit to introducing fundamental cycle safety improvements to the junctions included in the junction review. The junction review should be able to demonstrate substantial and innovative changes to the space and protection given to cyclists at the junctions. The changes should take account of best practice in Denmark and the Netherlands, and be in line with the Mayor’s commitment to *Love London Go Dutch*. The Mayor and TfL should provide the Committee with information by February 2013 on how it will ensure the 50 junctions to be completed by the end of 2013 will match these objectives. They should also demonstrate how cyclists’ views and concerns have been taken on board in the consultation process. In December 2013, the Mayor and TfL should report back to the Committee on the impact of the changes made to the initial 50 junctions.

The Mayor and TfL should prioritise the removal of remaining one-way gyratory systems in the junction review. The Mayor and TfL should report to the Committee by February 2013 on which gyratories it will

replace and when.

In the junction review, the Mayor and TfL should examine the case for introducing 20mph limits at more junctions. TfL should consider trialling 20mph zones on TfL-controlled roads near existing 20mph zones. TfL could use pilot 20mph zones to assess the impact they have on the road network, to inform any wider rollout in future. The Mayor and TfL should report back to the Committee on this proposal by February 2013.

Cycling facilities in leading cycling cities and countries

Ahead of the election, the Mayor signed London Cycling Campaign's pledge to *Love London, Go Dutch*. The *Go Dutch* campaign called on candidates to commit to begin installing 'continental standard cycling infrastructure' to make London's streets '*as safe and inviting for cycling as those in Holland*.'¹⁰⁶ The Mayor promised to deliver three 'Go Dutch' commitments over the current Mayoralty.¹⁰⁷

The Dutch approach to infrastructure enables all types of cyclists to choose cycling as a form of transport. Cycling facilities in the Netherlands are built to accommodate mistakes by cyclists or other road users. Roelof Wittink from the Dutch Cycling Embassy told the Committee that in London – in contrast – '*children and the elderly will not cope with the quality that you have at [the] moment*'.¹⁰⁸

Dutch cycle infrastructure design seeks to reduce conflict between cyclists and other road users. Evidence from the Netherlands shows that intersections with busy arterial roads and the type of intersection are the most important factors in serious collisions involving cyclists. The Dutch approach therefore seeks to maximise the safety of cyclists by adopting the principle that: '*cars and cyclists should not share a crossing without strict measures to slow down the speed by road design*'.¹⁰⁹

Providing sufficient space for cyclists may mean reallocating some road space from motor traffic. Steffen Rasmussen from Copenhagen told us '*a strategy of making room, space and time available in the traffic environment [for] cyclists is very important*'.¹¹⁰ This clearly could have implications for other road users.

'Cycling amongst the elderly could be seen as the barometer of the friendliness of the city to cycling' –
James Woodcock,
University of
Cambridge

Improvements for cyclists can help to promote sustainable travel more broadly. Segregated cycling on a busy shopping street in Copenhagen had the effect of reducing car traffic by more than 50 per cent, while public transport use remained high. Given that London has an extensive road network – and that the majority of cycling facilities are on roads – Steffen Rasmussen noted that: *‘you have to choose some places where you can give priorities to pedestrians and cyclists’*.¹¹¹

Filtered permeability is an example of changes to road infrastructure which can make streets safer for cyclists and pedestrians. Filtered permeability can be used to close junctions on side roads to motor traffic, without decreasing road capacity on main roads. It can also improve cycling mode share and discourage short car trips.¹¹² Our evidence points to successful examples of filtered permeability schemes in boroughs including Hackney and Islington, and stakeholder groups expressed popular support for it to be used more widely.

US cities are also using innovative infrastructure to improve cycling. New York has introduced six of eight innovative measures identified in a benchmarking exercise, including cycle tracks (‘bicycle lanes physically segregated from traffic’)¹¹³ and bicycle traffic lights.¹¹⁴

The Mayor’s Go Dutch pledge should mark a step-change in the design of cycling infrastructure in London. The decision to build safe facilities – that are forgiving of mistakes, mixed where possible and segregated where necessary – is a question of political will.

Applying best practice in London

There is limited evidence that TfL intends to deliver the *Love London Go Dutch* principles. While TfL has earmarked a small number of projects to introduce the *Go Dutch* principles,¹¹⁵ it is unclear whether TfL plans to mainstream Dutch safety principles across its cycling programmes. TfL is in the process of updating the London Cycle Design Standards (published in 2005), but it has not provided details of when the new standards will be published.¹¹⁶ Furthermore, TfL’s caveat that solutions *‘must be judged appropriate for use within the cultural dynamics of London’s roads’*¹¹⁷ could be used to stall radical safety improvements.

Benchmarking with international agencies could provide opportunities for London to learn from other countries. TfL has recently begun to participate in an International Benchmarking exercise with the help of a secondee from Copenhagen. The exercise involves reviewing infrastructure design in London and the UK with a view to learning from others about design, implementation, and consultation on cycling infrastructure.¹¹⁸ TfL did not provide information about how it would seek to implement learning from this exercise.

Changes to road layouts to improve the safety of cyclists

The Mayor's recently-launched Roads Task Force presents an opportunity to reconsider how TfL uses traffic modelling when allocating space to different road users.¹¹⁹ The task force – which is examining how London will deal with increased demands on a limited road network – includes cycling representatives. It is due to present its interim report in November 2012 with a final report in spring 2013.

Reduced motor traffic can benefit cycling and the environment in general for all Londoners. In evidence to the Committee, RoadPeace noted that, the lorry ban during the Olympic and Paralympic Games (which saw freight deliveries scheduled at night time) helped make London *'a much safer, more attractive and efficient to be, and through which to travel.'*¹²⁰

To this end, London could be more innovative in creating more space for cyclists by trialling changes to road layouts. In New York, the Transport Commissioner has successfully trialled road closures to benefit cyclists and pedestrians, which can be made permanent at a later date if they work.¹²¹ Cambridge City Council introduced wide cycle lanes following the temporary closure of motor traffic lanes on a busy road, because temporary changes showed that traffic was able to adjust to the new layout.¹²² TfL could use pilot schemes and trials in London to help traffic engineers evaluate the impact of potential changes on different types of road users.

The 2012 Olympic and Paralympic Games provided evidence that space can be reallocated for prioritised traffic schemes. Reallocating road space can both reduce general motor traffic and increase cycling.¹²³ During the operation of the Olympic Route Network (ORN) and smaller Paralympic Route Network (PRN) – which included Games Lanes for Games Family traffic – motor vehicle traffic in central London fell by around 15 per cent and 5-10 per cent respectively.¹²⁴

At the same time, cycling increased by 29 per cent in central London, 62 per cent in East London, and bridges over the Thames saw 20 per cent more cycle traffic.¹²⁵

Evidence from New York shows that temporary road layouts can be used as an effective way to trial the impact of road layouts on different road users. Reallocating road space during the 2012 Games shows that political will and a commitment to comprehensive stakeholder and public messaging can enable road users to adjust their behaviour.

The Mayor and TfL should draw on learning from the Games Lanes. They should trial the provision of temporary dedicated cycle tracks in places with high volumes of cycle traffic where more casualties occur.¹²⁶

Proposals for suspended cycle lanes and the new east-west cycle route

The Mayor has also expressed interest in off-road schemes to create more space for cyclists. Off-road cycling infrastructure such as the 'Sky Cycle' concept – a network of elevated cycle tracks running above railway lines or suspended from bridges – could provide fast and direct cycling routes.¹²⁷ Ben Plowden told us in September that discussions with Network Rail were at an early stage and that TfL would require a commercial partner to part-fund this type of programme. More recent reports suggest the Mayor has turned down the 'Sky Cycle' proposal due to lack of space next to railway tracks.¹²⁸

While there could be practical and funding barriers to the Sky Cycle proposal, we see an urgent need for safe, connected, and continuous on-road cycle route infrastructure in Central London. Cyclists said that restricted space in congested areas of Central London and a lack of connectivity with the radial Cycle Superhighways make cycling in Central London unattractive. Our previous report *Pedal Power* (2010) recognised this issue, and we called on the Mayor and TfL to develop a bike grid to provide continuity for cyclists entering Central London.

We welcome the Mayor's manifesto pledge to explore a new east-west cycle route through Central London. TfL has recently announced that it plans to develop a 'super corridor', linking to some of the Cycle Superhighways, with part of the route following the Embankment.¹²⁹ A high quality route built according to the Dutch principles would

address a current gap in provision for cyclists in Central London. Given its strategic location for the Cycle Hire scheme, investment in a high quality east-west route could also bolster use of the scheme.

We support the Mayor and TfL's moves to explore new solutions to create safe space for cyclists. Investment in safe cycle routes on the carriageway should come first because cyclists are at most risk from conflict with other road users. Improvement to cycling infrastructure on roads could be jeopardised if attention is diverted to develop more unusual plans such as suspended cycle lanes.

The Mayor's proposed east-west route in Central London is a litmus test for the Mayor's commitment to building cycling routes according to Dutch cycle safety principles. TfL should develop world-class high quality facilities on the proposed east-west route and develop designs for a Central London Bike Grid.

'Overall it feels that as a cyclist there is very little legitimate space for me to use.

I no longer cycle to the shops or friends' houses.

*I am not someone scared to start cycling; I am being put off doing it.' –
Female cyclist*

Recommendation 4

The Mayor and TfL should reassess the space allocated to cycling in the design of cycle route and junction infrastructure. Specifically:

- The Mayor's Roads Task Force should review TfL's use of traffic modelling to judge the effect that protected space for cyclists would have on cycling and other traffic. In its final report in spring 2013, the Task Force should explain how it has reviewed TfL's use of traffic modelling.
- The Mayor's Roads Task Force should identify locations where TfL could pilot temporary protected cycle routes in 2013. It should draw on lessons from trialling changes to road layouts in New York and operation of the Games Lanes during London 2012. In its final report in spring 2013, the Task Force should recommend locations where TfL should pilot these cycle routes.
- The Mayor and TfL should publish the revised London Cycle Design Standards by February 2013. The revised standards should include the Love London Go Dutch design principles that the Mayor signed up to in the election.

- The Mayor and TfL should provide the Committee with information on the cycling infrastructure measures it is reviewing in the International Benchmarking exercise by February 2013. It should include information on what output it will produce from the exercise; the timescales for the project; and how this learning will be applied to the projects in its forthcoming business plan.
- The Mayor and TfL should report to the Committee by February 2013 on TfL's plans for the Mayor's proposal for a new east-west route. The Mayor and TfL should provide details on the proposed length and location of the route, how it will be built to Go Dutch standards, the timetable for construction, and estimated costs.

New safety solutions for cyclists

TfL should have greater flexibility to trial internationally recognised cycle safety measures.

Leading cycling cities and countries use a number of innovative road design and technological solutions that are not currently available in the UK to improve cycle safety. In Copenhagen, for example, innovations include cycle paths with separate turning lanes to accommodate different cyclists' needs. 'Green wave' traffic signalling set at 12-13mph also allows cycle traffic to pass more easily through junctions.¹³⁰ In the Netherlands, priority for traffic travelling straight ahead, combined with continuous cycle lanes and raised tables at junctions, help to protect cyclists and pedestrians and reduce the speed of motor traffic.¹³¹ TfL suggested that it will investigate the use of cyclist priority at junctions as part of the junction review 'where feasible.'

TfL is restricted from using some safety solutions because they are not approved in existing legislation.¹³² On our visit to Bow roundabout, TfL explained that it would like to trial cyclist eye-level traffic signals to make it easier for cyclists to navigate the junction. The DfT reports that it is willing to consider trials of new technology, if TfL makes a request to do so.¹³³ TfL is working with the Department for Transport (DfT) to secure amendments which would permit cycle-specific signalling, greater access to Advanced Stop Lines and changes to signage.¹³⁴

We fully support TfL's work to introduce internationally-recognised cycle safety measures. If London is to become a world-class cycling city, TfL should have scope to trial proven cycle technology. We welcome TfL's request for amendments to existing traffic regulations but we note that the request is limited to a specific list of amendments. Future delays to trial other innovative solutions could be avoided if the DfT provided greater flexibility to conduct local trials.

Recommendation 5

Where there is existing provision for the Mayor and TfL to use innovative road design and technological solutions to improve cycle safety, they should do so.

The Department for Transport (DfT) should introduce legislative changes to traffic regulations to enable TfL to use new cycle safety solutions. TfL should also write to the DfT to renew the case for transport authorities to install internationally-proven cycle safety measures. The Mayor and TfL should provide an update to the Committee on progress on this issue by February 2013.

Chapter 4 – Improving interaction with other road users

'...conditions both on 'official' cycle routes and on the roads system in general are simply too hostile. Too hostile for parents to trust their children to cycle, and too hostile for a lot of adults to try cycling.' – Male cyclist

Londoners told us that London's roads present a hostile environment for cyclists, often due to the risk of conflict with other road users. In addition to infrastructure, a number of measures would help improve these interactions with other road users.

It is essential that cycling safety improvement strategies include work with other road user groups. As explained by the road safety charity Brake: *'no real long-term change in the safety of cycling and therefore the numbers of cyclists will be possible unless drivers and potential cyclists are brought on board.'*¹³⁵

HGV traffic is a particular risk for cyclists. This is recognised in the Cycle Safety Action Plan, but there is more work that could be done to reduce the risk posed by HGVs. In general, action is needed to reduce poor driver and cyclist behaviour that endangers other road users.

Improving heavy good vehicle safety

Safety initiatives such as HGV training, driver technology and contracting standards should be mainstreamed across London.

The cycling environment in London presents particular risks to cyclists from Heavy Goods Vehicles (HGVs). HGVs are involved in 50 per cent of cyclist fatalities in London – compared to a third in the rest of the UK¹³⁶ – yet they account for only 5 per cent of traffic.¹³⁷ Martin Gibbs from British Cycling suggested that the dangers posed by HGVs to cyclists could be exacerbated by economic incentives on HGV drivers to maximise the deliveries they make.¹³⁸ TfL told us that it will shortly publish an independent review that will examine evidence about the role of operational and contractual pressures on drivers.¹³⁹

TfL is using a range of initiatives to improve HGV safety in line with the Cycle Safety Action Plan. These include driver awareness training through the Fleet Operator Recognition Scheme (FORS), and trialling and incentivising HGV safety equipment with operators. Exchanging Places schemes – where cyclists have the opportunity to experience an HGV or bus driver's perspective of the road and vice-versa¹⁴⁰ – are run in a number of boroughs.¹⁴¹ TfL and the GLA group have also committed to making HGV safety requirements a requirement in all procurement and contracting processes. TfL has taken the lead with mandating HGV safety training as part of the Crossrail programme,

and TfL is encouraging boroughs to develop similar approaches locally.¹⁴²

TfL is lobbying government at the national and European levels to increase the number of vehicles that are retrofitted with safety equipment. It has asked national government to introduce legislation to require HGVs to be retrofitted with side guards, close proximity cameras and visual aids. It has also campaigned for the EU to mandate the retrofitting of side guards on tipper and skip lorries.¹⁴³

There is scope to expand HGV safety schemes through procurement and planning processes in the boroughs. We support the Transport Commissioner's call to boroughs to include HGV safety requirements in their own fleet and in their contracts with providers. However, while 28 of the 33 boroughs are registered with FORS, only two have the highest levels of accreditation (gold or silver).¹⁴⁴ London Councils suggested that HGV safety could also be used by boroughs as a condition of planning permission for development.¹⁴⁵

Industry bodies such as the Freight Transport Association (FTA) and the Road Haulage Association are working to promote cycle safety among their members. The FTA has produced a 'Cycling Code',¹⁴⁶ to help raise drivers' awareness of cyclists. The Code establishes a set of 'reasonable expectations for all road users' and the FTA is working with a range of partners including TfL to encourage more organisations to support it.

We welcome TfL's work with stakeholders to improve HGV safety for cyclists, including technological solutions, contracting and education initiatives. We support TfL's current independent HGV safety review, and its work with government to mandate HGV retrofitting. Despite a range of HGV initiatives, however, HGVs continue to pose a disproportionate risk to cyclists in London.

HGV safety programmes to date have relied on commitment from individual organisations to adopt safety standards. These programmes have reached some HGV drivers but the Mayor and TfL should build on existing work to ensure that all HGV drivers in London are trained to drive safely near cyclists. We recognise the nature of the barriers to mandating HGV cycle safety training for all HGV drivers entering London, but we

support the use of tools such as the Cycling Code to raise driving standards.

TfL has taken a lead by introducing mandatory HGV safety training in its procurement contracts from 2012 and we welcome its efforts to encourage boroughs to do the same. Risks to cyclists from HGVs could be reduced if all the drivers of HGV traffic in London had cycle safety training and fitted appropriate cycle safety equipment to HGVs. The boroughs should now commit to using FORS and planning consent to raise HGV safety standards among their own fleet and that of contractors.

Recommendation 6

- The Mayor and TfL should revise the Road Safety Action Plan to reflect the evidence presented in TfL's forthcoming independent review of the design and operation of construction vehicles. TfL should provide the Committee with information on how it will take forward the findings of the review by February 2013.
- The Mayor and TfL should report to the Committee on the progress of discussions with the EU Commissioner for Transport on retrofitting HGVs with cycle safety equipment. The Committee will support the Mayor and TfL in this regard however it can.
- The Mayor and TfL should work with the boroughs to:
 - Secure agreement from the 5 London boroughs not yet registered for the Freight Operators Recognition Scheme to sign up to the scheme by February 2013. All London boroughs should sign up to FORS and commit to achieving gold standard FORS accreditation by December 2014. The Mayor and TfL, and London Councils should report to the Committee on their work to secure the highest levels of FORS accreditation by February 2013.
 - Make HGV safety training a condition of planning and development consent for all borough and Mayoral planning schemes. The Mayor and TfL, and London Councils should write to the Committee to provide an update in this regard by February 2013.

Poor driver and cyclist behaviour

London needs better enforcement against dangerous driving and cycling.

Both cyclists and other road users are frustrated with a lack of adequate enforcement against poor driver and cyclist behaviour. Many Londoners wrote to tell us that dangerous driving made cyclists feel threatened and intimidated. Equally, pedestrian groups and individuals are concerned about cyclists who break traffic laws with apparent impunity. A lack of enforcement against dangerous cycling behaviour increases the risk of collisions involving pedestrians and other road users. People reported frustration with cyclists who break highway rules: for example, by riding on pavements or disregarding red signals.

These problems are not unique to London: 55 per cent of cyclists surveyed in Copenhagen felt unsafe as a result of dangerous motoring behaviour, while 45 per cent felt threatened by the behaviour of other cyclists.¹⁴⁷

The majority of cycling casualties involve collisions between cyclists and motor vehicles. TfL says that ‘cyclist collisions most commonly result from motorised vehicles passing too closely to cyclists, turning left or right across the path of a cyclist or opening a car door in the path of a cyclist.’¹⁴⁸

Traffic regulations designed to improve the safety of cyclists are ineffective if they are not enforced. Dangerous practices by drivers that surfaced frequently in our evidence included: illegal use of Advanced Stop Lines, speeding, and vehicles turning into the paths of cyclists. Some cyclists reported that the police offer little help to cyclists involved in collisions, or to those who observe dangerous driving behaviour.

There are problems with enforcing speed limits. We heard that in Copenhagen, slower speed limits are effective because they are enforced by the police.¹⁴⁹ The Metropolitan Police Service (MPS) may lack the resources to enforce speed limits effectively.¹⁵⁰

London could learn from cycling-related enforcement in leading cycling cities and countries. Within the TfL-funded Cycle Task Force of 30 MPS officers, just eleven officers are deployed to enforce appropriate road behaviour.¹⁵¹ In Copenhagen, all police are

‘Far too many cyclists run red lights, ride on the pavement, over zebra crossings etc. They give cycling a bad name.’

– Male respondent

‘Cycling in London is awful. I feel like I am being harassed, bullied and that I am partaking in an activity that is not wanted on our roads.’

– Male Cyclist

responsible for policing safe road use.¹⁵² The legal framework in leading cycling countries also provides stricter liability against dangerous road behaviour. For example, Dutch authorities place at least 50 per cent of responsibility for all cycling-relating collisions with drivers. RoadPeace called for London to lead the way in lobbying the government to introduce stricter liability in legislation.¹⁵³

Road behaviour could also be improved through better education for cyclists and drivers. Cycle training for children leads to higher participation in adulthood; however, some children in London are missing out because training is not provided in every school.¹⁵⁴

While the majority of schools (95 per cent) have School Travel Plans,¹⁵⁵ it is not evident that all schools provide cycle training. We welcome the provision of cycle training programmes in schools such as 'Bikelt'. The scheme is successful because it encourages the whole school community to cycle together, it helps develop 'cycling champions' to continue promoting cycling, and it has helped increase the proportion of children cycling to school. Delivered by Sustrans, in the last five years the programme has run in 120 schools across 20 boroughs, yet this represents less than 6 per cent of London's schools.¹⁵⁶ We note that TfL supports schools to have accredited School Travel Plans, and that it provides grants to selected schools for cycle clubs which can provide cycle training. 'Bikeability' training is also available in every borough, but it is unclear how many schools or pupils receive this training.

Several written submissions called for better driver education at a national level, such as the introduction of more questions on cyclists as vulnerable road users in the Driving Theory Test. TfL plans to launch an education campaign about the use of Advanced Stop Lines in autumn 2012 following a study into how they are used.¹⁵⁷

Dangerous road use by drivers and cyclists can threaten the safety of all road users. London needs both enforcement and education to improve interactions between cyclists and other road users; TfL and the MPS need to work in partnership to make cyclists safer.

We support the introduction of the Cycle Task Force but it is a small resource. As more of London moves towards adopting 20mph limits on borough roads, the MPS will have a central role in enforcing speed limits. Stronger enforcement by the police could improve awareness for all Londoners about traffic rules governing cycling and how to drive safely near cyclists. Enforcement could be strengthened through efforts to mainstream cycle safety in general policing activity.

Better education for all road users could also help reduce the risk of collisions. In particular, all London children in every school should be trained how to cycle safely. There should be greater provision for training schemes such as Bike It and Bikeability, and the Mayor and TfL should develop a plan to provide cycle training for all children.

We welcome initiatives such as TfL's forthcoming education campaign on the use of ASLs and we see potential for TfL to broaden its education promotion to include other cycle safety issues.

'I commute from Battersea to King's Cross regularly, using Cycle Superhighway 8 until I get to Lambeth Bridge. I've increasingly noticed motorcyclists using space specifically reserved for bicycles, to the extent that I now see motorcycles in ASLs on multiple occasions on every journey.' – Female cyclist

Recommendation 7

- TfL should report back to the Committee by February 2013 on the steps it is taking with the MPS on cycling safety, including:
 - how the MPS Cycle Task Force will increase enforcement activity along busy cycle routes and at collision hotspots;
 - how the MPS plans to enforce 20mph as the number of 20mph zones increases across London;
 - improving driver awareness of traffic regulations to protect cyclists, including its education campaign on the use of Advanced Stop Lines and the locations and audiences to be targeted;

- the strategy in place to deliver education campaigns; and
- the issues it will prioritise in education campaigns over the next business plan period.

This information will enable the Committee to examine in more detail how the MPS is contributing to efforts to improve cycling safety, including through the Cycle Task Force.

- The Mayor and TfL should develop a plan to roll out cycle training across London, to enable all children to have equal access to cycle training. It should examine the level of funding required to provide cycle training to all London children, and explore options for securing funding. This may include, for example, options to secure a sponsorship partner. The Mayor and TfL should provide a response to the Committee on their plans to extend cycle training by February 2013.
- The DfT should examine evidence from leading cycling countries about the costs and benefits of stricter responsibility and penalties against dangerous driving that endangers cyclists. The DfT should inform the Committee about any work it has conducted to examine stricter liability, by February 2013.

Conclusion

More Londoners could take advantage of the health and economic benefits of cycling. But cycling will not increase without political leadership which treats cycling as a mainstream form of transport, and which is matched by the resources required to achieve the objectives the Mayor clearly holds.

Currently, many people feel that London's cycling facilities are not designed for them. Although the Mayor and TfL are working to encourage more cyclists and to raise the profile of cycling, many Londoners remain unconvinced that cycling is a safe or viable form of transport.

In the last four years TfL has spent more money than before on cycling infrastructure and the Mayor has published a Cycle Safety Action Plan. However, the majority of this investment has been spent on the Cycle Hire Scheme. TfL's cycling budget has not been spent on the type of cycling facilities used in leading cycling cities that maximise safety for vulnerable road users. Furthermore, the Mayor's approach to improving cycling safety relies heavily on cycling becoming safer as more people cycle, but this pattern is not necessarily supported by the evidence in London.

We recognise that improving the safety of cyclists presents significant political and financial challenges to the Mayor and TfL. Nonetheless, the Mayor must prioritise cycling if it is to become a viable choice for all Londoners. London could be safer and a more pleasant place to cycle if the Mayor and TfL took action to reduce the potential for conflict between cyclists and other road users. They could do this by building Dutch-style infrastructure, piloting innovative safety solutions, mandating HGV safety training and working with the MPS to improve enforcement.

This will require political will and it will involve difficult financial decisions. TfL will need to set aside more resources for continental-style infrastructure and to allow Outer London boroughs to invest in cycle safety. Some space will need to be reallocated away from motor traffic to ensure cyclists are protected on roads and at junctions. But it can be done. Apart from anything else, this was demonstrated by the successful reallocation of road space during the Olympic and Paralympic Games.

Adopting and resourcing a more ambitious objective for cycling in the Mayor's 2020 Vision would enable more Londoners to choose cycling as a safe form of transport. This would help London realise the environmental, health and economic benefits of cycling that are at the heart of the Mayor's ambition for a cycling revolution and enjoyed in leading cycling cities.

Appendix 1 List of recommendations

Recommendation 1

The Mayor should establish a new target for cycling in his 2020 Vision statement due in December 2012. In the statement, he should bring forward his target of 5 per cent cycling modal share from 2026 to 2020. He should also establish a new target of 10 per cent cycling modal share by 2026 to reflect the Mayor's ambition to create a 'cycling revolution' in London.

The Mayor should appoint a Cycling Commissioner to champion cycling and realise his target to increase cycling. The Cycling Commissioner should be responsible for the publication of a biennial London Bicycle Account to inform Londoners of what TfL is doing to improve cycle safety, increase investment in cycling, and encourage more Londoners to cycle. In the London Bicycle Account the Mayor should establish – and monitor London's progress against – a target to improve the perception of cycle safety. The Mayor should provide the Committee with information on the Cycling Commissioner's remit and responsibilities, and how they will influence policy and spending, by February 2013.

Recommendation 2

The Mayor and TfL's new business plan, due to be published in December 2012, should reflect the Mayor's ambition to have a cycling revolution. He should therefore commit to doubling the amount of funding for cycling, Specifically the business plan should:

- In 2013/14 allocate at least £145m to cycling (which is equivalent to 2 per cent of TfL's 2012/13 budget). For subsequent years, TfL should set out the resources it will require to transform cycling in London to match the levels seen in leading cycling cities.
- Commit a minimum of £100m to funding the Junction Review (over the period of the Review), based on the Mayor's estimate of the cost of improvements.
- Set out a timetable for future expansion of the Cycle Hire scheme, starting with locations in Outer London.
- Provide at least £60m (or 20 per cent of the TfL cycling budget) over the new business plan period to fund the Mayor's Biking Borough programme. The programme should become an Outer

London Cycling Fund, providing funding for safe and innovative cycling schemes in *all* Outer London boroughs.

- Consider the case for a dedicated cycling fund as part of the Local Implementation Plan (LIP) process. This fund could be matched by boroughs. The Mayor and TfL should work with the boroughs to assess the success of borough programmes in improving cycle safety. This information should then be used to promote best practice examples in future borough schemes.

Recommendation 3

The Mayor and TfL should commit to introducing fundamental cycle safety improvements to the junctions included in the junction review. The junction review should be able to demonstrate substantial and innovative changes to the space and protection given to cyclists at the junctions. The changes should take account of best practice in Denmark and the Netherlands, and be in line with the Mayor's commitment to *Love London Go Dutch*. The Mayor and TfL should provide the Committee with information by February 2013 on how it will ensure the 50 junctions to be completed by the end of 2013 will match these objectives. They should also demonstrate how cyclists' views and concerns have been taken on board in the consultation process. In December 2013, the Mayor and TfL should report back to the Committee on the impact of the changes made to the initial 50 junctions.

The Mayor and TfL should prioritise the removal of remaining one-way gyratory systems in the junction review. The Mayor and TfL should report to the Committee by February 2013 on which gyratories it will replace and when.

In the junction review, the Mayor and TfL should examine the case for introducing 20mph limits at more junctions. TfL should consider trialling 20mph zones on TfL-controlled roads near existing 20mph zones. TfL could use pilot 20mph zones to assess the impact they have on the road network, to inform any wider rollout in future. The Mayor and TfL should report back to the Committee on this proposal by February 2013.

Recommendation 4

The Mayor and TfL should reassess the space allocated to cycling in the design of cycle route and junction infrastructure.

Specifically:

- The Mayor's Roads Task Force should review TfL's use of traffic modelling to judge the effect that protected space for cyclists would have on cycling and other traffic. In its final report in spring 2013, the Task Force should explain how it has reviewed TfL's use of traffic modelling.
- The Mayor's Roads Task Force should identify locations where TfL could pilot temporary protected cycle routes in 2013. It should draw on lessons from trialling changes to road layouts in New York and operation of the Games Lanes during London 2012. In its final report in spring 2013, the Task Force should recommend locations where TfL should pilot these cycle routes.
- The Mayor and TfL should publish the revised London Cycle Design Standards by February 2013. The revised standards should include the Love London Go Dutch design principles that the Mayor signed up to in the election.
- The Mayor and TfL should provide the Committee with information on the cycling infrastructure measures it is reviewing in the International Benchmarking exercise by February 2013. It should include information on what output it will produce from the exercise; the timescales for the project; and how this learning will be applied to the projects in its forthcoming business plan.
- The Mayor and TfL should report to the Committee by February 2013 on TfL's plans for the Mayor's proposal for a new east-west route. The Mayor and TfL should provide details on the proposed length and location of the route, how it will be built to Go Dutch standards, the timetable for construction, and estimated costs.

Recommendation 5

Where there is existing provision for the Mayor and TfL to use innovative road design and technological solutions to improve cycle safety, they should do so.

The Department for Transport (DfT) should introduce legislative changes to traffic regulations to enable TfL to use new cycle safety solutions. TfL should also write to the DfT to renew the case for transport authorities to install internationally-proven cycle safety measures. The Mayor and TfL should provide an update to the Committee on progress on this issue by February 2013.

Recommendation 6

- The Mayor and TfL should revise the Road Safety Action Plan to reflect the evidence presented in TfL's forthcoming independent review of the design and operation of construction vehicles. TfL should provide the Committee with information on how it will take forward the findings of the review by February 2013.
- The Mayor and TfL should report to the Committee on the progress of discussions with the EU Commissioner for Transport on retrofitting HGVs with cycle safety equipment. The Committee will support the Mayor and TfL in this regard however it can.
- The Mayor and TfL should work with the boroughs to:
 - Secure agreement from the 5 London boroughs not yet registered for the Freight Operators Recognition Scheme to sign up to the scheme by February 2013. All London boroughs should sign up to FORS and commit to achieving gold standard FORS accreditation by December 2014. The Mayor and TfL, and London Councils should report to the Committee on their work to secure the highest levels of FORS accreditation by February 2013.
 - Make HGV safety training a condition of planning and development consent for all borough and Mayoral planning schemes. The Mayor and TfL, and London Councils should write to the Committee to provide an update in this regard by February 2013.

Recommendation 7

- TfL should report back to the Committee by February 2013 on the steps it is taking with the MPS on cycling safety, including:
 - how the MPS Cycle Task Force will increase enforcement activity along busy cycle routes and at collision hotspots;

- how the MPS plans to enforce 20mph as the number of 20mph zones increases across London;
- improving driver awareness of traffic regulations to protect cyclists, including its education campaign on the use of Advanced Stop Lines and the locations and audiences to be targeted;
- the strategy in place to deliver education campaigns; and
- the issues it will prioritise in education campaigns over the next business plan period.

This information will enable the Committee to examine in more detail how the MPS is contributing to efforts to improve cycling safety, including through the Cycle Task Force.

- The Mayor and TfL should develop a plan to roll out cycle training across London, to enable all children to have equal access to cycle training. It should examine the level of funding required to provide cycle training to all London children, and explore options for securing funding. This may include, for example, options to secure a sponsorship partner. The Mayor and TfL should provide a response to the Committee on their plans to extend cycle training by February 2013.
- The DfT should examine evidence from leading cycling countries about the costs and benefits of stricter responsibility and penalties against dangerous driving that endangers cyclists. The DfT should inform the Committee about any work it has conducted to examine stricter liability, by February 2013.

Appendix 2 Stages in the investigation

The Committee held two public meetings for this investigation.

- On 12 July 2012 the Committee heard from cycling experts, cyclist groups and members of the public. The guests were: Chris Bainbridge, Chair of the Borough Cycling Officers' Group; German Dector-Vega, London Director, Sustrans; Martin Gibbs, Policy and Legal Affairs Director, British Cycling; Chris Peck, Policy Co-ordinator, Cyclists' Touring Club (CTC); and Ashok Sinha, Chief Executive, London Cycling Campaign (LCC).

Following the meeting, the Committee published a summary of the main issues discussed alongside written submissions received from members of the public. These documents are available to view online at: <http://www.london.gov.uk/publication/cycling-london-summary-views-12-july-meeting>

- On 11 September 2012 the Committee heard from: Roelof Wittink, Director of the Dutch Cycling Embassy; Dr Rachel Aldred, Director of Sustainable Mobilities Research Group, University of East London; Ben Plowden, Director of Planning, Surface Transport, TfL; Steffen Rasmussen, Head of Traffic Design, City of Copenhagen; and Karen Dee, Director of Policy, Freight Transport Association.

The Committee also:

- Met the Chair and lead members of London Councils' Transport and Environment Committee informally on 12 September 2012 to discuss cycling in London; and
- Conducted a site visit to Bow Junction roundabout on 14 September 2012 with representatives of TfL and LCC to view the eastbound early-start cycle facility. This junction is at the east end of Cycle Superhighway Route 2.

Details of the meeting with London Councils and the site visit were reported to the Committee's meeting on 18 October 2012 and are available to view online at:

<http://www.london.gov.uk/moderngov/ieListDocuments.aspx?CId=173&MId=4650> (see item 7)

The Committee has received many written submissions on cycling to inform its investigation. The organisations who have contributed written information include: TfL; London Councils; individual London Boroughs; LCC; Sustrans; and London TravelWatch. In addition we received over 200 emails and tweets from members of the public.

The written submissions received from organisations have been published online alongside this report.

Appendix 3 Orders and translations

How to order

For further information on this report or to order a copy, please contact Ross Jardine on 020 7983 4206 or email: ross.jardine@london.gov.uk

See it for free on our website

You can also view a copy of the report on the GLA website: <http://www.london.gov.uk/assembly/reports>

Large print, braille or translations

If you, or someone you know, needs a copy of this report in large print or braille, or a copy of the summary and main findings in another language, then please call us on: 020 7983 4100 or email: assembly.translations@london.gov.uk.

Chinese

如您需要这份文件的简介的翻译本，请电话联系我们或按上面所提供的邮寄地址或Email与我们联系。

Vietnamese

Nếu ông (bà) muốn nội dung văn bản này được dịch sang tiếng Việt, xin vui lòng liên hệ với chúng tôi bằng điện thoại, thư hoặc thư điện tử theo địa chỉ ở trên.

Greek

Εάν επιθυμείτε περίληψη αυτού του κειμένου στην γλώσσα σας, παρακαλώ καλέστε τον αριθμό ή επικοινωνήστε μαζί μας στην ανωτέρω ταχυδρομική ή την ηλεκτρονική διεύθυνση.

Turkish

Bu belgenin kendi dilinize çevrilmiş bir özetini okumak isterseniz, lütfen yukarıdaki telefon numarasını arayın, veya posta ya da e-posta adresi aracılığıyla bizimle temasa geçin.

Punjabi

ਜੇ ਤੁਸੀਂ ਇਸ ਦਸਤਾਵੇਜ਼ ਦਾ ਸੰਖੇਪ ਆਪਣੀ ਭਾਸ਼ਾ ਵਿਚ ਲੈਣਾ ਚਾਹੋ, ਤਾਂ ਕਿਰਪਾ ਕਰਕੇ ਇਸ ਨੰਬਰ 'ਤੇ ਫ਼ੋਨ ਕਰੋ ਜਾਂ ਉਪਰ ਦਿੱਤੇ ਡਾਕ ਜਾਂ ਈਮੇਲ ਪਤੇ 'ਤੇ ਸਾਨੂੰ ਸੰਪਰਕ ਕਰੋ।

Hindi

यदि आपको इस दस्तावेज का सारांश अपनी भाषा में चाहिए तो उपर दिये हुए नंबर पर फोन करें या उपर दिये गये डाक पते या ई मेल पते पर हम से संपर्क करें।

Bengali

আপনি যদি এই দলিলের একটা সারাংশ নিজের ভাষায় পেতে চান, তাহলে দয়া করে ফো করবেন অথবা উল্লেখিত ডাক ঠিকানায় বা ই-মেইল ঠিকানায় আমাদের সাথে যোগাযোগ করবেন।

Urdu

اگر آپ کو اس دستاویز کا خلاصہ اپنی زبان میں درکار ہو تو، براہ کرم نمبر پر فون کریں یا منکورہ بالا ڈاک کے پتے یا ای میل پتے پر ہم سے رابطہ کریں۔

Arabic

الحصول على ملخص لهذا المستند بلغتك، فراجع الاتصال برقم الهاتف أو الاتصال على العنوان البريدي أو عنوان البريد الإلكتروني أعلاه.

Gujarati

જો તમારે આ દસ્તાવેજનો સાર તમારી ભાષામાં જાણીતો હોય તો ઉપર આપેલ નંબર પર ફોન કરો અથવા ઉપર આપેલ ટપાલ અથવા ઇ-મેઇલ સરનામા પર અમારો સંપર્ક કરો.

Appendix 4 Principles of scrutiny page

An aim for action

An Assembly scrutiny is not an end in itself. It aims for action to achieve improvement.

Independence

An Assembly scrutiny is conducted with objectivity; nothing should be done that could impair the independence of the process.

Holding the Mayor to account

The Assembly rigorously examines all aspects of the Mayor's strategies.

Inclusiveness

An Assembly scrutiny consults widely, having regard to issues of timeliness and cost.

Constructiveness

The Assembly conducts its scrutinies and investigations in a positive manner, recognising the need to work with stakeholders and the Mayor to achieve improvement.

Value for money

When conducting a scrutiny the Assembly is conscious of the need to spend public money effectively.

Endnotes

-
- ¹ LSE, The 'Olympic Cycling Effect': A report prepared for Sky and British Cycling, September 2012, p. 9 and 2
- ² TfL, Cycle Safety Action Plan, March 2010
- ³ Between 2001 and 2010 cycling modal share increased by 70 per cent from 1.3 per cent to 2 per cent of all journeys, and TfL estimates 544,000 journey stages are now made each day by bicycle (Written information from TfL, p. 48-49)
- ⁴ TfL, Travel in London – Report 4 (2011), p. 215
- ⁵ Some of these cities have historical legacies of high cycling rates (i.e. Cambridge and Hull).⁵ In Bristol, 14 per cent gains in cycling modal share between 2008 and 2010 have been attributed to increased investment in cycling received through the DfT's 'Cycling Towns' programme (UEL (June 2012) Cycling Cultures – Summary of key findings and recommendations, p. 9)
- ⁶ Ministry of Public Works, Transport and Water Management (2009) Cycling in the Netherlands, p. 11
- ⁷ Alliance for Biking and Walking, Bicycling and Walking in the United States – 2012 Benchmarking report, 2012, p. 37
- ⁸ Le Monde, 31 October 2012
- ⁹ City of Copenhagen, Good, Better, Best – The City of Copenhagen's Bicycle Strategy 2011-2025, 2011, p. 8
- ¹⁰ Average cycling modal share in the USA is 0.6% (Alliance for Biking and Walking, Bicycling and Walking in the United States – 2012 Benchmarking report, 2012, p. 33 and 35)
- ¹¹ Mayor of London (2010) Cycling Revolution London, p. 4
- ¹² TfL Press Release, New 'businesscycle' website launches to help promote cycling in the workplace, 25 October 2012
- ¹³ Written information from Cycle Buddy
- ¹⁴ The average annual increase in cycling between 2001 and 2010 was 5.7% (based on TfL cycling modal share data)
- ¹⁵ Transport Committee transcript, 11th September, p. 34-5
- ¹⁶ TfL, Analysis of Cycling Potential, 2010, p. 34
- ¹⁷ Written information from LB Hackney, p. 4 and Road Danger Reduction Forum, p. 7
- ¹⁸ TfL, Travel in London – Report 4 (2011), p. 215
- ¹⁹ City of Copenhagen, Good, Better, Best – The City of Copenhagen's Bicycle Strategy 2011-2025, 2011, p. 8
- ²⁰ For example, written evidence from Hounslow Cycling, Cycling Embassy of Great Britain, and London Borough of Ealing
- ²¹ Mayor's speech at City Hall on 10 May 2012
- ²² Mayor of London (2010) Cycling Revolution London, p. 4
- ²³ For example, written information from Dr James Woodcock, University of Cambridge
- ²⁴ Sources: TfL Factsheet: Pedal cyclist collisions and casualties in Greater London, September 2011 and TfL Factsheet: Casualties in Greater London during 2011, June 2012
- ²⁵ Written information from TfL, p.56
- ²⁶ Based on annualised cycle journeys, and all cycling casualties 2001-2010 (Sources: TfL Travel in London, Report 4 p. 63, and TfL Factsheet: Pedal cyclist collisions and casualties in Greater London, September 2011, p. 2)
- ²⁷ TfL, Travel in London – Report 4 (2011), p. 6
- ²⁸ Additional written information received from TfL, p. 4
- ²⁹ New York Department of Transport, New York City Cycling Risk Indicator, available at: http://www.nyc.gov/html/dot/downloads/pdf/nyc_cycling_safety_indicator.pdf . Data adjusted to cover period between 2001-10.
- ³⁰ Written information from TfL, p. 53
- ³¹ Rate of cyclist KSI describes the risk of getting killed or seriously injured whilst cycling. It is the number of KSI incidents in a year divided by a relative measure of cycling levels
- ³² New York Department of Transport, New York City Cycling Risk Indicator, available at: http://www.nyc.gov/html/dot/downloads/pdf/nyc_cycling_safety_indicator.pdf . Data adjusted to cover period between 2001-10.

-
- ³³ Question to the Mayor 3703/2011
- ³⁴ It is important to recognise that these data are collected and recorded differently in New York and London. The New York data collected from 6 sites during commuter hours (7am-7pm), and the figures for London are only on the TLRN, which accounts for 5 per cent of the road network and carries more than 30 per cent of London's traffic.
- ³⁵ Transport Committee transcript, 11th September, p. 10-11
- ³⁶ Transport Committee transcript, 11th September, p. 11
- ³⁷ Written information from the Dutch Cycling Embassy
- ³⁸ TfL, Cycle Safety Action Plan, March 2010, p. 8
- ³⁹ Written evidence from TfL, p. 57s
- ⁴⁰ Written information from Wheels for Wellbeing notes this view, p. 4
- ⁴¹ Summary of Transport Committee meeting on 12th July, p. 8
- ⁴² Written information from LB Hackney, p. 4
- ⁴³ Transport Committee transcript, 11th September, p. 10
- ⁴⁴ The Mayor's Andrew Boff AM (London Councils Transport and Environment Committee, 15 March 2012 Cycle Safety Item 7)
- ⁴⁵ The Times, Mayor's attack on 'superior' cyclists could cost him the two-wheel vote', 30 April 2012
- ⁴⁶ Mayor of London, 'Ask Boris' question time on Twitter, in response to a question on better cycling infrastructure (30th October 2012)
- ⁴⁷ Evening Standard, Mayor plans central London cycle 'super corridor', 15 November 2012
- ⁴⁸ The Copenhagen bicycle account provides an update on cyclists' views on a range of safety issues, cycling targets, development of the cycling network, children and young people, 'hard cash' figures, and targets to encourage more cyclists. Source: Copenhagen City of Cyclists, Bicycle Account 2010 (2011), available at: http://www.kk.dk/sitecore/content/subsites/cityofcopenhagen/subsitefrontpage/livingincopenhagen/cityandtraffic/cityofcyclists/~/_media/439FAEB2B21F40D3A0C4B174941E72D3.ashx
- ⁴⁹ TfL, Cycle Safety Action Plan, March 2010, p. 8
- ⁵⁰ Summary of Transport Committee meeting on 12th July, p. 7
- ⁵¹ Written information from Sustrans, p. 13
- ⁵² TfL, Analysis of Cycling Potential, 2010, p. 10
- ⁵³ Written information from Sustrans, p. 3
- ⁵⁴ Figures rounded to the nearest million
- ⁵⁵ TfL's total budget in 2012/13 was £7.38bn and its Surface Transport Budget was £72.6m. A full breakdown of TfL's spending on cycling from 2003/4 to 2012/13 is available in the written information supplied by TfL, Appendix 1.
- ⁵⁶ TfL Business Plan – GLA Budget Update 2011/12 – 2014/15, p. 27
- ⁵⁷ Transport Committee transcript, 11th September, p. 6
- ⁵⁸ Written information from the Road Danger Reduction Forum, p. 2
- ⁵⁹ Written information from TfL, p. 23
- ⁶⁰ Written information from TfL, p. 23
- ⁶¹ Written information from RoadPeace, p. 7
- ⁶² TfL, Operational and Financial Performance and Investment Programme Reports – First Quarter 2012/13, Item 7, TfL Board, 29 September 2012, pages 13
- ⁶³ Comments by Stephen Critchley (then Chief Finance Officer, TfL), Budget & Performance Committee, 12 June 2012, *Transcript*, p. 16
- ⁶⁴ Since 2008, TfL has spent almost £140m on the Cycle Hire scheme and £67m on its Cycle Superhighways programme (written evidence from TfL, Appendix 1)
- ⁶⁵ Calculated as £4 million/ £24 billion
- ⁶⁶ Transport Committee, Pedal Power, November 2010
- ⁶⁷ TfL, Mayor sets out plans for flagship Barclays Cycle Hire expansion to south west London, 13 September 2012
- ⁶⁸ TfL, Barclays Cycle Hire customer satisfaction and usage – Wave 2, September 2012
- ⁶⁹ Summary of Transport Committee meeting on 12th July, p. 6

-
- ⁷⁰ Written information from Brake
- ⁷¹ Written information from LCC, p. 14, and London Travelwatch, p. 14
- ⁷² Additional written information from TfL, p. 1-2
- ⁷³ Written information from TfL, Appendix 1
- ⁷⁴ Written evidence from LCC, p. 19
- ⁷⁵ TfL did not have a dedicated budget to improve junction safety before 2011/12, but stated that activities within its budget for Cycle Superhighways, 'other schemes' and Local Implementation Plans would have contributed to junction safety (Additional written information received from TfL, p. 2)
- ⁷⁶ Transport Committee, *Stand and Deliver*, June 2009
- ⁷⁷ Note of meeting with London Councils Transport and Environment Committee on 12th September 2012
- ⁷⁸ Mayor of London, Transport Strategy, 2010 (cited in written information from LB Greenwich)
- ⁷⁹ Written information from Sustrans, p. 12
- ⁸⁰ Written information from London Borough of Ealing, p. 1
- ⁸¹ Written information from LCC, p. 16
- ⁸² Boris Johnson, *Investing in Transport*, p. 11
- ⁸³ Question to the Mayor 2409/2012, 19 September 2012
- ⁸⁴ Written information from TfL, Appendix 1
- ⁸⁵ Written information from London Councils, p. 3
- ⁸⁶ Written information from Sustrans, p. 5
- ⁸⁷ This assumes a two-year business plan period 2013/14-2014/15
- ⁸⁸ 45 per cent of the cyclists who wrote to us raised concerns about the safety of cycling infrastructure, including cycle lanes, the Cycle Superhighways and the London Cycle Network (email submissions to the Committee from members of the public)
- ⁸⁹ Mixed where road traffic speeds are slow and there is sufficient space, and segregated in areas with large volumes of heavy or fast-moving motor traffic
- ⁹⁰ Written information from Dr Rachel Aldred, p. 7
- ⁹¹ Transport Committee, *Pedal Power*, October 2010
- ⁹² Written information from TfL, p. 70
- ⁹³ TfL press release, 20 July 2012
- ⁹⁴ For a fuller discussion, see summary of Transport Committee meeting on 12th July, p. 6
- ⁹⁵ Written information from LCC, p. 9
- ⁹⁶ Note of the Committee's site visit to Bow roundabout on 14th September 2012
- ⁹⁷ Mayor of London Roads Task Force Terms of Reference and Membership
- ⁹⁸ Written information from TfL, p. 75-6
- ⁹⁹ Written information from Dr Rachel Aldred
- ¹⁰⁰ Written information from London Councils, London Travelwatch, and London Cycling Campaign
- ¹⁰¹ Transport Committee, *Braking Point*, April 2009, p. 17
- ¹⁰² Written information from London Councils, p. 2
- ¹⁰³ Mayor and TfL, *Towards a Road Safety Action Plan for London: 2020*, July 2012, p. 49
- ¹⁰⁴ Email to the Chair, 23rd October 2012
- ¹⁰⁵ For example, written information from LB Southwark, and LB Greenwich
- ¹⁰⁶ Written information from London Cycling Campaign
- ¹⁰⁷ The commitments are: 1) creating three flagship 'Love London, Go Dutch' developments on major streets or locations; 2) ensuring all planned developments on main roads under the Mayor's control are completed to the 'Love London, Go Dutch' standards especially junctions; and 3) completing the cycle superhighways to these standards (Written information from TfL, p. 82). The Mayor has indicated that two of the three flagship sites will be at Greenwich and Vauxhall Cross (Question to the Mayor 1228/2012, 23 May 2012)
- ¹⁰⁸ Roelof Wittink, Transport Committee transcript, 11th September, p. 1
- ¹⁰⁹ Written information from the Dutch Cycling Embassy, p. 2
- ¹¹⁰ Steffen Rasmussen, Transport Committee transcript, 11th September, p. 2

-
- ¹¹¹ Steffen Rasmussen, Transport Committee transcript, 11th September, p. 2
- ¹¹² Written information from Peter Wood, p. 4
- ¹¹³ Alliance for Biking and Walking, Bicycling and Walking in the United States – 2012 Benchmarking report, 2012, p. 188
- ¹¹⁴ The other innovative facilities observed in New York are: shared lane markings, coloured bike lanes and bike boxes (advanced stop lines) (Alliance for Biking and Walking, Bicycling and Walking in the United States – 2012 Benchmarking report, 2012, p. 103
- ¹¹⁵ This includes the design of Cycle Superhighway 4, mandatory cycle lanes at Vauxhall Cross, and future development at Greenwich Peninsula (Written information from TfL, p. 83)
- ¹¹⁶ Written information from TfL, p. 69
- ¹¹⁷ Written information from TfL, p. 80
- ¹¹⁸ Written information from TfL, p.83-4
- ¹¹⁹ Transport Committee’s response to the consultation on the future work of the Roads Task Force, 13 September 2012
- ¹²⁰ Written information from RoadPeace, p. 6
- ¹²¹ Written information from London Travelwatch, p. 24 and London Borough of Hackney, p. 5
- ¹²² Written information from Dr Rachel Aldred, p. 5
- ¹²³ Written information from Sustrans, p. 12
- ¹²⁴ Transport Committee transcript – discussion on 2012 transport, 11th September, p. 2
- ¹²⁵ TfL Board meeting 20 September 2012, Item 6 – London 2012 Games Transport, p. 7
- ¹²⁶ Written information from TfL, p. 60
- ¹²⁷ Evening Standard, We’ll take the high road: off the streets and into the sky could be the future for London bikes, 11 October 2012
- ¹²⁸ Evening Standard, Lack of railway space rules out ‘cycle paths in the sky’ turned down by Mayor, 25 October 2012
- ¹²⁹ Evening Standard, Mayor plans central London cycle ‘super corridor’, 15 November 2012
- ¹³⁰ Written information from Municipality of Copenhagen Traffic Department, p. 2-3
- ¹³¹ Written information from Cycling Embassy of Great Britain, p. 8
- ¹³² Written information from TfL, p.84
- ¹³³ The Times, London Mayor to wheel out cycle corridor plan for city centre, 16 November 2012
- ¹³⁴ Written information from TfL, p.84-5
- ¹³⁵ Written information from Brake, p. 3
- ¹³⁶ Written information from Dr James Woodcock, University of Cambridge
- ¹³⁷ In 2011, for example, 9 of 16 cyclist fatalities involved a Heavy Goods Vehicle (written information from TfL, p. 63)
- ¹³⁸ Summary of Transport Committee meeting on 12th July, p. 5
- ¹³⁹ Written information from TfL, p. 63
- ¹⁴⁰ Written information from TfL, p. 64
- ¹⁴¹ Written information from London Councils, p. 4
- ¹⁴² Written information from TfL, p. 62
- ¹⁴³ Written information from TfL, p. 85-6
- ¹⁴⁴ Gold standard accreditation requires: side guards, blind spot sensor technology and warning signs (written information from TfL, p. 62)
- ¹⁴⁵ Note of meeting with London Councils Transport and Environment Committee on 12th September 2012
- ¹⁴⁶ The Cycling Code has been produced in collaboration with TfL, London Cycling Campaign, the MPS and others (Written information from TfL, p. 64)
- ¹⁴⁷ Transport Committee transcript, 11th September, p. 15-16
- ¹⁴⁸ Written information from TfL, p. 66
- ¹⁴⁹ Transport Committee transcript, 11th September, p. 15
- ¹⁵⁰ Note of meeting with London Councils Transport and Environment Committee on 12th September 2012

¹⁵¹ Written evidence from the Metropolitan Police Service. The Cycle Task Force has issued fixed penalty notices to cyclists and drivers, offering cyclists 'exchanging places' events as an alternative (Written information from TfL, p. 67)

¹⁵² Transport Committee transcript, 11th September, p. 15

¹⁵³ Written information from Roadpeace, p. 6

¹⁵⁴ Note of meeting with London Councils Transport and Environment Committee on 12th September 2012

¹⁵⁵ Written information from TfL, p. 43

¹⁵⁶ Written information from Sustrans, p. 14; percentage based on 2132 schools in London (source: Mayor's Education Inquiry First Report, February 2012, p. 15)

¹⁵⁷ Written evidence from the MPS

Greater London Authority

City Hall
The Queen's Walk
More London
London SE1 2AA

www.london.gov.uk

Enquiries 020 7983 4100
Minicom 020 7983 4458